



# COMSATS University Islamabad

## SDG Report 2022



**SUSTAINABLE  
DEVELOPMENT  
GOALS**







# Introduction

We are delighted to present the COMSATS University's second Sustainability Annual Report, documenting our strides towards transforming into a more eco-friendly and environmentally conscious institution throughout the year 2022.

Our commitment to safeguarding biodiversity and maintaining the delicate equilibrium between nature and human activities has been intensified. This dedication is evident in the collaborative efforts involving our academic experts, grounds staff, sustainability team, and various government and non-government organizations. The curriculum garden stands as a tangible manifestation of our Sustainability Strategy, aligning academic and campus operations. However, the impact of our academic initiatives extends far beyond our immediate campuses.

Sustainable Development forms the cornerstone of COMSATS University Islamabad's mandate, in accordance with the United Nations' Development Agendas (MDGs and SDGs). The university has strategically organized its initiatives to address challenges across various dimensions of sustainability, employing suitable tools and mechanisms. By broadening the scope of activities encompassing its seven campuses in Islamabad, Abbottabad, Attock, Wah, Lahore, Sahiwal, and Vehari, spanning from the North to the Southern region of Pakistan, COMSATS has positioned itself as a fervent proponent of science for the development of the South.

The significance of Sustainable Development Goals (SDGs) has grown within COMSATS' activities, programs, and collaborations. The university has conducted numerous capacity-building activities to address emerging trends in Science and Technology and cater to the needs of scientific communities in developing regions. Additionally, events aimed at raising awareness, fostering networking and knowledge sharing, and providing solutions for sustainability challenges have been consistently organized across the seven campuses. These initiatives effectively contribute to the relevant targets outlined in the United Nations' 2030 Global Agenda. This document offers an overview of the programs and activities conducted by COMSATS University Islamabad, both independently and in collaboration with its seven campuses, since its establishment in 1998.

**Shazia Shabbir**

Acting Incharge Quality Enhancement Cell  
Senior Program Officer  
Rankings Focal Person



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# SDG-1 NO POVERTY



Sustainable Development Goal 1 (SDG 1) aims to end poverty in all its forms and dimensions by 2030. It recognizes that poverty is not just about income and lack of resources, but also about factors such as access to education, healthcare, social protection, and opportunities for economic growth.

The key targets of SDG 1 include:

1. By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.90 a day.
2. By 2030, reduce at least by half the proportion of men, women, and children of all ages living in poverty in all its dimensions according to national definitions.
3. Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.

Global efforts are underway to achieve SDG 1, but progress has been uneven across regions and countries. It requires a comprehensive and multi-sectoral approach involving governments, international organizations, civil society, and the private sector to effectively address the multiple dimensions of poverty and create a more sustainable and equitable world. COMSATS University has also contributed to achieve the targets of SDG 1



Comsats University Islamabad plays a vital role in reducing poverty by providing various scholarships to deserving students. These scholarships include “Need Based and Merit Scholarships, Workers Welfare Fund (WWF) Islamabad Campus, Scotland Scholarships Program (British Council), Science Talent Farming Scheme (STFS) Islamabad Campus, PAK-USAID Scholarship, CUI Female Need-Based, Balochistan Education Endowment Fund (BEEF) Scholarship and CUI Endowment Fund” etc. These scholarships ensure that students from diverse socio-economic backgrounds have access to affordable education. By removing financial barriers, the university empowers individuals to pursue higher education and improve their economic prospects. These efforts enable individuals to escape poverty, promoting inclusive economic growth within the community and beyond.

Student Financial Aid Offices (SFAOs) play a crucial role in supporting students who face financial challenges to pursue higher education. COMSATS University Islamabad's establishment of SFAOs is a positive initiative to assist such students. These offices provide information, guidance, and support to help students access various financial aid opportunities.

COMSATS University Islamabad offers multiple scholarships to eligible students. These scholarships can cover various expenses associated with higher education, including tuition, accommodation, food, transportation, and other related costs. These initiatives contribute to improving educational opportunities and reducing financial barriers for students in Pakistan. Overall, the CUI offers approx. 20% of its operating budget, annually as scholarships support to its students.

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**1 NO POVERTY**





accommodation, food, transportation, and other related costs. These initiatives contribute to improving educational opportunities and reducing financial barriers for students in Pakistan.

The collaboration between COMSATS University Islamabad and Pakistan Bait ul Mal, as evidenced by the Memorandum of Understanding (MoU) signed on June 23, 2021, reflects a commitment to expanding the support and opportunities available to financially challenged students.

CUI also has an agreement with Ihsan Trust/ Meezan Bank. The agreement allows COMSATS University Islamabad's students to apply for Qarze Hasna, an interest-free loan that students can repay at their convenience.

Under Financial Assistance for Walk-in Needy Students (FAWNS), any student of COMSATS University Islamabad can submit an application on paper to the Endowment Fund administration.

Details of activities carried out by the Student Financial Aid Office during 2022 are mentioned in the Annual Report 2021-22.

COMSATS University Islamabad's commitment to promoting socio-economic development through education, research, and outreach is commendable. Offering scholarship programs for international students is an important step in achieving this goal. The university's International Office plays a crucial role in managing these scholarship programs. COMSATS University Islamabad extends scholarships to students from various low-income countries, such as Bhutan, Nepal, Sri Lanka, Myanmar, Kenya, Gambia, Afghanistan, Senegal, and others. COMSATS University Islamabad's scholarship covers a subsidy on the tuition fee and stipend. Furthermore, The World Academy of Sciences (TWAS) has an agreement with COMSATS University Islamabad which offers Ph.D., Sandwich, and Postdoctoral Fellowships for developing countries, especially least-developed countries.

Conferences, Seminars, and workshops are the major sources of gathering new information and exchanging ideas on the trends in research, upcoming technologies, and much more. It is also a platform to network with people from various fields and benefit from their experience. CUI since its inception has arranged numerous conferences, seminars, and workshops for the benefit of its faculty, students, and staff as well as the community at large.

CUI, Student Startup and Business Incubation Centre (SSBIC) has been established with the support of the Higher Education Commission of Pakistan, and the Promotion of Education in Pakistan Foundation, Inc. (USA). The goal of the program is the promotion of talented students' entrepreneurship and to enhance their practical learning experience at the university. The overarching objective of the Centre is to promote student startup businesses by offering necessary support both in the form of mentoring and initial financial resources through its Startup Entrepreneurship Fund. The SSBC will provide a continuous stream of student-led businesses and innovations at CUI.

COMSATS University Islamabad arranged a Seminar of K-Electric on 16th March 2022, wherein officials of K-Electric have placed their identified challenges in front of faculty, researchers, entrepreneurs, startups, and university students to identify

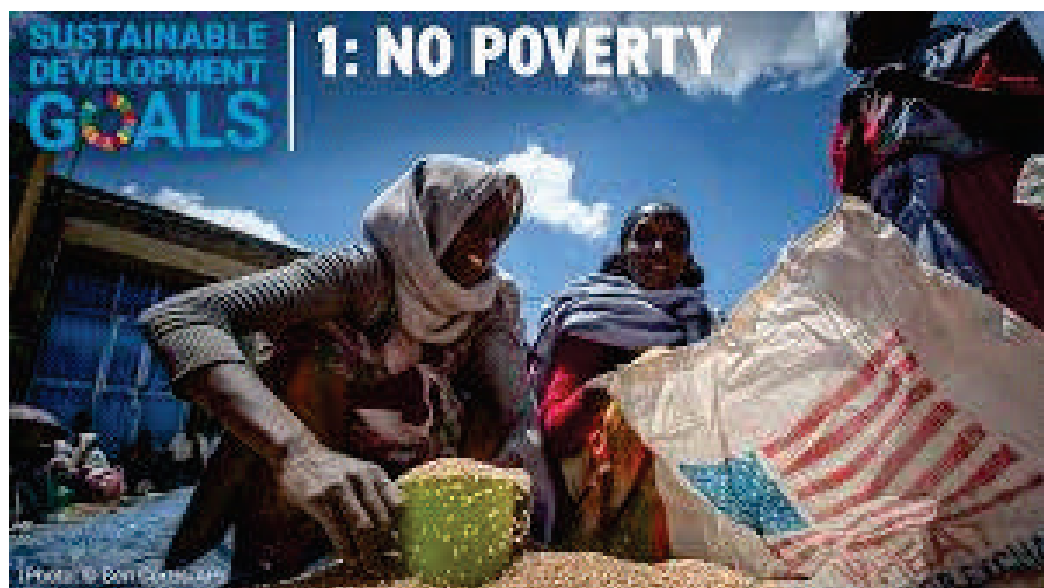


mutual potential venues and ideas that could address the challenges faced by Pakistan's energy market.

Training Session titled “How to present your business plan” has been held on 25th April 2022 (Monday) at BIC/SSBC ground floor hall from 10:00 am to 11:00 am Wherein Mr. Danish Ahmad Khan, Assistant Professor deliver talk on the topic.

BIC-CUI has arranged one day training session on 15th June, 2022, in collaboration Smartek and OXFAM on “Women Leadership and Networking skills” wherein 27 female students have participated in the session.

Business Incubation Center/SSBC, CUI organized a seminar on Entrepreneurship “Achieving Success with the right mindset”. A successful Entrepreneur & motivational speaker "Raja Rakeel Zahoor" shared his experiences about how to become a successful entrepreneur. The seminar was held in seminar hall EE on 11th October 2022,



### Training on Financial Management to Audit GoP Funded Projects

Mr. Muhammad Rafiq, Assistant Program Officer from Student Financial Aid Office (SFAO) from CUI, Wah Campus attended the

two day training on October 24-25, 2022. The training provides deep insight about the mechanism of financial management in the public sector and briefed the mechanism of processing and implementation of Government funded scholarship projects including EHSAAS, Undergraduates Scholarship Program and USAID, Merit & Need Based Scholarship Program offered to the meritorious and financially disadvantaged students with the aim of providing them quality education to fight against Poverty and Empowering Girl







# SDG-2 ZERO HUNGER

Sustainable Development Goal 2 (SDG 2) aims to end hunger, achieve food security, improve nutrition and promote sustainable agriculture. The goal targets three key aspects: availability, access, and utilization of food resources.

**Availability:** SDG 2 aims to increase agricultural productivity and sustainable food production systems. This includes supporting small-scale farmers, promoting sustainable farming practices, and investing in agricultural research and infrastructure.

**Access:** The goal emphasizes ensuring everyone has access to safe, nutritious, and sufficient food at all times. It involves improving the incomes and resilience of small farmers, implementing social protection measures, and promoting fair trade and market access.

**Utilization:** SDG 2 emphasizes the importance of promoting good nutrition and healthy eating habits. It emphasizes the need for education and awareness campaigns on the importance of balanced diets, especially among vulnerable groups such as children and pregnant women.

SDG 2 also recognizes the interlinkages between hunger, poverty, and other SDGs. Achieving zero hunger is crucial for sustainable development as it contributes to poverty reduction, environmental sustainability, and improved health outcomes.

To achieve SDG 2, it is necessary to address underlying causes such as poverty, inequality, climate change, and conflict. It requires strong partnerships between governments, private sector, civil society, and international organizations to mobilize resources and take coordinated action.

Some initiatives to achieve SDG 2 include increasing agricultural investments, supporting smallholder farmers, promoting sustainable farming practices, improving access to credit and markets, implementing social protection programs, and strengthening global partnerships for food security.

Overall, SDG 2 seeks to ensure that everyone has access to sufficient, safe, and nutritious food while promoting sustainable agriculture to protect the environment and enhance resilience to

risks and shocks.

COMSATS University Islamabad has taken steps to address food wastage and proper disposal by forming a committee. To ensure effective management of food wastage in campus cafeterias, here are some key steps the committee can consider:

**Waste Audits:** Regularly conduct waste audits to measure the amount and types of food being wasted. This will help in identifying patterns and areas for improvement.



**Menu Planning:** Work with cafeteria staff to plan menus that minimize food waste. Consider offering options for smaller portion sizes and encourage students to take only what they can eat.

COMSATS University Islamabad provides student cafeterias that offer a variety of food items at economical prices. These cafeterias serve as a convenient dining option for students and staff on campus. To maintain the quality of food and ensure fair pricing, the university often establishes cafeteria and food committees.

The specific procedures and policies of these committees may vary from one campus to another and can evolve over time. The primary goal is to create a dining environment that is both affordable and of high quality for the university's community. Students and staff benefit from these committees by having access to safe and reasonably priced food options on campus.



COMSATS University Islamabad is taking steps to ensure that students and lower-income staff have access to affordable and quality food. This initiative can play a significant role in addressing food insecurity among these groups and promoting a supportive and inclusive campus environment.

The practice of arranging Iftar Come Dinner during Ramadan for security guards, drivers, and operational maintenance staff with donations from the faculty and staff is a commendable effort to support those who may not have the means to provide for themselves during the holy month of Ramadan. This demonstrates a sense of community and social responsibility within the university.

COMSATS University Islamabad offers a variety of food items, including options for both vegetarian and vegan students. This inclusivity is important in catering to the diverse dietary preferences and needs of the student population. Providing vegetarian and vegan options not only promotes a healthier and more sustainable lifestyle but also ensures that everyone can find something they enjoy to eat.

### Project Seminar: SDG2: Zero Hunger



### COMSATS University Islamabad (Abbottabad Campus)

#### List of Approved Items

S. No.	Items	Recommended Brands
1	Cooking Oil/ Ghee	Dalda cooking oil and Dalda Banaspati Habib cooking oil and Habib Banaspati Sufi Banaspati & Sufi Cooking Oil
2	Masala	Shan, National
3	Catchup	National, Knor, Shangrila, Mitchells
4	Bread	Dawn, Continental
5	Salt Iodized	National, Shan
6	Tea	Lipton, Tapal, Supreme
7	Green Tea	Lipton, Tapal, Supreme
8	Milk	Haleeb, Milk Pack, Olper
9	Dish Washing Soap or Liquid	Safoon, Sufi, Lemon Max
10	Mayonnaise	Young's, National, Kolson
11	Cream	Haleeb, Milk Pack
12	Marconi	Bake Parlor, Maryo Pasta, Kolson, Fauji

#### Note:

1. Caustic Soda and Chinese Salt is strictly banned by food authority all over Pakistan.
2. Expiry date on each item must be mentioned otherwise sale of such items without expiry date is strictly banned.

Convener Services Committee

CUI Abbottabad Campus

Cc.

1. All Member Services Committee
2. Purchase officer CUI Abbottabad Campus
3. Additional Treasurer
4. PS to Director
5. File

Convener  
Campus Services Committee  
CUI, Abbottabad

The faculty members of the Environmental Science Department at CUI Vehari Campus are actively involved in research related to food security, food waste management, risk assessment, etc. Several research articles were published in this field. The knowledge generated is shared with students via lectures and is freely available to students.



# SDG-3 GOOD HEALTH AND WELLBEING



"Good Health and Well-being." It is one of the 17 goals established by the United Nations in the 2030 Agenda for Sustainable Development, adopted in September 2015. SDG 3 aims to ensure healthy lives and promote well-being for all at all ages. The specific targets associated with SDG 3 cover a wide range of health issues and challenges, including maternal and child health, infectious diseases, non-communicable diseases, mental health, and access to essential healthcare services.

Achieving SDG 3 is crucial for overall sustainable development, as health is a fundamental factor in individual and community well-being. It requires a comprehensive and integrated approach that addresses not only specific diseases but also the underlying determinants of health, including social, economic, and environmental factors. Additionally, global collaboration and partnerships are essential to tackle health challenges that transcend national borders.

Realizing the importance of this development goal COMSATS University took all essential measures, Collaborations and MoUs with health institutions, both national and international, allow CUI to enhance its research and academic capabilities in the field of health and well-being. Through these partnerships, CUI can access state-of-the-art facilities, expertise, and resources that contribute to the development of innovative healthcare solutions. The MoU with King Abdullah Hospital Mansehra aims to promote joint research projects, the exchange of faculty and students, and the sharing of resources and expertise. This collaboration enables CUI to enhance its understanding of healthcare practices and contribute to improving healthcare outcomes in the region. The MoU with CITI Pharmaceuticals in Lahore focuses on research and development in the field of pharmaceuticals. This partnership allows for collaboration in areas such as drug discovery, clinical trials, and the development of new therapies. CUI has much local and national collaboration.

Being part of the academia, the primary stakeholder in the health care profession, and maintaining its high standards set previously, the Vehari campus CUI, Health awareness and blood donor society arranged a free medical camp hospital.

Seminar on "Breast Cancer Awareness" at CUI is a regular event held each year at all campuses

COMSATS University, Abbottabad Campus, organized a seminar on mental health and its awareness

The Department of Humanities, COMSATS University Islamabad, Abbottabad Campus, organized a seminar on mental health and its awareness, entitled, "Mental Health and Well being: A Global Priority" on November 1, 2022. The theme of the seminar was to prioritize mental and psychological health and well being across the world. Recently, the world has witnessed an upsurge of issues related to mental health such as anxiety and depression, specifically during the pandemic of Covid 19 and it is the need of the hour to address the health and well being of people at the global level.

On behalf of CUI Abbottabad and the department of Humanities, the Head of the Department, Dr. Nasir Ali Khan welcomed the distinguished guests, resource persons, faculty and students and lauded the department's efforts in organizing the event.

The key-note speaker, Dr. Mamoona Rasheed, clinical psychologist at Ayub Medical College was invited for the occasion. She educated the audience about the importance of mental health at every stage of life, from childhood to adolescence through adulthood. She inculcated that as responsible citizens, it is our social responsibility to reduce the stigma around mental illnesses and mental health conditions by showing resilience to the mental and psychological issues







## Mindstorms Studio – Student Chapter CUI, Lahore

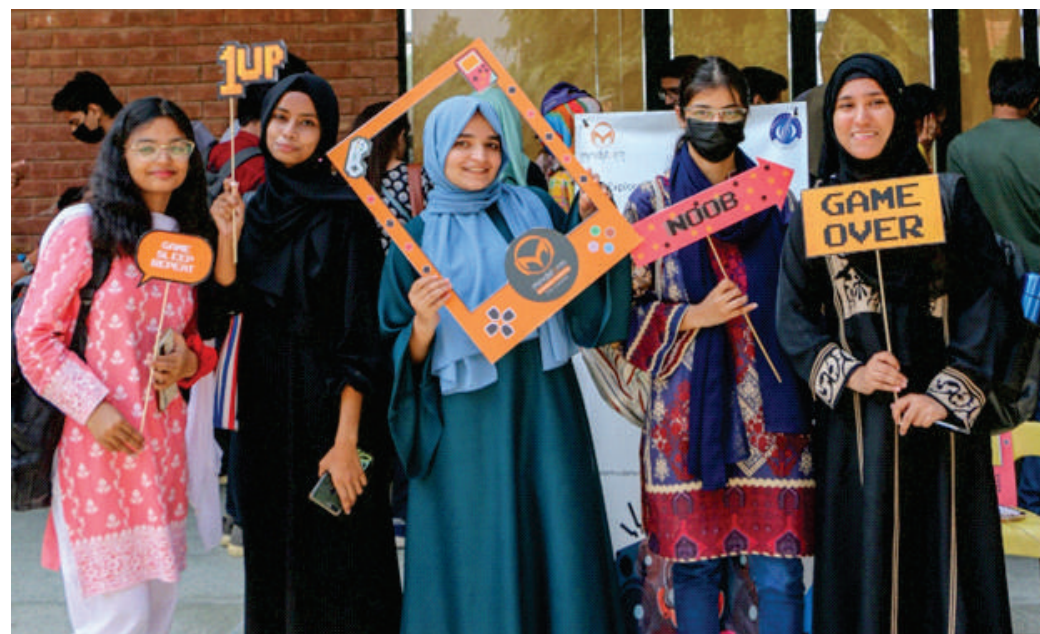
Mindstorms Studio arranged the wonderful introductory orientation for the opening of a brilliant new chapter for all the worthy students on October 12, 2022 at COMSATS University Islamabad, Lahore campus.

Such specifically designed games were held for the general public for the purpose or social interaction with exciting prizes for the winners. The main focus was to create games in such a pattern that more public was involved in this fun activity in form of group wise competition rather than just 1 person game. The fun games included Heads Up, Musical Chairs, Fill the box and many more. A great number of students participated in all the fun activities. The students were given prizes at the end of the activity session.

These exciting fun games were followed by the opening ceremony through orientation in which respected members Ms. Ramsha Hasan and Mr. Yaser Awan from Mindstorm studios interacted with the university students for start of a long journey ahead. Our various respected faculty members were also present to grace the occasion.

## Blood Donation Drive

Blood Donation Drive was organized by Youthe. Sundas Foundation visited COMSATS University Islamabad, Lahore campus on March 22, 2022 at 11:00 am to 4:00 pm. Dr. Farrukh Zeeshan, Dr. Adnan Ahmad and Sir Mohsin Mehdi were the faculty advisors to arrange the event. Students were motivated to come and join the cause, give blood and save life. 120 bags were donated by the students.







### Engaging University Faculty for Mental Health Wellbeing of Youth – on 25th October 2022 (Tuesday)

A one-day workshop on 'Engaging University Faculty for Mental Health of Youth' was organized by the Faculty Development Academy (FDA) at COMSATS University Islamabad on October 25, 2022 in collaboration with COMSATS Secretariat to commemorate the World Mental Health Day. The workshop highlighted the role of teachers in the mental well-being of students during their academic pursuits. Besides, it also aims to educate the faculty in identifying the initial signs of mental distress and behavioural issues in students.



According to the World Health Organization (WHO) Regional Office for Europe Copenhagen, "Universities can do many things to promote and protect the health of students and staff, to create a health-conducive working, learning and living environments". CUI management believed in the WHO statement. For this purpose, CUI has up-to-date and well-managed sports grounds and indoor sports facilities on campus. Further, CUI management believed in community services. Therefore, on request, sports grounds and indoor facilities are often provided to the general public. These sports grounds and indoor facilities are provided free of cost for public service events. However, these grounds are also provided to the general public with minimal cost.

COMSATS University Islamabad has medical centers. Medical centers have professionals equipped with all necessities for emergencies and routine tasks. In addition, CUI has a Counselling and Wellness Centre (CWC). The CWC has specialized psychologists responsible for counseling faculty, staff, and students, for stress reduction free of cost.

CUI takes a strong stance against smoking, both for the well-being of its students and staff, as well as the overall safety of the university environment. CUI acknowledges the direct health risks posed by smoking, which can affect both smokers and non-smokers through passive smoking. This indicates the university's commitment to the well-being of its community. CUI's smoking ban extends to all areas within the university, including indoor and outdoor environments, as well as vehicles. This ensures a completely smoke-free campus. The imposition of a 10,000 PKR fine on smokers in case of policy violation demonstrates the



seriousness with which CUI enforces its anti-smoking rules. Such penalties are meant to deter individuals from breaking the policy.

## SAFE-RH Project Team Of CUI Wah Campus Visit To The Islamia University Of Bahawalpur

SAFE-RH, COMSATS University Wah Campus team consisting of Chairman CS/Associate Professor, Dr. Ehsan Ullah Munir, Assistant Professor, Dr. Tassawar Iqbal and Mr. Zulfiqar Ahmed from CUI Wah Campus participated in the SAFE-RH is Erasmus + funded seminar on “Transformation of Traditional Health Provision to Smart Health services for Rural Area” held on February 25, 2022 at Islamia University of Bahawalpur under the organization of SAFE-RH awareness program .

Dr. Ehsan Ullah Munir in his talk presented COMSATS University Islamabad and COMSATS University Islamabad, Wah Campus introduction and role of Department of Computer Science. He discussed the developments on the Maternal and Infant Health pilot of SAFE-RH. He explained in detail about the significance of Maternal and Infant pilot. He further highlighted current achievements, challenges and future plans about the Maternal and Infant pilot of SAFE-RH.





## COMSATS declared a tobacco-free university

A letter of intent was signed between COMSATS University Islamabad and Tobacco Smoke-Free Capital Project of the Ministry of National Health Services, Regulations and Coordination (NHRSC) as part of a national drive for making universities smoke-free.

The ceremony was attended by Dr Nousheen Hamid, Parliamentary Secretary for NHRSC, and Dr Minhaj us Siraj, Deputy DG Health, besides several senior faculty members of the university.

## Anti-Smoking Walk at COMSATS University Lahore Campus



## World Health Day

World Health Day (April 6, 2022) Observing World Health Day (April 7th), the Telehealth Desk of COMSATS in collaboration with COMSATS Centre for Climate and Sustainability (CCCS) organized a webinar titled 'Building Climate Resilient Health Systems in the Global South' on 6th April 2022. The event was joined by the notable speakers from World Health Organization Regional Office for the Eastern Mediterranean (WHO/EMRO), Egypt; Theodor Bilharz Research Institute (TBRI), Egypt; InterAcademy Partnership (IAP), Italy; St. Luke's Medical Center College of Medicine, Philippines; Somali Greenpeace Association (SOGPA), Somalia; Globesight, UAE; and Indiana University–Purdue University Indianapolis (IUPUI), USA. It had a virtual gathering of more than 40 from COMSATS Focal Points and Centres of Excellence, as well as ministries of climate and health, and other relevant stakeholders.

Opening the event, Dr. Azeema Fareed, Principal Medical Officer at COMSATS Telehealth Programme, shed light on the importance of building sustainable health systems that can cushion the negative impacts of climate change related events including those related to health and health systems.







# SDG-4 QUALITY EDUCATION



Sustainable Development Goal 4 (SDG 4) aims to ensure inclusive and quality education for all and promote lifelong learning. It recognizes the importance of education in achieving all the other sustainable development goals and targets to be achieved by 2030.

### **The key targets of SDG 4 include:**

Ensuring that all children have access to free, equitable, and quality primary and secondary education: This means that every child, regardless of their background, should have the opportunity to receive a quality education from primary to secondary level.

Ensuring equal access to quality early childhood development (ECD), care, and pre-primary education: Early childhood education plays a crucial role in shaping a child's development and future learning outcomes. SDG 4 aims to ensure that all children have access to quality early childhood education and care.

Ensuring that all youth and adults have access to quality lifelong learning opportunities: Lifelong learning helps individuals develop new skills, adapt to changing job markets, and become active participants in society. SDG 4 promotes access to lifelong learning for all, including out-of-school youth and adults.

Eliminating gender disparities in education and ensuring equal access to all levels of education for vulnerable groups: SDG 4 emphasizes the importance of gender equality in education and aims to eliminate disparities in educational opportunities for vulnerable groups, including girls, children with disabilities, refugees, and indigenous populations.

Improving the quality of education and learning outcomes: SDG 4 calls for an emphasis on improving the quality of education, including learning outcomes, teaching practices, and infrastructure. It promotes the use of inclusive and participatory teaching approaches and incorporating relevant skills for sustainable development.

### **Expanding access to higher education and vocational training:**

SDG 4 recognizes the importance of providing access to tertiary education and vocational training to empower individuals with the skills needed for decent work and economic growth.

Increasing the number of qualified teachers and improving their training and working conditions: Quality education requires well-trained and motivated teachers. SDG 4 promotes the recruitment, training, and retention of qualified teachers and improving their working conditions.

By focusing on these targets, COMSATS University aims to ensure that every individual has access to quality education and opportunities for lifelong learning, contributing to the achievement of a sustainable future for all.

Comsats University Islamabad has a well-equipped library that is accessible to the entire community, including non-students. The availability of library resources to a wider audience can be a valuable asset to the community and promote lifelong learning.

The issuance of temporary library cards for non-students is a common practice at CUI. These cards allow individuals who are not formally enrolled at the university to access the library's resources, including books, research materials, and academic databases. In this way, CUI extends the benefits of the university's library to the broader community.

CUI has been working on the development of skills of youth. Under the Prime Minister's Skills Development Programme, CUI launched free courses. This program encourages females, minorities, disabled, and rural communities to attend the free courses.

COMSATS University Islamabad conducted a training session on Entrepreneurship "Achieving Success with the right mindset". A successful Entrepreneur & motivational speaker "Raja Rakeel Zahoor" shared his experiences about how to become a successful entrepreneur.

Faculty members at CUI are uploading their lectures regularly for global access, and CUI organizes the Frontier Information Technology (FIT) conference annually, which brings together experts and researchers from around the world to share the latest developments in Information and Communication Technology. Conferences like FIT are important for the exchange of knowledge and networking opportunities in the field of IT.



As per COMSATS University Islamabad Act, 2018, the university shall be open to all persons of either gender and of whatever religion, race, creed, class, color, or domicile, and no person shall be denied the privileges of the university on the grounds of religion, race, caste, creed, class, color or domicile. Therefore, the university has a clear policy to ensure that all students have access to the facilities and activities, regardless of ethnicity, religion, disability, immigration status, or gender. In this regard, COMSATS University offers scholarships to disabled, needy, and Afghan refugees.

CUI Faculty Development Academy has developed Signature Courses to cultivate skills that are needed to become successful in meeting academic rigor expected in academic settings. FDA also offers customized self-paced courses for its faculty and for community.

- Creating Blue Chip Professor
- Leader SHIFT Decoding and Reinventing Leadership

- Teaching in Innovative Spaces
- Big Data and FinTech, from Technology to Performance
- Zoom Fatigue to Zoom Vroom
- EQ-AQ Management
- Learn, Engage, Accelerate and Disrupt
- Knowing the Unknowns
- Personal Branding-Stand out in the Crowd
- Anthropological Perspectives
- Ethnographic Thinking
- Green Supply Chain Management





## Seminar - How to be an Entrepreneur

Department of Management Sciences and Eventix Society arranged a seminar on “How to be an Entrepreneur” on December 8, 2022. Mr. Ahmed, CEO of Mughlia Baithak, Wah Cantt, an alumni of CUI Wah Campus and a successful entrepreneur was a resource person of the seminar. The purpose of the event was to share important steps and techniques with students on “How to be an Entrepreneur”.

The speaker discussed his experience and addressed the entrepreneur's abilities to develop and organize his limited resources, take initiative to handle uncertainties in order to make a successful entrepreneur.

The experience of the resource person was very helpful for the students for their future professional endeavours. Students/faculty members from all departments of the University attended the seminar with interest. At the end the fruitful question answer session was also held to clear the fear of market conditions and misperceptions among students regarding becoming an entrepreneur. The speaker motivated them to think and move forward with their own start-up ideas. The event was concluded by presenting a university souvenir to the guest speaker by the Head Management Sciences Department with a vote of thanks.

### Seminar - How to be an Entrepreneur



Business Incubation Center (BIC-ORIC), CUI organized a seminar on Entrepreneurship **“Achieving Success with the right mindset”**

A successful Entrepreneur & motivational speaker **"Raja Rakeel Zahoor"** is invited to share his experiences about

- How to become a successful entrepreneur with the right perspective about success.
- How to be consistent and set up achievable goals
- How to overcome emotions while taking business decisions.

**Mr . Raja Rakeel Zahoor** started his businesses by working in-home service/solutions to local communities in Canada and now he is the Founder and CEO of multi-million dollar companies, was the resource person.

## Achieving Success with The Right Mindset

**A talk by the man who has walked the walk**

*A Successful entrepreneur with the right perspective about success.*

**RAJA RAKEEL ZAHOOOR**

- Founder CEO of multimillion dollar companies
- An Entrepreneur
- Motivational Speaker

**11<sup>th</sup> October, 2022**  
10.00 A.M - 11.30 A.M

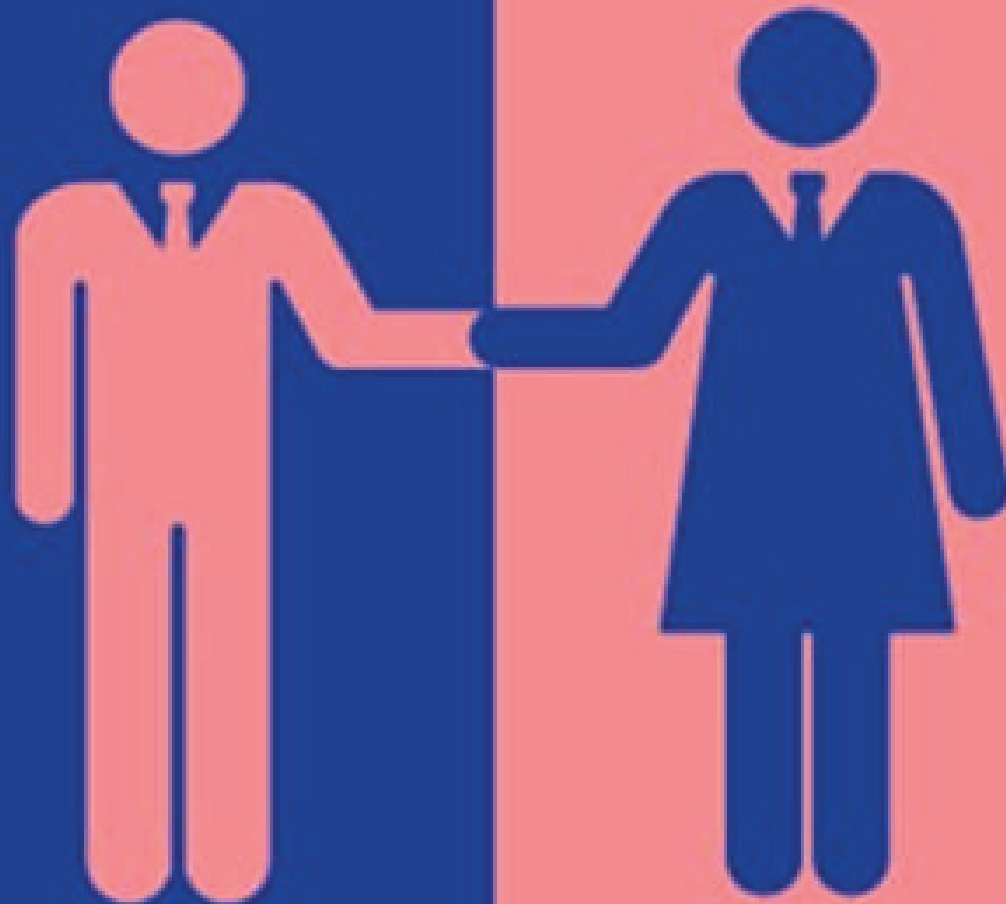
Venue: EE Seminar Hall  
COMSATS University Islamabad

@rajabanks

Raja Banks

## orientation Session as well as first training session on “Entrepreneurs” of Student Startups Batch-10, held on 25th October, 2022

An orientation session as well as first training session of Student Startups batch-10 was held on 25th October, 2022, at BIC ground floor hall from 10:00 am to 1200 hrs. Wherein Dr. Munawar Naz Khokhar delivered a talk to startups on “Entrepreneurs”



GENDER=EQUALITY



**SDG-5**  
**GENDER EQUALITY**



Sustainable Development Goal 5 (SDG 5) is focused on achieving gender equality and empowering all women and girls. The goal aims to end discrimination, violence, and harmful practices based on gender. The basic aim is to achieve gender equality and empowering women and girl. Here are the key targets and indicators outlined under SDG 5:

- End all forms of discrimination and violence against all women and girls in public and private spheres, including trafficking and sexual exploitation.
- Eliminate all harmful practices such as child, early, and forced marriage and female genital mutilation.
- Ensure equal participation and leadership opportunities for women at all levels of decision-making in political, economic, and public life.
- Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Program of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences.
- Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance, and natural resources, in accordance with national laws.
- Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.
- Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

COMSATS University believes that achieving gender equality is not only a fundamental human right but also crucial for a sustainable and equitable world. SDG 5 addresses a wide range of

gender-related issues and aims to create a world where women and girls have the same opportunities and rights as men, in all aspects of life. It plays a pivotal role in the broader agenda for sustainable development.

COMSATS University Islamabad has a systematic process in place to measure and track women's application rates, acceptance, and entry. This kind of data collection and reporting can be valuable in promoting gender equity and diversity in higher education. By regularly monitoring and sharing this information with the Higher Education Commission of Pakistan, the University can contribute to informed decision-making and policies aimed at improving access and opportunities for women in higher education. It also allows for accountability and transparency in addressing any disparities that may exist in the application and admission processes.

As a result of systematic measurement and tracking of women's application rate, the acceptance of women is around 42% of the total enrollment whereas in 2022 approximately 37% of the intake was of females.

According to COMSATS University Charter, "clause 5(1) of CUI Act No. XI of 2018 "The University shall be open to all persons of either gender and of whatever religion, race, creed, class color or domicile, and no person shall be denied the privileges of the University on the grounds of religion, race, caste, creed, class, color or domicile."

COMSATS University Islamabad has an open merit policy that allows women to compete for admissions and job opportunities without any gender bias.

COMSATS University Islamabad takes all measures to provide mentoring, scholarships, and all relevant access to its female students and staff, different activities were performed during 2022 to facilitate them for women's access schemes.

As per COMSATS Institute of Information Technology (CIIT), Employees Leave Rules, 2006 Clause 11 states: A female employee shall be entitled to maternity leave with pay for a period not

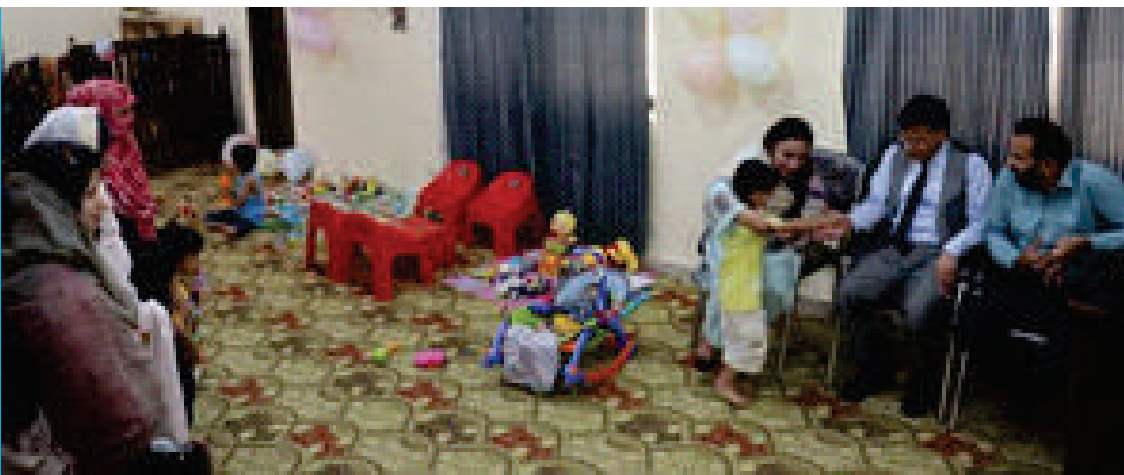
exceeding continuous 90 days, provided that the date of confinement falls within the period of the leave and the leave does not exceed 45 days beyond the date of confinement.

Maternity leave shall not be granted more than two times in the entire service of a female employee. Maternity leave shall not be debitable to the earned/causal leave.

Maternity leave shall be granted to a female employee who has completed at least one year of satisfactory and uninterrupted service.

On the occasion of International Women's Day, a prestigious event and seminar on Women's Empowerment was organized at e-Rozgar Center in collaboration with Paigham-e-Pakistan, Dukhtran-e-Pakistan and COMSATS University Islamabad, Sahiwal campus on March 1, 2022.

The Daycare Center is established at COMSATS University Islamabad within campus premises at each campus. The Daycare center has facilities both for infants and toddlers and the centers have a capacity of catering to 50 children.



COMSATS University Islamabad has established a Women in Engineering (WIE) society. The mission of IEEE WIE CUI is to facilitate global inspiration, engagement and advancement of women in technical disciplines. IEEE WIE envisions a vibrant community of IEEE women and men collectively using their diverse talents to innovate for the benefit of humanity. This

global network connects nearly 20,000 members in over 100 countries to advance women in technology at all points in their lives and careers. IEEE WIE members make lifelong friendships, acquire influential mentors, and make a difference for the benefit of humanity.



Women Empowerment through Quality Education: High quality education at CUI Wah enables women to accomplish more in their career, social and economic lives.

from the Department of Civil Engineering/member of UNESCO Chair on Knowledge Systems

for Integrated Water Resources Management (IWRM) was attended the online training titled "Training on Empowering Women in Geospatial Information Technology – 2022 edition from

August 16-19, 2022. The training was organized by the International Centre for Integrated Mountain Development (ICMOD) and the Bangladesh Forest Department (BFD) within the

framework of the SERVIR-HKH Initiative supported by the United States Agency for International Development (USAID) and National Aeronautics and Space Administration NASA).





### Awareness Seminar

Ms. Bakhtawar Nawaal, ASSR IEEE region 10 Islamabad delivered a seminar on December 16, 2022 to share the benefits and encourage the female engineering students to join the IEEE to generate the pool of resources and get benefits from the opportunities that keep them updated on the advancements and developments in

technology. They briefed that by getting membership they can easily get access to the largest library of electrical engineering, computer science and electronics technical literature news and events. IEEE provided a platform to engineers to directly interact to gain or acquire latest knowledge on technology trends. The seminar ended with a vote of thanks by the Associate Professor, Prof. Dr. Nadia Nawaz.



### Acknowledgment:

To acknowledge the hard work in recognition of faculty members/staff efforts in their efforts for successful conduct of accreditation visits by the Pakistan Engineering Council (PEC) and National Business Education Accreditation Council (NBEAC) in the

year 2022. In his address, Director Campus emphasized that sustainability in job responsibilities will boost the employee

morale which promotes productivity in achieving long-term success in their career. He encouraged employees to put extra effort and be consistent in performing their duties with full dedication for the success of the institution.

### \*e-Rozgar Seminar for Women Empowerment on the eve of the International Women's Day.\*

On the occasion of International Women's Day, a prestigious event and seminar on Women's Empowerment was organized at e-Rozgar Center in collaboration with Paigham-e-Pakistan, Dukhtran-e-Pakistan and COMSATS University Islamabad, Sahiwal campus in which Mrs. Muniba Khawar Shahzad (Provincial Coordinator Punjab of Dukhtran-e-Pakistan) participated as Chief Guest. Speakers included Mr. Safdar Ali, Focal Person of e-Rozgaar program and PHEC's Youth Counseling Center, Dr. Tariq Ali, Head of Computer Science department, Dr. Najma Abdul Rahman, Incharge Graduate Studies, Mr. Muhammad Asghar, Trainer / Manager of e-Rozgar Center, faculty members, students and entrepreneurs of COMSATS University Islamabad, Sahiwal Campus.



Mrs. Muniba Khawar Shahzad, Provincial Coordinator Punjab, in her address highlighted the importance of Paigham-e-Pakistan, Fifth Generation War and Social issues, PITB's e-Rozgaar Program, TEVTA, Punjab Skill Development, NAVTEC and e-employment program for skills development.







# SDG-6

## CLEAN WATER AND SANITATION



Sustainable Development Goal 6 (SDG 6) is one of the 17 global goals established by the United Nations as part of the 2030 Agenda for Sustainable Development. SDG 6 focuses on ensuring availability and sustainable management of water and sanitation for all. The goal addresses the critical need for access to clean and safe drinking water and adequate sanitation facilities, as well as the importance of proper water management to support sustainable development. Here are the key targets and indicators of SDG 6:

**Goal:** Ensure availability and sustainable management of water and sanitation for all.

### Key Targets and Indicators:

Achieve universal and equitable access to safe and affordable drinking water for all: This target emphasizes the importance of providing access to clean and safe drinking water to everyone, especially to vulnerable populations. Indicators include the percentage of the population with access to safely managed drinking water services.

### Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation:

This target focuses on ensuring access to proper sanitation facilities and ending open defecation.



COMSATS University Islamabad has implemented measures to prevent polluted water from entering the water system, including addressing pollution caused by accidents and incidents on campus. The university has installed separate sieves for toilets, washrooms, and kitchens to ensure that solid waste and food waste do not mix with the water. This helps maintain the quality and cleanliness of the water supply.

### The complete volume of water utilized at COMSATS College is taken from the main supply and estimated for two purposes:

- i. For human utilization
- ii. For cultivation

The University provides free drinking water to students, staff, and visitors. To ensure the quality of the water, a reverse osmosis water filtration plant has been installed on campus. This plant helps purify the water, making it safe and suitable for consumption. Students, visitors, and employees at the university benefit from this facility. Reverse Osmosis water filtration plants installed on the campuses.

CUI follows building standards that aim to minimize water use. All the buildings on campus are designed and constructed in accordance with the standards set by the relevant regulatory authorities. These standards ensure that water-efficient practices and technologies are incorporated into the buildings, helping to reduce water consumption and promote sustainability. Dual flushes in the toilet are being used at university. Two-stage flush system toilets use about 20 percent less water per year than conventional one-flush-only toilets.



# Save Nature, Save Water, Save the Future.



**Save Water**

**Every drop counts. Conserve every drop of the water for your future generation.**

Freshwater is 0.002% on earth, Save the drop, Save Life



**Save Life**

### Water Conservation Tips

- Turn off the water while brushing your teeth, Miswak, shaving and try to take short shower.
- Regularly check taps, pipes and toilet for leaks and if it occurs fix leakage problem.
- Use a broom / mop to clean driveways, sidewalks and steps by using AC/ rain water.
- Put a filled plastic bottle in your toilet tank and don't flush the toilets unnecessarily.
- Install shut-off valve on water hoses or low volume / high pressure nozzles or flow restrictors on taps and showers to save water.
- Water your lawn only when it needs and water during the cool parts of the day (morning/evening).
- Plant drought-resistant trees and plants and mulch around the plant to save water in the soil.
- Don't let the tap open while you clean vegetables, washing dishes, clothes / utensils.
- Install Rainwater harvesting system and use the harvested water for kitchen gardening and plantations.
- Educate your children about the water conservation and share the tips with friends / neighbors / servants.
- Open the tap at low pressure and don't let the tap open when not required.
- Use high efficiency plumbing fixtures and try to install other water-saving devices in the buildings.
- Use water saving technology like sensors and water saving toilet's tank etc.
- Reduce consumption of water by design and using water meters.

Imagine one day without water, so use it wisely

### Water Conservation Tips

According to Sunnah  
2/3 L of water is recommended for Wudhu.

### Water Conservation Tips

Remember  
**3R**  
REDUCE,  
REUSE  
and  
RECYCLE

### Water Conservation Tips



**Center for Climate Research & Development (CCRD)**

**COMSATS University Islamabad, Park Road, Chak Shahzad, Islamabad.**

For more information  
Please contact

**Dr. Toqeer Ahmed**  
toqeer.ahmed@comsats.edu.pk

CCRD Project sponsored by:  
**D 8 Organization for Economic Cooperation**









COMSATS University Islamabad has a dedicated horticulture section that is planned and maintained on a sustainable basis. The university focuses on planting indigenous local varieties of trees, shrubs, and ground cover that are well-suited to the climatic conditions and requirements of the area. The selection of plants includes less water-dependent species such as Cassia fistula Linn, Pongamia Pinata, Sapium, Silver Oak, Argun, Persian lilac, and Mountain Ebony. To oversee the horticulture affairs of the university, there is a dedicated horticulture society in place. This society ensures the proper care and maintenance of the university's horticultural areas.

**Safe drinking water**

Safe drinking water is essential for human health and well-being. It is a basic human right and a key factor in economic development. Access to safe drinking water can help prevent disease, improve health, and support sustainable development.

How to get safe drinking water:

- 1. Drink bottled water.
- 2. Use a water filter.
- 3. Boil water.
- 4. Use a water purifier.
- 5. Use a water dispenser.

**Table of Contents**

- 1. Drinking water collection from rivers, lakes, and aquifers
- 2. Drinking water from wells
- 3. Drinking water from the ground
- 4. Drinking water from the sky
- 5. Drinking water from the sea
- 6. Drinking water from the atmosphere
- 7. Drinking water from the ground
- 8. Drinking water from the sea
- 9. Drinking water from the atmosphere
- 10. Drinking water from the ground

**Drinking Water Comes From Rivers, Lakes, and Aquifers**

Drinking water comes from rivers, lakes, and aquifers. These sources provide water for drinking, irrigation, and industrial use. Water is treated before it is distributed to homes and businesses.

**Drinking Water: Public Water Supply or Private Well**

Drinking water can come from a public water supply or a private well. Public water supply is provided by a local government or utility. Private wells are owned and operated by individuals or businesses.

**Drinking Water: Must Be Treated for Public Use**

Drinking water must be treated before it is used for public consumption. Treatment processes include coagulation, filtration, and disinfection. These processes remove impurities and kill harmful bacteria.



COMSATS University Islamabad has a policy in place to maximize water reuse. As part of this initiative, rain harvesting tanks have been installed on campus, and the collected water is utilized for horticultural purposes. Additionally, water recharge wells have been constructed to help increase the groundwater table. It is worth noting that the university implements the National Water Policy issued by the Government of Pakistan, ensuring compliance with national guidelines and regulations related to water management and conservation.

At each campus of COMSATS University Islamabad, the overhead tanks of each building have been installed with measurement gauges. These gauges help monitor and measure the water levels in the tanks, allowing for efficient management and control of water usage on campus. This helps ensure that water resources are effectively utilized and allows for timely replenishment or conservation measures to be implemented as needed.

COMSATS University Islamabad actively measures and promotes the reuse of water. To facilitate this, a Rain/Storm Water Tank with a capacity of more than 205,000 gallons has been constructed on campus. This tank is used to store rain and stormwater for subsequent reuse. Additionally, rain harvesting tanks have been installed, and the collected water is utilized for horticultural purposes. Furthermore, water recharge wells have been installed to help increase the groundwater level. These measures contribute to the university's efforts in water conservation and sustainability.



COMSATS University Islamabad actively promoted conscious water usage in the wider community through various projects.

The project titled "Smart Water Metering and Pricing Project (SWMP)" was implemented to conduct a feasibility study for providing a continuous municipal drinking water supply to the residents of Sector I-8 in Islamabad, Pakistan, as a model. Another similar project, also called "Smart Water Metering and Pricing Project (SWMP)," highlighted that the private tanker mafia has taken advantage of the limited capacity of the municipal water suppliers, specifically the Capital Development Authority (CDA). This has resulted in a high-cost burden on the residents, as they rely on private tankers for their water needs.

CCRD of CUI focuses on mainstreaming climate change into development policy and community-based adaptation to climate change across the country. In this regard, CUI faculty engage in providing support for water conservation and improving the quality of water in the country.

CCRD CUI conducted the webinar on "Feasibility Study for Provision of Safe Drinking Water through Water Conservation (SDWC)" on 30th March 2022. The purpose of organizing this webinar is to share the outcomes of the ongoing feasibility study for the Provision of Safe Drinking Water through Water Conservation (SDWC) with the D-8 member countries. To gather scientists, water experts, and academicians around the globe to exchange their views and experiences to address the key challenges/research gaps related to water.

The University takes measures to ensure sustainable water extraction. Recharging wells have been constructed on campus to replenish the groundwater. Additionally, the university has planned its landscaping in a way that maximizes the absorption of rainwater. This helps in maintaining the groundwater level and promotes sustainable water management practices.

COMSATS University Islamabad actively cooperated with local, regional, national, and global governments on water security. Several projects and events were organized to address this issue.



1. Celebrations of World Water Day – 2022 Seminar on Monitoring Climate Extreme Events Through Remote Sensing and Modeling & Poster Competition on March 31, 2022
2. Water Informatics and Communication Technical Session offered at 19th International Conference on Frontiers of Information Technology (December 12 – 13, 2022) in Islamabad, Pakistan
3. UNESCO Chair on Knowledge Systems for Integrated Water Resources

Management (IWRM) supported the students of CUI, Wah Campus to actively participate in Pakistan Water Week –Student Competitions, jointly organized from 24 –28th, October 2022 by the Pakistan Council of Research in Water Resources (PCRWR) and International Water Management Institute and partners.



25th Session of the IHP Intergovernmental Council Sessions: The Director Campus/ UNESCO Chair on Knowledge Systems for Integrated Water Resources Management (IWRM), COMSATS University Islamabad, Wah Campus attended online meetings from 26-29 April 2022 as member of National Committee of UNESCO Intergovernmental Hydrological Programme (IHP). The chair presented the contribution of the Chair, in the field of water education by capacity development and activities performed to achieve sustainable development goals. He further discussed strategic development plans of integrated water management systems, research, training and future avenues of collaborations. The members deliberated on the international cooperation



towards solving the water resources challenges under a changing climate impact



Meeting of the IHP-IX Working Groups: The Director Campus/ UNESCO Chair on Knowledge Systems for (IWRM) attended the online meeting on July 4, 2022, of First Meeting of the Working Groups for the IHP-IX implementation plan covering 2022-2029 and focused on UN 2030 SD agenda. In a meeting the election of the chairperson, vice-chairperson of the different working groups and role and responsibilities of management structure was addressed.

First meeting of the Working Group on Open Science Capacity Building: The Director Campus/ UNESCO Chair on Knowledge Systems for Integrated Water Resources Management (IWRM), COMSATS University Islamabad, Wah Campus attended online the First meeting of the Working Group on Open Science Capacity Building on May 12, 2022. The members discussed the opportunities, challenges and gaps for Open Science capacity building and the status of the implementation of the UNESCO representatives.



## 4th China-Pakistan Marine Information Workshop (November 16, 2022).

The fourth China Pakistan Marine Information (CPMI-2022) was held in CUI Wah campus on Wednesday, November 16, 2022 and was jointly organized by academic and research institutions from China and Pakistan; including COMSATS University Islamabad, FAST, Pakistan Science Foundation, Pakistan Scientific & Technological Information Center, National Institute of Oceanography (Pakistan Partners), and Harbin Engineering University, China Association of Science & Technology, Chinese Society of Naval Architecture, and Heilongjiang Science and Technology Association (Chinese Partners). This was the fourth workshop of this series as part of the One Belt One Road initiative under China Pakistan Economic Corridor (CPEC) with this year's theme "Smart Ocean Informatics" with oral and poster presentations.

The worthy Rector CUI, Prof. Dr. Muhammad T. Afzal was the chief guest. On behalf of Chairman, Pakistan Science Foundation (PSF), Dr. Miskatullah graced the opening ceremony as guests of honor.

In his opening remarks the Rector CUI, Prof. Dr. Muhammad T. Afzal, extended his gratitude for bringing the China Pakistan Marine Information Workshop in COMSATS and organizing it successfully to strengthen the scientific collaboration in the field of marine engineering and sciences. He mentioned that CUI strongly believe in internationalization and working in emerging technologies and always take lead to bring research and academic programs to benefit Pakistan. He mentioned that there are a lot of opportunities in Pakistan at the coastal side of Gawaddar for the development of marine sciences and engineering under CPEC to explore.

The officials from China, Vice President Harbin Engineering University (HEU), China, Mr. Jingwei Yin, Co-Chair of Workshop, Dean, College of Underwater Acoustic Engineering, Harbin Engineering University, Prof, Qiao Gang, Secretary- General of the Chinese Society of Naval Architecture, Secretary of the party committee of Heilongjiang Science and Technology



Association) addressed and assured their collaborative support in the field of Marine Information research and development. They emphasized international cooperation and the integration of Artificial Intelligence and Information Technology in the field of Marine Technologies. They thanked the organizers from CUI and HEU organizing this workshop and bringing both Pakistani and Chinese researchers, academicians and young scholars together to share their expertise.



The Department of Civil Engineering conducted an industrial visit of students of BS 6th semester on June 13, 2022. 71 students of 6th semester of Civil Engineering Department along with the faculty members visited the Sangjani Water Treatment Plant. Mr. Ameer Mehmood Khan, Assistant Director, gave a detailed briefing to the students. Students got the opportunity to have a detailed inside view of various components of Sangjani Water Treatment Plant. Industrial visits are part of the curriculum and are very valuable as they provide the students the opportunity of learning through travel, especially to places that they may not otherwise get to visit. Sangjani Water Treatment Plant is Asia's 3rd largest treatment plant which takes water from Khanpur Dam and treats almost 25 million Gallons of water per day.

The water treatment plant takes water from Khanpur Dam and supplies this to the users in Islamabad and Rawalpindi. Representatives from CDA briefly explained the intake structure, components of water treatment like sedimentation, coagulation, filtration and disinfection and storage of treated water. They also explained about the quality testing of water from the source and treated water and the frequency of testing. The visit ended with the words of thanks and exchange of souvenirs.







# **SDG-7**

# **AFFORDABLE AND CLEAN ENERGY**

Affordable and Clean Energy (SDG 7) is one of the 17 global goals established by the United Nations as part of the 2030 Agenda for Sustainable Development. SDG 7 focuses on ensuring access to affordable, reliable, sustainable, and modern energy for all. The goal recognizes the importance of energy in various aspects of development, including economic growth, environmental sustainability, and social well-being.

This goal recognizes the crucial role of affordable and clean energy in achieving sustainable development. Access to reliable and clean energy sources is essential for poverty eradication, economic growth, environmental protection, and improved quality of life. By addressing the targets outlined in SDG 7, countries can work towards ensuring that everyone has access to affordable, reliable, and modern energy services while promoting sustainable energy practices and reducing environmental impact.

All buildings at CUI's campuses are designed and constructed with a focus on energy efficiency parameters and compliance with standards issued by the Capital Development Authority (CDA) and the government of Pakistan. Energy-efficient buildings can help reduce energy consumption and lower environmental impact while also providing a more comfortable and sustainable environment for occupants.

*"If you want to find the secrets of the universe, think in terms of energy, frequency and vibration."*

*Nikola Tesla*

new construction on campus This policy will be reviewed and updated periodically as public awareness, management

techniques, and technologies change.



Energy Research Centre  
COMSATS University Islamabad,  
Lahore Campus



CUI had planned to replace all conventional lights with LED lights which saved 95% energy as compared to conventional lights. CUI had installed 1700 No's LED Lights in the Year 2022.

Following are the recommendations to support energy conservation plan at CUI-Lahore campus level:

1. On-Campus Solar Energy
2. Solar Heating and Hot Water
3. Energy Efficiency in Campus Buildings
4. Sustainable Transportation
5. Energy Conservation

100 KW Solar Power Plant at Islamabad Campus was commissioned in September 2016.

The per kWh CO<sub>2</sub> emission by Thermal Power Plant is 0.6 kg. Total Energy Produced by this plant up to August 2023 is 647,584 KW. This means that this Solar Power Plant has saved 355 tons of CO<sub>2</sub> emission during the period under consideration. One grown tree roughly absorbs 24 kg of CO<sub>2</sub> annually. The CO<sub>2</sub> emissions saved by this Power Plant are equal to 14,800 full-grown trees. 300 KW Solar Power Generation Facility Installed at Sahiwal Campus. The commissioning date of the project is April 14, 2022. To date, the total units produced by this facility are 434,960 kWh. This means that this Solar Power Plant has saved 260 tons of CO<sub>2</sub> emission since its commissioning. CO<sub>2</sub> emissions saved by this Power Plant are equal to 10,874 full of trees.

The agreement for establishment of 400 kW solar power



generation facility at Vehari Campus is signed on Nov. 2022. Tentative production in one year would be 584,000 kW.

CUI had installed Multi Digital Scroll System (MDS) Technology which is 30% energy efficient as compared to conventional air conditioning. Furthermore, Building Management Systems installed at all buildings of CUI, Islamabad campus has been installed resulting in efficient usage of energy consuming devices. Inverter A/C are installed where MDS system is not used. Power Factor Improvement Panel installed to Control Power Factor effected by inductive load.

The mission of the Energy Research Center (ERC) is to develop actively smart energy-related programs, improve the quality of domestic talents in basic research and the development of smart energy, and promote sustainable development curricula with the Ministry of environment and Ministry of Science and Technology. ERC endeavors to improve and advance its commitment to renewable energy through education.

Apart from establishing the ERC, the University also aligns its policies with the Executive 'four conservations' (water, electricity, paper, and fuel conservation) initiative, striding vigorously towards 100% renewable energy.

**It includes:**

University-based education activities (including academics altering their programs to coordinate their teaching on some aspect of climate change)

Research activities (such as conferences and workshops on climate change)

Education activities beyond the university (such as talks to schools, community groups or the general public on climate change; forums and Q&A sessions)

Online activities (such as webinars, discussion groups, forums, social media, online Q&A sessions, podcasts). Campaigns (including petitions, consumer boycotts, demonstrations)

An energy audit was conducted in 2015. The report concluded that the measures taken by CUI are as per standards for conservation of energy.

Research has shown that the most electricity-consuming equipment in the campus is air-conditioning, followed by lighting systems. Solutions are devised to improve the most electricity-consuming aspects, including the setting of timer switches, manual controls and checks, public announcements and promotions, announcements through students, and access to special data. These solutions aim at reducing energy wastage and fulfilling the sustainable development goals. University campuses can implement energy efficiency improvements rapidly:

**Controlled Environment:** Campuses are highly structured, controlled environments and University has the ability to deploy resources quickly.

**Environmental Awareness:** At University level, environmentally conscious students, faculty and staff are eager to develop and implement energy efficiency solutions.

**Innovation Hubs:** Campuses provide testing grounds to save energy, using “intelligent” information technology and experimenting with zero-net energy and passive building techniques. At campus level, a carbon-neutral research lab and a green building certification program can be opened and designed.

**Workshop on Energy Efficiency and Decarbonization of Industries in Pakistan:** In continuation of study conducted by the Centre for Industrial and Building Energy Audits on behalf of World Bank. The Director Campus/ UNESCO Chair on Knowledge Systems for Integrated Water Resources Management (IWRM), COMSATS University Islamabad, Wah Campus Pakistan attended the workshop on July 04, 2022 on Energy Efficiency and Decarbonization of Industries in Pakistan, organized by the World Bank at Serena Hotel Islamabad, Pakistan.

The CUI has a plan to phase out diesel generators with renewable

energy technologies. In this regard, an in-house feasibility study was conducted to determine the potential of solarization of CUI campuses. Based on the study, the solarization of the campuses is underway. The agreement for establishment of 400 kW solar power generation facility at CUI, Vehari Campus was signed on Nov. 2022. Tentative production in one year would be 584,000 KWh will be produced and 350 Tons carbon will be saved (Which is equal to 14,600 full of grown trees). Furthermore, 300 KW Solar Power Generation Facility has been commissioned on April, 2022.

The CUI, Islamabad campus has already recommended establishment of 850 KW solar power generation facility. Furthermore, 100 KW solar power plant is operational since 2016 at CUI, Islamabad campus.

The Alternative Energy Development Board (AEDB) created a national-level policy created in the Year 2020. COMSATS University has adopted this policy since its creation.

In 2022 Total energy used in all campuses (Local) 8,196,428 KWh (from Wapda) 263,951 (From Solar)

The Government of Pakistan envisions deploying solar power on a fast-track basis to eventually complement and/or substitute the expensive imported fossil fuels currently being used for power generation. CUI is moving toward renewable energy production like Solar Power Plants.

CUI, Islamabad Campus has already installed a 100W Solar Power Plant at its Islamabad campus and a 300 kW Solar Generation Facility at CUI, Sahiwal Campus. A 400 KW system is at an advanced stage of completion. Moreover, the establishment of a 700 KW Solar Power plant at Islamabad Campus has been planned and recommended by the Campus Works Committee.

The Government of Pakistan envisions to deploy solar power on a fast track basis to eventually complement and/or substitute the expensive imported fossil fuels currently being used for power generation.

CUI is moving toward the renewable energy production like Solar Power Plants. CUI, Islamabad Campus has already installed 100 KW Solar Power Plant at its Islamabad campus and 300 kW Solar Generation Facility at CUI, Sahiwal Campus. Furthermore a 400 KW system is at advanced stage of completion. Moreover, establishment of 700 KW Solar Power plant at Islamabad Campus has been planned and recommended by the Campus Works Committee.

ERC Collaborated with local industry (US Denim) for energy efficiency, smart energy programs.

An international MoU with an international Energy Centre, name INERGE, Brazil is signed to promote R&D activities between CUI and INERGE.

MoU was signed with EPTECK Pvt Ltd for fostering industry academia collaborative effort for promoting energy efficiency, smart energy, smart grids and net metering.

Energy Audit was performed for a Local Industry named “Ali Embroidery”.

Alternative Energy Development Board, Government of Pakistan have developed the Alternative Energy Policy in Year 2019 and same is implemented by CUI.

ERC submitted draft policy points to Adviser National Electric Power Regulatory Authority on instructions of Chairman NEPRA



To cater to the modern energy needs, the Commission on Science and Technology for Sustainable Development in the South (COMSATS) organized an International Conference on 'Sustainable Technologies in Modern Energy: A Roadmap



Towards Green Economy' with support of the United Nations Educational, Scientific and Cultural Organization (UNESCO), and COMSATS' Centre of Excellence in Islamabad, the COMSATS University Islamabad (CUI). This conference was hosted by COMSATS University at its Islamabad Campus on February 16th-17th, 2022. The aim was to provide an interdisciplinary forum to academicians, scientists and early career researchers to deliberate on the importance of energy efficiency, sustainable and renewable energy resources, technologies and applications.

ERC faculty members contributed in organization of this conference and Speakers for this conference were arranged by ERC.



Dr. Sobia Baig represented ERC in this conference and presented a talk, titled, **“Digitization of Power Networks for Sustainable and Reliable Distribution”** in Sustainable Technologies in Modern Energy: A Roadmap Towards Green Economy conference on March 8, 2022.



Dr Sobia Baig presented a talk, titled, “Micro-grids -The Way Forward for Electrification of Rural Communities in 4IR” in the International Conference on Industry 4.0 in the Developing World: Challenges, Gaps and Opportunities, Colombo, Sri Lanka on March 17, 2022.

ERC at CUI Lahore is actively involved in providing training and education to both current students and working members of the public. Organizing technical education and training courses, as well as clean and renewable energy-related activities such as talks, conferences, webinars, and seminars, can have a significant impact in promoting awareness and understanding in the field of clean energy technologies.

ERC conducted a short course named Hydrogen: The Fuel of Future from the Past, by Dr. Shakeel, Senior lecturer at University of Malaya, Malaysia.

**COMSATS University Islamabad, Lahore Campus**  
Webinar date: 26th February 2022 Timing: 2 pm to 4 pm

**Emerging Power System Optimisation**  
Energy Research Centre COMSATS University Isb, Lhr campus brings a new short course

**Dr. Muhammad Adnan Hayat (PhD)**  
Chair - IEEE Industrial Electronics Society Western Australia Chapter  
Policy Analyst - Energy Policy Department in Western Australia

**Why to Attend**  
Power system is transforming! Conventional large generators spanning over a large geographical area are being replaced by localised generation resources. This transformation is rapid in some countries and slow in others, but this is what the future holds. This course walks through in detail how the power system is transforming and how this power system can be optimised techno-economically to supply clean and reliable energy at the lowest sustainable cost.

**Course Objectives**  
This Course will discuss in detail how the electricity market and power system is evolving and its impact on power system security and reliability. This course will then look through how this emerging power system can be optimised using linear programming.

**Course Contents**  
• Emerging Power System.  
• Distributed energy resources.  
• Techno-economic analysis.  
• Reserve capacity mechanism.  
• Wholesale electricity Market.  
• Modelling assumptions, inputs, and outputs.  
• Conclusion.

**Target Audience**  
Electricity policy and regulatory professionals.  
Power system operators.  
Power system and renewable energy engineers.  
Engineering students and researchers.

For Registration: <https://bit.ly/ercpd2> For Info: [info.erc@cui.lahore.edu.pk](mailto:info.erc@cui.lahore.edu.pk)

Venue: COMSATS University Islamabad, Lahore Campus

**ONLINE COURSE**  
Course date: January 29th, 2022

Energy Research Centre COMSATS University Isb, Lhr campus brings a new short course

**Hydrogen: The Fuel of Future from the Past**

**Dr. Muhammad Shakeel**  
"Senior Lecturer" in UM Power Energy Dedicated Advance Center, University of Malaya

**Why to Attend**  
Current energy systems have to undergo profound transformation to compete 21st century climatic and sustainable challenges. However, the total decarbonization of certain sectors such as transportation and industry that requires high grade heat may prove to be challenging purely by means of electrification. In this regard, gaseous hydrogen being produced using renewable sources such as solar, wind, biomass etc is becoming one of the most viable fuel due to its easy production, abundant raw material and ability to be integrated in primary energy mix.

Although hydrogen industry is well established with total estimated global market of 115 billion USD by 2022 and growing significantly. The market share of hydrogen being produced by electrolysis is just 4% which is coming mostly through Chlor-Alkali industry. Recently, the ability of state of the art electrolyzers to compensate intermittence of renewable sources and proven concept of directly injecting hydrogen in natural gas pipeline network proved to be a game changer and could create a new downstream market.

**Course Objectives**  
The course has been designed to provide brief understanding of hydrogen related technologies and the possible integration in primary energy mix. The attendees will learn the system level integration approaches and policy roadmaps.

**Course Contents**  
• Introduction to hydrogen  
• Production processes of hydrogen  
• Green: the good and the better  
• Current and potential applications of hydrogen  
• Take away's  
• Advantages of hydrogen

**Target Audience**  
• Engineers of Various disciplines  
• Energy Engineering  
• Mechanical engineering  
• Chemical Engineering  
• Energy Policy makers  
• Electrical engineering

Registration Fee: 500 Account Title:  
• HBL CIFT: IEEE STUD  
• 0023057901524103

Online webinar organized by ERC on **“Emerging Power System Optimization”** held on 26 February 2022



ERC recently completed a joint Pak-China, PSF-NSFC research project titled, "Implementation and Testing of Microgrid in Rural Communities with Maximum Penetration of Renewable Energy Resources in Pakistan". Furthermore, wind and solar labs were established in this project by Funding from Pakistan's Science Foundation (PSF) Pakistan.

Python for Data Science, Machine learning Workshop was conducted by Dr. Muhammad Jawad. This Course was conducted on campus. A large number of students attended this paid course. The students showed keen interest in this trending topic. ERC plans for this course regular offering and to introduce advanced levels as well.



**Energy Research Centre (ERC) & ECE Department CUI Lahore**  
Presents short course on

**PYTHON FOR DATA SCIENCE MACHINE LEARNING WORKSHOP**  
1.5 CPD POINTS COURSE

**WHY TO ATTEND THIS COURSE**  
Machine learning is a trending topic in this age of Artificial Intelligence. The fields of computer vision and Natural Language Processing (NLP) are making breakthroughs that no one could've predicted. The machine learning is preferred to be implemented on Python because Python code is understandable by humans, which makes it easier to build models for machine learning. Since Python is general purpose language, it can do a set of complex machine learning tasks and enable you to build prototypes quickly that allow you to test your product for machine learning purpose.

**COURSE CONTENTS**

- Python Installation and Basics
- Data Preprocessing
- Regression (Simple linear regression, multiple linear regression, Polynomial Expression, Support Vector machine, (SVM), Decision tree Regression, Random Forest Regression, )
- Classification (k-NN, Kernel SVM, Naive Bayes, Decision Tree, Random Forest)
- Clustering (Kmean and Hierarchical)
- Introduction to ANN and CNN
- Dimensionality Reduction (PCA, Kernel PCA and LDA)
- Model Selection (k fold cross validation and Grid Search) and Boosting (XG Boost)

**WHO SHOULD ATTEND**

- Data Scientists
- Electrical, Computer Engineering, Computer Science Students.
- Research Students belonging to any other Allied Fields.

**REGISTER NOW**  
<http://bit.ly/erccpd2>

**FEE SUBMISSION**  
Account Title HBL CIIT: CPD Fund  
Account Number 2305-7000826-03  
Fee: 5000 PKR for Professionals  
3000 PKR for CUI Students  
3500 PKR for NON CUI Students





**Venue**  
CUI Lahore Campus

**Date & Time**  
17-19 August 2022  
2.30 pm to 6.30 pm

**Course Instructor**  
Dr. Muhammad Jawad  
Associate Professor ECE

**For Info**  
Email at  
[info.erc@cui lahore.edu.pk](mailto:info.erc@cui lahore.edu.pk)

## Workshop on Energy Conservation

ERC faculty members attended a workshop on Energy Conservation by NEECA at PC Hotel Lahore. This workshop was aimed at promoting energy conservation throughout the country and promoting the use of energy-efficient devices and appliances. To make use of energy conservation techniques for making Pakistan energy efficient.

Dr. Sobia Baig HoD ERC and Dr. Fawad Azeem Assistant Professor ERC were provided certificates for successfully completing energy Management course by NEECA.



## Visit of US Denim & US Apparel Officials

US Denim & Apparel, a renowned textile exporting group visited COMSATS CUI Lahore Campus in January 2022 and had a meeting with ERC & ECE Faculty members. The meeting was aimed at collaboration between Industry and Academia. They elaborated about their energy and sustainability plans for the textile industries.





## PEC Training Workshop

PEC training workshop was held at UET Lahore Campus. Dr. Sobia Baig and other Faculty members from the ECE department attended this workshop. The training for PEVs was held at UET Lhr and was delivered by the Malaysian Expert on Outcome base Education, Prof. Megat Johari P.Eng. JMS, Board Member & Chair of Examination and Qualifications Committee, Board of Engineers Malaysia (BEM). The two day training covered multiple aspects of the Washington Accord and its review process from Pakistan.



## HoD ERC Talk in International Conference

HoD ERC presented a talk on Microgrids-The Way Forward for Electrification of Rural Communities in 4IR 4th Industrial Revolution- Megatrends & Opportunities for Sri Lanka-Conference. The talk included Deployment of Hybrid/DC Microgrids with DERs-Optimal and economic solution, IoT based Data Acquisition and Analytics of rural microgrids. The participants of the conference discussed categorization with reference to electricity needs and regional resources of renewable generation, Deploy Demand Side Management & Demand Response and Customized Optimal System Design for an efficient and reliable DER utilization for the regional Microgrid.

Dr. Sobia Baig highlighted the importance of remote monitoring based IOT protection, reliable operation and preventive maintenance etc. It was agreed in conference to motivate students and researchers to work for sustainable Microgrids Establishment. The conference ended on the notion that government should form a consortia of academia, industry and governmental organizations.

## MOU with Federal University of Juiz de Fora, Brazil

Federal University of Juiz de Fora, Brazil and the COMSATS University Islamabad, Islamic Republic of Pakistan, are signing a formal Memorandum of Understanding (MOU), through which both institutions are desirous to foster their relationship in order to promote national and international exchanges intended to educate students, faculty and staff members from both sides. The MoU will facilitate internationalizing the lifelong learning processes with an aim to promote academic and research programs. Prof. Dr. Sobia Baig, Head, Energy Research Centre, CUI Lahore Campus has been assigned as the Focal Person from CUI for the signing of the MoU. The MoU was signed by the Worthy Director CUI-Lhr, Professor Dr. Asad Hussain, nominated by the Worthy Rector CUI to represent him in signing the MoU at the CUI side. A ceremony was held in this context dated December 20, 2022.



ERC signed an MOU with EP Teck for collaboration in fields of smart energy, smart grids and net metering. After the MOU Signing a meeting was held between ERC Faculty members, Registrar CUI Lahore and EpTeck Officials to discuss areas of mutual cooperation.



List of Projects Submitted 2022 for Funding

S.R No	Project Title	Funding Agency
1	Design and Analysis of Solar PV-thermal Hybrid System Technologies " by PI :, Co Pi Dr. Tareq Manzoor .	HEC
2	Efficient and Flexible Fuel Combustion System through Flameless Regime. Co Pi Dr. Tareq Manzoor	HEC
3	Interconnection & Coordination of Multi-Microgrids to Promote Penetration & Efficient Utilization of Renewable Energy(2022-2023)	Ajman University

ERC Academic Collaborations

Academic Collaboration with Other Universities

- University of the Punjab
- CERAD UET Lahore
- USPCASE-NUST
- Aalborg University Denmark
- University of Malaya
- UFJF,Brazil
- Lancaster University UK
- SCOUT China



Academic Collaborations within CUI

- Architecture Department
- ECE Department
- Humanities Department



ERC Industrial & Govt Collaborations

Industrial Collaborations

- ETRC
- EpTeck
- Presscon Engineering (PVT) Ltd
- Al Rehman Switch Gear
- Circutor
- Jolta batteries



Government Collaborations

- NEPRA
- NEECA
- LESCO
- NTDC
- PEECA

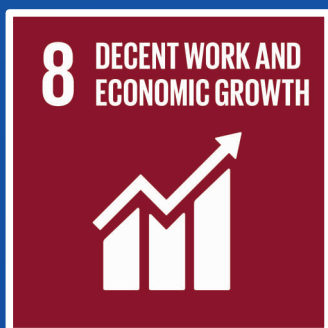


Policy Framework Cobtributions

- NEECA
- Microgrid NEPRA
- World Bank







# **SDG-8**

## **DECENT WORK AND ECONOMIC GROWTH**

(SDG 8) is one of the 17 goals established by the United Nations in 2015 as part of the 2030 Agenda for Sustainable Development. SDG 8 is focused on promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. Here are the key targets and indicators associated with SDG 8 Targets:

- Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7% gross domestic product growth per annum in the least developed countries.
- Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, including a focus on high-value-added and labor-intensive sectors.
- Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.
- Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead.
- By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
- Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking, and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms.
- Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious

employment.

- By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.
- Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance, and financial services for all.



SDG 8 aims to ensure that economic growth is inclusive and benefits all segments of society. COMSATS University Islamabad believes that by focusing on decent work, job creation, and supporting small businesses, it can contribute to building a sustainable and equitable national economy.

All staff and faculty at CUI are entitled to draw a salary (minimum with maximum ranges) along with other allowances and benefits, including living wage. The ad hoc allowances are also granted to the staff and faculty members on an annual basis according to which salaries are fixed across the university.

Further Living wage in Pakistan is not defined by the Government of Pakistan, however, the minimum wage is defined which is currently Rs 25,000/- per month. COMSATS University Islamabad has also notified minimum wage i.e. Rs 25,000 per



month. CUI notification is also enclosed. An analysis of the gross salaries structure of CUI employees depicted that 100% of CUI employees have salaries more than the benchmark of minimum wage.

At CUI there are Unions/Associations from academic, administrative, and support staff aimed at working for the rights of employees. However, these Associations are not legally recognized by CUI.

1. International Staff as well as faculty including women are recognized and recruited at the university. The SOPs along with incentives for the recruitment of international staff are enclosed.
2. CUI follows labor laws in terms of working hours for its employees and offers overtime to staff-grade employees

### Training on Financial Management to Audit GoP Funded Projects

Mr. Muhammad Rafiq, Assistant Program Officer from Student Financial Aid Office (SFAO) from CUI, Wah Campus attended the two day training on October 24-25, 2022. The training provides deep insight about the mechanism of financial management in the public sector and briefed the mechanism of processing and implementation of Government funded scholarship projects including EHSAAS, Undergraduates Scholarship Program and USAID, Merit & Need Based Scholarship Program offered to the meritorious and financially disadvantaged students with the aim of providing them quality education to fight against Poverty and Empowering Girls.



### CUI's Stepping Stone-in- Building a Career

A self-assessment activity was arranged with the aim of fostering an in-depth comprehension and enabling the graduating students to effectively navigate their business skills. Following activities were the part of the workshop:

- Know Yourself – Assessment Test
- How to make a Winning CV and Cover Letter
- The Intricacies of a smooth Transition from classroom into the Real World
- Importance of Effective Communication
- Personal Grooming
- Mock Interviews



### Pakistan Engineering Council (PEC) held the 3rd Engineering Capstone Expo-2023 at Pak-China Friendship Center, Islamabad

Participation in "The Pakistan Engineering Council held the 3rd Engineering Capstone Expo-2023 at Pak-China Friendship Center, Islamabad." CUI, Wah Campus participated in "The Pakistan Engineering Council held the 3rd Engineering Capstone Expo-2023" held on January 12, 2023, at Pak-China Friendship Center, Islamabad. In this expo, students from more than thirty universities showcased their Final Year Projects (FYPs). From CUI, Wah Campus, three teams from the Department of Mechanical Engineering and two from the Department of Civil Engineering exhibited their FYPs at the event. Dr. Ayaz Ahmad, ECE

Department as the focal person for the event, and FYP coordinators and supervisors, Dr. Hammad Salah Uddin, Dr. Adnan Nawaz, Dr. Rana Faisal Tufail, and Dr. Fazal Um Minallah accompanied the students.

### Seminar on – How to be an entrepreneur

The Department of Management Sciences and Eventix Society arranged a seminar on “How to be an entrepreneur” on December 8, 2022. Mr. Ahmed, CEO of Mughlia Baithak, Wah Cantt, an alumni of CUI Wah Campus and a successful entrepreneur was a resource person of the seminar. The purpose of the event was to share important steps and techniques with students on “How to be an entrepreneur”.

The speaker discussed his experience and addressed the entrepreneur's abilities to develop and organize his limited resources, take initiative to handle uncertainties in order to make a successful entrepreneur.

The experience of the resource person was very helpful for the students for their future professional endeavors. Students/faculty members from all departments of the University attended the seminar with interest. At the end the fruitful question answer session was also held to clear the fear of market conditions and misperceptions among students regarding becoming an entrepreneur. The speaker motivated them to think and move forward with their own start-up ideas. The event was concluded by presenting a university souvenir to the guest speaker by the Head Management Sciences Department with a vote of thanks.



As per the CUI's Act No. XI of 2018, the University shall be open to all persons of either sex of whatever religion, race, creed, color, or domicile as far as admission and appointment of either gender is concerned and no such person shall be denied the privilege on the ground only of sex, religion, creed, race, color or domicile.

It's essential to clarify that modern slavery, also known as human trafficking, is a grave violation of human rights, and it is illegal and unethical. There is no practice of modern slavery at CUI. The University, as per policy, follows a minimum of 40 working hours a week which is clearly mentioned in the Employment Contracts. Staff Grade employees are given Overtime according to the rate approved for different grades. Further Efficiency and Discipline Statutes 2006 and Rules for Harassment, Sexual Harassment, and Abuse of Authority 2009 are notified and implemented in CUI. No one is allowed to exploit employees for personal gains, in the case of any volunteer work, people volunteer themselves. No one is allowed to exploit employees for personal gains, in the case of any volunteer work, people volunteer themselves, and no physical or any kind of threat If someone wants to leave the employment of CUI.

Outsourcing activities to third parties while allowing employees to participate is a common practice in many organizations. It can be a way to optimize resources and leverage external expertise. However, it's essential to establish clear guidelines and policies to ensure that employees' participation does not interfere with their primary responsibilities and that there are no conflicts of interest.

According to EOI for outsourcing Security Services “The contractor shall abide by all the prevailing applicable labor laws of Pakistan and any violation thereof shall make it liable to disqualification/penalty.”

According to EOI for outsourcing janitorial Services, submission of a Minimum Wage Certificate by the applicant firm is mandatory

CUI employees are categorized according to their pay scales, and pay packages are determined based on the provisions for each



pay scale. This approach can help ensure that compensation is structured fairly and based on objective criteria such as qualifications and experience, which can help minimize the potential for a gender pay gap.

In organizations that have clear, well-defined pay scales and compensation structures, the risk of a gender pay gap is reduced because compensation decisions are not made arbitrarily but are instead based on predetermined criteria. This helps ensure that individuals with similar qualifications and experience are compensated fairly regardless of their gender.

COMSATS University Islamabad is committed to gender equity and does not discriminate in terms of employee rights, pay, and privileges. Ensuring equal pay and treatment for all employees, regardless of their gender, is an important step towards creating an inclusive and fair work environment. Gender equity promotes diversity, equality, and overall well-being within the organization, and it's essential for fostering a positive workplace culture.

COMSATS University as a body possesses a process, which is part of the Act as well as policies. The grievance redressal process is there and besides policy documents, it is also mentioned in the employment contract. As per Employees Efficiency and Discipline Statutes 2006 clause 26(A), the employee has the right to prefer an appeal within 30 days of the issuance of the order imposing the penalty to the appropriate appellate authority.

Employees can present their grievances related to their salaries, promotions, and others. There is a devised mechanism and notified committees to address this grievance.

### Celebration Of World's Disable Day 2022

The COMSATS University Islamabad (CUI) Wah Campus jointly celebrated the International Day of Persons with Disabilities 2022 with Young's Muslim Inclusive Education System, Wah Cantt on December 2, 2022. The objective of this event was to spend some good time with the special children of “Young's Muslim Inclusive Education System” to show solidarity, reduce

inequalities by raising awareness among youth towards their responsibility to special kids. This activity built the understanding among the students of CUI on mobilizing their support for the well-being of all those who are with any disability. The event was conducted under the guidance of Assistant Professor, Dr. Muhammad Yar Khan and Lecture, Ms. Sana Dar from the Department of Management Sciences.

The students from CUI Wah Campus participated in the event with open heartedly. The event started with a half kilometer walk with special kids on the main GT road to their school to show unity with them. The students arranged a painting and gaming stalls to make this day special for special children. The kids enjoyed face painting and playing games. The students presented the token of collection of funds to the Principal of Young's Muslim Inclusive Education System to as a support of CUI Wah Campus. The visiting group faculty and students of CUI Wah Campus were shown the art and craft made by the kids which are very impressive.

At the end gifts were distributed among the special children by the CUI Wah Campus students. Young's Muslim Inclusive System appreciated the efforts of the students and management of the CUI and presented a souvenir to CUI Wah campus.





## START a Startup

The Student Startup Business Center (SSBC) of CUI, Wah Campus arranged a seminar “How to Start Your Own Startup || on October 20, 2022. Mr. Azad Chaiwala, a successful entrepreneur and motivational speaker was the resource person. The seminar was organized under the vision of worthy Director Campus, with a aim to sharpen the thinking of student to startup their own business and become a successful self – employed entrepreneur. Mr. Azad discussed the ways of self-growth. He emphasized eliminating fare of loss and rejection in their life and proceeds with the little before starting with big investments. He advised students with learning they try inculcate some creativity to become a useful for the benefit of others. Build developing ideas to improve efficiency and become prepare for the challenges with a new prospective. The Director Campus in his closing remarks endorsed the need of being skillful and useful for society and their own families. He encouraged the students to learn from those who have experience and take calculated risks and start their own businesses.

Dr. Luqman Ahmed Niaz, Assistant Professor Form HITEC University Taxila was presented a comprehensive knowledge on maintenance practices involved and ISO standards used in vibration analysis in industry on October 20, 2022 under the category of department specific skills in coordination with ASME society.

## Content Prefetching and Retrieval in Vehicular Named and Data Networks

Seminar arranged on “Content Prefetching and Retrieval in Vehicular Named Data Networks” on December 8, 2022 by the Department of E&CE. The guest speaker was an alumni of CUI Wah Campus, working as Regional Manager at HKH South Korea, Dr. Muhammad Toha Raza Khan, PhD in Computer Science and Engineering from Kyungpook National University (KNU) School of Computer Science and Engineering specialization in Vehicular Ad hoc Networks, Information Centric Networks and Machine Learning in Networking. The speaker provide basics of content fetching in conventional Vehicular Named-Data Network (V-NDN) , which faces and enhanced the high latency problem that increases with the increase of inter-vehicular distance between the content requester and content producer vehicles in the Content-centric Internet of Vehicles.



## BIZ BUZZ Competition

The Department of Management Sciences organized BIZ BUZZ Competition on December 01, 2022. It was the eighth episode of the business competitions which provide a great opportunity for students to present their challenging, innovative business ideas.

Fifteen teams of participants from various semesters of BS(BA) and BS(AF) programs participated in the event. Following two competitive events were part of the Biz Buzz.

- Business Idea Competition and
- Marketing Ad Competition



Dr. Khuram Shafi, Associate Professor, Department of Management Sciences welcomed the participants in his opening address. He emphasized that the business competitions like BIZ BUZZ are of great importance for the upbringing of our business students. He added that such thought-provoking ideas also become a valuable addition to enhance the knowledge of our audience who may seek some guidance and benefits from mentors. He encouraged all participants of the events to wholeheartedly do their best to compete in their respective events.

The Head, Department of Management Sciences, Dr. Amer Rajput presented a summary of the event in his closing remarks followed by a vote of thanks. He appreciated the efforts of BIZ BUZZ organizing committee, especially the energetic student organizers who put their best to make this event possible. He congratulated the winners and runner-up of the competition. He also emphasized that in future, the Department will continue organizing such kinds of dynamic and fruitful events on a continuous basis for the professional growth and development of our business graduates. At the end of the competition, the Head of Management Sciences Department, along with a panel of judges, distributed shields and certificates among the winners, runner-up, participants and organizers.







**9** INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



# SDG-9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Sustainable Development Goal 9 (SDG 9) focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Achieving this goal is crucial for promoting economic growth, creating job opportunities, and ensuring environmental sustainability.

SDG 9 plays a pivotal role in driving economic growth, fostering innovation, and creating sustainable infrastructure that benefits societies and economies around the world. Collaboration between governments, private sectors, and civil society is essential to achieving the targets outlined in SDG 9.

Here are some key aspects of SDG 9 which Comsats University focuses while devising its policies and designing its academic programs.

1. **Promoting Inclusive and Sustainable Industrialization:** Encouraging industrialization while ensuring resource efficiency and environmental sustainability. Supporting small and medium-sized enterprises (SMEs) and their integration into value chains. Enhancing technological progress and upgrading industrial capabilities in developing countries.
2. **Building Resilient Infrastructure:** Developing reliable and sustainable infrastructure, including transportation, energy, and water systems. Promoting inclusive and sustainable industrialization through increased access to reliable and affordable energy. Building infrastructure to support economic development and human well-being, particularly in developing countries.
3. **Fostering Innovation:** Increasing research and development (R&D) efforts, especially in developing countries, to provide sustainable and innovative solutions. Enhancing domestic technological capacity and promoting innovation in various sectors. Encouraging public-private partnerships to facilitate innovation and knowledge sharing.
4. **Promoting Access to Information and Communication**

**Technology (ICT):** Ensuring universal and affordable access to the internet, especially in developing countries. Bridging the digital divide by promoting digital literacy and providing access to ICT for all.

5. **Supporting Sustainable Industrial Practices:** Encouraging industries to adopt sustainable practices, such as resource efficiency, clean energy, and waste reduction. Promoting the responsible management of chemicals and waste to minimize their adverse impacts on human health and the environment.
6. **Enhancing Scientific Research and Collaboration:** Increasing investment in research and development, particularly in sectors relevant to sustainable development goals. Fostering international collaboration in scientific research to address global challenges and find innovative solutions.
7. **Creating Job Opportunities and Skills Development:** Promoting skill development and technical training to enhance employability, especially among the youth. Encouraging entrepreneurship and supporting initiatives that create decent jobs, particularly in emerging industries.
8. **Ensuring Sustainable and Equitable Industrialization:** Promoting policies that ensure industrialization benefits all, including marginalized and vulnerable populations. Encouraging sustainable practices in industries to minimize environmental impact and promote social responsibility.

The key elements are visible in the curricular and extracurricular activities held in the university:

### **International Collaboration with Shenzhen University, China**

Dr. Muhammad Sadiq, Head of Liaison Office from Shenzhen University (SZU), China accompanying by Mr. Ali Tawab Baloach,

Head of International Office (IO), CUI visited CUI Wah Campus on September 12, 2022 to explore opportunities of collaboration. The aim of the visit was to discuss the prospects of joint research, mutual degree programs, faculty training and exchange initiatives between CUI Wah Campus and Shenzhen University (SZU).

Capacity Building Seminar on - Preparing Yourself for the Software Industry || The Career Development Cell (CDC) at CUI Wah Campus in collaboration with the Department of Computer Science has arranged a capacity-building seminar on October 6, 2022. The speaker CEO, ID-ware Group B.V. Denhagg Germany, Mr. Ali Hasnain Rizvi talked on the practices and trends of hi-tech corporate world of software industry as its market share in meeting the increasing demand of digitization. Mr. Razvi emphasized the importance of processing the required expertise to pursue a successful career in the IT world which demands constant expertise to excel.

### **International Conference on 'Industry 4.0 in the Developing World: Challenges, Gaps and Opportunities' 16-17 March 2022 Colombo, Sri Lanka**

COMSATS partnered with its Centre of Excellence in Sri Lanka, Industrial Technology Institute (ITI), to organize 'International Conference on 'Industry 4.0 in the Developing World: Challenges, Gaps and Opportunities', on 16th-17th March 2022. The 25 speakers of the two-day Conference belonged to Industrial Technology Institute (ITI), Sri Lanka; Ministry of Technology and State Ministry of Digital Technology & Enterprise Development, Sri Lanka; Ministry of Youth & Sports, Sri Lanka; Ministry of Development Coordination and Monitoring; Sri Lanka; Pakistan National Commission for UNESCO (PNCU), Pakistan; UNIDO Headquarters, Austria; UNIDO Office, Pakistan; National Research Centre (NRC), Egypt; Presidential Committee on Emerging Technologies, Government of Pakistan; Institute of Policy Studies (IPS), Sri Lanka; Digital Dubai, UAE; Linked Things, Pakistan; Ministry of Information Technology and Telecommunication, Pakistan; COMSATS University Islamabad (CUI), Pakistan; Information and Communication Technology

Agency (ICTA), Sri Lanka; Huawei Technologies Lanka Co (Pvt.) Ltd., Sri Lanka; University of Moratuwa, Sri Lanka; Sri Lanka Electronics Manufacturers and Exporters Association (SLEMEA), Sri Lanka; Entgra Pvt. Ltd., Sri Lanka; Aitken Spence, Sri Lanka; Yazılım Teknolojileri Araştırma Enstitüsü (YTE), TÜBİTAK, Türkiye; and COMSATS Secretariat, Pakistan.



### **Webinar on Industry 4.0 driven Climate-Smart Agriculture (August 24, 2022)**

COMSATS Centre for Climate and Sustainability (CCCS) organized a webinar titled 'Industry 4.0 Driven Climate-Smart Agriculture: Challenges and Opportunities for Developing Countries', on 24th August 2022. Speakers from organizations and institutions working in areas related to food security, agriculture and climate research domains in Asia, Africa and Europe participated in the webinar that attracted over 70 participants from 23 countries. In his welcome remarks, the Executive Director COMSATS, Dr. Ghulam Muhammad Memon, opined that availability of precise information through automated collection, integration, and analysis of data is crucial for informed decision and policy-making in all sectors, including CSA.



### Third International Training Course on Industrial Synthetic Biotechnology (December 12-23, 2022)

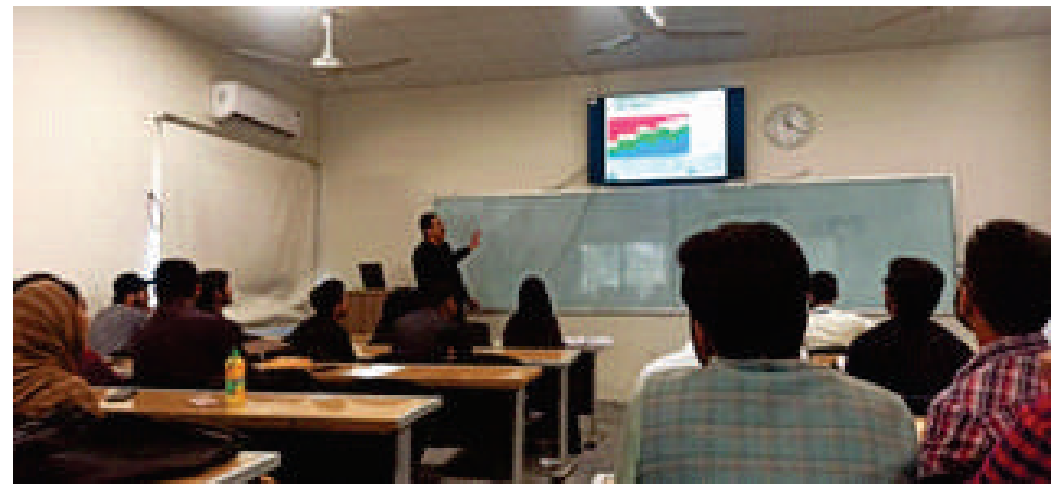
The Third International Training Course on 'Industrial Synthetic Biotechnology' (online training), was jointly organized by the Tianjin Institute of Industrial Biotechnology (TIB), in collaboration with the Alliance of International Science Organizations (ANSO); and the Commission on Science and Technology for Sustainable Development in the South (COMSATS), from the platform of COMSATS Centre for Industrial Biotechnology (CCIB). The training course aims to enhance the capacity of researchers and scientists belonging to the Belt and Road countries and beyond, especially COMSATS' member countries, in the field of industrial synthetic biotechnology, through theory, practice, and application.



### Seminar on “Vibration Analysis as a Tool for Predictive Maintenance in the Process Industry”

The Department of Mechanical Engineering arranged a Seminar on “Vibration Analysis as a Tool for Predictive Maintenance in the Process Industry” on October 20, 2022 under the category of department specific skills in coordination with ASME society. Dr. Luqman Ahmed Niaz, Assistant Professor Form HITEC University Taxila was the resource person of the seminar. This seminar was arranged for the students for BS (ME) final year.

The seminar provided comprehensive knowledge regarding maintenance practices in the process industry, introduction to vibration analysis, instrumentation involved in vibration analysis and their data acquisition systems, fault diagnosis in rotary machinery elements and ISO standards used in vibration analysis. Faculty and students of the department thanked to Dr. Luqman Ahmed for such an interactive session. Dr. Atta Ur Rehman, Chairman/Head, Department of Mechanical Engineering presented a shield to the resource person.



Academic and Scientific Collaboration with Ajman University A delegation from COMSATS University Islamabad (CUI), headed by the worthy Rector CUI, Prof. Dr. Muhammad T. Afzal and Director CUI Wah Campus, Prof. Dr. Muhammad Abid, T.I., undertook a visit to Ajman University (AU), UAE from November 21 – 25, 2022 to ink memorandum of understanding (MoU) to establish joint academic and scientific cooperation between the



two institutions.

During the visit, several meetings were held with notable personnel, including the Vice Chancellor of Academic Affairs, Prof. Khaled Assaleh, Dean, Graduate Studies and Research, Dr. Kamran Arshad and Executive Director Office of Institutional Planning and Effectiveness, Prof. Mustahsan Mir. The worthy Rector elaborated the international rankings that COMSATS University Islamabad (CUI) has earned in recognition of its excellence in teaching and research as well as its active engagement in internationalization efforts. Prof. Dr. Muhammad Abid, T.I., also provided updates on on-going research activities.



## Seminar on Entrepreneurship

Mr. Muhammad Haseeb Riaz, a distinguished alumnus from the Department of Management Sciences and the Founder CEO of RY Technologies, delivered a talk on his experience as an entrepreneurship on September 29, 2022. Mr. Riaz highlighted that while it is crucial to have dreams, the reality is that limited resources in both public and private sectors make it challenging to provide jobs for everyone. Thus, entrepreneurship presents a viable alternative, where individuals can become their own bosses and create employment opportunities for others. alternative solution is entrepreneurship, where you not only become your boss but also provide jobs to others.







**SDG-10  
REDUCED  
INEQUALITIES**



Sustainable Development Goal 10 (SDG 10) focuses on reducing inequalities within and among countries. The goal aims to ensure that economic growth is inclusive and that no one is left behind. Here are some key aspects and targets of SDG 10:

Income Inequality, Social, Economic, and Political Inclusion, Regulation and Monitoring, Facilitate Migration and Remittances, Financial Inclusion, Policy Coherence, Representation in Decision-Making, and Global Partnership

The idea behind SDG 10 is to create a world where opportunities and benefits of development are accessible to all, regardless of gender, age, race, socioeconomic status, or other factors. Reducing inequalities is seen as a fundamental aspect of sustainable development, contributing to social harmony, economic stability, and overall well-being.

There is a uniform admission policy that is entirely non-discriminatory. According to COMSATS University Islamabad's Act of 2018, the University has maintained a

non discriminatory admission policy, and as per clause 5 of the act "The university shall be open to all persons of either gender and of whatever religion, race, creed, class, color or domicile, and no person shall be denied the privileges of the University on the grounds of religion, race, caste, class, color or domicile".

COMSATS University Islamabad tracks the applications and admissions of under-represented groups through various systems and portals. The CU-online system, online admissions system, and the portal for admissions of international students are utilized for this purpose. These platforms, namely [cuonline.comsats.edu.pk](http://cuonline.comsats.edu.pk), [admissions.comsats.edu.pk](http://admissions.comsats.edu.pk), and [http://islamabad.comsats.edu.pk/international\\_students.aspx](http://islamabad.comsats.edu.pk/international_students.aspx), enable efficient tracking and management of applications and admissions, ensuring that under-represented groups are given due consideration in the university's admission process

COMSATS University

### Admissions

Admission to various degree programs at CUI is open to all eligible candidates without discrimination of any kind and with equal opportunities for all; hence all admissions are regulated on the basis of merit.

### Application Procedure

Applications are made in response to the admission notices in the press. Admissions are conducted according to an admission schedule, which is prominently displayed in these admissions notices. The procedure consists of following steps:

#### 1) Online Admission Application

- Candidates are required to apply on CUI Online Admission System by following the link <http://admissions.comsats.edu.pk>
- After submitting the online application, the copy of the same along with the required documents, as mentioned in Online Admission Portal, must be submitted online within due date of admissions. Candidate may mention upto seven program preferences for admission on one application form.
- All admissions at CUI will be offered provisionally and will be confirmed once all the desired formalities are met and all the required documents are submitted by the student.
- In case the final result of previous examination is awaited, then provision of a 'Hope Certificate'/affidavits (if applicable), from the school/college last attended can provide the basis for a conditional provisional offer of admission at CUI. This provisional offer is confirmed once the final result has been submitted and eligibility criteria fully met and all the other desired formalities are met, including the submission of required documents by the student. A specimen of a 'Hope Certificate' is available on the Admission portal.
- Admission applications must be submitted

within due date advertised at the time of admission. Late submission shall not be entertained.

- Candidates must check the eligibility criteria before submitting their online application forms to confirm that they are academically eligible for admission into the program of their choice

#### 2) Entrance Test

Applicants are needed to have valid relevant NTS Test score (NAT-I/ NAT-II) at the time of application. However, after the last date of submission of Admission Forms, entrance test will be conducted by NTS according to the admission schedule OR on a given date as notified by NTS through their website [www.nts.org.pk](http://www.nts.org.pk) and the print media. All admissions shall be regulated on the basis of merit determined by the weightage criteria as mentioned below:

#### For Engineering and Non-Engineering Programs

In the year 2019, due to COVID-19 outbreak, all the Boards/institutions were failed to conduct F-Sc/FA/A-levels (Part-I/AS1) exams and students were promoted to Part II of HSSC and A Levels. Hence, Part I results were not available for merit calculation, therefore, the following criteria is applicable at CUI for result awaiting applicants;

Degree Programs	Percentage Weightage
<b>For Bachelor Degree</b>	
Matric or equivalent	50%
NTS Test	50%

The admission criterion for undergraduate programs of the Faculty of Architecture and Design including B. Arch, B. Design and Fine Arts across CUI System is as below:

#### General Merit weightage

- 30% weightage (Past Academic Score including matriculation and NTS)

Undergraduate Programs 2021-22

18



Islamabad follows a merit-based recruitment policy for students, staff, and faculty. According to clause 5 of the COMSATS University Islamabad Act, the university is open to individuals of any gender, religion, race, creed, class, color, or domicile. The university does not discriminate against anyone based on these factors and ensures that no person is denied the privileges of the university on such grounds.

COMSATS University Islamabad has an anti-harassment policy in place to address issues of harassment, sexual harassment, and abuse of authority. The university has established an anti-harassment committee that is responsible for implementing the policy and handling any reported incidents. This committee is dedicated to creating a safe and respectful environment for all members of the university community and ensuring that any instances of harassment are appropriately addressed and resolved. CUI follows the anti-discrimination and anti-harassment policies at all levels.

<https://www.opentoall.com/wp-content/uploads/2021/04/OTA-Zero-Tolerance-for-Hate-Speech-and-Discrimination-Policy.pdf>

COMSATS University Islamabad has established the Faculty Development Academy (FDA) and the Center for Policy Studies (CPS) with the approval of the statutory bodies. These offices have been set up with the specific mandate of conducting seminars and training for the faculty, as well as for governmental and non-governmental organizations. The FDA focuses on enhancing the professional development of the faculty members, while the CPS is dedicated to policy research and analysis. Both entities play a crucial role in promoting continuous learning, skill development, and knowledge dissemination within the university and beyond. The Center for Policy Studies (CPS) at COMSATS University Islamabad aims to create awareness, understanding, and foster societal debate on policy issues of vital importance. It achieves this through timely dialogues, conferences, seminars, and workshops. CPS also provides valuable input on policy matters related to diversity, equity, inclusion, and human rights.

COMSATS University Islamabad is committed to providing support, mentoring, and counseling services to its staff, students, and faculty without any form of discrimination. The university has established the Counselling & Wellness Centre (CWC), which offers consultative services to individuals dealing with psychological and emotional issues within the university setting. The CWC aims to provide a safe and confidential space for individuals to seek guidance and support. Additionally, the Career Development Center (CDC) at COMSATS University Islamabad offers impartial and confidential advice to all visitors, treating everyone equally and without discrimination. The CDC assists individuals in exploring career options, providing guidance, and helping them make informed decisions about their professional paths.

CUI is committed to providing accessible facilities for people with disabilities. The university has implemented measures such as ramps, escalators, and specified car parking facilities to ensure ease of access for disabled individuals. The university has implemented various measures to ensure inclusivity and ease of access. This includes the installation of ramps and escalators to facilitate movement for individuals with mobility challenges. Additionally, specified car parking facilities are available for disabled persons, ensuring convenient access to the campus. These initiatives aim to create an inclusive environment that promotes equal opportunities and accessibility for all members of the university community.

COMSATS University Islamabad has a Counselling & Wellness Centre (CWC) that offers consultative services to individuals regarding their psychological and emotional problems within the university. The CWC provides support and guidance to help students and staff address their mental health concerns. Additionally, the Career Development Center (CDC) at the university provides impartial and confidential advice to all visitors, including disabled individuals. The CDC aims to assist students and alumni in making informed career decisions and offers various resources and services to support their career development.

COMSATS University Islamabad offers transport services to both

employees and students, promoting sustainable commuting practices. Additionally, the university is conveniently accessible through public transport, making it easily reachable from various locations within the city. Pedestrian access to all buildings is ensured, as many individuals choose to commute on foot within the campus. Moreover, all buildings are designed to be wheelchair-friendly, ensuring accessibility for individuals with mobility needs.

### Celebration of World's Disable Day 2022

The COMSATS University Islamabad (CUI) Wah Campus jointly celebrated the International Day of Persons with Disabilities 2022 with Young's Muslim Inclusive Education System, Wah Cantt on December 2, 2022. The objective of this event was to spend some good time with the special children of “Young's Muslim Inclusive Education System” to show solidarity, reduce inequalities by raising awareness among youth towards their responsibility to special kids. This activity built the understanding among the students of CUI on mobilizing their support for the well-being of all those who are with any disability. The event was conducted under the guidance of Assistant Professor, Dr. Muhammad Yar Khan and Lecture, Ms. Sana Dar from the Department of Management Sciences. The students from CUI Wah Campus participated in the event with open heartedly. The event started with a half kilometer walk with special kids on the main GT road to their school to show unity with them. The students arranged a painting and gaming stalls to make this day special for special children. The kids enjoyed face painting and playing games. The students presented the token of collection of funds to the Principal of Young's Muslim Inclusive Education System to as a support of CUI Wah Campus. The visiting group faculty and students of CUI Wah Campus were shown the art and craft made by the kids which are very impressive. At the end gifts were distributed among the special children by the CUI Wah Campus students. Young's Muslim Inclusive System appreciated the efforts of the students and management of the CUI and presented a souvenir to CUI Wah campus.



### Eid Gifts Distribution Ceremony

The eid gift distribution ceremony was held on April 25, 2022 in the new conference room to acknowledge the hard work in refurbishing of Campus facilities by the staff members of Services Section . The Director Campus, Prof. Dr. Muhammad Abid, T.I, appreciated and showed gratitude on good work done by the staff members. On the occasion, the Director Campus distributed Eid Gifts and praised them with “Shahbash”. The Incharge Student Affairs, Dr. Akmal Javaid, Incharge Services, Dr. Muhammad Nawaz, Additional Controller of Examinations, Mr. Muhammad Tariq Zafar Chishty and Incharge Stores, Mr. Farhat Mahmood were also present and appreciated staff for their dedication and loyalty that makes proud for the CUI Wah Campus family.





## Certificate Distribution in Appreciation of VTI Trainees

An appreciation certificates distribution ceremony was

arranged on September 27, 2022 for the trainees of Vocational Training Institute, Taxila, including four female and two male who successfully completed their two months on job training (internship) at CUI Wah Campus in different departments Library, Examination, Academic Sections and Services department. The Director Campus, Prof. Dr. Muhammad Abid, T.I., awarded interneers with appreciation certificates in recognition of their dedication and hard work. On the occasion the Principal, Vocational Training Institute, Taxila, Syed Muzaffar Hussain was also invited and appreciated his institution's efforts in providing technical education to the low-income class students for the betterment of the community. The Director Campus mentioned the role of vocational training and self-employment. He motivated them and mentioned that in future CUI Wah Campus will fully support the VTI students in providing on job training and putting the role of CUI Wah Campus in eliminating poverty and equipping the youth in making them self-sufficient. He further mentioned that CUI Wah Campus is also aligned with sustainable development goals (SDGs) to benefit the community gender based and in poverty alleviation. At the end the Director Campus assured cooperation in facilitating the students of VTI. The ceremony ended with a vote of thanks.







# **SDG-11**

# **SUSTAINABLE CITIES AND COMMUNITIES**



Sustainable Cities and Communities is one of the 17 Sustainable Development Goals (SDGs) established by the United Nations. SDG 11 aims to make cities and human settlements inclusive, safe, resilient, and sustainable. The goal recognizes the increasing urbanization trends globally and the need for cities to be designed and managed in a way that promotes social, economic, and environmental sustainability.

### Key targets and indicators under SDG 11 include:

- **Safe and Affordable Housing:** Ensure access for all to adequate, safe, and affordable housing and basic services, and upgrade slums.
- **Transportation and Accessibility:** Provide safe, affordable, accessible, and sustainable transport systems for all, with special attention to the needs of those in vulnerable situations.
- **Inclusive Urbanization:** Strengthen efforts to protect and safeguard the world's cultural and natural heritage. By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.
- **Environmental Impact:** Substantially reduce the number of deaths and the number of people affected and decrease by [x]% the direct economic losses relative to the global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.
- **Participatory and Inclusive Planning:** Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
- **Sustainable Urbanization:** Support positive economic, social, and environmental links between urban, peri-urban, and rural

areas by strengthening national and regional development planning.

- **Resilience to Disasters:** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- **Global Cooperation:** Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.

Achieving SDG 11 involves collaboration between governments, local authorities, the private sector, and communities. This goal encourages sustainable urban planning, affordable housing, efficient public transportation, environmental protection, and resilience to natural disasters. By working towards these targets, cities can become more inclusive, environmentally friendly, and better equipped to handle the challenges of urbanization.

COMSATS University Islamabad to maintain a liaison with local development authorities. This helps ensure that the university follows the necessary regulations and guidelines set by the authorities. As part of this process, the university has sought approval for its master plan and building designs from the relevant development authorities. This ensures that the university's infrastructure aligns with the local development plans and meets the required standards.

At COMSATS University Islamabad, all buildings are designed and constructed in accordance with prescribed standards and the standards issued by the Government of Pakistan. The university ensures compliance with various regulations and codes to ensure the safety, accessibility, and sustainability of its buildings. The Central Works Committee plays a crucial role in ensuring compliance with these standards. They oversee the construction process and ensure that the buildings adhere to the Building Code of Pakistan (BCP - 07), Accessibility Code 2006, and Fire Safety Regulations 2016. These codes and regulations are put in place to ensure the safety and well-being of the

occupants. Additionally, COMSATS University Islamabad also emphasizes compliance with the Sustainable Development Goals (SDGs) set by the United Nations. By considering the SDGs in the design and construction of its buildings, the university aims to contribute to sustainable development and environmental conservation.

COMSATS University Islamabad has established a Student Service Center as a brownfield project. A brownfield project refers to the development or redevelopment of an existing property or infrastructure. In this case, the university has repurposed an existing facility or area to create the Student Service Center. This center is designed to provide various services and support to the students, catering to their needs and enhancing their overall experience at the university.

COMSATS University Islamabad campus has prioritized pedestrian movement and created a pedestrian-friendly environment. This is a positive approach that can have several benefits, including promoting a sense of community, improving safety, and reducing environmental impact. CUI ensures that the campus has well-maintained and well-lit footpaths to encourage walking. Proper infrastructure is essential for the safety and convenience of pedestrians.

COMSATS University Islamabad offers hostel accommodation to its students, both male and female, at subsidized rates. Students can find more information about the hostel facilities and the application process on the respective websites



Providing affordable accommodation to employees is a commendable initiative by COMSATS University Islamabad. Affordable housing is a crucial aspect of employee well-being, especially in areas where the cost of living may be a challenge for

some staff members. CUI believes that affordable housing initiatives are a significant step toward creating a supportive and employee-centric work environment. These efforts align with broader goals of responsible and sustainable business practices, contributing to the well-being of both individuals and the community as a whole.



COMSATS University Islamabad offers transport services to both employees and students, promoting sustainable commuting practices. Additionally, the university is conveniently accessible through public transport, making it easily reachable from different locations within the city. Pedestrian access to every building on campus is ensured, as many individuals choose to commute on foot. Furthermore, all buildings are designed to be wheelchair-friendly, ensuring accessibility for individuals with mobility needs.



COMSATS University Islamabad commemorates various Cultural/National days, including Mehfil-e-Milad, Independence Day, Kashmir Day, and Defense Day. These events are organized to preserve and celebrate Pakistani and Islamic cultures.



The cultural environment at CUI emphasizes on personal growth, exploration, and independence shows a commitment to holistic education that goes beyond academics. The melting pot of diverse cultures, religions, and backgrounds among the students adds a unique and enriching dimension to the campus life. Here are some key points that can be highlighted:

**Personal Growth and Exploration:** CUI fosters an environment that encourages students to not only excel academically but also to grow personally. This indicates a commitment to the overall development of students, helping them discover their strengths, interests, and potentials.

**Independence:** The emphasis on independence suggests that CUI values empowering students to take initiative and responsibility for their own learning and personal development. This approach can contribute to producing well-rounded individuals capable of navigating various aspects of life.

**Diverse Student Body:** The mention of students coming from all over the world highlights the international and multicultural nature of the campus. This diversity can provide a rich and dynamic learning environment, exposing students to a variety of perspectives and fostering cultural exchange.

**Cultural Enrichment:** The acknowledgment of diverse cultures, religions, and backgrounds suggests that CUI values and celebrates the uniqueness of each student. This inclusivity can contribute to a sense of belonging and create an open-minded atmosphere that encourages learning from different traditions and experiences.

**Special Campus Atmosphere:** CUI has a distinctive campus atmosphere that is attributed to the combination of personal growth initiatives, independence, and the diverse cultural tapestry that collectively creates a unique and vibrant community.

**Global Perspective:** The fact that students come from around the world indicates a global outlook. This can prepare students

for a connected and interdependent world, encouraging them to appreciate global perspectives and engage with issues on an international scale.

CUI Campuses appear to prioritize a holistic approach to education, valuing personal development alongside academic achievement. The multicultural and diverse nature of the student body contributes to a unique and enriching learning environment.







Seerah (ﷺ) Society, COMSATS University Islamabad, Abbottabad Campus has organized the Seerat Conference event on Wednesday, October 26, 2022 at 11:00 to 13:00 hours in Main Auditorium under National Rehmat-UI-Lil Almeen Celebrations 1444 AH.

Eminent Scholar Professor Dr. Zeeshan Ahmed, Dean Al-Qadir University Project Trust Jhelum (Former Director Undergraduate Business program LUMS, and Dean and Director Karachi School of Business and Leadership) was the honorable the guest speaker. The topic of the talk was “The Current Academic Challenges and their Solution in the Seerah of Prophet Muhammad ﷺ” A large number of Faculty members,

students, and other employees of the campus attended the event. The event started with the recitation from Holy Quran followed by Naat e Rasool ﷺ

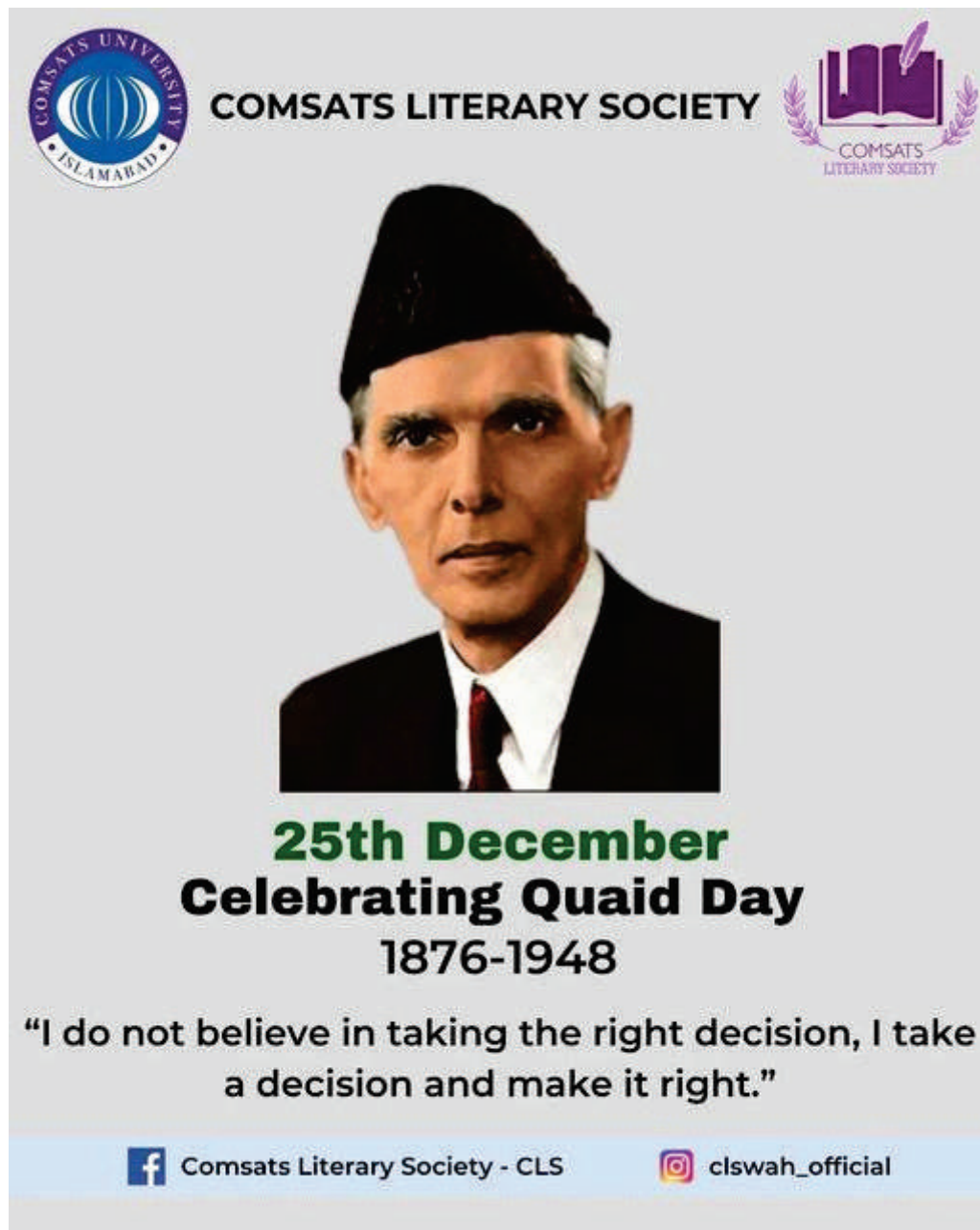
Convener, Dr. Jamil Anwar introduced the objectives and the mandate of Seerah Society and emphasized that we have to make our daily life practices inline and relevant to the life of Prophet Muhammad ﷺ. For that purpose such events and interactions with eminent scholars are necessary to reinforce the teachings and practices of the Prophet ﷺ. He thanked the Campus Director, efforts of Seerah ﷺ Society team, students, and all administrative staff for their patronage and support for organizing this event.



December 25th is a national holiday in Pakistan known as Quaid-e-Azam Day, or "Father of the Nation Day," in honor of Muhammad Ali Jinnah, the founding father of Pakistan. Jinnah was a lawyer, politician, and statesman who is revered in Pakistan for his leadership in the creation of the country as an independent Muslim state in 1947.

Quaid-e-Azam Day is a day for Pakistanis to celebrate their national identity and honor the legacy of Jinnah, who is often referred to as Quaid-e-Azam in Pakistan. On this day, Pakistanis hold parades, speeches, and other events to celebrate the country's independence and to pay tribute to Jinnah's role in its founding.



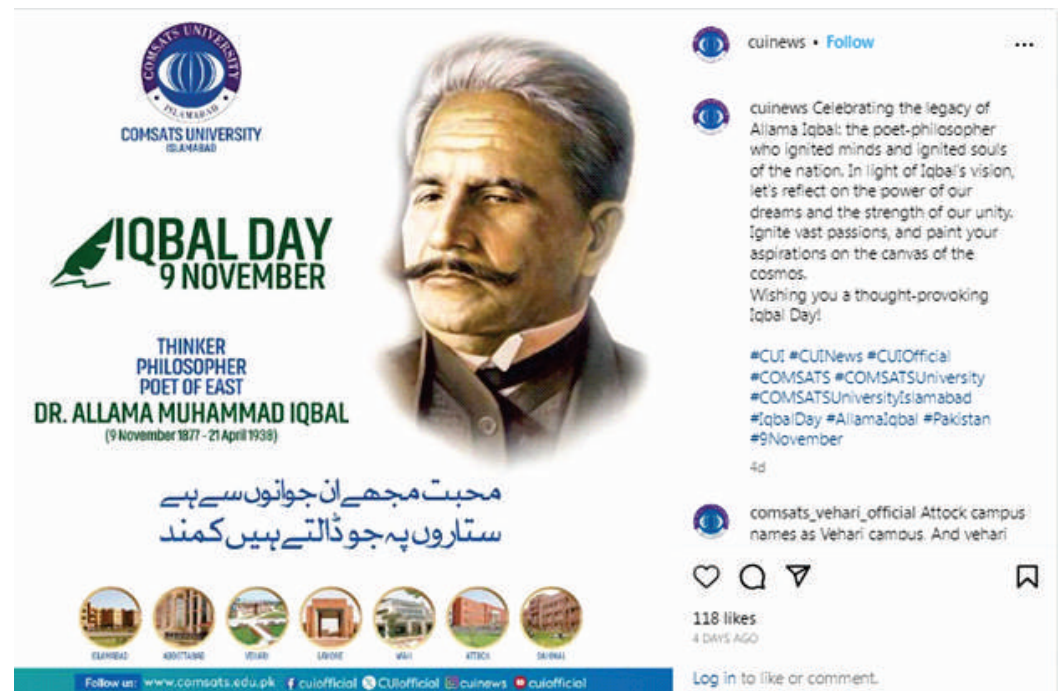


Iqbal Day (Yom-e Iqbal), the birthday of Muhammad Iqbal on the 9th of November is structured and celebrated universally in the entire world to compliment Iqbal, the “Poet of the East” every year.

As Iqbal wanted "to direct the youth towards good, towards Islam, towards destiny and eventually towards excellence". The purpose of this event is to motivate our youth with the teachings

of ALLAMA MUHAMMAD IQBAL to work with full dedication and honesty.

COMSATS Literary Society celebrated Iqbal Day on November 9, 2022.



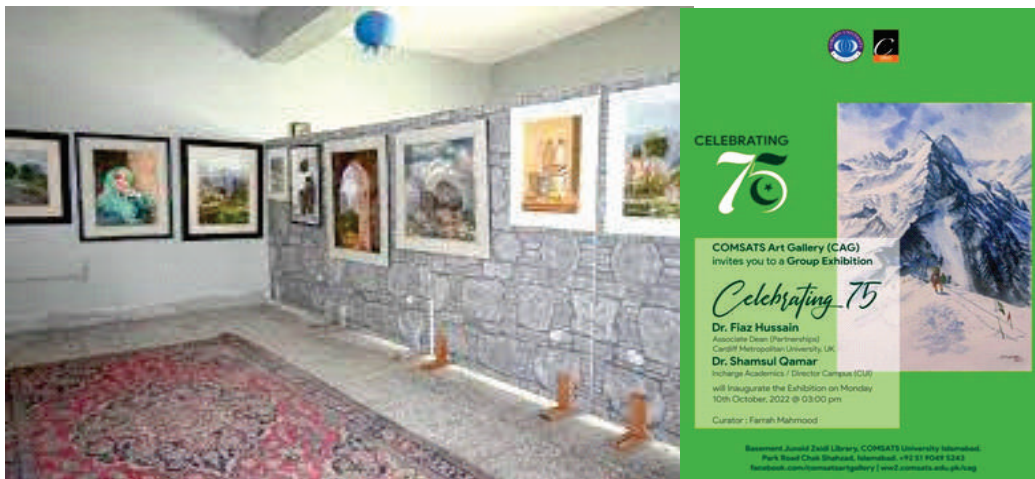
COMSATS Art Gallery serves as a platform for students, faculty, and visitors from all backgrounds to view the exhibitions organized by the gallery. Since its establishment in 2011, the gallery has hosted numerous shows, providing opportunities for both COMSATS University's faculty and students, as well as renowned national and international artists, to participate in exhibitions. In this regard, A digital Art Exhibition titled “Beaming Futures capes” opened at COMSATS Art Gallery on Wednesday 30th November, 2022. The exhibition was jointly organized by Department of Computer Arts (Fatima Jinnah Women University, Rawalpindi) and COMSATS Art Gallery (COMSATS University, Islamabad). The exhibition displayed art work prepared by emerging artists of the Department of Computer Arts, Fatima Jinnah Women University, Rawalpindi. These art works included VR projects, animations, illustrations, digital paintings and textile art.



An art exhibition titled “Reflection” was inaugurated by Prof. Dr. Muhammad Tabassum Afzal, Rector COMSATS University Islamabad at the COMSATS' Art Gallery located in the Islamabad Campus on April 13, 2022.

The exhibition showcased works of Art comprising paintings, miniatures, sculptures, prints, and a selected thesis created by students and faculty members of the CUI Department of Art and Design.

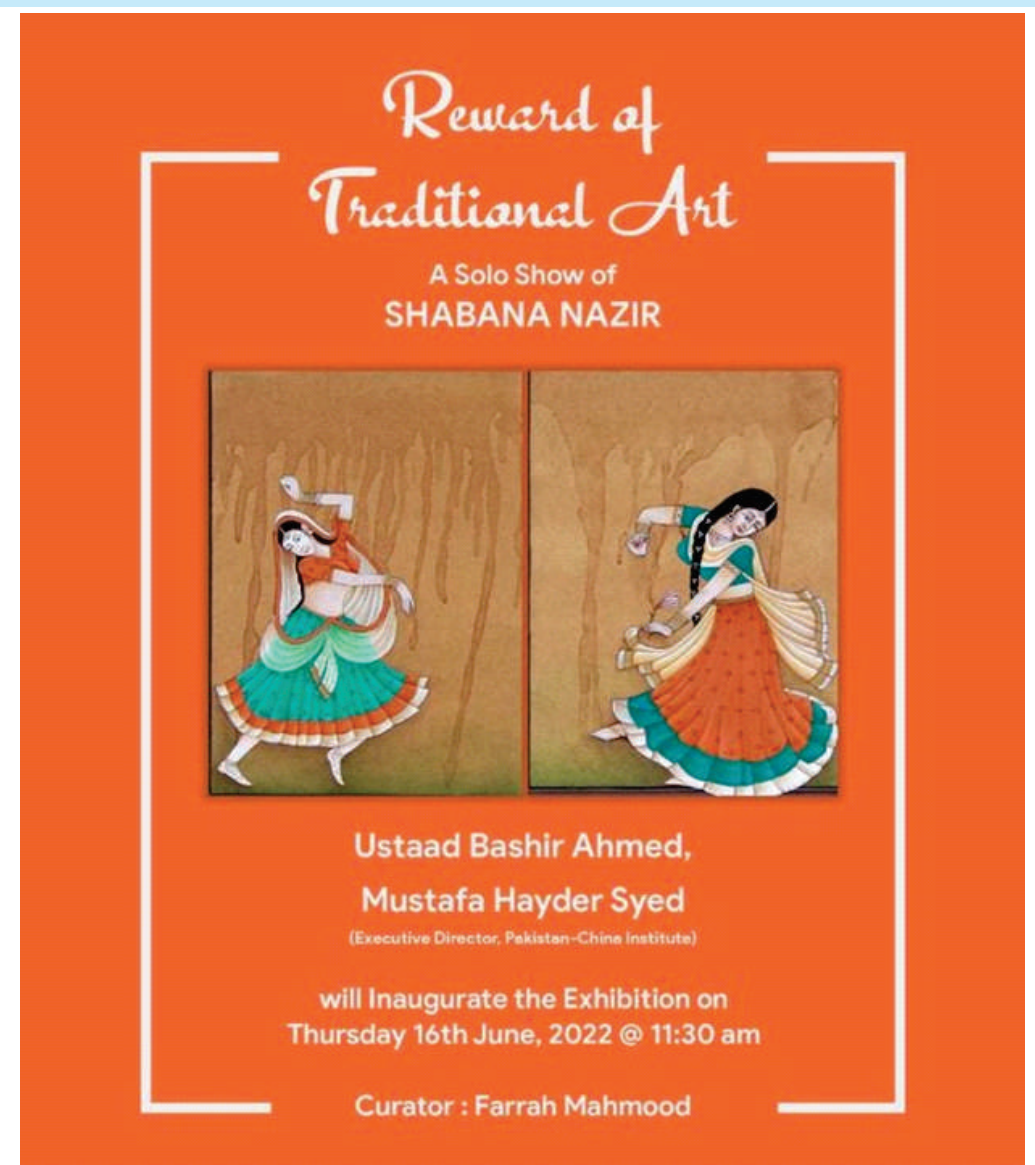
Professor Afzal while appreciating students said that the quality of work produced by students of the Department of Art and Design is quite impressive. He said that art and design are central to the translation of knowledge into products. He said that advanced countries have developed an appreciation of art and have made it accessible to the masses by creating museums and galleries.



An Art Exhibition " Celebrating 75" opened at COMSATS Art Gallery on Monday 10th Oct, 2022.

The exhibition was inaugurated by Dr. Fiaz Hussain (Associate dean- Partnerships) Cardiff Metropolitan University, UK along with Dr. Shamsul Qamar In Charge Academics COMSATS University, Islamabad.

COMSATS Art Gallery organized on Thursday 16th June, 2022 at 11:30 am for the exhibition "Reward of Traditional Art". A Solo show by Shabana Nazir (Shagird Ustaad Bashir).







# **SDG-12**

## **RESPONSIBLE CONSUMPTION AND PRODUCTION**



Responsible Consumption and Production" is the 12th goal among the Sustainable Development Goals (SDGs) established by the United Nations. SDG 12 aims to ensure sustainable consumption and production patterns. It addresses the need to do more with less and promotes the efficient use of resources while minimizing adverse environmental impacts throughout the life cycle of goods and services.

SDG 12 calls for a shift towards more sustainable consumption and production patterns, which is crucial for reducing the environmental impact of human activities. It involves promoting resource efficiency, reducing waste, encouraging sustainable practices in industries, and fostering awareness among consumers. Achieving these targets requires collaboration between governments, businesses, and consumers to make choices that minimize environmental harm and contribute to a more sustainable future.

COMSATS University, involves a combination of awareness campaigns, educational initiatives, and practical measures. Here are some potential activities that the university undertook to promote responsible consumption and production:

Awareness Campaigns:

CUI organized workshops, seminars, and awareness campaigns to educate students, faculty, and staff about the principles of responsible consumption and production.

By using various communication channels, including social media, posters, and newsletters, CUI shared information on sustainable practices, waste reduction, and resource efficiency.

Curriculum Integration:

Sustainability and responsible consumption topics are integrated into the university curriculum, across various disciplines, to ensure that students are exposed to these concepts in their academic studies.

Waste Management Initiatives:

COMSATS University Implements and promotes effective waste separation and recycling programs on campus. CUI encourages the reduction of single-use plastics and provide alternatives such as reusable water bottles and containers at all campuses. The CUI has set up for recycling bins across the campus and the service section raises awareness about the importance of waste reduction and proper disposal. COMSATS University Islamabad actively discourages the use of plastic within its premises. The university promotes environmentally friendly practices and encourages the reduction of plastic waste. The Cafeteria at COMSATS University Islamabad follows a sustainable approach by serving food in washable crockery. The use of disposable plates and glasses is not permitted, promoting environmental consciousness and reducing waste.

COMSATS University Islamabad has entered into an agreement with a private partner to manage waste collection and disposal, ensuring the cleanliness of the university. As part of this initiative, separate dust bins have been installed on campus for plastic, garbage, and glass waste, promoting proper waste segregation and management.

Proportion of recycled waste at CUI during 2022

Amount of waste generated	297mt
Amount of waste recycled	102mt
Amount of waste sent to landfill	230mt

Green Campus Initiatives:

COMSATS University Implements energy-efficient practices, such as using renewable energy sources , and promoting energy conservation. The CUI management developed and maintained green spaces on each campus to enhance biodiversity and create a sustainable environment.



### **Partnerships and Collaborations:**

CUI Collaborates with local businesses and organizations that follow sustainable practices to create partnerships that support responsible consumption and production. The University engages with industry experts through seminars or guest lectures to provide insights into sustainable business practices Career Fairs, where the potential employers meet with the students, provide best opportunity for both stakeholders to find the best for themselves, almost every year, a vibrant Career Fair is held at CUI campuses where students meet with the employers of their dream jobs and employers found the best human resource for their organizations thus creating a win-win relationship resulting into a prosperous, healthier communities.

### **Student Involvement:**

CUI has established student-led sustainability clubs or societies to drive initiatives related to responsible consumption and production. These societies organize competitions or events that challenge students to come up with innovative ideas for sustainable solutions.

### **Monitoring and Reporting:**

CUI has established a system to monitor and report on the university's progress towards responsible consumption and production goals. The university campus websites share regular updates and progress reports with the university community to maintain transparency and accountability.

### **Green Procurement Policies:**

COMSATS University has adopted and Implement green procurement policies of the Govt. of Pakistan to ensure that the products and services purchased by the university are environmentally friendly and adhere to responsible production standards. The Services Section of COMSATS University Islamabad ensures that the aforementioned policies regarding

sustainable commuting, accessibility, and inclusivity extend to outsourced services and the university's supply chain. This commitment ensures that all services provided by external vendors and suppliers align with the university's standards and values. CUI follows a practice of signing annual contracts for the supply of stationary and equipment. This allows for efficient procurement and ensures a steady and reliable supply of necessary items throughout the year.

COMSATS University Islamabad has adopted the National Hazardous Waste Management Policy to effectively dispose of hazardous materials. The university has developed a policy in accordance with this national framework, which is currently in the process of being approved by the relevant authorities. This policy ensures the safe and proper management of hazardous waste within the university premises.

### **Research and Innovation:**

CUI fully supports research projects and initiatives focused on sustainable technologies, circular economy practices, and innovative solutions for responsible consumption and production.

### **Community Engagement:**

CUI extends awareness and educational activities to the local community to promote responsible consumption and production beyond the campus boundaries.

As an outreach activity, COMSATS Abbottabad often exercises the community services and student engagements with other stakeholders of environment for their comprehension and better grasp of the prevailing environmental concerns. In this regard, the Industry-academia Liaison Committee of COMSATS Abbottabad - including Dr. Muhammad Bilal (Convener), Dr Rashid Nazir (Secretary), Dr Nadia Riaz, Dr Shamayla Nawazish, Dr. Iftikhar Zeb, Dr Ahsan Jabbar - lead a delegate of BS, MS and PhD students' study tour to the newly constructed "Material Recovery Facility (MRF)" and COMPOST plant at Solid Waste

Dumping site located near Salhad, Abbottabad.

These facilities were constructed by WSSCA-Abbottabad and OXFAM Pakistan through financial aid of Asian Developmental Bank. The students and faculty were briefed about the integrated solid waste management facility by Deputy Manager WSSCA Mr. Javed Abbasi, with an open discussion about the way forward for leachates treatment. Moreover COMSATS faculty and students witnessed the signing ceremony of MoU between WSSCA Abbottabad and Oxfam Pakistan.

At the end, Engineer Rehan Yousaf (CEO WSSCA) and Chairman WSSCA thanked the faculty and students for the visit and committed to work together for the betterment of environment and community services of Abbottabad.

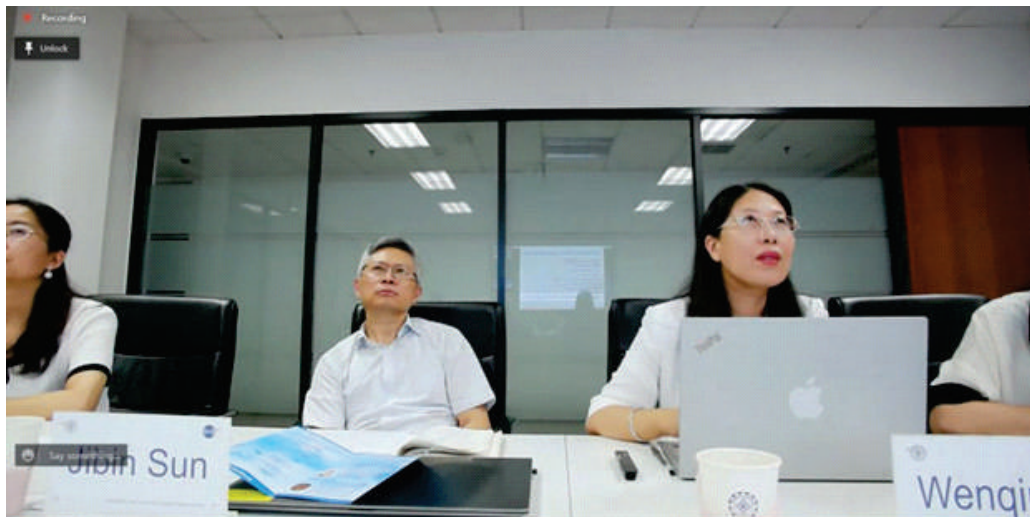


**International Conference on 'Evolving Global Order: Challenges and Opportunities Centre for Aerospace and Security Studies (CASS) has organized two days International Conference on 'Evolving Global Order: Challenges and Opportunities**

The conference was inaugurated by President Dr. Arif Alvi. In his inaugural speech President highlighted the importance of ensuring provision of health and Education facilities and food for all should be the goal of the new world order. Chief of Air Staff ACM Zaheer Ahmad Babar Sidhu was also present at the inaugural session, and detailed the summary of aerospace and artificial intelligence activities at newly high tech parks being established by Pakistan Air Force. On the invitation of CASS, Prof.

Dr. Athar Hussain attended the meeting and represented CUI/CCRD.

COMSATS in collaboration with its Centre of Excellence in China – the Tianjin Institute of Industrial Biotechnology (TIB), organized a workshop titled 'Green Bio manufacturing of Bio-based Materials' from the platform of COMSATS Joint Centre for Industrial Biotechnology (CCIB). Held under the umbrella of CCIB's Joint R&D Group on Bio-materials on 31st August 2022, the workshop was aimed at promoting dialogue among scientists and researchers to explore potential cooperation opportunities in research on bio-based materials. Over 50 scientists, researchers and academics, including those from China, Egypt, Iran, Kazakhstan, Pakistan, and Sri Lanka attended the Workshop both physically and virtually.



In his opening remarks, Dr. Ghulam Muhammad Memon, Executive Director COMSATS (Federal Secretary, Ministry of Science and Technology, Government of Pakistan), highlighted the importance of bio-based materials in different sectors of the economy, particularly in the field of biomedicine.

Technical proceedings of the Workshop comprised of a keynote talk on 'Halomonas spp. as Super Microbial Cell Factories and Next Generation Industrial Biotechnology' delivered by Prof. George CHEN Guo-Qiang, Professor at the Center of Synthetic and Systems Biology of Tsinghua University, China, and following



lectures/talks:

- ◀ Living Materials Programmed by Life by Prof. ZHONG Chao, Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Sciences (CAS), China;
- ◀ Biosynthesis of Polyhydroxyalkanoates (PHA) and its Applications as Drug Carrier and Food Packaging Material by Dr. Farha Masood, Associate Professor at the Department of Biosciences, COMSATS University Islamabad (CUI), Pakistan;
- ◀ Monomaterials—Biosynthesis of Succinic Acid by Dr. ZHU Xinna, Associate Professor, TIB, China; and
- ◀ Biosynthesis of Organic Acids and Amines as Monomers for Polymer Materials by Dr. WANG Dan, Associate Professor at the School of Chemistry and Chemical Engineering, Chongqing University, China.

Entrepreneurship and innovation are viewed as key contributors to global economic and social development of a country. University-based entrepreneurship ecosystems provide a supportive context in which entrepreneurship and innovation can thrive.

At CUI, Student Startup Business Centre (SSBC) has been established with the support of Higher Education Commission of Pakistan, and the Promotion of Education in Pakistan Foundation, Inc. (USA). The goal of the program is promotion of talented students' entrepreneurship and enhancing their practical learning experience at the Institute. The overarching objective of the Centre is to promote student startup businesses by offering necessary support both in the form of mentoring and initial financial resources through its Startup Entrepreneurship Fund. The SSBC will provide a continuous stream of student led businesses and innovations at CUI.

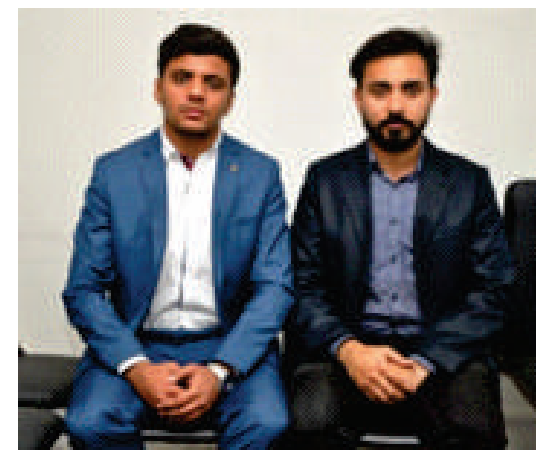
During 2022 following project of CUI Lahore student was selected to make a product from Industry waste.

## Prasino Fertilizer Company

Imagine if you could make a product (Fertilizer) from waste of an industry, rather than draining or discarding it into atmosphere and disturbing the natural balance. Just Imagine if that product is 40-50% cheaper alternative than conventional fertilizers used in our country moreover research proves that it shows 10% increase in yield.

The idea is to make a Biofertilizer from waste of an industry (will be discussed later) and to launch it into market as a proper trademark that can be used as a cheaper and more organic, eco-friendly substitute to conventional fertilizers used today e.g DAP (Diammonium Phosphate) etc. Proper practical use, research data and foreign market study suggests that this particular fertilizer has a potential to be far more better product than those which are already being used. Great environmental concerns, rising prices of DAP and other fertilizers are the one of the major factors that suggests the potential of this product as a successful launch in market. Pakistan's Industrial and its agricultural sector needs innovation like Bio-fertilizers.

The production of this Bio-Fertilizer follows a rather simple approach, it involves the purchasing (cheap as mud) of waste from concerned industries (total of 90+ all over Pakistan) and blending them with chemicals to achieve desired product properties. The significance of this process is that a compact space and very little or no machinery is required (mixers, pumps, sprayers), and product can be obtained in very little time. So minimum capital cost is required. I am targeting agricultural sector which contributes to 21% GDP as well as industrial sector by meeting their waste management problem, by offering them a better waste management and more green eco-friendly approach in using their waste as valuable



product and by implementing and practicing recycling and environmental friendliness at an industrial scale. Moreover the key agenda to select the manual process rather than mechanical was to provide more labour opportunities to skilled persons.

COMSATS University Islamabad, Lahore Campus in collaboration with Sustainable Development Policy Institute (SDPI), organized a policy dialogue on improving the effectiveness of plastic bag bans in Pakistan.

The session commenced with a warm welcome from the Director of COMSATS University, Professor Asad Hussain, followed by a technical presentation by Dr. Muhammad Khan, an Associate Professor at COMSATS University Islamabad. Subsequently, Ms. Romina Khursheed, an MNA (Member of the National Assembly and special Assistant to Prime Minister on SDGs), delivered a keynote address. Special remarks were then offered by Ms. Farzana Altaf, the Director-General of Pakistan EPA. The discussion was skillfully moderated, and representatives from various development partners shared their valuable insights on the effectiveness of plastic bag bans in Pakistan. Finally, the session concluded with closing remarks from Dr. Abid Qaiyum Suleri, the Executive Director of SDPI. The presented insights shed light on the existing policy landscape, where implementation faces challenges due to the absence of sufficient individual efforts. While recycling remains important, the emphasis lies on implementing penalties and punishments as effective measures to reduce plastic waste. The major obstacle in managing plastics, particularly single-use plastic bags, is the lack of coordination among provinces. Efforts are being made to enhance this coordination. Currently, the regulation on banning single-use plastic bags has been developed solely for Islamabad and remains unimplemented or underdeveloped in other provinces. In addition to this, it was also mentioned that Pakistan lacks the necessary infrastructure for recycling, and there is a pressing need to raise awareness about reducing plastic waste. Addressing these areas will be crucial in advancing the country's efforts towards effective plastic waste management.



### International Conference on “Recent Trends in Environmental Sustainability”

International Conference on “Recent Trends in Environmental Sustainability” was held from February 21-23, 2022 at CUI Vehari campus

ESCON 2022 Department of Environmental Sciences, COMSATS University Islamabad (CUI), Vehari Campus organized an International Conference on “Recent Trends in Environmental Sustainability” during February 21-23, 2022. Honorable Rector CUI, Prof. Dr. Muhammad T. Afzal, Director CUI, Vehari Campus Prof. Dr. Saleem Farooq Shokuat and many renowned international and national speakers participated physically and virtually in the conference. More than 230 abstracts were received for this conference from within the country and abroad. Environmental Sciences and Pollution Research (Impact Factor 4.22) journal agreed to publish a Special Issue based on set of leading papers selected from ESCON 2022. Prof. Dr. Mentore Vaccari, University of Brescia, Italy delivered a keynote speech. ESCON participants also visited Noor Mahal Bahawalpur and Sardar Masood Jhander Library Mailsi.



Honorable chief Guest of ESCON 2022 Prof. Dr. Rubina Farooq (T.I.) Vice Chancellor Government College for Women University addressed the conference. She also inaugurated Gas Chromatography Mass Spectrometry Lab at Department of Environmental Sciences. Prof. Robina Farooq (T.I.) vice chancellor Govt. College Women University was the Honorable chief guest. She stressed the need to learn from and move towards nature i.e. durable construction material, body implants like heart stunts etc.







# SDG-13 CLIMATE ACTION



Climate Action is one of the Sustainable Development Goals (SDG 13) established by the United Nations. It addresses the urgent need to take action to combat climate change and its impacts. The goal recognizes that climate change is a global challenge that affects everyone, regardless of borders, and requires collective efforts to mitigate its effects and build resilience.

### Key targets and indicators of SDG 13 include:

- Mitigation and adaptation: Encourage countries to strengthen their resilience and adaptive capacity to climate-related disasters.
- Integrate climate change measures into policies and planning: Integrate climate change measures into national policies, strategies, and planning.
- Improve education, awareness, and capacity on climate change: Promote education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.
- Implement the UN Framework Convention on Climate Change (UNFCCC): Promote the implementation of the UNFCCC through its various mechanisms, including the Paris Agreement.
- Promote mechanisms to raise capacity for planning and management: Develop and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.
- Promote mechanisms to raise capacity for effective climate change-related planning and management in LDCs, including focusing on women, youth, and local and marginalized communities.
- Improve North-South, South-South, and triangular regional and international cooperation on access to clean energy research and technologies and to promote investment in

clean energy infrastructure.

Addressing climate change involves reducing greenhouse gas emissions, transitioning to sustainable energy sources, and adapting to the impacts that are already occurring. The Paris Agreement, adopted in 2015, is a significant international accord that falls under SDG 13. It aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels, with efforts to limit the increase to 1.5 degrees Celsius.

Governments, businesses, communities, and individuals all play a crucial role in achieving SDG 13 by taking concrete actions to reduce their carbon footprint, enhance climate resilience, and contribute to a sustainable and low-carbon future. This may involve changes in energy production and consumption, land use practices, transportation, and the promotion of sustainable technologies and practices.



COMSATS University Islamabad takes all measures to address this goal and publishes a sustainability report on an annual basis. This report provides an overview of the university's efforts and initiatives towards sustainability, including environmental conservation, social responsibility, and economic impact. It serves as a transparent account of the university's progress and commitment to sustainable practices.

COMSATS University Islamabad conducts awareness-raising programs, hands-on training, and capacity-building activities from time to time. These activities are likely aimed at enhancing knowledge, skills, and awareness among individuals associated with the university about the Sustainable development goal Climate Action.

COMSATS University Islamabad measures the amount of low carbon used across the university. This suggests that the university has a system in place to track and monitor its energy consumption with a focus on reducing carbon emissions.

## In 2022

<b>Total energy used</b>	<b>29,507GJ</b>
<b>Total energy used from low-carbon sources</b>	<b>188GJ</b>

Graduates of ES Department Muhammad Waleed (Supervised by Dr. Muhammad Mubeen), Faisal Mehmood (Supervised by Dr. Zia Ul Haq), Muhammad Usman (Supervised by Dr. Muhammad Tahir) and Muhammad Usman Ali (Supervised by Dr. Farhan Saeed) got admission as PhD Scholars in renowned Universities of China and Dr. Umer Daraz (Student of Dr. Iftikhar Ahmad) has joined as Post-Doctoral Fellow at Center for Grassland Microbiome Lanzhou University, China.

Faculty of the Department of Environmental Sciences published 50 research articles from January-June 2022 in impact factor journals with almost 40 IF and more than 100 citations. Four research projects of worth Rs. 26.8692 million were won by Faculty of the Department of Environmental Sciences CUI-Vehari during year 2021-2022. Moreover, six research projects of worth Rs. 27.79 million are already in progress.

A seminar/training was organized by RAEDC Vehari on 12th January 2022 on Writing and Winning Research Projects. Dr. Ghulam Mustafa Shah (Associate Professor) was the focal person of this training. University of Education Lahore, Vehari Campus invited Dr. Noor Samad Shah and Dr. Zia Ul Haq Khan (Assistant Professor Department of Environmental Sciences) to deliver

lectures on synthesis of organic compounds by electrochemical methods and nano zerovalent metals for waste water management respectively, on 23 June 2022. Dr. Muhammad Tahir delivered a lecture on World Environment Day.

## Establishment of Environmental Sciences student group Ecofreaks at CUI Vehari Campus

Ecofreaks are the peoples who are very sincere to conserve the environment. An Environmental Sciences student group Ecofreaks was established during ESCON 2022 with the purpose make a vigilant team of Environmental Sciences students to train, involve, engage and empower them in various activities of international conferences (e.g. ESCON\_2022) and several ongoing events in the department. Ecofreaks celebrated the World environment day with the slogan "Only One Earth" and spread awareness that we must shift from 'harming the planet to healing' to ensure better quality of Life on the earth. The Founder of the Ecofreaks was Dr. Ghulam Mustafa Shah (Associate Professor). The Pioneer Ecofreaks batch include Saira Afzal (President), Syed Mubashar Ishaq (Senior Vice President), Kabir Qamar (Vice President), Hassan Qasim (Finance Secretary), Laraib Maryam (General Secretary), Isra Saleem (Information Secretary) and several Executive Members. This year (2022) the slogan of Ecofreaks is "Save yourself by saving the Nature."

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**COMSATS UNIVERSITY ISLAMABAD, ABBOTTABAD CAMPUS**





COMSATS University Islamabad's engagement with the government on carbon mitigation activities. The evidence shows that CUI remained actively engaged with the government on carbon mitigation activities. This suggests that the university has been involved in collaborative efforts with the government to address and reduce carbon emissions. COMSATS University Islamabad is dedicated to participating in cooperative planning for climate change disasters with the government and regional levels. This indicates that the university is actively involved in collaborative efforts with the government and regional entities to address and plan for climate change-related disasters. CUI is committed to working together to mitigate the impacts of climate change and enhance disaster preparedness.

CUI provides support at the local and regional level by providing weather update services and earthquake alerts by the meteorology department.

Comsats University Islamabad's efforts in organizing environmental education programs demonstrate a commitment to addressing climate change and promoting sustainable practices. By working together with NGOs following events were conducted with NGOs.

## Gender and Climate Awards - Promoting the inclusion and leadership of women in climate action (November 1st, 2022)

International Training Workshop on Beidou Technologies and its applications in the Belt and Road Countries and Regions (19-20 September 2022) CUI organized a talk titled "Monitoring Drought in Pakistan: Teleconnections and Uncertainties in Changing Climate" in virtual capacity building workshop on Establishment of ECO-SDI to Combat the Challenge of Food Security in the ECO region, jointly organized by the Survey of Pakistan and Geological Survey of Pakistan in collaboration with Economic Cooperation Organization (ECO) on 5-7 July, 2022 at Survey Training Institute (STI), Islamabad.

Department of Environmental Sciences COMSATS University Vehari Campus celebrated world environmental day on June 8th. This day is celebrated to provide awareness to the people about environmental issues and the slogan for this year was "Only One Earth". Eco-freaks society of Department of Environmental Sciences in collaboration with the students of other departments performed a campus cleanliness campaign to provide awareness to the students and general public about the issue of waste management. A walk from admin block to main academic building was also carried out to raise the awareness.





## Microbes in Action (MiA-22)"

ASM-Himalaya has recently organized a successful one-day event on Microbiology i.e. Microbes in Action (MiA-22) scheduled on 30.03.2022 (Wednesday) in COMSATS University Islamabad, Abbottabad Campus. Students of different biological domains (along with student-delegates from outside the COMSATS) actively contributed to various activities in the event. The diverse participation from various academic institutions of the region, was a source of motivation for the organizers and contributing students. Specifically, around 300 students participated from 9-10 different academic institutions in competitions of various microbial categories.



in heat waves and floods. This tendency is witnessed in Summers of 2019 and 2022 in Pakistan, as well as globally too. The current rate of warming in Pakistan is about 0.34 degree Celsius per decade, when averaged over recent 30 to 35 years. This means that starting from year 2000, by 2030, a more than 1.0 degree Celsius warming is predicted. By same reasoning, a 3.5 to 4.0 degree Celsius warming is predicted by 2099. This clearly indicates an overshoot of temperature limits (relative to 1.5 to 2.0 degree Celsius), as suggested in Paris agreement at COP 21.

A more integrated and bottom-up approach is needed to address the various issues arising from such a high rate of warming in Pakistan. For comparison, the cumulative rest of world warming rate is somewhat lower than this one, for the same period. This 7th edition of Conference thus has the following four sub-themes: 1. Climate Change & Maritime Security, 2. Glacial Lake Outburst Flood (GLOF), 3. Water Pollution & Waste Water Management, 4. Islamic Perspective on Climate Change, Water Pollution & Water Management. The above four sub-themes of this International Water Conference have rightly and timely addressed the selected issues, since contemporary community-based solutions are always key to any adaptation and mitigation strategy against adverse consequences of regional change in climate.

## Climate Change Investigations in Pakistan

Prof. Dr. Athar Hussain, Head CCRD, gave invited talk titled 'Climate Change Investigations in Pakistan' in Seminar on Climate Change: Act Now organized by Islamabad Policy Research Institute (IPRI) and Department of Meteorology, CUI, held at CUI, on 6 December 2022, and in 7th International Water Conference 2022, held at PCRWR, on 29-30 December 2022 (Co-hosted by CCRD). The summary of the talk is as follows:

Essentially all the recent published works and reports related to state of climate of Pakistan are indicative of the fact that the climate of Pakistan is changing its manifestations including the more frequent occurrence of extreme weather events, resulting





## CCIB Workshop on Bioenergy for Carbon Neutrality

COMSATS Joint Centre for Industrial Biotechnology (CCIB) holds workshop to discuss prospects of utilizing bioenergy as an alternative energy resource.

COMSATS Joint Centre for Industrial Biotechnology (CCIB) organized an online workshop on 'Bioenergy: A Road to Carbon Peaking and Carbon Neutrality' under its Joint R&D Group on Bioenergy. Held on 14th June 2022, the Workshop was aimed at encouraging meaningful dialogue between scientists and exploring potential cooperation for joint R&D to meet industrial needs. Over a 100 scientists and researchers from China, Egypt, Iran, Jordan, Pakistan, Tanzania, Thailand, and Türkiye participated in the Workshop.

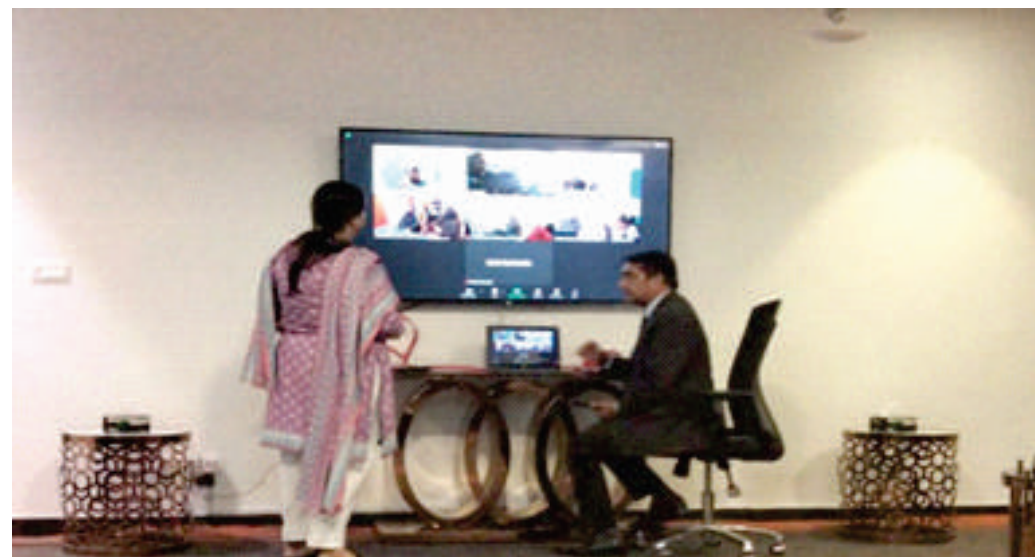


## Flood Relief Camp at CUI, Islamabad from 19-20 September 2022

Centre for Climate Research and Development (CCRD) in collaboration with AlKhidmat Foundation has organized a two days Flood Relief Camp at CUI, Islamabad from 19- 20 September 2022. During two days faculty and students gave donations in

terms of money, food items and cloths and the response from all was very welcoming to help the Pakistani brothers and sisters in this catastrophe. All these donations have been handed over to AlKhidmat Foundation for distribution among the needy people.

Held on 10th October 2022, objective of the meeting with COMSATS' officials was to assess COMSATS' proposal on "Providing Accessible Primary Healthcare to Flood Affected Communities through a Telehealth System". Drawing upon the experience and expertise of COMSATS Telehealth (CTH), COMSATS' proposed project aims to support flood relief activities in the country in collaboration with government agencies, including NFRCC.



## National consultative seminar on groundwater in Pakistan: "Making invisible visible" on 23rd June 2022

Pakistan Engineering Council (PEC) Think tank Committee on water resources development organized a National consultative seminar on groundwater in Pakistan: "Making invisible visible" on 23rd June 2022 at PEC Head Quarters, Islamabad. The seminar provided a platform for the policy makers and experts to devise strategies based on the implementable action plans to set a timeline with focus upon groundwater deteriorating situation in

Pakistan. The event was graced by Mr. Agha Hassan Baloch honorable minister for Science and Technology, Government of Pakistan. The discussion between the participants stressed on need of actions to tackle the groundwater quality and quantity situation in Pakistan. Dr. Umair Bin Nisar from Centre for Climate Research and Development (CCRD) represented COMSATS University Islamabad at the event.

## World Water Day 2022

UNESCO Chair on Knowledge Systems for Integrated Water Resource Management at CUI Wah celebrated World Water Day on March 31, 2022 at COMSATS University Wah Campus and organized a Seminar titled “Monitoring Climate Extreme Events through Remote Sensing and Modelling” followed by a Poster Competition with this year theme "Groundwater: Making the invisible visible".

The resource person Dr. Mukhtar Ahmed enlightened the participants about the impact of extreme climate events (ECE) on the agricultural sector of Pakistan using remote sensing techniques to predict scenarios to explore possible options to mitigate the effect of ECE and to achieve sustainable development goals.

A large number of students from schools, colleges and universities and professionals participated in the poster competition. The purpose of this competition was to raise awareness about groundwater. Groundwater is an important source of fresh water which is invisible but its impact is visible everywhere. Experts from academia and industry evaluated posters. Seminar and Poster competition supported the Chair effort to achieve the Sustainable Development Goal 6: Water and Sanitation for all. The winners and runners up of the poster competition for school category and university category were awarded cash prizes and certificates.



Seminar on “Climate Change: Act Now” took place at the Video Conference Hall, Junaid Zaidi Library, COMSATS University Islamabad, on December 6, 2022. The event was organized by Dr. Jabir Hussain Syed, Tenured Associate Professor, from the Department of Meteorology at COMSATS University Islamabad (CUI), Islamabad Campus.

Dr. Syed's seminar was a valuable example of how education can be used to promote climate action. By educating people about climate change and empowering them to take action. By providing participants with this knowledge, Dr. Syed's seminar helped to raise awareness about the importance of climate change, empower participants to act on climate change, promote critical thinking and problem-solving skills, as well as promote inclusive education.



A group photo taken after the event on “Climate Change: Act Now.”



The Youth-Media Interaction on Climate Change was held at the EE Seminar Hall, COMSATS University Islamabad, on December 14, 2022. The event was organized by Dr. Jabir Hussain Syed, Tenured Associate Professor, from the Department of Meteorology at COMSATS University Islamabad.

Here are some specific ways in which the Youth-Media Interaction on Climate Change aligns with SDG4: The event promoted knowledge sharing and collaboration between youth and media professionals on the important issue of climate change, it raised awareness about the role of youth and media in promoting climate action. Moreover, this event also empowered youth to take action on climate change and to communicate effectively about this issue.



Dr. Jabir Hussain Syed and other guests engaged in an interactive session discussing “Youth, Media, and Climate Change.”



A snapshot of participants during an interactive session on “Youth, Media, and Climate Change.”



The flyer for the event on “Youth, Media, and Climate Change.”



The Department of Meteorology, COMSATS University Islamabad (CUI), Islamabad Campus, organized a 1-day Climate Change Monitoring and Flood Mapping Bootcamp on 21 December 2022. The boot camp was a part of the Green Youth Movement organized by Dr M Imran Shahzad, Tenured Associate Professor and Head Department of Meteorology. Participants learnt the basic principles and characteristics of the different types of climatic and remote sensing datasets and their suitability for studying precipitation analysis, standardized precipitation index, extreme dry and wet periods, flood mapping, and climate-smart agriculture.

Some specific ways in which the 1-day Climate Change Monitoring and Flood Mapping Bootcamp aligns with SDG's are that this boot camp provided participants with the knowledge and skills necessary to monitor climate change and map floods, which are important environmental issues. It promoted critical thinking and problem-solving skills, which are essential for addressing complex environmental challenges. The participants were also empowered to take action on climate change and flood management, which is important for achieving SDG 13.



Dr. Muhammad Imran Shahzad is delivering the welcome remarks to the attendees at a “One-day Climate Change Monitoring and Flood Mapping Boot Camp.”



A participant being awarded a certificate by Dr. Kalim Ullah, Chairman of the Department of Meteorology, during “One-day Climate Change Monitoring and Flood Mapping Boot Camp.”



A group photo taken after the event on “One-day Climate Change Monitoring and Flood Mapping Boot Camp.”

1. The Training Workshop on Climate Change Monitoring & Flood Mapping was organized by the Department of Meteorology, CUI, Islamabad, on December 21, 2022 organized by Dr M Imran Shahzad, Tenured Associate Professor and Head Department of Meteorology. The boot camp encompassed theory and hands on training exercises and focused on capacity building of individuals to foster the understanding of concepts and practicality of climate change and climate drivers and geospatial techniques in mapping and monitoring vegetation and floods.

The training workshop provided participants with the knowledge and skills necessary to monitor climate change



and map floods, which are important environmental issues. This training workshop empowered participants to take action on climate change and flood management, which is important for achieving SDG4. It was open to all interested participants, regardless of their age, gender, or socioeconomic status, which aligns with the principle of inclusive education.



A participant being awarded a certificate by Mr. Syed Ghulam Qadir Shah, Inspector General of Forests, Ministry of Climate, at a workshop on “Climate Change Monitoring & Flood Mapping using Geospatial Techniques.”



A group photo captured after the workshop on “Climate Change Monitoring & Flood Mapping using Geospatial Techniques.”

2. A Seminar titled “A Next Generation Spatial Data Infrastructure for Digital Pakistan” was organized by the Department of Meteorology on December 26, 2022, at the library auditorium, video conference room, Junaid Zaidi Library, CUI, Islamabad. The distinguished guest speaker Dr. Khalid Ameen Khan from OGDCL, Islamabad/K-tron Research Inc. (KRI) delivered the seminar, and it was organized by Dr. Muhammad Rizwan Mughal, Assistant Professor, as part of the PM Green Youth Movement program.

The seminar provided participants with the opportunity to learn about the latest advances in SDI technologies and their potential applications for Digital Pakistan. This knowledge is essential for building the capacity of stakeholders to develop and implement a next-generation SDI for Pakistan. The seminar provided participants with knowledge and skills related to SDI, which is an important emerging technology. It promoted critical thinking and problem-solving skills, which are essential for developing and implementing effective SDI solutions. It empowered participants to act on the development and implementation of a next-generation SDI for Pakistan, which is important for achieving Digital Pakistan and SDG's.

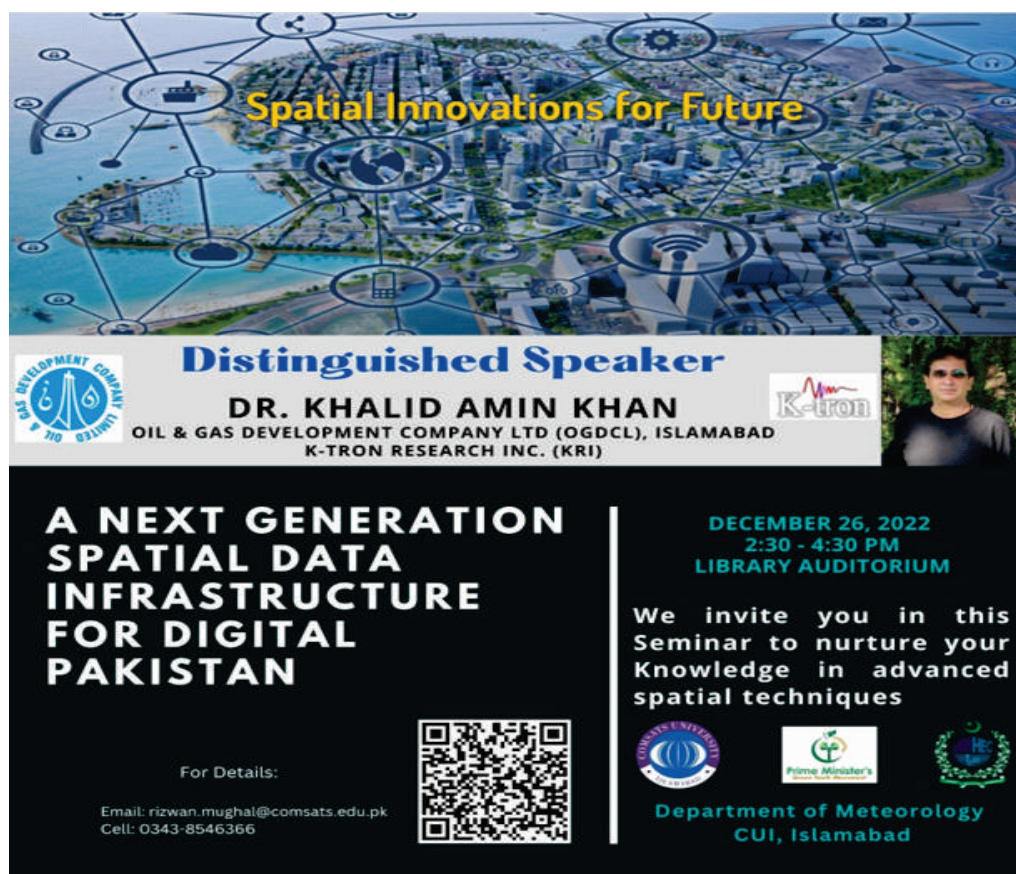


Guest speaker, Dr. Khalid Amin Khan, receiving a shield from Dr. Kalim Ullah, Chairman of the Department of Meteorology at CUI.





A group photo taken after the event on “A Next Generation Spatial Data Infrastructure for Digital Pakistan.”



The flyer for the event on “A Next Generation Spatial Data Infrastructure for Digital Pakistan.”

3. **Meteorological (or Weather) Observatory:** The meteorological Observatory, established by the Department of Meteorology, is equipped with state-of-the-art instruments for monitoring and collecting reliable and highly accurate data on various meteorological parameters. The observatory provides hands-on training experience in instrument operation, data collection, data analysis, and understanding instrument functionality. These practical skills are essential for enhancing research capabilities, developing expertise in meteorology, and analytical capabilities. Various research-related activities have been performed in the past based on the data collected from our observatory. It also improves the accuracy of our local short-term weather forecast, which is already being issued by the department to the CUI community.

The Meteorological Observatory holds a significant relevancy to SDGs because it provides students and researchers with the knowledge and skills needed to understand and address climate change, which is a major threat to sustainable development. The observatory offers hands-on training in instrument operation, data collection, and analysis, which are essential skills for conducting research in meteorology and climate science. The observatory also facilitates various research-related activities, which help to advance the knowledge base in these fields and inform the development of climate change solutions. Additionally, the observatory improves the accuracy of local weather forecasts, which is essential for making informed decisions about disaster preparedness and risk reduction, as well as for managing agricultural and other economic activities.





**Air-Quality Monitoring System:** An ambient air-quality monitoring system, HAZ-SCANNER, has been acquired by Dr. Kalim Ullah, Chairman Department of Meteorology, through the NRPU HEC project. Data for student research work is collected using the HAZ-Scanner (HIM 6000), a real-time air quality monitoring station that measures trace-level gases, particulate matter, and atmospheric characteristics according to the guidelines of the European Union (EU) and the United States Environmental Protection Agency (US EPA). The HAZ-SCANNER system collects data on a minute-by-minute basis, providing a high-resolution perspective of temporal changes in pollutant levels. This fine-grained information facilitates the identification of brief pollution spikes or variations, enabling a more in-depth examination of air quality dynamics. The system can measure numerous gaseous contaminants, such as NO<sub>2</sub>, NO, CO, SO<sub>2</sub>, O<sub>3</sub>, NH<sub>3</sub>, CH<sub>4</sub>, CO<sub>2</sub>, PM, and VOCs, along with atmospheric parameters, including temperature and precipitation.

This air-quality monitoring system directly supports SDGs by enhancing quality education. By incorporating this technology into student research, it provides hands-on experience and practical understanding of environmental challenges. Real-time monitoring empowers students to analyze air quality data, promoting informed, environmentally conscious individuals. This aligns with SDG4's goal of promoting education that

addresses sustainability issues. Ultimately, integrating HAZ-SCANNER contributes to building a more environmentally aware society, aligning with broader global sustainability goals.

## Clean Air and Health Monitoring System

Department of Meteorology has been conducting real time air quality monitoring since 2016 supervised by Dr M Imran Shahzad, Tenured Associate Professor/Head of Department using bulk air samplers in collaboration with the Sub-Center of Atmospheric Sciences, Chinese Ecosystem Research Network (SCAS-CERN) at Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing China. Recently another real-time air quality monitoring system has also been installed at the Department of Meteorology in December 2022 to monitor urban air pollution levels, specifically PM<sub>2.5</sub>, and assess its impact on the environment and human health. The project is funded by ANSO and involves collaboration with the Chinese Academy of Sciences and Shifa Tameer-e-Millat University, Islamabad. Dr. Jabir Hussain Syed, Tenured Associate Professor, is the focal person for this project and is overseeing various research activities aimed at measuring different air pollutants in the atmosphere.

The Clean Air and Health Monitoring System can help achieve SDG 13 in several ways: By providing real-time air quality data, the system can assist people in making informed decisions about when and where to spend time outdoors. This can help reduce exposure to air pollution and protect individuals from its harmful effects. The system can also track air pollution trends over time, enabling the evaluation of the effectiveness of air pollution control measures and identification of areas where further action is needed. Additionally, the system can support research on the health effects of air pollution, aiding in a better understanding of how air pollution affects our health and the development of more effective interventions to mitigate its impact.



The Atmospheric Constituents Monitoring System (HAZ-SCANNAR Model HIM-6000) was successfully installed at the Meteorological Observatory, COMSATS University Islamabad, Islamabad Campus.





**Dr. Jabir Hussain Syed, Tenured Associate Professor, conducting routine checks on the Clean Air and Health Monitoring System installed at the Department of Meteorology, COMSATS University Islamabad.”**

## Climate Change Monitoring and Flood Mapping Bootcamp

The Department of Meteorology, COMSATS University Islamabad (CUI), Islamabad Campus, organized a 1-day Climate Change Monitoring and Flood Mapping Bootcamp on 21 December 2022. The boot camp was a part of the Green Youth Movement organized by Dr M Imran Shahzad, Tenured Associate Professor and Head Department of Meteorology. Participants learnt the basic principles and characteristics of the different types of climatic and remote sensing datasets and their suitability for studying precipitation analysis, standardized precipitation index, extreme dry and wet periods, flood mapping, and climate-smart agriculture.

Some specific ways in which the 1-day Climate Change Monitoring and Flood Mapping Bootcamp aligns with SDG's are that this boot camp provided participants with the knowledge

and skills necessary to monitor climate change and map floods, which are important environmental issues. It promoted critical thinking and problem-solving skills, which are essential for addressing complex environmental challenges. The participants were also empowered to take action on climate change and flood management, which is important for achieving sustainable development goals.







# SDG-14 LIFE BELOW WATER



Sustainable Development Goal 14 (SDG 14) is one of the 17 global goals set by the United Nations as part of the 2030 Agenda for Sustainable Development. SDG 14 is focused on "Life Below Water" and aims to conserve and sustainably use the oceans, seas, and marine resources for sustainable development. The goal recognizes the critical role that oceans play in supporting life on Earth and emphasizes the need to address various challenges related to marine ecosystems.

SDG 14 highlights the interconnectedness of various challenges related to oceans and emphasizes the need for a coordinated, global effort to address them. Achieving this goal requires collaboration among governments, the private sector, civil society, and the international community.

COMSATS University Islamabad offers educational programs on freshwater ecosystems for local or national communities. These programs are likely designed to provide knowledge and awareness about the importance of freshwater ecosystems and their conservation. The university's initiative in offering such educational programs demonstrates its commitment to environmental education and community engagement.

COMSATS University Islamabad's environmental science department is actively involved in conducting educational outreach activities for local communities. Raising awareness about issues like overfishing, illegal, unreported, and unregulated fishing, as well as destructive fishing practices, is essential for promoting sustainable fishing practices and conserving marine ecosystems. Educational outreach activities can play a crucial role in engaging and empowering community members to become actively involved in addressing these environmental challenges.

## 19th International Conference on Frontiers of Information Technology

19th International Conference on Frontiers of Information Technology held on December 12-13,

2022 at COMSTECH Secretariat, Islamabad, Pakistan under the umbrella of UNESCO Water Chair on Knowledge Systems for Integrated Water Resources Management (IWRM).

A two-day 19th International Conference on 'Frontiers of Information Technology' (FIT-2022), organized by COMSATS University Islamabad (CUI) started on Monday, December 12, 2022 at COMSTECH Secretariat, Islamabad. Minister, Planning and Development and Special Initiatives, Mr. Ahsan Iqbal Chaudhary and Executive Director COMSATS, Ambassador Dr. Mohammed Nafees Zakaria graced the occasion and inaugurated the COMSATS University Islamabad's 19th International Conference on Frontiers of Information Technology on Monday.

Speakers from France, Netherlands, China, Ireland, Portugal, UK, USA and Pakistan are participating in the two-day conference organized by COMSATS University Islamabad in COMSTECH Secretariat, Islamabad.

Prof. Dr. Muhammad Tabassum Afzal, Rector, COMSATS University Islamabad, in his welcome address appreciated the support extended by the government in promoting the research and development. He said that Pakistan was in a dearth of high-performance computing infrastructure and there was a need to realize the economic potential of Information Technology through better training and resource management. Prof. Afzal said that the dearth of dollars confronted by the economy can be easily cured by encouraging IT related exports and technology-





based startups.

## The 4th China Pakistan Marine Information Workshop(CPMI-2022)

The 4th China Pakistan Marine Information (CPMI-2022) was held in CUI Wah campus, on November 16, 2022 and was jointly organized by academic and research institutions from China and Pakistan; including COMSATS University Islamabad, FAST, Pakistan Science Foundation, Pakistan Scientific & Technological Information Center, National Institute of Oceanography (Pakistan Partners), and Harbin Engineering University, China Association of Science & Technology, Chinese Society of Naval Architecture, and Heilongjiang Science and Technology Association (Chinese Partners). This was the fourth workshop of this series as part of the One Belt One Road initiative under China Pakistan Economic Corridor (CPEC) with this year's theme "Smart Ocean Informatics" with oral and poster presentations. The worthy Rector CUI, Prof. Dr. Muhammad T. Afzal was the chief guest. On behalf of Chairman, Pakistan Science Foundation (PSF), Dr. Miskatullah graced the opening ceremony as guests of honor.

In his opening remarks the Rector CUI, Prof. Dr. Muhammad T. Afzal, extended his gratitude for bringing the China Pakistan Marine Information Workshop in COMSATS and organizing it successfully to strengthen the scientific collaboration in the field of marine engineering and sciences. He mentioned that CUI strongly believe in internationalization and working in emerging technologies and always take lead to bring research and academic programs to benefit Pakistan. He mentioned that there are a lot of opportunities in Pakistan at the coastal side of Gawaddar for the development of marine sciences and engineering under CPEC to explore. He appreciated the efforts of Prof. Dr. Muhammad Abid, Director Campus, Prof Gang Qiao, Dean of College of Underwater Acoustic Engineering, HEU, China and Dr. Niaz Ahmad for his throughout support in bringing this event a success.



COMSATS University Islamabad in collaboration with UNESCO, established a water chair at the university. The UNESCO Chair aims to enhance knowledge and understanding of integrated water resource management and foster cooperation among stakeholders in Pakistan. Through various awareness talks and



events, the collaboration between Comsats University Islamabad and the UNESCO Chair seeks to educate students, faculty, and the wider community about the importance of sustainable water management and the need to adhere to the policies set by the government. By following the Water Policy 2018 and actively engaging with the UNESCO Chair, Comsats University Islamabad contributes to the national goal of ensuring water security and sustainable development in Pakistan. The UNESCO Chair on Knowledge Systems for IWRM supervised a Training Activity at the campus level, with a main focus on enlightening the importance of water conservation. Various activities were arranged to encourage students to conserve drinking water resources and promote water-saving practices. These activities included displaying handmade pamphlets highlighting water-saving and conservation techniques, as well as organizing a walk within the campus premises to raise awareness about the importance of saving water for a sustainable life. This initiative demonstrates the university's commitment to promoting water conservation and creating awareness among its students and the wider community.

By adopting a government policy to ensure sustainable harvesting of food from aquatic ecosystems on campus, COMSATS University is taking proactive steps towards promoting responsible and environmentally friendly practices. This policy demonstrates the university's commitment to preserving aquatic ecosystems and ensuring the long-term sustainability of food sources. By implementing sustainable harvesting practices, the university can help protect biodiversity, maintain ecosystem health, and support local communities that rely on these resources. This initiative aligns with global efforts to promote sustainable food systems and contributes to a more sustainable campus environment.

Comsats University Islamabad's commitment to planting native species on its campus is a commendable effort towards preserving biodiversity. By focusing on native species, the university can help maintain the ecological balance and support the habitats of local flora and fauna. Additionally, the inclusion of an Environmental Management Plan (EMP) as part of its Environmental Impact Assessment (EIA) approval showcases the

university's dedication to responsible environmental practices. By considering the impact of its projects on flora, fauna, and their habitats, Comsats University is taking proactive measures to minimize any potential negative effects and ensure the preservation of these important ecosystems.





Comsats University Islamabad is demonstrating its commitment to upholding water quality and protecting ecosystems, wildlife, as well as human health and welfare. Adhering to these standards ensures that the university's water discharges meet the necessary criteria to minimize negative impacts on the environment and maintain the overall well-being of the surrounding ecosystems. This responsible approach to water management contributes to the preservation of natural resources and supports sustainable practices on campus. The university conducted an environmental assessment through PEPA.

## The Tree Plantation Drive 2022

The Tree Plantation Drive at COMSATS University Islamabad, Wah Campus was started and inaugurated by the Member of the Provincial Assembly Punjab (MPA), Malik Taimoor Masood Akbar on February 4, 2022. He planted a tree opposite to the Mechanical Block. On the behalf of Director Campus, Prof. Dr. Muhammad Abid, T.I., Sr. Manager Student Affairs Dr. Akmal Javaid planted a tree for heightening campus plantation drive. This event was organized by the Services Section under the supervision of Manager Services, Dr. Muhammad Nawaz. The Heads of Department, Section heads and staff members participated in the drive and planted trees.



CUI is also taking steps to reduce plastic waste and promote sustainability. Implementing a complete ban on the use of plastics can be an effective measure to minimize environmental impact and encourage the adoption of alternative, eco-friendly

materials. Comsats University Islamabad has indeed implemented a ban on plastics; it is a significant step towards creating a more sustainable campus environment.



COMSATS University Islamabad ensures not to dispose of any construction material in any adjacent water body to prevent marine pollution. The university implements an Environment Management Plan (EMP) for all development activities. This EMP is implemented in accordance with the IEE/EIA Regulations 2000 of the Government of Pakistan. This indicates that the university is committed to responsible construction practices and environmental protection. For more specific details about the EMP and its implementation, it would be best to refer to the relevant documentation or contact the university's environmental management department.

COMSATS University Islamabad is demonstrating its commitment to minimizing physical, chemical, and/or biological alterations of related aquatic ecosystems. This proactive approach is crucial for preserving the health and integrity of these ecosystems. By implementing measures to minimize alterations, such as pollution control, habitat preservation, and responsible resource management, the university is contributing to the conservation and sustainable use of aquatic ecosystems. This aligns with global environmental goals and

ensures the long-term health and resilience of these valuable ecosystems.

By adopting the government policy to monitor the health of aquatic ecosystems, COMSATS University Islamabad is demonstrating its commitment to environmental stewardship and the preservation of these vital ecosystems. Monitoring the health of aquatic ecosystems is crucial for understanding their ecological status, identifying potential threats, and implementing appropriate conservation measures. By actively participating in this monitoring effort, the university can contribute valuable data and insights to inform decision-making and promote sustainable management practices. This initiative showcases the university's dedication to environmental research and its role in safeguarding the health and integrity of aquatic ecosystems.

The collaboration between Comsats University Islamabad and the Council for Scientific and Industrial Research (CSIR) in various research activities is a valuable opportunity for both faculty and students. The availability of MS programs in areas such as Climate Change and Integrated Natural Resources Management, Soil Health and Environment Resources Management, Fisheries and Aquaculture, Agro-Processing Technology and biosciences, Plant Breeding and biotechnology, and Industrial Animal Nutrition and Feed Production further enhances the educational offerings and benefits the academic community. This collaboration not only enriches the learning experience but also fosters innovation and promotes sustainable practices in areas related to climate change, natural resource management, agriculture, and biotechnology.

Comsats University Islamabad has got the approval for the Environmental Impact Assessment (EIA) of CUI. The Environmental Management Plan (EMP) of the EIA is being implemented in order to ensure watershed management in its jurisdiction. Post-EIA monitoring report is sent to the Pakistan Environmental Protection Agency (Pak-EPA) on an annual basis.

UNESCO Chair on Knowledge Systems for Integrated Water Resource Management at CUI Wah celebrated World Water Day

on March 31, 2022 at COMSATS University Wah Campus and organized a Seminar titled “Monitoring Climate Extreme Events through Remote Sensing and Modelling” followed by a Poster Competition with this year theme "Groundwater: Making the invisible visible".

The resource person Dr. Mukhtar Ahmed enlightened the participants about the impact of extreme climate events (ECE) on the agricultural sector of Pakistan using remote sensing techniques to predict scenarios to explore possible options to mitigate the effect of ECE and to achieve sustainable development goals.

A large number of students from schools, colleges and universities and professionals participated in the poster competition. The purpose of this competition was to raise awareness about groundwater. Groundwater is an important source of fresh water which is invisible but its impact is visible everywhere. Experts from academia and industry evaluated posters. Seminar and Poster competition supported the Chair effort to achieve the Sustainable Development Goal 6: Water and Sanitation for all. The winners and runners up of the poster competition for school category and university category were awarded cash prizes and certificates.





Department of Mechanical Engineering AIAA CUI Wah Chapter arranged Water Rocket Competition at Campus ground on Thursday 2nd June, 2022. About 60 students across 5 different Universities including HITEC, University of Wah, UET Taxila, CUST Islamabad and COMSATS Wah participated in the event. The students, working in groups of four, were tasked to design and construct a rocket using simple materials and creating the conditions for optimal aerodynamics that could achieve the greatest distance when launched at an angle of 45 degrees. The students were allowed to build the rockets, using materials like plastic bottles, foot pumps, clay blocks, electrical wiring tape, as well as grocery bags and plastic folder sheets. Teams could only power the rockets using water and air pressure propulsion, and were encouraged to design and experiment with creative nose cones and fins for their rockets to achieve maximum Range, Time of Flight and Height. The teams had three attempts to test the longest distance their rocket could reach. After careful deliberation, judging panel from Mechanical Engineering Department of Comsats University, Wah Campus selected Our HITEC University as the winner, with All Comsats University, Wah Campus as the first runner up and University of Wah as the second runner up. Capital University of Science & Technology was nominated for the Best Design Award.



## Maritime Security Workshop (MARSEW-5)

The Director Campus attended the fifth edition of Maritime Security workshop from December 7 – 10, 2022 at Pakistan Naval War College Lahore. This year the theme of the workshop was “Secure Seas – Prosperous Pakistan”. The workshop was divided into two phases. In the first phase of MARSEW-5 involved discussion on various maritime and maritime security related topics, in the second phase the field trip of Pakistan Navel's operational commands and coastal facilities of Creeks Area at Karachi was witnessed. During the visit the team was given the briefing on CPEC maritime related projects and the Pakistan Navy's reforms and initiatives in the social-economic uplift of marine security. On December 15, 2022 President Dr. Arif Alvi addressed the concluding session of the 5th Maritime Security Workshop 200 (MARSEW-5) held at Pakistan Navy War College. On the occasion the Director Campus received a commendation certificate from the President of Pakistan Dr. Arif Alvi on successful completion of the workshop. The Senators, Parliamentarians, Senior bureaucrats, officers from the Armed Forces, Academia, Media Personalities and dignitaries from maritime and business sectors participated in the MARSEW-5.



## Students of DME Secured Best Poster Award at 4th China-Pakistan Marine Information Workshop

Two groups of the students of the Mechanical Engineering Department presented their project posters in the 4th China-Pakistan Marine Information Workshop (CPMI-2022) held at CUI Wah Campus on November 16, 2022. The project titled “Design and Analysis of an Ultrasonic Acoustic Sensor using Equivalent Circuit Method” secured first position in the poster competition and was awarded with a cash prize of Rs. 10,000/-. The project was supervised by the Assistant Professor, Dr. Muhammad Shakeel Afzal of Mechanical Engineering Department.

A prize and certificate distribution ceremony was held on December 23, 2022 in the Department of Mechanical Engineering (DME) chaired by the Director Campus. The Chairperson, Mechanical Engineering Department, Dr. Atta ur Rehman Shah and faculty members of the Department also

attended the ceremony. The Director Campus, Prof. Dr. Muhammad Abid, T.I., awarded certificates of appreciation to participants and a cash prize to the winners. The Director Campus and Chairperson DME appreciated the students and their supervisors for their outstanding work.







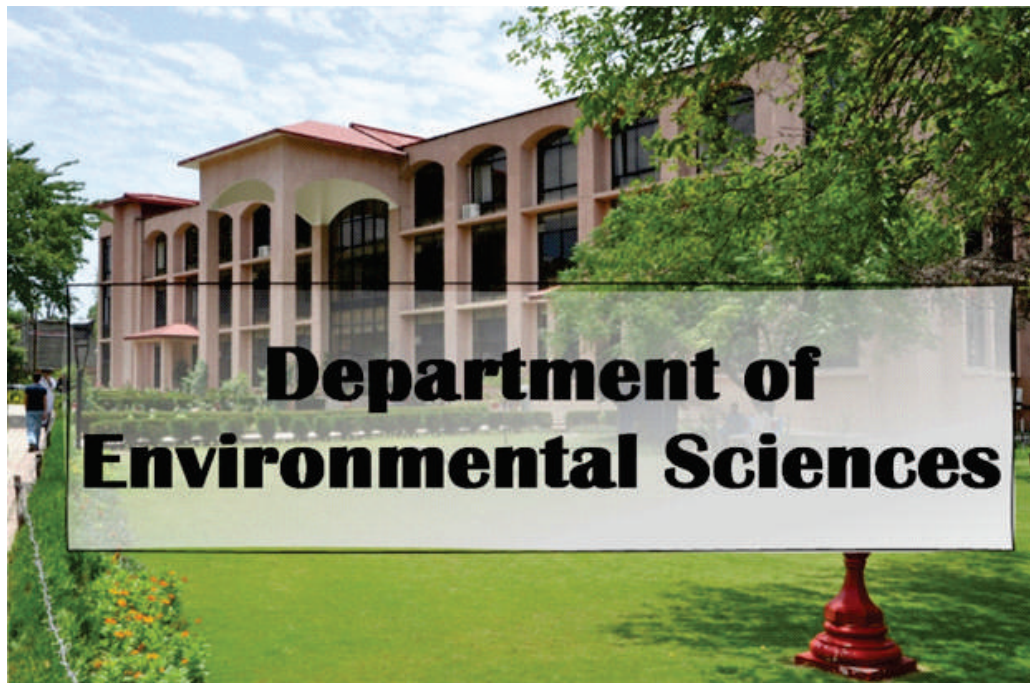
# SDG-15 LIFE ON LAND



SDG 15 focuses on "Life on Land" and aims to protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss.

Achieving these targets under SDG 15 is crucial for ensuring the health and sustainability of terrestrial ecosystems, protecting biodiversity, and promoting the well-being of present and future generations. It involves a collective effort from governments, businesses, communities, and individuals worldwide to address the complex challenges associated with land use and conservation.

Comsats University Islamabad, as an educational institution, may have initiatives and programs aimed at maintaining and extending existing ecosystems and their biodiversity. These efforts could include research, conservation projects, and educational campaigns focused on protecting threatened ecosystems and the plants and animals within them. COMSATS University Islamabad is working with local communities on the conservation of Ecosystems. CUI offers programs on flora and fauna like Fundamentals of Biology, Landscape Design, and natural resource management



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 **COMSATS UNIVERSITY ISLAMABAD, ABBOTTABAD CAMPUS**

COMSATS University Islamabad offers programs related to the management of land for agriculture. These programs include disciplines such as soil science, environmental geology, soil and water conservation, and natural resource management. These fields of study focus on understanding and implementing sustainable practices for land use, soil health, water conservation, and the management of natural resources in agricultural settings. Additionally, COMSATS University Islamabad also provides consultancy services to the local farmers on postharvest of vegetables. This involves offering expertise and guidance on techniques and technologies to ensure the proper handling, storage, and preservation of vegetables after they have been harvested.

COMSATS University Islamabad offers programs focused on the conservation and restoration of land. These programs include disciplines such as soil and water conservation and natural resource management. These fields of study aim to develop strategies and techniques for the sustainable use and management of land resources, including soil and water, to prevent degradation and promote conservation.

COMSATS University Islamabad, Abbottabad Campus (CUI) signs MoU with the Tech Valley Pakistan – February 23, 2022



On February 23, 2022, COMSATS University Islamabad's Abbottabad Campus signed a Memorandum of Understanding (MoU) with Tech Valley Pakistan, recognizing the mutual importance of endorsing and promoting professional relations between the two institutes.

The signing ceremony took place on the Abbottabad Campus of COMSATS University Islamabad. The MoU's honorable signatories were Ms. Najm-us-Sahar, Project Manager and Incubation Lead, Tech Valley Pakistan, and Merit. Prof. Imtiaz Ali Khan, Director COMSATS University Islamabad, Abbottabad Campus. The Memorandum of Understanding covers bilateral collaboration activities in mutually beneficial areas. The signing of the MoU emphasizes both institutions' efforts to collaborate, providing opportunity for all members to participate in a number of joint activities and projects. The ceremony was graced with the presence of all the Heads of Academic Departments and other officials of administration.

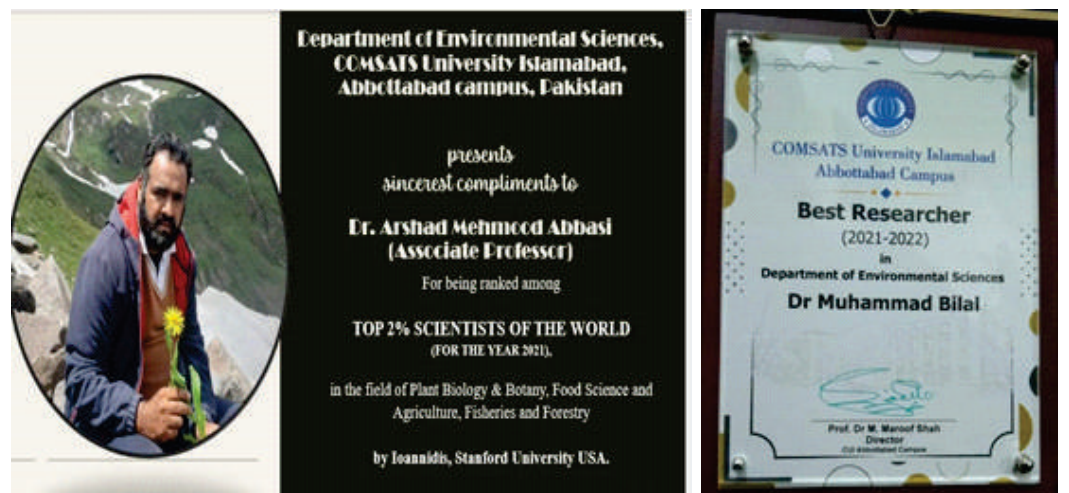
Ms. Najm-us-Sahar spoke to the audience about the Tech Valley on this momentous occasion. She told that Tech Valley was established in June 2015 in response to a lack of digital businesses operating in Pakistan's most picturesque places. The institution's mission is to improve the mountainous regions' entrepreneurial ecosystem by working in six areas: entrepreneurship, capacity building, education, government engagement, technology, and, of course, tourism. She praised the efforts of the COMSATS University Islamabad, Abbottabad Campus, which resulted in the successful signing of the aforementioned Memorandum of Understanding.

Director of COMSATS University Islamabad, Abbottabad Campus, stated that CUI, Abbottabad Campus looks forward to common interest activities, community development, tourism advancement, fruitful student exchange for internships, and other activities that will undoubtedly benefit the world today. He ended by stating that the CUI Abbottabad Campus is delighted to expand its collaboration with Tech Valley, Pakistan.

COMSATS University Islamabad is involved in research and initiatives related to the restoration of heavy metal and salt-



affected soils. These efforts may involve studying the impact of heavy metals and salts on soil health, developing remediation techniques, and implementing restoration projects to improve the quality and productivity of affected soils. CUI follows government policy on conservation, restoration, and sustainable use of terrestrial ecosystems in particular forests, mountains, and drylands.



**Dr. Javed Iqbal Tanoli, Assistant Professor, Department of Earth Sciences has won the grant worth 5.3 Million PKR for the NRPUR Research Project**

**Dr. Muhammad Qasim, Head, of Department of Earth Sciences, has won a grant worth 10.6 Million PKR**

Dr. Muhammad Qasim, Head, of Department of Earth Sciences, has won a grant worth ~10.6 Million PKR for the NRPB research project entitled “SUTURING PROCESS AND TIMING OF INDIA-ASIA COLLISION ALONG THE NORTHWESTERN MARGIN OF INDIAN PLATE, PAKISTAN”. This project will address the processes involved in shaping the Himalayan mountain system and their impact on generating the metallogenic provinces from 65 Million years ago to the present. The data of this project is equally important to know the dynamics of Climate change associated with the mountain-building processes that turned the fertile agricultural lands into a desert.

Dr. Javed Iqbal Tanoli, Assistant Professor, Department of Earth Sciences has won the grant worth ~5.3 Million PKR for the NRPB research project entitled “Debris Flow Hazard Assessment in NW Pakistan; Application of GIS and Geomorphological Technique”. This project will address the regional potential threat of the Debris flow Hazard in Hunza, Chitral, and Indus river basins. The debris flow generates an enormous sediment supply to the drainage system that ultimately affects the infrastructure, settlements, and particularly micro and mega hydro projects. We heartily congratulate him on this achievement and wish many of him more such achievements in the future

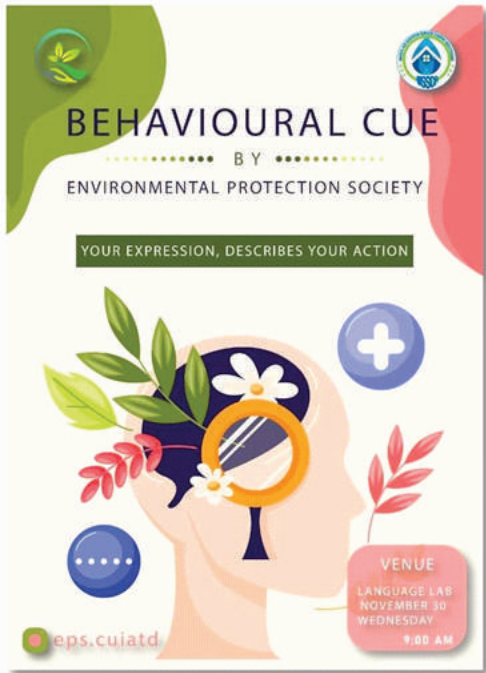


COMSATS University follows the Govt. of Pakistan Bio-Diversity Action Plan which identifies, monitors, and protects any IUCN Red Listed species and national conservation list species that affect the operations of the university and takes measures accordingly.

COMSATS University Islamabad places a special emphasis on maintaining local biodiversity during the planning and development process. The university follows relevant bylaws and regulations to ensure that biodiversity conservation is

integrated into its planning and development activities. This commitment may involve conducting environmental impact assessments, implementing mitigation measures, and incorporating sustainable practices to minimize the negative impacts on local biodiversity.

At COMSATS University Islamabad, the plantation is conducted following standard procedures of sustainable landscape management. This approach ensures that the planting practices are environmentally friendly, socially acceptable, and economically viable. The university aims to create a sustainable and diverse landscape that benefits both the campus community and the local ecosystem. To promote local biodiversity and support the local flora and fauna, COMSATS University Islamabad focuses on planting native and adopted species of plants. By selecting these plant species, the university encourages the growth of local biodiversity and contributes to the preservation of the natural environment.



List of Native Plants at COMSATS University Islamabad							
Trees							
Sr.	Common/local name	Technical name	Foliage	Shape	Flowering time	Flower color	Planted size
01	Alstonia	Alstonia scholaris	E	Vase shape	Late spring	Greenish white	4'-5'
02	Amaltas	Cassia fistula	SD	Vase shape	August, July	Yellow golden	3'-4'
03	Arjun	Terminalia arjuna	SD	Columnar	Late spring	Shiny green	4'-5'
04	Ashoke tree	Saraca indica	E	Round oval	Foliage	Foliage	3'-4'
05	Bakain	Melia azedarachta	SD	Vase shape	Foliage	Foliage	2'-3'
06	Bottle brush	Callistemon lanceolatus	E	Weeping	Summer	Red crimson	4'-5'
07	Cheer/pine	Pinus roxburgii	E	Pyramid	Foliage	Light green	1.5' 2'-3'
08	Fiddle wood	Citharexylum fruticosum	E	Round oval	Foliage beauty	Foliage	4'-5'
09	Kachmar	Bahunia alba	SD	Vase	Spring	White, purple	4'-5'
10	Kanak champa	Pterocarpium acinifolium	E	Upright	Foliage	Foliage	4'-5'
11	Neelum	Jacaranda mimosaefolia	D	Spreading	Late spring	Lavender blue	4'-5'
12	Rubber plant	Ficus elastica	E	Round oval	Foliage beauty	Foliage green	4'-5'
13	Silver oak	Gravillea robusta	E	Pyramid	Foliage beauty	Silver green	4'-5'
14	Such chain	Pongamia glabra	SD	Round	Foliage beauty	Bright foliage	4'-5'
Key: E: Evergreen, D: Deciduous SD: Semi Deciduous							



## Tree plantation drive at CUI Abbottabad

COMSATS University Islamabad organized a tree plantation drive at Lady Garden Abbottabad. Such initiatives demonstrate the university's commitment to environmental conservation and ecosystem preservation. Tree plantation drives play a crucial role in enhancing biodiversity, mitigating climate change, and improving the overall ecological health of an area. By organizing such events, COMSATS University Islamabad contributes to the restoration and protection of ecosystems, including the promotion of green spaces and the conservation of natural resources. These efforts align with the university's focus on sustainable practices and environmental stewardship.



## Tree Plantation Drive 2022 at CUI Attock

Deputy Commissioner Attock, Mr Muhammad Naeem along with



AC Attock and Director CUI Attock Prof Dr Muhammad Junaid Mughal launched the tree plantation drive 2022 at CUI Attock on 21st March 2022. Students from Comsats environmental society made all the arrangements and briefed the participants about their goals for clean and green Pakistan.



COMSATS University Islamabad has committees dedicated to bio-safety and maintaining water quality standards on campus. These committees typically work to ensure that water sources meet the required standards for safe consumption. In regard to the provision of clean water, universities often have infrastructure in place to provide filtered water to students, staff, and faculty members. This may include water filtration plants or other water treatment systems on campus.

The Food and Services Committee of COMSATS University Islamabad is dedicated to minimizing the use of plastic on campus. They recognize the importance of reducing plastic waste and its impact on the environment. As part of their efforts, COMSATS University Islamabad organized a community service walk on the topic of "Say No to Plastic." This event aimed to raise awareness among the campus community about the harmful effects of plastic and promote sustainable alternatives. By organizing such activities, the university demonstrates its commitment to environmental sustainability and encourages individuals to adopt eco-friendly practice.

COMSATS University Islamabad has implemented a particulate matter emission control system for waste incineration, it indicates their commitment to reducing air pollution and ensuring proper waste management practices. Banning

Styrofoam crockery and plastic bags also aligns with efforts to reduce plastic waste and promote sustainability.

## Managing Plastic Pollution

**Carrot, Stick or Nudges: Testing the effectiveness of Plastic Bag Compliance Behavior in Islamabad, Pakistan**

**Grand Challenge Fund (GCF)**

HEC funded this project under Grand Challenge Fund

### The Plastic Challenge

Plastic pollution is a significant urban challenge the world faces today. More than half of the world's population lives in cities, which is expected to rise to 70 percent by 2050. Strengthening institutional capacity is crucial to responding to this challenge for a transition to more equitable, inclusive, and sustainable cities.

In Pakistan, the number of plastic bags used exceeded 55 billion in 2018, which is expected to increase by 15% annually. The government slapped a ban to curb single-use plastic bags in 2019, but the consumption of single-use plastic bags is still widespread. Given the limited resources at the government's disposal, more effective policies are needed to ensure compliance with environmental regulations. This project aims to provide evidence of the effectiveness of enforcement measures and environmental nudges in generating plastic bag compliance behavior. To ensure that our research has maximum policy impact, we have engaged with various stakeholders including academia, Environmental Protection Agency (EPA-PAK), Sustainable Development Policy Institute (SDPI), and World Wide Fund for Nature (WWF). Details can be found on the following link:

**<https://lahore.comsats.edu.pk/Economics/GrandChallenge.aspx>**

COMSATS University Islamabad, Lahore Campus is forming a group of new scientists dedicated to delivering innovative solutions to single-use plastic challenges.

To solve the problem of single-use plastic in Pakistan, it is crucial to train high-level economists with an inclusive vision. Innovative projects of nine graduate students will be funded under Grand Challenge Fund project No. GCF-860 for three years. These projects will deliver practical solutions to solve the growing plastic pollution problem.

Plastic pollution is a global environmental crisis that harms land and marine ecosystems. It is estimated that more than 3 million tonnes of plastic are used in Pakistan yearly. But we are struggling with how best to address this crisis.

Dr. Muhammad Khan, Principal Investigator of the GCF-860, said it is essential to understand individual behaviors and industry practices to develop meaningful solutions. Research is vital to shaping that understanding and delivering the actions that can be taken to transform those behaviors to change the tide of plastic pollution.

Research is vital to shaping our understanding of individual behaviors and industry practices causing plastic pollution and the policy actions to transform those behaviors to change the tide of plastic pollution

Dr. Muhammad Khan, Principal Investigator of the GCF-860

A dedicated team of researchers supervised by senior academics in the field will help accelerate our search for plastic solutions. Their research will be part of the holistic research agenda around managing plastic pollution. We believe that this cluster of researchers will be able to develop solutions and action plans for meeting the challenge of plastic pollution.

In terms of impact, this program will provide trained human resources in an important area of national importance. The program will also steer that trained pool of researchers towards impact research and help them find their place in the field or their



role in the larger research picture.

Our researchers are working on the following projects in the years 2022-2023:

- Nudges to curb the single-use of plastic – Supervised by Dr. Muhammad Khan
- The impact of plastic bag bans on environmental quality (especially PM 2.5), the panel data analysis – Supervised by Dr. Rafi Amir Ud Din
- Analyzing the consumption behavior of reusable bag: An evidence from the theory of planned behavior– Supervised by Dr. Rao Muhammad Atif

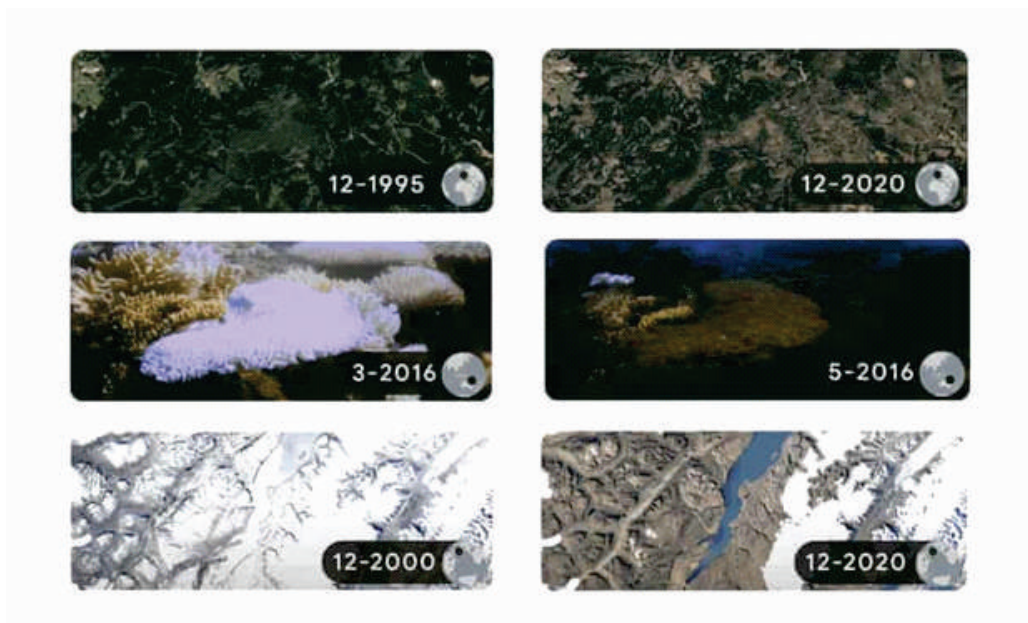


## World Environmental Day organized by Department of Environmental Sciences

Department of Environmental Sciences COMSATS University Abbottabad Campus organized a one-day event on world environmental day. This day is specially celebrated to aware the people of environmental issues and this event. Environmental protection society Department of Environmental Sciences and collaboration with WASSA and WWF jointly organized the event mainly lead by the chairman Prof. Dr. Irshad, HoD, Dr. Faridullah and also convene with Dr. Malik Tahir Hayat, and advertising committee Dr. Shumaila, DOO Environmental Sciences Dr. Awais

Arfeen, and their team. At this event, they invite some students from City School. They performed different activities about environmental issues. A quiz competition was also taken. Later on, Director WASSA and deputy WWF give the awareness about environmental issues, and then at the closing ceremony Director CUI, ATD Campus Dr. Maroof Shah, and chairmen Dr. Irshad also explain to people about the environmental issues and they conclude the vote of thanks.

Each year on April 22, the world celebrates Earth Day to create awareness about the vital need to protect our planet from pollution by taking part in activities like planting trees or picking litter.



## Adventure Club Clean Up Drive at Shimla Hill

Adventure Club organized a cleanup drive at Shimla Hill Abbottabad where several students and faculty members participated. The place was cleaned of trash and awareness was given to the public there regarding cleanliness. A very positive message was demonstrated by the students and faculty on behalf of COMSATS University Islamabad, Abbottabad Campus. Adventure Club plans to organize and execute similar ventures in future to make our city clean and green.





## **COMSATS University, Abbottabad Campus sign MoU with Water and Sanitation Services Company, Abbottabad (WSSCA) on Friday, July 29, 2022**

At Department of Environmental Sciences COMSATS University Islamabad (CUI) – Abbottabad Campus a working Memorandum of Understanding (MoU) has been signed with Water and Sanitation Services Company, Abbottabad (WSSCA). The signing ceremony was held in CUI-Abbottabad campus on 29.07.2022 (Friday) in the Conference room of Admin Block from 11:00 am to 12:00 pm. CUI-Abbottabad campus-director Prof. Dr. Muhammad Maroof Shah and Chief Executive Officer (CEO) WSSCA-Abbottabad signed the document as the representatives of contributing organizations.

The mentioned MoU is intended to establish a mutually beneficial relationship built on academic, scientific and cultural cooperation in accordance with the legal provision of both partners. Area of the collaboration includes solution to the current and future environmental problems on the solid as well as

liquid waste management; safe provision of drinking water supply and storage, human resource development and integration of the scientific work of academia for the provision of leadership in addressing the emerging environmental issues and in advancing the science and technology for risk assessment and disaster management.

The active participation in this MoU from both organizations will be a source of motivation, particularly for contributing students. The feedback and response of the diversified faculty present at the ceremony were enthusiastically engaging. Hopefully, the organizations, under the umbrella of such MoU's interactive activities will positively serve in image building for both organizations and community service, at large.



## **COMSATS University Islamabad signed a research project agreement with Engro Foundation and Engro Polymers and Chemicals Ltd**

COMSATS University Islamabad signed a research project agreement with Engro Foundation and Engro Polymers and Chemicals Ltd on September 22, 2022, Thursday at the Islamabad Campus of the former. Ms. Naz Baloch, Parliamentary Secretary,



Ministry of Climate Change participated in the signing ceremony as Chief Guest. Prof. Dr. Sajid Qamar, Acting Rector CUI & Dean Faculty of Sciences, Mr. Favad Soomro, Head Engro Foundation along with senior officials from Engro Corporation and CUI participated in the signing ceremony.

The project is aimed at understanding the socio-economic and political factors that lead to low implementation of Basel Amendments through a transdisciplinary approach and to conduct a value-chain analysis, social network analysis, and policy coherence study to identify these factors.

Using these research outputs the project is expected to enhance the capacity of government stakeholders and help them develop a policy action-plan. The project is funded by Asia-Pacific Network for Global Change Research.



### Seminar was held on “Earth Observation and Smart Sensing for Natural and Urban Ecosystems”.

Dr. Sawaid Abbas (PolyU, RSGCRL-NCGSA-PU) delivered a talk on Earth Observation and Smart Sensing for Natural and Urban Ecosystems at COMSATS University, Islamabad on 17-03-2022.

This seminar was exclusively designed for M.Phil research students. Dr. Sawaid enlightened the students on Smart Sensing Technologies for Urban Ecology and Smart Cities, and Earth Observation remote sensing to map and monitor secondary

forest succession, large scale afforestation, history and future of forest cover assessments in Pakistan.



1. Dr. Rehan Ahmed, Tenured Associate Professor, Department of Meteorology, CUI, delivered a seminar on “The Recent Heatwave in Pakistan”, on May 19, 2022, at Seminar Hall of Business Incubation Center (BIC), COMSATS University Islamabad (CUI), Islamabad. The concept and importance of atmospheric conditions that define a heatwave, as well as the possible causes of the current heatwave in different parts of the country, were presented. The seminar also focused on the importance of research in atmospheric science and climate change, emphasizing the need to scientifically establish the increasing frequency and intensity of heatwaves in Pakistan. This would enable policymakers to concentrate on potential impacts.



2. The Training Workshop on “Geospatial Techniques for Hydrological Resources” was organized by the Department of Meteorology, CUI, Islamabad, on June 22, 2022.

The Training Workshop on Geospatial Techniques for Hydrological Resources was an excellent educational experience that contributed to Pakistan's progress toward SDG 15. The training was conducted and organized by Mr. Irfan Mahmood, Research Assistant, Dr. Farooq Iqbal, Assistant Professor and Dr M Imran Shahzad, Tenured Associate Professor and Head Department of Meteorology. The program helped to strengthen participant's capacity to address difficult water management concerns and promote sustainable development by providing them with knowledge and skills in GIS approaches for hydrological resources.



The Policy Conclave on E-Waste Management was organized under the Bilateral Research Project entitled “Investigation of Selected Persistent Organic Pollutants (POPs) and Heavy Metals Pollution from E-waste Processing Facilities,” funded by the Pakistan Science Foundation (PSF), Pakistan, and the Scientific and Technological Research Council (TÜBİTAK), Turkey. The event took place at the SSBC Hall, COMSATS University, Islamabad, on August 04, 2022. The event was organized by Dr. Jabir Hussain Syed, Tenured Associate Professor, from the Department of Meteorology at COMSATS University Islamabad.

The event provided a platform to discuss the latest research on e-waste management and to develop recommendations for

effective policies and practices. This is essential for raising awareness about the e-waste problem and for promoting sustainable solutions. Overall, the Policy Conclave on E-Waste Management was an important event that helped Pakistan attain SDG's. The conclave contributed to a more informed and engaged citizenry committed to addressing the e-waste problem by encouraging knowledge sharing, raising awareness, and enabling participants to act.

The Project Inception Meeting titled “Value chain mapping and capacity building of Pakistani government stakeholders to implement Basel Convention's amendments to enhance control of the transboundary movements of plastic waste (CBA2021-12SY-Syed)” was held at G-8 Faculty Block-I, COMSATS University Islamabad, on December 5, 2022. The event was organized by Dr. Jabir Hussain Syed, Tenured Associate Professor, from the Department of Meteorology at COMSATS University Islamabad.

The project promotes knowledge sharing and collaboration between experts and stakeholders on the important issue of plastic waste management. It raises awareness about the Basel Convention's amendments and their implications for Pakistan. This project empowers Pakistani government stakeholders to implement the Basel Convention's amendments and to develop effective plastic waste management policies and practices.



**A project inception meeting on “Value chain mapping and capacity building of Pakistani government stakeholders to implement Basel Convention's amendments to enhance control of the transboundary movements of plastic waste.”**





**16** PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



## **SDG-16**

# **REPORT PEACE, JUSTICE AND STRONG INSTITUTIONS**



COMSATS University Islamabad (CUI) actively participates in various local, regional, and national level committees and task forces. This includes attending meetings such as the National Assembly Standing Committee on Science & Technology, the Senate Standing Committee on Science & Technology, and the Standing Committee on Cabinet Secretariat. CUI provides advice and contributes to discussions in these forums. CUI letters regarding actionable points from the Senate Standing Committee on S&T meeting, comments from CPS on the Draft National Science, Technology & Innovation Policy, and the Resource Enhancement Framework for Public Sector Universities.

CUI provides outreach, general education, upskilling, and capacity-building to policy- and law-makers on relevant topics e.g. economics, law, technology, migration and displacement, and climate change. In this regard, The Faculty Development Program (FDP) was established in 2004 and upgraded into the Faculty Development Academy (FDA) in 2011. Its major objective is to become a vibrant resource to promote quality teaching methodologies and help teachers become catalysts of change in our society. Accordingly, the Faculty Development Academy has been mandated to arrange Pre-Service and In-Service training for faculty as well as for their allied staff not only CUI but also for other national institutions in their respective field

The Centre of Policy Studies conducts research on a wide range of policy areas, including economic growth, trade, employment, income distribution, energy, environment, and social policy. It uses advanced economic modeling techniques to analyze the impacts of policy changes, assess their effectiveness, and identify potential risks and trade-offs.

The Centre of Policy Studies also actively engages with key stakeholders, such as other academic institutions, industry organizations, and international organizations, to promote knowledge exchange and enhance the impact of its research. It regularly publishes research papers, reports, and policy briefs to disseminate its findings and recommendations.

The Centre for Policy Studies (CPS) is focused on facilitating

collaboration and knowledge exchange between academia, research, and public policy-making. To effectively achieve this objective, the CPS brings together a diverse team comprising of academicians, scholarly researchers, and policy practitioners.

By bringing together these different perspectives, the CPS seeks to bridge the gap between theory and practice in public policy. The academicians and researchers contribute their expertise in generating innovative ideas, conducting rigorous research, and evaluating policy options. Here are some events related to CUI engagement with key stakeholders on facilitating collaboration and knowledge exchange between academia, research, and public policy-making. To effectively achieve this objective, the CPS brings together a diverse team comprising of academicians, scholarly researchers, and policy practitioners.

### **Jinnah: The Modifier of World Map and History, the Creator of Islamic State**

CPS, CUI held a seminar titled “Jinnah: The Modifier of World Map and History, the Creator of Islamic State” on December 27th, 2022. Head CPS Dr. Ghulam Shabbir said that creation of Pakistan was the second foremost achievement of Muslims in Islam's 14 centuries career after the establishment of an Islamic state of Madina. Iqbal dreamt Pakistan for the realization of Islam's socio-political and economic ideals which Arab imperialism had forestalled. Though astonishingly swift conquests of early Islam expanded the political domain of Islam, still it was on the cost of democratization and economic organization of the community. He said the creation of Pakistan suits to both Muslims and Hindus. Whereas Muslims would able to remove the stamp of Arab imperialism from the Islam this very land would serve as a steel frame against any aggression from the North West corridor for India's defense. Iqbal single handedly reoriented the apologetic, West-ridden, porcupine posture or at best serving the history of others attitude of Ali-Garh Movement and All India Muslim League with such a vigor and fervor that Islam became a rallying cry of Indian Muslims. His was a genuine restatement of Islam derived from the Quran and Sunna, Sufi metaphysics of Ghazali, Ibn Taimiyya, Sheikh Sirhindi and Shah Wali Allah. The



Quixotism's ridden and stricken community found in Jinnah an idealist-cum-realist leader in whom ideal and real coalesced and he with the core of heart capitalized on and harnessed currents and cross-currents of history with his combination of learning, character and commitment to emerge as an Architect of Pakistan, the Reality. However, the symbiosis of Civil-Military Bureaucracy, Feudalism, Mercantile and Conservative religious elites denied Pakistan its birth-right to become a genuine welfare Islamic state. Prof. Dr. Shehzad Qiasar, NUML highlighted the organizational structure of Muslim league and an unbending, inflexible, unsellable attitude of Jinnah which won him Pakistan against the troika of British establishment, Hindu Congress and rivals from within. Senior journalist/Anchor-person Azhar Ali Abidi said the be-all-and-an-end-all of Pakistan was to establish a justice based society and present "elite capture" Pakistan is a far cry from what our forefathers envisioned and left indelible signs on the galaxies by achieving this beloved land.

Jinnah: The Modifier of World Map and History, the Creator of Islamic State



### CPS Seminar on "Pakistan's being on the Cusp of South Asia, Central Asia and Middle East: Pearl, Perils and Pitfalls; crisis and Opportunities"

**"Pakistan's being on the Cusp of South Asia, Central Asia and Middle East: Pearl, Perils and Pitfalls; crisis and Opportunities"**

CPS, COMSATS University Islamabad organized a seminar on June 28th, 2022, titled "Pakistan's being on the Cusp of South

Asia, Central Asia and Middle East: Pearl, Perils and Pitfalls; crisis and Opportunities." Head CPS Dr. Ghulam Shabbir, in his opening remarks said that Pakistan being the fulcrum of three grand regions has a wide potentials of integrating socio-economic and cultural strengths of these belts, yet as a community we are like those who forget way amidst shifting sand dunes of the desert. Former Naval Chief, Admiral (R) Zafar Mahmood Abbasi said Pakistan has become like a ship adrift amidst the stormy waves of sea. We must resurrect the vision of Iqbal and Jinnah to set the dimension afresh. Senior seasoned politician Syeda Abida Hussain said we have achieved several milestones, yet we need scientific and technological education more advanced and equal to the needs of the time. She said socio-economic disparities and class system is a great hurdle in the way of our progress and prosperity. Head CPS in his closing remarks said the major strength of communities lies in common aspirations, history and cultural values. The geography of Arabian Peninsula was such a valueless entity that the Persia and Byzantine never bothered to conquer them, but when they were united on the ideology of Islam within thirty years of their splendid career, they destroyed the corrupt socio-economic structure of both empires and assumed the wheel of history. Geographies are peaceful abodes of communities, but the recurrent pattern of history suggests when communities forget their history and ideology, their geographies forget them.

CPS Seminar on "Pakistan's being on the Cusp of South Asia, Central Asia and Middle East: Pearl, Perils and Pitfalls; crisis and Opportunities"





## Seminar on “Was Pakistan means to an end or an end itself: What does state policy portray?”

Centre for Policy Studies (CPS), COMSATS University, Islamabad Held a seminar titled “Was Pakistan Means to an End or End Itself? What State Policy Portray?”. Head, CPS Dr. Ghulam Shabbir said Muhammad's monotheism was organically linked to Humanism i.e. socio-economic Reforms. An essential human egalitarianism based on socio-economic equilibrium was be-all-and-an-end-all of Prophet's concept of God's Oneness. With the onset of Dictatorship in Islam this complete monotheism of the Quran and Muhammad (PBUH) get lost for the vested interests of dynastic rule. Even Ghazali, Ibn Taimiyya and Sheikh Ahmad Sirhindi despite their great services for Islam missed the point. It was Shah Wali Allah who re-discovered the idea of complete monotheism by delivering a marvelous concept of Irtifaq (Socio-economic security) and Iqtirab (Spiritual evolution). On this premise Iqbal demanded a separate homeland to translate the socio-economic, political and cultural ideals of Islam into reality. Seasoned journalist Hamid Mir displayed a remarkable ingenuity of covering the history of Islam in sub-continent. He said our parliament is full of those who served British interests and are inimical to any genuine reforms in Pakistan. Prof. Dr. Anees Ahmad, Rector, Riphah International University presented a comprehensive and decisive outlook of Iqbal the Dreamer and Jinnah the Architect of Pakistan. We are grateful to our honorable guests and audience without whom it was not an easy feat

CPS Seminar on “Was Pakistan means to an end or an end itself: What does state policy portray?”



## Seminar on “Iqbal and Jinnah's Vision of national education and our education policy”. (March 10, 2022)

CPS organized a seminar titled “Iqbal and Jinnah's Vision of National Education and our Education Policy” on 10th March 2022. The fundamental theme of the program was that Communities' rise and fall is organically linked to their intellectual foundations i.e. vision of education. Iqbal, The Dreamer of Pakistan, in prose and poetry with sound rationale not only refuted the basis of madrasa education based on dumb heritage of medieval Islam but also termed the secular education system as poison due to its rivalry to transcendentalism and loss of moral values- definite anchoring point for stability, foundation, intention and purpose of a civilization. Jinnah, The Architect of Pakistan, in cognizance of the malaise soon after 16 August 1947 in a social function arranged for the members of Constituent Assembly, said to the educationists, “Now that we have got our own state, it is up to you to establish a viable,



productive and sound system of education suited to our needs. It should reflect our history and our national ideals". Further, the enormity and urgency of the task of education in the minds of the creators of Pakistan could be gauged from the fact that despite the largest migration and the greatest slaughter in known human history – the Pakistan government took a tremendous initiative to summon an Education Conference on 27 November 1947 where the minister of education, Fazlur Rahman stated: " it is, therefore, a matter of profound satisfaction to me as it must be to you, that we have before us the opportunity of reorienting our entire educational policy to correspond closely with the needs of the times and to reflect the ideals for which Pakistan as an Islamic state stands. This is a great, indeed, a unique opportunity but even greater is the magnitude of the task which it imposes upon us."

But soon after the early demise of its founder Jinnah and martyrdom of Liaqat Ali Khan this euphoria gives way to a merciless pragmatism on the part of political dispensation and national education policy proved the continuation of Lord Macaulay's education policy. To address the malaise of educational policy two distinguished scholars of Pakistan Prof Fateh Muhammad Malik, former rector IIUI; and Professor Jalil Aali (Tamgha e Imtyaz), poet, adieb and distinguished researcher delivered lectures.

Professor Jalil Aali remarked that while Iqbal was Dreamer of Pakistan, Jinnah was the Architect and Pakistan the Reality. Jinnah had categorically proclaimed that Iqbal nourished and developed his mind and he only materialized his vision of separate Muslim Polity. Prof. Fateh Muhammad Malik condemned continuation of Macaulay's education system in Pakistan quoting Iqbal's verses that it is an acidic solution in which the personalities of the generation are dipped to soften then molded to suited goals. This is such a strong solution that can turn a Himalaya of Gold into a mound of dust.

Head CPS Dr. Ghulam Shabbir said in his closing remarks that remedy of our educational problems lies in an integration of the traditional and the modern education. Quoting George Sarton he said the decline of Greek civilization was that their rational

philosophy failed to integrate morality in their political thought and institutions. Islam struck fusion between pure reason and revelation and spread like a prairie fire from Baghdad eastward to India, Transoxonia and further still and in the West to the very edge of the world. Today religion should be employed as a synthetic construct to combine metaphysics and social fact the great achievement of pristine Islam otherwise world stands on the threshold of utter annihilation. At the end head CPS presented souvenirs to honorable guests and thanked the participants for their valuable time.

Seminar on "Iqbal and Jinnah's Vision of national education and our education policy"



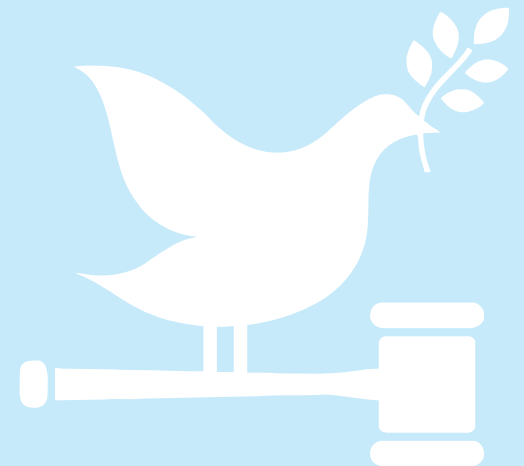
### Seminar On Importance Of E-Commerce In Affiliation With Enablers

The Department of Mechanical Engineering & Bachelor of Business Administration, in collaboration of ASHRAE & SSBC COMSATS Wah Campus Chapter arranged a seminar “Importance of E-commerce in affiliation with Enablers” on March 17, 2022. The main intention of the entire gathering is coming together to share exclusive knowledge, tactics and actionable strategies on how to build, operate, and scale profitable E-commerce businesses for growing students as an entrepreneur. The foremost guests, Siddiqa Zubair Representative of Enablers at Wah Cantt, along with her companions, Afshan Abid from Enablers Consultant Islamabad concise students about E-commerce & how they market their product by shaking hands with cherished platform like Enablers & become a precious enterpenuer engineer. They also shared their gigantic expertise on enhancing digital skills to secure future by generating impulsive revenue. The students also presented epitome of their skills they learn from enablers & start their own business on different platforms like Amazon. The students had a very fruitful interactive session with guest speakers. The seminar adjourned by appreciating & showing appetency with presenting campus keepsake to guest speakers.

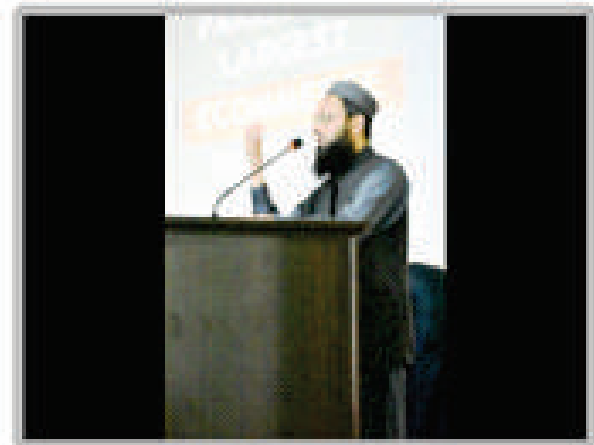
The session ended up with the Director and SBA ASHRAE Prof Dr Muhammad Abid address to the students and he presented souvenir shield to the guest. On behalf of Department of Mechanical Engineering, ASHRAE CUI Wah Society is grateful to Enablers for sparing their valuable time and imparting conducive session.

ASHRAE CUI Wah society is thankful to Director Prof. Muhammad Abid, Engr. Arsalan Hussain and Engr. Samad Ali Taj for making this event successful.

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### Seminar On Importance Of E-Commerce In Affiliation With Enablers







**17** PARTNERSHIPS  
FOR THE GOALS



# SDG-17 PARTNERSHIP FOR THE GOALS

Sustainable Development Goal 17 (SDG 17) is the final goal among the 17 Sustainable Development Goals established by the United Nations as part of the 2030 Agenda for Sustainable Development. SDG 17 is titled "Partnership for the Goals," and it emphasizes the importance of collaboration and cooperation among governments, the private sector, and civil society to achieve the other 16 goals. This goal recognizes that addressing complex global challenges requires collective action and the involvement of various stakeholders.

## Key elements and targets of SDG 17 include:

### Strengthening Global Partnerships:

Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection.

### Implementing Official Development Assistance (ODA):

Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 percent of gross national income (GNI) for official development assistance to developing countries, and 0.15 to 0.20 percent of GNI to least developed countries.

### Private Sector Engagement:

Mobilize additional financial resources for developing countries from multiple sources, including the private sector.

### Promoting Technology Transfer:

Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief, and debt restructuring, as appropriate, and address the external debt of highly indebted

poor countries.

### Capacity Building:

Adopt and implement investment promotion regimes for least developed countries.

### Data, Monitoring, and Accountability:

Enhance North-South, South-South, and triangular regional and international cooperation on and access to science, technology, and innovation, and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular, at the United Nations level, and through a global technology facilitation mechanism.

### Capacity Building Support to Developing Countries:

Promote the development, transfer, dissemination, and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed.

### Trade Facilitation:

Fully operationalize the technology bank and science, technology, and innovation capacity-building mechanism for least developed countries and enhance the use of enabling technology, in particular information and communications technology.

### Policy Coherence:

Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South, and triangular cooperation.



## Data Availability:

Enhance capacity-building support to developing countries, including for least developed countries and Small Island developing States, to increase significantly the availability of high-quality, timely, and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location, and other characteristics relevant in national contexts.

SDG 17 recognizes that achieving sustainable development requires a global partnership characterized by cooperation, collaboration, and a shared commitment to addressing common challenges. It emphasizes the need for enhanced financial and technical support to developing countries, as well as the importance of leveraging resources from multiple sectors and stakeholders. The goal also highlights the significance of data, technology transfer, and capacity building in fostering sustainable development worldwide.

The Sustainable Development Goals (SDGs) or Global Goals are a collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all". The SDGs were set up in 2015 by the United Nations General Assembly (UN-GA) and are intended to be achieved by the year 2030. They are included in a UN-GA Resolution called the 2030 Agenda or what is colloquially known as Agenda 2030.

The 17 SDGs are: (1) No Poverty, (2) Zero Hunger, (3) Good Health and Well-being, (4) Quality Education, (5) Gender Equality, (6) Clean Water and Sanitation, (7) Affordable and Clean Energy, (8) Decent Work and Economic Growth, (9) Industry, Innovation and Infrastructure, (10) Reduced Inequality, (11) Sustainable Cities and Communities, (12) Responsible Consumption and Production, (13) Climate Action, (14) Life Below Water, (15) Life On Land, (16) Peace, Justice, and Strong Institutions, (17) Partnerships for the Goals.

COMSATS University is actively contributing its role to achieve a better and more sustainable future for community at local, national and international levels, being engaged in different

SDGs.

COMSATS University Islamabad is directly involved in, or input into, national government or regional nongovernment organizations SDG policy development - including identifying problems and challenges, developing policies and strategies, modelling likely futures with and without interventions, monitoring and reporting on interventions, and enabling adaptive management.

The specific activities and initiatives related to Sustainable Development Goals (SDGs) conducted by COMSATS and reported in the SDG Report 2022 and Annual Report 2021-2022 include the establishment of the Centre for Climate and Sustainability: This center is dedicated to addressing the challenges of climate change and promoting sustainable development. It serves as a platform for research, policy development, and capacity building in these areas. Engagement with national government and non-government organizations: COMSATS actively participates in policy development related to SDGs at the national and regional levels. This involvement ensures that SDG targets and indicators are integrated into national development plans and strategies. These activities and efforts by COMSATS are reported in the SDG Report 2022 and the Annual Report 2021-2022, showcasing the organization's commitment to sustainable development and its contribution towards the achievement of the SDGs.

CUI actively participated in these cross-sectoral dialogues by attending various conferences that involved government representatives and non-governmental organizations (NGOs). During these dialogues, CUI engaged in discussions about the SDGs, sharing knowledge, experiences, and perspectives on how to effectively implement and monitor progress towards the goals. By participating in these dialogues, CUI contributed to the development of strategies and action plans that promote sustainable development and address key challenges related to poverty eradication, education, health, gender equality, climate change, and environmental sustainability, among others. CUI's involvement in these cross-sectoral dialogues demonstrates its commitment to supporting the global agenda of achieving the

SDGs by 2030.

The activities of the COMSATS Secretariat are coordinated through various mechanisms, such as regional meetings, working groups, and joint projects. These mechanisms facilitate collaboration, knowledge sharing, and joint action on issues related to sustainable development, including climate change, renewable energy, water and sanitation, food security, and health. One of the key functions of the COMSATS Secretariat is to promote South-South and North-South cooperation in science and technology. It facilitates exchange programs, scholarships, and research grants to promote collaboration among scientists, researchers, and institutions from different countries. This collaboration helps in leveraging resources, expertise, and knowledge for addressing the challenges and goals of sustainable development.

COMSATS has recognized the growing importance of Sustainable Development Goals (SDGs) and has integrated them into its activities, programs, and collaborations. The organization has organized several capacity-building activities to address the emerging trends in science and technology (S&T) and meet the needs of scientific communities in developing regions. Additionally, COMSATS has arranged events to raise awareness about SDGs, facilitate networking and knowledge sharing, and provide solutions and recommendations for addressing sustainability challenges.

COMSATS University Islamabad (CUI) has a strong focus on sustainable development and prioritizes the social, economic, and environmental aspects of it in its programs. The university has the flexibility to work across a wide range of technology fields. At the high end of the technology spectrum, COMSATS aims to build indigenous capacity and competence in emerging sciences and technologies. This could include areas such as artificial intelligence, biotechnology, nanotechnology, and other cutting-edge fields. To fulfill its objectives, COMSATS collaborates with national and international NGOs. They work together through student volunteering programs, research initiatives, and the development of educational resources. These collaborations aim to tackle the Sustainable Development Goals

(SDGs). Overall, COMSATS University Islamabad is committed to advancing sustainable development in all its programs and utilizes partnerships with NGOs to achieve this goal.

## Contribution towards SDG-1: No Poverty

COMSATS University has published an SDG Report 2022 that reflects its commitment to addressing the 17 Sustainable Development Goals (SDGs). It's commendable that they have dedicated a separate report to SDG 1, which focuses on eradicating poverty. This underscores their dedication to advancing efforts toward poverty reduction and improving the quality of life for all individuals. By publishing this report, it is likely that COMSATS University is documenting its progress, sharing its achievements, and outlining future plans to contribute to the SDGs. This kind of transparency and accountability is crucial for monitoring and evaluating the effectiveness of initiatives related to sustainable development.

## Certificate Distribution in Appreciation of VTI Trainees

An appreciation certificates distribution ceremony was arranged on September 27, 2022 for the trainees of Vocational Training Institute, Taxila, including four female and two male who successfully completed their two months on job training (internship) at CUI Wah Campus in different departments Library, Examination, Academic Sections and Services department. The Director Campus, Prof. Dr. Muhammad Abid, T.I., awarded interneers with appreciation certificates in recognition of their dedication and hard work. On the occasion the Principal, Vocational Training Institute, Taxila, Syed Muzaffar Hussain was also invited and appreciated his institution's efforts in





providing technical education to the low-income class students for the betterment of the community.

COMSATS University Islamabad's commitment to promoting socio-economic development through education, research, and outreach is commendable. Offering scholarship programs for international students is an important step in achieving this goal. The university's International Office plays a crucial role in managing these scholarship programs. COMSATS University Islamabad extends scholarships to students from various low-income countries, such as Bhutan, Nepal, Sri Lanka, Myanmar, Kenya, Gambia, Afghanistan, Senegal, and others. COMSATS University Islamabad's scholarship covers a subsidy on the tuition fee and stipend. Furthermore, The World Academy of Sciences (TWAS) has an agreement with COMSATS University Islamabad which offers Ph.D., Sandwich, and Postdoctoral Fellowships for developing countries, especially least-developed countries.

Conferences, Seminars, and workshops are the major sources of gathering new information and exchanging ideas on the trends in research, upcoming technologies, and much more. It is also a platform to network with people from various fields and benefit from their experience. CUI since its inception has arranged numerous conferences, seminars, and workshops for the benefit of its faculty, students, and staff as well as the community at large.

CUI, Student Startup and

Business Incubation Centre (SSBIC) has been established with the support of the Higher Education Commission of Pakistan, and the Promotion of Education in Pakistan Foundation, Inc. (USA). The goal of the program is the promotion of talented students' entrepreneurship and to enhance their practical learning experience at the university.

## Scholarships for Flood Affected Students under USAID funded Merit and Needs based Scholarship Program at COMSATS University Abbottabad Campus

Recent devastating floods in Pakistan have caused unprecedented damage and loss to the livelihood of people in millions. The floods have impacted the infrastructures of public schools, colleges, and universities. For those students who are already enrolled in the universities and affected by the floods due to damage of households and means of earning, their prospects for the continuation of higher education are now minimal.

To support students who no longer can continue their university education due to the loss of livelihoods caused by recent floods, USAID funded under Merit and needs-based Scholarship program will provide financial support in their degree completion process.

COMSATS University has a report specifically focusing on SDG 2 - Zero Hunger. This shows the university's commitment to addressing important



**COMSATS labour quota Scholarship 2022 and admission under Punjab Worker welfare board**

<https://careerhelpportal.com/>

**Deadline: July 27, 2022**

**COMSATS University Islamabad**

**Scholarship Opportunities for MS and PhD Studies**

COMSATS University Islamabad (CUI) is one of the public sector ranking universities of Pakistan. It offers a wide range of academic programs at undergraduate and graduate levels. The CUI promotes scholarship and accords emphasis on carrying out quality research.

CUI invites applications from Pakistani and AJK nationals to pursue MS and PhD studies at its Islamabad Campus in the areas of Medical Imaging and Diagnostics using Artificial Intelligence. The scholarships are announced under HEC funded development project entitled "Medical Imaging and Diagnostics Lab, National Center of Artificial Intelligence NCAT".

**MS Scholarships (3 Nos.)**

- Students already enrolled in MS degree program at CUI Islamabad campus are eligible to apply.
- Candidates availing any other scholarship offer are not eligible to apply.
- The selected candidates will be given a living allowance of 20,000 p.m. as admissible under the rules, for a max. period of 18 months. No extension will be considered.

**PhD Scholarships (3 Nos.)**

- The applicants must either already be enrolled in the PhD program or should have applied for admission at CUI, Islamabad Campus as per CUI and HEC criteria at the time of interview.
- Students applying for admission must have passed the GAT exam.
- Candidates availing any other scholarship offer are not eligible to apply.
- The selected candidates will be given tuition fee waiver and a living allowance, as admissible under the rules, for a max. period of 36 months. No extension will be considered.

**How to Apply**

- Eligible candidates are advised to fill an online form at <https://rebrand.ly/MIDLApplication>.
- Candidates are also advised to send a soft copy of the following documents with a cover letter on email address [mid-ncat@comsats.edu.pk](mailto:mid-ncat@comsats.edu.pk)
  - CV/Resume
  - Attested photocopy of CNIC
  - Attested photocopies of all educational degrees/testimonials
  - Most recent photograph
  - Attested copy of NTS (GAT-Subject) Result Card

**Closing Date**

- The closing date for application is **15 days** from the date of appearance of this advertisement in newspapers.
- Please clearly mention the Degree Program for which scholarship is applied in the subject of email.
- No hardcopy of application form is required at this stage. Only short-listed candidates will be called for interview for which TADA shall not be admissible.

Applications should be addressed to:  
Principal Investigator, MID Lab, NCAT  
COMSATS University Islamabad  
(A public sector University of Ministry of Science & Technology)  
Computer Science Department, Academic Block 2  
Park Road, Tarlai Kalan, Islamabad. Tel: 011-9247000-5057  
[www.comsats.edu.pk](http://www.comsats.edu.pk)

PID(I) 3411/20




**USAID-funded Merit and Needs Based Scholarship Program**

50% Scholarships are reserved for Female Students only



**Undergraduate Scholarships for Flood 2022 Affected Students only**

Recent floods in Pakistan have caused unprecedented damage to the infrastructure and livelihood of people in millions. COMSATS University Islamabad (CUI) is one of the public sector ranking universities of Pakistan. It offers a wide range of academic programs at undergraduate and graduate levels. The CUI promotes scholarship and accords emphasis on carrying out quality research.

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  - CV/Resume
  - Attested photocopy of CNIC
  - Attested photocopies of all educational degrees/testimonials
  - Most recent photograph
  - Attested copy of NTS (GAT-Subject) Result Card

**Closing Date**

- The closing date for application is **15 days** from the date of appearance of this advertisement in newspapers.
- Please clearly mention the Degree Program for which scholarship is applied in the subject of email.
- No hardcopy of application form is required at this stage. Only short-listed candidates will be called for interview for which TADA shall not be admissible.

Applications should be addressed to:  
Principal Investigator, MID Lab, NCAT  
COMSATS University Islamabad  
(A public sector University of Ministry of Science & Technology)  
Computer Science Department, Academic Block 2  
Park Road, Tarlai Kalan, Islamabad. Tel: 011-9247000-5057  
[www.comsats.edu.pk](http://www.comsats.edu.pk)

PID(I) 3411/20

global issues and promoting sustainable development. The inclusion of all seventeen Sustainable Development Goals in the report also indicates a comprehensive approach towards achieving overall sustainability. This report will undoubtedly contribute significantly to raising awareness, assessing progress, and encouraging actions towards achieving SDG 2.

### Contribution towards SDG-2 Zero Hunger

COMSATS University Islamabad has taken steps to address food wastage and proper disposal by forming a committee. To ensure effective management of food wastage in campus cafeterias, here are some key steps the committee can consider:

**Waste Audits:** Regularly conduct waste audits to measure the amount and types of food being wasted. This will help in identifying patterns and areas for improvement.

**Menu Planning:** Work with cafeteria staff to plan menus that minimize food waste. Consider offering options for smaller portion sizes and encourage students to take only what they can eat.

COMSATS University Islamabad provides student cafeterias that offer a variety of food items at economical prices. These cafeterias serve as a convenient dining option for students and staff on campus. To maintain the quality of food and ensure fair pricing, the university often establishes cafeteria and food committees.

The specific procedures and policies of these committees may vary from one campus to another and can evolve over time. The primary goal is to create a dining environment that is both affordable and of high quality for the university's community. Students and staff benefit from these committees by having access to safe and reasonably priced food options on campus.

**COMSATS University Islamabad monitors the wastage of Food at campus during the reporting year 2022**  
**72mt food has been wasted at its seven campuses**

**which is 35% less than the last year. Reduce in food waste shows the commitment of the university management to take measures for stopping the food wastage.**

COMSATS University Islamabad is taking steps to ensure that students and lower-income staff have access to affordable and quality food. This initiative can play a significant role in addressing food insecurity among these groups and promoting a supportive and inclusive campus environment.

The faculty members of the Environmental Science Department at CUI Vehari and Abbottabad Campus are actively involved in research related to food security, food waste management, risk assessment, etc. Several research articles were published in this field. The knowledge generated is shared with students via lectures and is freely available to students.

COMSATS University has published an SDG 3 Report for 2022, which contains information related to the third Sustainable Development Goal (SDG), which focuses on ensuring healthy lives and promoting well-being for all at all ages. This goal aims to address various health issues and improve access to quality healthcare services. The specific content of the report would depend on COMSATS University's approach and priorities within the context of SDG 3. It includes information on efforts to reduce maternal and child mortality, combat infectious diseases, improve mental health services, promote healthy lifestyles, address non-communicable diseases, strengthen healthcare infrastructure, and enhance access to essential medicines.

### Contribution towards SDG-3 Good Health and Wellbeing

According to the World Health Organization (WHO) Regional Office for Europe Copenhagen, "Universities can do many things to promote and protect the health of students and staff, to create a health-conducive working, learning and living environments". CUI management believed in the WHO statement. For this



purpose, CUI has up-to-date and well-managed sports grounds and indoor sports facilities on campus. Further, CUI management believed in community services. Therefore, on request, sports grounds and indoor facilities are often provided to the general public. These sports grounds and indoor facilities are provided free of cost for public service events. However, these grounds are also provided to the general public with minimal cost.



The campus has Cricket, Football, badminton, and basketball grounds for both male and female students. Also the gym and indoor game centers are open to students for health and sports activities. The student week is held in each semester offering healthy competition among students in co-curricular activities.



## No Smoking Campus

CUI takes a strong stance against smoking, both for the well-being of its students and staff, as well as the overall safety of the university environment. CUI acknowledges the direct health risks posed by smoking, which can affect both smokers and non-smokers through passive smoking. This indicates the university's commitment to the well-being of its community. CUI's smoking ban extends to all areas within the university, including indoor and outdoor environments, as well as vehicles. This ensures a completely smoke-free campus. The imposition of a 10,000 PKR fine on smokers in case of policy violation demonstrates the seriousness with which CUI enforces its anti-smoking rules. Such penalties are meant to deter individuals from breaking the policy.



## Health Care

COMSATS University Islamabad has arranged medical/health facilities at all of its campuses. In this regard, Medical Centre at CUI Islamabad was established in 2007 which maintains a formulary of life saving drugs and other essential drugs that are provided free of cost to the employees and students of CUI. There are three Medical Officers, two staff nurses and two nursing assistants. The services offered include consultation, first aid management/vital signs monitoring, nebulization, random blood



sugar testing with glucometer, E.C.G., dressings/cut wound stitched, securing haemostasis in case of bleeding from nose/deep wounds, stabilizing patients in case of hypo or hypertension/shock, counseling/psychotherapy, ambulance services, minor surgical procedures, three beds for observation (separate for Male & Female patients).

There are different types of emergencies dealt at CUI Islamabad medical centre few of which are minor emergencies, fainting/unconsciousness/fits, SOB (signs of breathlessness), minor RTA's (Renal Tubular Acidosis), chest pain (first aid before shifting to hospital), dehydration/vomiting, and allergies, etc. The medical center has the necessary medicines available in stock which are donated by different sources to CUI.



CUI, Abbottabad Campus has a well-equipped Medical Center and a qualified senior doctor to provide primary health care services and first aid in case of any on-campus emergency to students, staff, and faculty. Also, Ayub Teaching Hospital, which is a fully equipped hospital, is on a two minutes' drive from our campus. Following Facilities are available at campus:

- An observation room comprises four beds for minor emergencies
- Oxygen cylinder
- Oxygen concentrator
- Nebulizer

- Glucometer
- Stature
- Wheelchairs
- Minor wound stitching and dressings
- I/V and I/M injections for emergencies
- Ambulance

CUI has a Counselling and Wellness Centre (CWC). The CWC has specialized psychologists responsible for counseling faculty, staff, and students, for stress reduction free of cost.

A Medical Centre has been established in the CUI Wah Campus to provide emergency treatment to students and employees. A full time Female Doctor and experienced Dispenser has been engaged in Medical Centre. Medical Centre is equipped with all basic facilities. Moreover, two ambulances are also available for emergency.

### **Health Care at CUI Lahore**

To provide first aid and medical facilities to students and faculty members, a Health Center has been established near the academic block under the supervision of a qualified Resident Medical Officer. The center focuses not only treatment, but also on health promotion and prevention through education and awareness. Student input and feedback is core to our mission.

### **Health Care at CUI Attock Campus**

To meet the physical, mental and social challenges the campus has a medical center along with a medical officer and two nursing staff to provide the first aid and to fulfill the emergency requirements. Also the main district hospital and Rescue 1122 are very near to the campus and are approachable within 2 to 3 minutes.

The SDG 4 Report 2022 published by COMSATS University focuses on Sustainable Development Goal 4, which aims to ensure inclusive and equitable quality education and promote



lifelong learning opportunities for all. This report specifically highlights the university's efforts and initiatives in contributing towards this goal. The report begins with an introduction to the importance of quality education and its role in achieving sustainable development. It then goes on to provide an overview of COMSATS University's commitment to SDG 4 and its efforts in promoting education for all. The report further discusses various initiatives undertaken by the university to improve access to quality education. This includes scholarships and financial assistance programs for underprivileged students, the establishment of educational institutions in remote areas, and collaborations with international partners for knowledge exchange.

## Contribution towards SDG-4 Quality Education

COMSATS University aims to ensure that every individual has access to quality education and opportunities for lifelong learning, contributing to the achievement of a sustainable future for all.

## Constitution of Industrial Advisory Board

Industrial advisory board has been constituted on the advice of the Chairman Computer Science Department in order to minimize the industrial and academia gap. It provides support in expanding and strengthening mutually beneficial relationships with industry, present and former students, and government agencies. The Industrial Advisory Board (IAB) has a vital role in OBE system of Education. It can provide a platform for academia-industry interaction to explore opportunities for joint collaboration and identify potential employers and also it promote institute outreach in industrial community.



Investing in Quality, based on the ownership of Quality Assurance (QA) processes and Quality Enhancement (QE) practices for delivering high quality education, CUI envisages becoming a world premiere center of excellence for education, research and development. CUI has its own quality assurance regimen that reflects its strategic Vision 2030, follows the quality assurance program of the Higher Education Commission (HEC) for improved quality and research, and is also in strict accordance with the international quality assurance standards that facilitate CUI's participation in the world university rankings.

With Quality as its integer and Excellence in higher education as a qualitative strategic imperative, CUI manifested its progressive mission by establishing the Quality Enhancement Cell (QEC) in 2006, and since then, has taken bold initiatives to attain, manage and enhance quality at the institutional level in all its cadres as university management, academic and administration. The QEC, as an essential component of CUI management, is dedicated to an effective implementation of Quality Standards, processes of Quality Assurance and Management System, and continually reviewing the progress for enhancement of quality as per CUI Quality Policy. To create awareness about quality in the students, faculty and staff, QEC is continually involved in developing a quality mind set in the university at student, faculty, and management levels, so that a practicing quality culture is one of the best practices at CUI.

CUI QEC team at Principal Seat, in coordination with the Campus Quality Coordinators (CQC) in all the campuses, has been responsible for bringing realization to all stakeholders that the Quality Assurance program (a Continuous Improvement Process for improving quality in Teaching, Programs, Curricula and Research) is helpful in improving the quality of their professionalism towards the deliverance of quality education.

Comsats University Islamabad has a well-equipped library that is accessible to the entire community, including non-students. The availability of library resources to a wider audience can be a valuable asset to the community and promote lifelong learning.

The issuance of temporary library cards for non-students is a

common practice at CUI. These cards allow individuals who are not formally enrolled at the university to access the library's resources, including books, research materials, and academic databases. In this way, CUI extends the benefits of the university's library to the broader community.



As per COMSATS University Islamabad Act, 2018, the university shall be open to all persons of either gender and of whatever religion, race, creed, class, color, or domicile, and no person shall be denied the privileges of the university on the grounds of religion, race, caste, creed, class, color or domicile. Therefore, the university has a clear policy to ensure that all students have access to the facilities and activities, regardless of ethnicity, religion, disability, immigration status, or gender. In this regard, COMSATS University offers scholarships to disabled, needy, and Afghan refugees.

The Academic Excellence Certificates Distribution Ceremony of semester Fall-2021 was held on March 17, 2022 at new Campus Auditorium to acknowledge the merits of the students who

performed exceptionally well in Fall-2021.

The Director Campus, Prof. Dr. Muhammad Abid, T.I., has graced the ceremony as Chief Guest. He congratulated the high achievers students on their academic excellence and distributed certificates and scholarships among 95 students, secured first three positions at undergraduate level from all departments including Electrical and Computer Engineering, Civil Engineering, Mechanical Engineering, Computer Science, and Management Sciences in BS(EE), BS(CVE), BS(ME) BS(CS), BS(SE), BS(BBA) and BS(AF) programs. The head of departments, faculty members and other officials were also present on the occasion.



Sustainable Development Goal (SDG) 5 shows a commitment to gender equality and empowering women and girls. SDG 5 aims to achieve gender equality and empower all women and girls, addressing issues such as discrimination, violence, and unequal access to opportunities. By dedicating a separate report to SDG 5, COMSATS University demonstrates a comprehensive understanding of the challenges and progress made in this specific goal area. This focused report can provide detailed insights into the university's efforts, initiatives, and achievements related to promoting gender equality and women's empowerment. It is important to acknowledge and address gender disparities and inequalities to create a more



equitable society and foster sustainable development. By highlighting SDG 5 in its report, COMSATS University contributes to the global discourse and collective efforts towards achieving this vital goal.

## Contribution towards SDG-5 Gender Equality

COMSATS University Islamabad Act, 2018, emphasizing the university's commitment to being open to individuals of all genders, religions, races, creeds, classes, colors, or domiciles. CUI has a policy to ensure equal access to facilities and activities for all students, regardless of factors such as ethnicity, religion, disability, immigration status, or gender.

Additionally, COMSATS University offers scholarships to disabled individuals, those in financial need, and Afghan refugees. This reflects the university's efforts to promote inclusivity and provide support to students facing various challenges. COMSATS University Islamabad Act, 2018, emphasizing the university's commitment to being open to individuals of all genders, religions, races, creeds, classes, colors, or domiciles. The statement also underscores the university's policy to ensure equal access to facilities and activities for all students, regardless of factors such as ethnicity, religion, disability, immigration status, or gender.

COMSATS University Islamabad has an open merit policy that allows women to compete for admissions and job opportunities without any gender bias.

COMSATS University Islamabad takes all measures to provide mentoring, scholarships, and all relevant access to its female students and staff, different activities were performed during 2022 to facilitate them for women's access schemes.

## Certificate Distribution In Appreciation Of VTI Trainees

An appreciation certificates distribution ceremony was arranged on September 27, 2022 for the trainees of Vocational

Training Institute, Taxila, including four female and two male who successfully completed their two months on job training (internship) at CUI Wah Campus in different departments Library, Examination, Academic Sections and Services department. The Director Campus, Prof. Dr. Muhammad Abid, T.I., awarded interneers with appreciation certificates in recognition of their dedication and hard work. On the occasion the Principal, Vocational Training Institute, Taxila, Syed Muzaffar Hussain was also invited and appreciated his institution's efforts in providing technical education to the low-income class students for the betterment of the community. The Director Campus mentioned the role of vocational training and self-employment. He motivated them and mentioned that in future CUI Wah Campus will fully support the VTI students in providing on job training and putting the role of CUI Wah Campus in eliminating poverty and equipping the youth in making them self-sufficient. He further mentioned that CUI Wah Campus is also aligned with sustainable development goals (SDGs) to benefit the community gender based and in poverty alleviation. At the end the Director Campus assured cooperation in facilitating the students of VTI. The ceremony ended with a vote of thanks.



## Training On Empowering Women In Geospatial Information Technology – 2022

Engr. Sumera Fahmi Khan from the Department of Civil Engineering/focal person of UNESCO Chair on Knowledge Systems for Integrated Water Resources Management (IWRM) attended the online training titled “Training on Empowering Women in Geospatial Information Technology – 2022 edition from August 16-19, 2022. The training was organized by the

International Centre for Integrated Mountain Development (ICMOD) and the Bangladesh Forest Department (BFD) within the framework of the SERVIR-HKH Initiative supported by the United States Agency for International Development (USAID) and National Aeronautics and Space Administration NASA).

The training aimed to train and enhance the capacity building of young female professionals on improved techniques to access the Hindu Kush Himalaya (HKH) region on the use of Earth observation (EO) data and geospatial information technology (GIT) to empower women and enable them to use EO data for different applications. This will support them in bridging the gender gap in the EO/GIT field and help to build the foundation for women's leadership in the EO/GIT sector in HKH region.

### **One-week training workshop on “Women's Participation in the Democratic Processes”**

The Department of Development Studies, COMSATS University Islamabad (CUI), Abbottabad campus, organized a one-week training workshop on “Women's Participation in the Democratic Processes”. The workshop was funded by Shirkat Gah and supported by the Omar Asghar Khan Development Foundation (OADF). More than 300 students and faculty of the CUI, Abbottabad Campus, and local organizations attended the training workshop. The workshop emphasized the importance of democracy, democratic processes, the importance of election in a democracy, and ensuring gender inclusiveness in the election process.



### **Training workshop was organized by the (PITAC) in collaboration with COMSATS University Abbottabad Campus**

One day training workshop was organized by the Pakistan Industrial Technical Assistance Center (PITAC) in collaboration with COMSATS University Islamabad, Abbottabad Campus on December 19, 2022. The event was sponsored by the Small and Medium Enterprises Development Authority (SMEDA) and National Business Development Program for Small and Medium Enterprises (SMEs). The participants of the workshop included representatives from the industries, faculty members of the university, and employees of relevant government departments. From COMSATS Abbottabad, faculty members from the Department of Environmental Sciences, Engineering, Pharmacy, and Biotechnology attended the event. The main training session focused on the prevention and management of various health, safety, and environment-related issues in various industrial units. Participants were given detailed training on various scenarios that can lead to major hazards and techniques to manage such accidents. The session concluded with a vote of thanks by the Campus Director, Professor Dr. Muhammad Maroof Shah. He emphasized the need for more such training at all workplaces to prevent accidents. The campus Director distributed the certificate of participation among the attendees of the training session.





COMSATS University has published a report on SDG 6 in their 2022 SDG Report. SDG 6 focuses on ensuring clean water and sanitation for all. It's commendable that we have dedicated a separate report specifically for this goal. This shows our commitment to addressing the challenges related to water and sanitation and their efforts in contributing to the achievement of SDG 6.

## Contribution towards SDG-6: Clean Water and Sanitation

COMSATS University takes all measures to provide clean water and sanitation at its all campuses.

CUI has implemented measures to prevent polluted water from entering the water system, including addressing pollution caused by accidents and incidents on campus. The university has installed separate sieves for toilets, washrooms, and kitchens to ensure that solid waste and food waste do not mix with the water. This helps maintain the quality and cleanliness of the water supply.

The University provides free drinking water to students, staff, and visitors. To ensure the quality of the water, a reverse osmosis water filtration plant has been installed on campus. This plant helps purify the water, making it safe and suitable for consumption. Students, visitors, and employees at the university benefit from this facility. Reverse Osmosis water filtration plants installed on the campuses.

CUI follows building standards that aim to minimize water use. All the buildings on campus are designed and constructed in accordance with the standards set by the relevant regulatory authorities. These standards ensure that water-efficient practices and technologies are incorporated into the buildings, helping to reduce water consumption and promote sustainability. Dual flushes in the toilet are being used at university. Two-stage flush system toilets use about 20 percent less water per year than conventional one-flush-only toilets.

COMSATS University Islamabad has a dedicated horticulture section that is planned and maintained on a sustainable basis. The university focuses on planting indigenous local varieties of trees, shrubs, and ground cover that are well-suited to the climatic conditions and requirements of the area. The selection of plants includes less water-dependent species such as Cassia fistula Linn, Pongamia Pinata, Sapium, Silver Oak, Argun, Persian lilac, and Mountain Ebony. To oversee the horticulture affairs of the university, there is a dedicated horticulture society in place. This society ensures the proper care and maintenance of the university's horticultural areas.

Centre for Climate Research and Development of CUI focuses on mainstreaming climate change into development policy and community-based adaptation to climate change across the country. In this regard, CUI faculty engages in providing support for water conservation and improving the quality of water in university particularly and in the country as whole.

CCRD arranges different awareness campaigns on water conservation and reuse issues Awareness Brochures and banners to the University Water Utility and saving



CCRD CUI conducted the webinar on "Feasibility Study for Provision of Safe Drinking Water through Water Conservation (SDWC)" on 30th March 2022. The purpose of organizing this webinar is to share the outcomes of the ongoing feasibility study for the Provision of Safe Drinking Water through Water

Conservation (SDWC) with the D-8 member countries. To gather scientists, water experts, and academicians around the globe to exchange their views and experiences to address the key challenges/research gaps related to water.

## Celebration of World Water Day 2022

UNESCO Chair on Knowledge Systems for Integrated Water Resource Management at CUI Wah celebrated World Water Day on March 31, 2022 at COMSATS University Wah Campus and organized a Seminar titled “Monitoring Climate Extreme Events through Remote Sensing and Modelling” followed by a Poster Competition with this year theme "Groundwater: Making the invisible visible".

The resource person Dr. Mukhtar Ahmed enlightened the participants about the impact of extreme climate events (ECE) on the agricultural sector of Pakistan using remote sensing techniques to predict scenarios to explore possible options to mitigate the effect of ECE and to achieve sustainable development goals.

A large number of students from schools, colleges and universities and professionals participated in the poster competition. The purpose of this competition was to raise awareness about groundwater. Groundwater is an important source of fresh water which is invisible but its impact is visible everywhere. Experts from academia and industry evaluated posters. Seminar and Poster competition supported the Chair effort to achieve the Sustainable Development Goal 6: Water and Sanitation for all. The winners and runners up of the poster competition for school category and university category were awarded cash prizes and certificates.



## Project Meeting on Satpara Lake Sedimentation and Climate Modeling

The project meeting was held on December 22, 2021 under the chairmanship of the Director Campus/ UNESCO Water Chair on Knowledge Systems for Integrated Water Resources Management (IWRM), CUI Wah Campus, Prof. Dr. Muhammad Abid, T.I.,. Following members attended the meeting Dr. Mukhtar Ahmad, Assistant Professor, Department of Agronomy from Arid Agriculture University Rawalpindi, Dr. Muhammad Hasan Ali Baig, Associate Professor, Institute of Geo-Information & Earth Observation from Arid Agriculture University Rawalpindi, Dr. Munawar Ali Abbass, Assistant Professor, Department of Mathematics from University of Baltistan, Skardu. Dr. Zaheen Khan, Assistant Professor, Department of Geology from University of Baltistan, Skardu. Dr. Zakir Hussain, Assistant Professor, Department of Mathematics from University of Baltistan, Skardu. Dr. Salar Ali, Assistant Professor, Department of Environmental Sciences from University of Baltistan, Skardu. The said meeting was between the researchers from Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi (AAUR), the University of Baltistan, (UoB), Skardu and COMSATS University Islamabad (CUI) Wah Campus. Deliberations held on the planning taken to study the improvements in supply of irrigation water for Satpara Lake Sedimentation and Climate Modeling project as a multidisciplinary team. It was also decided to submit a joint research proposal to some related funding agencies under the UNESCO Water Chair on IWRM, PSF or HEC.



SDG 7 focuses on affordable and clean energy, and having a separate report for it shows a dedicated effort of COMSATS University Islamabad towards achieving this goal.



## Contribution towards SDG-7: Clean Energy

Affordable and Clean Energy (SDG 7) is one of the 17 global goals established by the United Nations as part of the 2030 Agenda for Sustainable Development. SDG 7 focuses on ensuring access to affordable, reliable, sustainable, and modern energy for all. The goal recognizes the importance of energy in various aspects of development, including economic growth, environmental sustainability, and social well-being.

This goal recognizes the crucial role of affordable and clean energy in achieving sustainable development. Access to reliable and clean energy sources is essential for poverty eradication, economic growth, environmental protection, and improved quality of life. By addressing the targets outlined in SDG 7, countries can work towards ensuring that everyone has access to affordable, reliable, and modern energy services while promoting sustainable energy practices and reducing environmental impact.

All buildings at CUI's campuses are designed and constructed with a focus on energy efficiency parameters and compliance with standards issued by the Capital Development Authority (CDA) and the government of Pakistan. Energy-efficient buildings can help reduce energy consumption and lower environmental impact while also providing a more comfortable and sustainable environment for occupants.

CUI had planned to replace all conventional lights with LED lights which saved 95% energy as compared to conventional lights. CUI had installed 1700 No's LED Lights in the Year 2022.

Following are the recommendations to support energy conservation plan at CUI-Lahore campus level:

1. On-Campus Solar Energy
2. Solar Heating and Hot Water
3. Energy Efficiency in Campus Buildings

### 4. Sustainable Transportation

### 5. Energy Conservation

100 KW Solar Power Plant at Islamabad Campus was commissioned in September 2016. Per kWh CO<sub>2</sub> emission by Thermal Power Plant is 0.6 kg. Total Energy Produced by this plant up to August 2023 is 647,584 KW. This means that this Solar Power Plant has saved 355 tons of CO<sub>2</sub> emission during the period under consideration. One grown tree roughly absorbs 24 kg of CO<sub>2</sub> annually. The CO<sub>2</sub> emissions saved by this Power Plant are equal to 14,800 full-grown trees. 300 KW Solar Power Generation Facilities Installed at Sahiwal Campus. The commissioning date of the project is April 14, 2022. To date, the total units produced by this facility are 434,960 kWh. This means that this Solar Power Plant has saved 260 tons of CO<sub>2</sub> emission since its commissioning. CO<sub>2</sub> emissions saved by this Power Plant are equal to 10,874 full of trees.

The agreement for establishment of 400 kW solar power generation facility at Vehari Campus is signed on Nov. 2022. Tentative production in one year would be 584,000 kW.

CUI had installed Multi Digital Scroll System (MDS) Technology which is 30% energy efficient as compared to conventional air conditioning. Furthermore, Building Management Systems installed at all buildings of CUI, Islamabad campus has been installed resulting in efficient usage of energy consuming devices. Inverter A/C are installed where MDS system is not used. Power Factor Improvement Panel installed to Control Power Factor effected by inductive load.

COMSATS University has established Energy Research Center at CUI Lahore Campus, the mission of the Energy Research Center (ERC) is to develop actively smart energy-related programs, improve the quality of domestic talents in basic research and the development of smart energy, and promote sustainable development curricula with the Ministry of environment and Ministry of Science and Technology. ERC endeavors to improve and advance its commitment to renewable energy through education.

### Seminar, titled “Heat Transfer Assessment of Micro Channel Heat Sinks with Different Shape Ribs”

The department of Mechanical Engineering in collaboration with ASHRAE arranged a seminar, titled “Heat Transfer Assessment of Micro Channel Heat Sinks with Different Shape Ribs” for undergraduate students in university campus on 17th March 2022 by Dr Zabdur Rehman Chair Mechanical Air University Islamabad.

The students of Mechanical Engineering attended the seminar. The speaker introduced students with micro and mini heat channel flows and their application as heat sink. During lecture students were informed in detail about application of phase change heat transfer modules for devices where area constrained is faced. Students enjoyed lecture as it was about application of their heat transfer concepts for solving real world problems. Heat sinks of micro processor were discussed in detail and its parametric study were also presented to students so that they can design optimized heat transfer modules in future.

Other parameters of heat transfer were also discussed in detail to converge student theoretical knowledge to take it as their final year project so it can be a solution provider to the industry and society. At last the speaker discussed about energy efficiency and responsibilities of an design engineer to progress in future.

At the end students had very fruitful interactive question answer session with the speaker. Students acknowledged the emergence of multidisciplinary stream and the importance of Heating, Cooling and Refrigeration systems in the field of Mechanical Engineering. The session ended with the Director, Prof. Dr. Muhammad Abid addressing to the students and presenting souvenir shield to the speaker.



### Workshop on Energy Efficiency and Decarbonization of Industries In Pakistan

In continuation of study conducted by the Centre for Industrial and Building Energy Audits on behalf of World Bank. The Director Campus/ UNESCO Chair on Knowledge Systems for Integrated Water Resources Management (IWRM), COMSATS University Islamabad, Wah Campus Pakistan attended the workshop on July 04, 2022 on Energy Efficiency and Decarbonization of Industries in Pakistan, organized by the World Bank at Serena Hotel Islamabad, Pakistan.



SDG 8 focuses on promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. It's excellent that COMSATS University has dedicated a separate report specifically for SDG 8. This shows their commitment towards advancing this particular goal and ensuring its progress is tracked and measured. By doing so, the university can contribute to the larger global efforts of achieving all seventeen Sustainable Development Goals.

### Contribution towards SDG-8: Decent Work and Economic Growth

SDG 8 aims to ensure that economic growth is inclusive and benefits all segments of society. COMSATS University Islamabad believes that by focusing on decent work, job creation, and



supporting small businesses, it can contribute to building a sustainable and equitable national economy.

Further Living wage in Pakistan is not defined by the Government of Pakistan, however, the minimum wage is defined which is currently Rs 25,000/- per month. COMSATS University Islamabad has also notified minimum wage i.e. Rs 25,000 per month. An analysis of the gross salaries structure of CUI employees depicted that 100% of CUI employees have salaries more than the benchmark of minimum wage.

At CUI there are Unions/Associations from academic, administrative, and support staff aimed at working for the rights of employees. However, these Associations are not legally recognized by CUI.

1. International Staff as well as faculty including women are recognized and recruited at the university. The SOPs along with incentives for the recruitment of international staff are enclosed.
2. CUI follows labor laws in terms of working hours for its employees and offers overtime to staff-grade employees

### Seminar on “How to Be an Entrepreneur”

The Department of Management Sciences and Eventix Society arranged a seminar on “How to be an Entrepreneur” on December 8, 2022. Mr. Ahmed, CEO of Mughlia Baithak, Wah Cantt, an alumni of CUI Wah Campus and a successful entrepreneur was a resource person of the seminar. The purpose of the event was to share important steps and techniques with students on “How to be an Entrepreneur”. The speaker discussed his experience and addressed the entrepreneur's abilities to develop and organize his limited resources, take initiative to handle uncertainties in order to make a successful entrepreneur. The experience of the resource person was very helpful for the students for their future professional endeavours. Students/faculty members from all departments of the University attended the seminar with interest. At the end the fruitful question answer session was also held to clear the fear of market conditions and misperceptions

among students regarding becoming an entrepreneur. The speaker motivated them to think and move forward with their own start-up ideas. The event was concluded by presenting a university souvenir to the guest speaker by the Head Management Sciences Department with a vote of thanks.



It's essential to clarify that modern slavery, also known as human trafficking, is a grave violation of human rights, and it is illegal and unethical. There is no practice of modern slavery at CUI. The University, as per policy, follows a minimum of 40 working hours a week which is clearly mentioned in the Employment Contracts. Staff Grade employees are given Overtime according to the rate approved for different grades. Further Efficiency and Discipline Statutes 2006 and Rules for Harassment, Sexual Harassment, and Abuse of Authority 2009 are notified and implemented in CUI. No one is allowed to exploit employees for personal gains, in the case of any volunteer work, people volunteer themselves. No one is allowed to exploit employees for personal gains, in the case of any volunteer work, people volunteer themselves, and no physical or any kind of threat If someone wants to leave the employment of CUI.

COMSATS University Islamabad is committed to gender equity and does not discriminate in terms of employee rights, pay, and privileges. Ensuring equal pay and treatment for all employees, regardless of their gender, is an important step towards creating an inclusive and fair work environment. Gender equity promotes diversity, equality, and overall well-being within the organization, and it's essential for fostering a positive workplace culture.

COMSATS University as a body possesses a process, which is part of the Act as well as policies. The grievance redressal process is there and besides policy documents, it is also mentioned in the employment contract. As per Employees Efficiency and Discipline Statutes 2006 clause 26(A), the

employee has the right to prefer an appeal within 30 days of the issuance of the order imposing the penalty to the appropriate appellate authority.

Employees can present their grievances related to their salaries, promotions, and others. There is a devised mechanism and notified committees to address this grievance.

## One Day Entrepreneurial Training Activity

The Department of Management Sciences conducted an entrepreneurial training activity on June 2, 2022 for the undergraduate students of BBA and BAF under the guidance of Assistant Professor, Dr. Muhammad Yar Khan and Mr. Imran Mehmood. The students of Entrepreneurship and Project Planning & Management displayed their stalls to capitalize their theoretical and practical concepts. The focus of this entrepreneurial activity was to provide a platform to students for idea generation, screening and its implementation concept to fulfill the client demands as per available financial resources and to polish their marketing and management skills.



## E-Rozgaar Training Program

The COMSATS University Islamabad, Wah Campus Center of E-Rozgaar Training Program is a joint Project of Punjab Information Technology Board (PITB), Government of Punjab was established

and providing hands on trainings since November 2017 with a aim to strengthen capacities of young generation by enhancing their technical digital skills and providing platform of freelancing to start their own businesses.

e-Rozgaar training center, COMSATS University Islamabad, Wah Campus, embarked SDG 8 and 4 with challenges of poverty reduction, providing quality education, removing economic barriers and improving the well-being of society by successfully trained over 1450 individuals so far without any gender discrimination.

This program is not just a training program but also a revolution that will help the youth in generating decent job/work and taking our Society and Pakistan to run in the race of future of work around the world and contributed in the wellbeing of the society.

## Contribution towards SDG-9: Industry, Innovation and Infrastructure

COMSATS University published SDG Report 2022 containing all seventeen Sustainable Development Goals with a separate Report for SDG 9

SDG 9 plays a pivotal role in driving economic growth, fostering innovation, and creating sustainable infrastructure that benefits societies and economies around the world. Collaboration between governments, private sectors, and civil society is essential to achieving the targets outlined in this goal COMSATS University Islamabad realizes the importance of this development goal and focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Achieving this goal is crucial for promoting economic growth, creating job opportunities, and ensuring environmental sustainability.

The Civil Engineering and Architecture departments of CUI are playing a vital role to implement the SDG 9 objectives in its academic programs and different campuses have arranged awareness activities about the industry, innovation and



infrastructure.

The Bachelors of Architecture program produces architects, who understand that architecture is an integral part of the society's arts, are knowledgeable about the global and regional issues and trends have deep understanding of their identity and the society and believe in the relevance of architecture towards a better future for all. We envisage a research based pedagogy in all subjects where students demonstrate their knowledge through examinations and in the form of research projects that synthesize the semester's work, in order to emphasize the skills of critical thinking and analysis acquired by students. The B. Arch curriculum has been designed to situate architecture within these broader and multi-faceted parameters and is taught through a holistic pedagogy.

Civil engineering is the oldest engineering discipline. It deals with the design, construction and maintenance of the physical and naturally built environment. It dates back when someone for the first time place a roof over his/her head and use trunk of tree to cross a river.

COMSATS University promoting the idea that, civil engineers do a lot more than design buildings and bridges. They can apply their Engineering skills in the aerospace industry, designing jetliners and space stations; designing of high rise and off-shore structures, perfecting the load-carrying capacity of a chassis and improving the crashworthiness of bumpers and doors; and they can be found in the ship building industry, the power industry, and many other industries wherever constructed facilities are involved. And they plan and oversee the construction of these facilities as construction managers.

Civil engineering is an exciting profession because at the end of the day you can see the results of your work, whether this is a completed bridge, a high-rise building, a subway station, or a hydroelectric dam.

The department of Civil Engineering at CUI Wah Campus offers a competitive four years degree program at the undergraduate level and at graduate level based on a comprehensive curriculum

designed in accordance with the HEC and PEC guidelines and in line with international standards. The programs aim to provide critical learning for a broad foundation in structures, environmental engineering, geotechnical, materials, water resources, and transportation. Considerable emphasis is placed on group-based, open-ended design projects to provide students with the necessary skills for creative teamwork and to prepare them professionally for diverse employment opportunities. Preparation for professional practice and graduate studies is accomplished through careful selection of technical electives. The civil engineering programs provide conducive and stimulating environment to both students and faculty.

Academic and Scientific Collaboration with Ajman University A delegation from COMSATS University Islamabad (CUI), headed by the worthy Rector CUI, Prof. Dr. Muhammad T. Afzal and Director CUI Wah Campus, Prof. Dr. Muhammad Abid, T.I., undertook a visit to Ajman University (AU), UAE from November 21 – 25, 2022 to ink memorandum of understanding (MoU) to establish joint academic and scientific cooperation between the two institutions.

During the visit, several meetings were held with notable personnel, including the Vice Chancellor of Academic Affairs, Prof. Khaled Assaleh, Dean, Graduate Studies and Research, Dr. Kamran Arshad and Executive Director Office of Institutional Planning and Effectiveness, Prof. Mustahsan Mir. The worthy Rector elaborated the international rankings that COMSATS University Islamabad (CUI) has earned in recognition of its excellence in teaching and research as well as its active engagement in internationalization efforts. Prof. Dr. Muhammad Abid, T.I., also provided updates on on-going research activities.

## **International Tall Building Modelling and Design Competition (ITBMDC)**

Students from the Department of Civil Engineering, COMSATS University Islamabad, Wah Campus participated in the International Tall Building Modelling and Design Competition

(ITBMDC) organized by University Technology Petronas (UTP), Malaysia and secured 2nd Position.

The event aims to shed new light on the meaning and value of tall buildings in modern society. The theme for the competition was to “Develop a digital model of a robust multi-storey Academic Block for Futuristic University Campus”. In this competition; students were tasked to model and design a tall building considering all the safety precautions in the post-covid era. The team submitted a report in a 10 minutes video showing all the parameters of design. Later, an online presentation was taken by the jury followed by a questions answer session in September, 2022. A team comprised of five students from BS (CVE)- 8th Semester, Hammad Shehzad, Muhammad Abdur Rahman Marghoob, Muhammad Abdullah Khan, Fariha Ahmed and Osama Ahmad under the supervision of Lecturer, Shahzadi Irum secured Silver Prize (2nd position) among the 29 teams from various countries. The cash prize of PKR.25,000/- was also awarded to the team. Teams from Pakistan, Jordan, Indonesia and Malaysia participated in the event.

#### International Tall Building Modelling and Design Competition (ITBMDC)



### Capacity-Building seminar on "Preparing Yourself for the Software Industry"

The Career Development Cell (CDC), CUI Wah Campus in coordination with the Department of Computer Science has arranged a capacity-building seminar on "Preparing Yourself for the Software Industry" for the final year students on October 6, 2022. The aim of the seminar was to provide the knowledge to students on how to present their expertise to meet the growing capacity of digitization and to pursue a career in the software Industry.

The In-charge CDC, Dr. Mushtaq Ahmad Bhatti and Head, Computer Science Department, Dr. Sheraz Anjum welcomed the guest speaker. The speaker CEO, ID-ware Group B.V. Denhagg Germany, Mr. Ali Hasnain Rizvi talked about the practices of the Hi-tech corporate world of the software industry and its share in the market. He highlighted that the future career path in an IT World demanded expertise that they have to prove to excel. At the end, a question answer session was also held to summarize the theme. The CUI Wah Campus souvenir was presented to the guest speaker with the vote of thanks.



The SDG 10 Report aims to shed light on the status, challenges, and progress made towards reducing inequality at both the national and international levels. It provides data, analysis, and recommendations to policymakers, stakeholders, and the general public in addressing this important goal. The report extensively covers various dimensions of inequality, such as income inequality, social inequality, and regional disparities. It examines the underlying causes and impacts of inequality, highlighting the linkages between social, economic, and environmental factors.



## Contribution towards SDG-10: Reduced Inequalities

The idea behind SDG 10 is to create a world where opportunities and benefits of development are accessible to all, regardless of gender, age, race, socioeconomic status, or other factors. Reducing inequalities is seen as a fundamental aspect of sustainable development, contributing to social harmony, economic stability, and overall well-being.

COMSATS University developed its policies in line with the requirements of this goal. There is a uniform admission policy that is entirely non-discriminatory. According to COMSATS University Islamabad's Act of 2018, the University has maintained a nondiscriminatory admission policy, and as per clause 5 of the act "The university shall be open to all persons of either gender and of whatever religion, race, creed, class, color or domicile, and no person shall be denied the privileges of the University on the grounds of religion, race, caste, class, color or domicile".

COMSATS University Islamabad tracks the applications and admissions of under-represented groups through various systems and portals. The CU-online system, online admissions system, and the portal for admissions of international students are utilized for this purpose. CUI follows a merit-based recruitment policy for students, staff, and faculty. According to clause 5 of the COMSATS University Islamabad Act, the university is open to individuals of any gender, religion, race, creed, class, color, or domicile. The university does not discriminate against anyone based on these factors and ensures that no person is denied the privileges of the university on such grounds.

### Several events were conducted during 2022 under the SDG 10

#### Celebration of World's Disable Day 2022

The COMSATS University Islamabad (CUI) Wah Campus jointly celebrated the International Day of Persons with Disabilities

2022 with Young's Muslim Inclusive Education System, Wah Cantt on December 2, 2022. The objective of this event was to spend some good time with the special children of "Young's Muslim Inclusive Education System" to show solidarity, reduce inequalities by raising awareness among youth towards their responsibility to special kids. This activity built the understanding among the students of CUI on mobilizing their support for the well-being of all those who are with any disability. The students arranged a painting and gaming stalls to make this day special for special children. The kids enjoyed face painting and playing games. The students presented the token of collection of funds to the Principal of Young's Muslim Inclusive Education System to as a support of CUI Wah Campus. The visiting group faculty and students of CUI Wah Campus were shown the art and craft made by the kids which are very impressive. At the end gifts were distributed among the special children by the CUI Wah Campus students. Young's Muslim Inclusive System appreciated the efforts of the students and management of the CUI and presented a souvenir to CUI Wah campus.



## Motivational Talk on “Creating Differentiation Between Right And Wrong”

The CUI Wah Campus, "COMECS Society Pakistan-Wah Chapter" under the supervision of, Lecturer, Mrs. Sharmeen Shahid from Department of Mathematics and Lecturer, Mr. Muhammad Bilal from Department of Computer Science and SSBC organized a live session in collaboration with youth club on October 4, 2022. The seminar aimed to spread awareness among youth about their right or wrong.

Prof. Dr. Wasif Nisar, Dr. Mushtaq Bhatti and Dr. Mudassar Raza received the guest speaker Mr. Tuaha ibn Jalil, a prominent Motivational Speaker, Trainer, Life Coach & Country Head of Youth Club. The youth club ambitions to work for nurturing, mentoring, and guiding the youth to practice Islam with good understanding of Deen and Dunyah. The Director Campus, Prof. Dr. Muhammad Abid, T.I., appreciated the efforts of speaker, had an interactive meeting with him, and encouraged Youth Club of CUI Wah to organize such events in joint collaboration.

Sustainable Cities and Communities (SDG 11) is one of the United Nations' Sustainable Development Goals, aiming to make cities and human settlements inclusive, safe, resilient, and sustainable. Achieving the targets outlined in SDG 11 can have various positive effects on the environment, society, and the economy. Achieving SDG 11 involves collaboration between governments, local authorities, the private sector, and communities. This goal encourages sustainable urban planning, affordable housing, efficient public transportation, environmental protection, and resilience to natural disasters. By working towards these targets, cities can become more inclusive, environmentally friendly, and better equipped to handle the challenges of urbanization.

## Contribution towards SDG-11: Sustainable Cities and Communities

CUI believes that affordable housing initiatives are a significant step toward creating a supportive and employee-centric work

environment. These efforts align with broader goals of responsible and sustainable business practices, contributing to the well-being of both individuals and the community as a whole. CUI provides an affordable accommodation to employees and students at subsidized rates.

## Visit to the Department of Mechanical Engineering and the Department of Art and Design

The delegation comprised on the senior faculty members from the Department of Art and Design (DoAD), Chairperson/ Associate Professor, Ms. Farrah Mahmood, Associate Dean-Partnership from Cardiff Metropolitan University, UK, Dr. Fiaz Hussain and team visited the newly established Department of Art and Design, laboratories, drawing hall of Mechanical Engineering and other facilities available at COMSATS University Islamabad, Wah Campus on December 5, 2022. The delegation was accompanied by the Director Campus, In-charge Career Development Cell (CDC) and In-charge, Student Affairs. The team took keen interest and appreciated the facilities available at Mechanical Engineering Laboratories.



## Seminar on “Performance evaluation of hot mixed asphalt through modifiers”

The Department of Civil Engineering organized a CPD seminar on “Performance evaluation of hot mixed asphalt through modifiers”, on November 24, 2022. Head, Civil Engineering Department, CUI Wah Campus welcomed the guest speaker,



Engr. Dr. Ghulam Yasin, Assistant Professor/Head, Department of Civil Engineering at MY University. He has a PhD degree in Civil Engineering from UET Taxila with a research focus on the “Performance Evaluation of Aged Asphalt Binder through Rejuvenators”. The guest speaker focussed on the performance-based evaluation of asphalt concrete at different environmental and loading conditions. To this end, this event presented the cracking and rutting potential of field cores obtained from the routes across M-2 motorway using modern mixture performance tests. Asphalt mixtures from the selected sections contained a wide variety of recycled materials, additives and virgin binder grades. This allowed for distinguishing good and bad performers and developing strategies to further boost their performance. At the end the CUI Wah Campus souvenir was presented to the guest speaker. The seminar ended with a vote of thanks



## Student's Week Fall – 2022

The Student's Week Fall-2022 semester was conducted at CUI, Wah Campus from October 31 – November 04, 2022. Sports, extracurricular activities and showcase of regional cultures of Pakhtoon, Punjabi, Saraiki and Kashmiri were the part of student week. Students actively participated in Cricket, Football, Badminton, Table Tennis and Badminton, Indoor Games, E-Gamming, Dramatics and other competitions like Quiz, Calligraphy, Photography, Essay, Qirat and Naat competition. Inter cricket tournament was held among different departments in which faculty and staff members played and showed their enthusiasm. The Pet and Auto Shows captivate the attention of the audience and enjoyed a lot. At the closing of events, trophies, souvenirs and certificates were distributed among winners, runner-up teams, individual participants and organizers.





## CPD seminar "Impact of Machine Learning in the Field of Civil Engineering"

One day CPD seminar "Impact of Machine Learning in the Field of Civil Engineering" was organized by the Department of Civil Engineering on October 13, 2022. The guest speaker, Dr. Muhammad Faisal Javaid, Head, Civil Engineering Department from COMSATS University Islamabad, Abbottabad Campus delivered seminar. The speaker has an experience of over 10 years in the structural modeling, analysis and design of buildings and other structures.



The speaker delivered the key features of application of machine learning and models of performance- based evaluation to build facilities under extreme loads. He shared real case studies and explained solutions of practical issues by using ML Techniques and demonstrated GeneXpro Tool 5.0 application. He also discussed the approaches involved to predict and understand the materials behaviors. At the end the CUI Wah Campus souvenir was presented to the guest speaker with the vote of thanks by the Head, Civil Engineering Department, Dr. Tahir Mehmood.

## National Dialogue on GDI to GSI

The Director Campus, Prof. Dr. Muhammad Abid, T.I., attended the National Dialogue on Global Development Initiative (GDI) to Global Security Initiative (GSI) on October 6, 2022 at Marriott hotel Islamabad. The Dialogue was organized by the China Study Center of COMSATS University Islamabad and Islamabad Policy Research Institute (IPRI) The worthy Rector COMSATS University Islamabad, Prof. Dr. T. Afzal in his welcome note highlighted the role of GDI and GSI towards well-being and prosperity of people across the globe. The President, Islamabad Policy Research Institute, Amb. Dr. Raza Muhammad presented the introductory note and the keynote address was presented by the Member of

the Senate & Chairman, Senate Standing Committee on Defence, Government of Pakistan, Mr. Mushahid Hussain Syed. A part of the Dialogue, a meeting on mutual corporations was also held between the officials of Turkey and Shanghai Cooperation Organization (SCO).

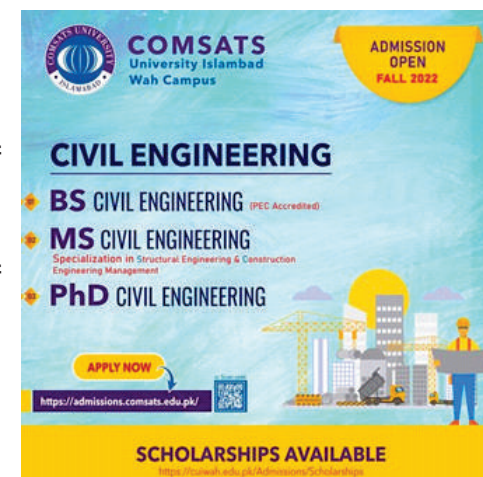
## Sports Week Spring 2022

CUI celebrated Sports Week from June 15- 17, 2022. The aim of the event was to groom the physical and mental health of the students. Cricket, Football, Volleyball and other indoor sports competitions were organized between different departments. Students actively participated in the sports events. The chief guest of the closing ceremony, Director Campus, Prof. Dr. Muhammad Abid, T. I., encouraged the students on their active participation and awarded trophies to the winning teams.



## Seminar on Shear Strength of High Performance Concrete

The Department of Civil Engineering organized a CPD seminar on "Shear Strength of High Performance Concrete", on May 18, 2022. The Director Campus along with HoD Civil Engineering, CUI Wah Campus welcomed the guest speaker, Engr. Prof. Dr. Attaullah Shah, Vice Chancellor Karakorum International University (KIU), Gilgit, an expert in the area of academic leadership, financial





management and resource mobilization. Dr. Shah is the author of more than 100 publications and author of six books in the areas of Engineering Eco, High Strength Concrete, Disaster Management, and Construction Project Management. The Director Campus, Prof. Dr. Muhammad Abid, T.I., in his welcome note shared his vision of future avenues of mutual collaboration in providing quality education and research in the field of engineering.



## Tree Plantation Drive Spring - 2022

The Tree Plantation Drive at COMSATS University Islamabad, Wah Campus was started and inaugurated by the Member of the Provincial Assembly Punjab (MPA), Malik Taimoor Masood Akbar on February 4, 2022. He planted a tree opposite to the Mechanical Block. On the behalf of Director Campus, Prof. Dr. Muhammad Abid, T.I., Sr. Manager Student Affairs Dr. Akmal Javaid planted a tree for heightening campus plantation drive. This event was organized by the Services Section under the supervision of Manager Services, Dr. Muhammad Nawaz. The Heads of Department, Section heads and staff members participated in the drive and planted trees.

## Seminar on Engineering Entrepreneurship

Institute of Civil Engineers (ICE) UK student chapter at CUI Wah Campus, on behalf of Department of Civil Engineering, organized a seminar on Engineering Entrepreneurship on January 04, 2022.

Engr. Maqsood Ali Kamboh, CEO/President TSI Engineering Inc, California, USA was the guest speaker. Engr. Maqsood was warmly welcomed by the Director Campus, Prof. Dr. Abid and Head Civil Engineering Department, Prof. Dr. Saeed Ahmad. In his talk, Engr. Maqsood emphasized on the importance of doing own business instead of looking for jobs. Students of civil engineering department and Management Sciences department attended the seminar.



Responsible Consumption and Production" is the 12th goal among the Sustainable Development Goals (SDGs) established by the United Nations. SDG 12 aims to ensure sustainable consumption and production patterns. It addresses the need to do more with less and promotes the efficient use of resources while minimizing adverse environmental impacts throughout the life cycle of goods and services.

## Digital Logic Design-based Semester Project

The purpose of a Digital Logic and Designed base semester project in the Computer Science department at COMSATS University Islamabad, Vehari is to provide students familiar with basic logic gates and their functions. In this event students of applied physics made projects related to multiple problems. The project were made using transistors, diodes, leds, sensors, and capacitors etc. Titles of the some of the good projects were Water level indicators, Heat sensor, Automatic Street Lights, Fire

Alarm Circuit, and Automatic Door Opening Circuits etc. The event was organized in DLD Lab of Computer Science Department on 12-January-2022



## Contribution towards SDG-12: Responsible Consumption and production

COMSATS University, involves a combination of awareness campaigns, educational initiatives, and practical measures. Here are some potential activities that the university undertook to promote responsible consumption and production:

### Awareness Campaigns:

CUI organized workshops, seminars, and awareness campaigns to educate students, faculty, and staff about the principles of responsible consumption and production.

By using various communication channels, including social media, posters, and newsletters, CUI shared information on sustainable practices, waste reduction, and resource efficiency.

### Curriculum Integration:

Sustainability and responsible consumption topics are integrated into the university curriculum, across various disciplines, to ensure that students are exposed to these concepts in their academic studies.

### Waste Management Initiatives:

COMSATS University Implements and promotes effective waste separation and recycling programs on campus. CUI encourages the reduction of single-use plastics and provide alternatives such as reusable water bottles and containers at all campuses. The CUI has set up for recycling bins across the campus and the service section raises awareness about the importance of waste reduction and proper disposal. COMSATS University Islamabad actively discourages the use of plastic within its premises. The university promotes environmentally friendly practices and encourages the reduction of plastic waste. The Cafeteria at COMSATS University Islamabad follows a sustainable approach by serving food in washable crockery. The use of disposable plates and glasses is not permitted, promoting environmental consciousness and reducing waste.

### Green Campus Initiatives:

COMSATS University Implements energy-efficient practices, such as using renewable energy sources, and promoting energy conservation. The CUI management developed and maintained green spaces on each campus to enhance biodiversity and create a sustainable environment.

### Partnerships and Collaborations:

CUI Collaborates with local businesses and organizations that follow sustainable practices to create partnerships that support responsible consumption and production. The University engages with industry experts through seminars or guest lectures to provide insights into sustainable business practices.



Career Fairs, where the potential employers meet with the students, provide best opportunity for both stakeholders to find the best for themselves, almost every year, a vibrant Career Fair is held at CUI campuses where students meet with the employers of their dream jobs and employers found the best human resource for their organizations thus creating a win-win relationship resulting into a prosperous, healthier communities.

## Student Involvement:

CUI has established student-led sustainability clubs or societies to drive initiatives related to responsible consumption and production. These societies organize competitions or events that challenge students to come up with innovative ideas for sustainable solutions.

## Seminar on Role of Engineers in HVACR Industry

The ASHRAE Student Branch Chapter, CUI Wah of Mechanical Engineering Department on December 23rd 2021 arranged a seminar on “Role of Engineers in HVACR Industry”. The seminar was delivered by Engineer Muhammad Riaz Baig. The seminar aims to provide a study on the importance of De Carbonized with Zero Energy environment in Buildings, Sustainability, Carbon Footprints, Green Buildings and adaptation of Leadership in Energy and Environment Design (LEED) standards. The speaker discussed the VRF (Variable Refrigerant Flow) System, which is placed on the backside of the New City Arcade shopping mall architecture facilities. The students from departments of Mechanical, Civil and Electrical engineering attended the seminar. At the end students had a very fruitful interactive question answer session with the speaker. Students acknowledged the emergence of multidisciplinary streams and the importance of Heating, Cooling and Refrigeration Systems in the field of Mechanical Engineering.

## CELEBRATION OF WORLD WATER DAY

UNESCO Chair on Knowledge Systems for Integrated Water Resource Management (IWRM) at CUI Wah celebrated World Water Day on March 31, 2022 at COMSATS University Islamabad, Wah Campus and organized a Seminar titled “Monitoring Climate Extreme Events through Remote Sensing and Modelling” followed by a Poster Competition with this year theme “Groundwater: Making the invisible visible”.

The resource person Dr. Mukhtar Ahmed, from Department of Agronomy, PMAS, Pakistan enlightened the participants about the impact of extreme climate events (ECE) on the agricultural sector of Pakistan using remote sensing techniques to predict scenarios to explore possible options to mitigate the effect of ECE and to achieve sustainable development goals.



Dr. Ghulam Abbas, Associate Professor, Department of Environmental sciences, Vehari campus participated in the Asia-Pacific Network for Global Change Research, Japan (APN) Proposal Development Training Workshop held in Colombo, Sri Lanka from November 29 to December 01, 2022. The activity enhanced the capacity of early-career scientists and practitioners in South Asia to develop competitive research proposals for funding. Additionally, the workshop provided a platform for strengthening the network of South Asian researchers and practitioners and provided opportunities for future collaboration in regional research activities of common interest in the region.

Research highlights at CUI Vehari Campus

During year 2022-2023 Department of Environmental Sciences faculty published 104 research papers in well reputed peer reviewed journals with cumulative impact factor of 316 and 230 citations. Faculty also wrote book chapters in eight books published by renowned publishers.

Year	Total publications	Impact Factor	Citation	Category
2022-2023	104	316	230	W=76, X=25, Y=3



Addressing climate change involves reducing greenhouse gas emissions, transitioning to sustainable energy sources, and adapting to the impacts that are already occurring. The Paris Agreement, adopted in 2015, is a significant international accord that falls under SDG 13. It aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels, with efforts to limit the increase to 1.5 degrees Celsius.

Governments, businesses, communities, and individuals all play a crucial role in achieving SDG 13 by taking concrete actions to reduce their carbon footprint, enhance climate resilience, and contribute to a sustainable and low-carbon future. This may involve changes in energy production and consumption, land use practices, transportation, and the promotion of sustainable technologies and practices.

COMSATS University Islamabad takes all measures to address this goal and publishes a sustainability report on an annual basis. This report provides an overview of the university's efforts and initiatives towards sustainability, including environmental conservation, social responsibility, and economic impact. It serves as a transparent account of the university's progress and commitment to sustainable practices.

COMSATS University Islamabad conducts awareness-raising programs, hands-on training, and capacity-building activities from time to time. These activities are likely aimed at enhancing knowledge, skills, and awareness among individuals associated with the university about the Sustainable development goal Climate Action.

COMSATS University Islamabad measures the amount of low carbon used across the university. This suggests that the university has a system in place to track and monitor its energy consumption with a focus on reducing carbon emissions.

Gender and Climate Awards - Promoting the inclusion and leadership of women in climate action (November 1st, 2022)

International Training Workshop on Beidou Technologies and its applications in the Belt and Road Counties and Regions (19-20 September 2022) CUI organized a talk titled “Monitoring Drought in Pakistan: Teleconnections and Uncertainties in Changing Climate” in virtual capacity building workshop on Establishment of ECO-SDI to Combat the Challenge of Food Security in the ECO region, jointly organized by the Survey of Pakistan and Geological Survey of Pakistan in collaboration with Economic Cooperation Organization (ECO) on 5-7 July, 2022 at Survey Training Institute (STI), Islamabad.

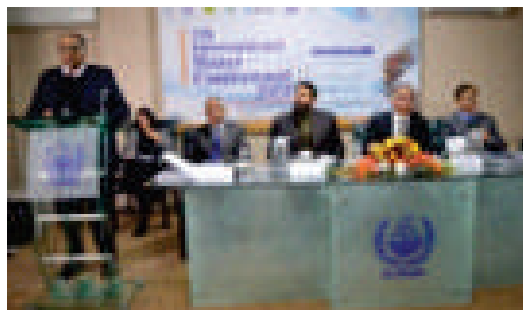
7th International Water Conference 2022

7th International Water Conference 2022, held at PCRWR, on 29-30 December 2022 (Co-hosted by CCRD). The summary of the talk is as follows:

Essentially all the recent published works and reports related to



state of climate of Pakistan are indicative of the fact that the climate of Pakistan is changing its manifestations including the more frequent occurrence of extreme weather events, resulting in heat waves and floods. This tendency is witnessed in Summers of 2019 and 2022 in



Pakistan, as well as globally too. The current rate of warming in Pakistan is about 0.34 degree Celsius per decade, when averaged over recent 30 to 35 years. This means that starting from year 2000, by 2030, a more than 1.0 degree Celsius warming is predicted. By same reasoning, a 3.5 to 4.0 degree Celsius warming is predicted by 2099. This clearly indicates an overshoot of temperature limits (relative to 1.5 to 2.0 degree Celsius), as suggested in Paris agreement at COP 21.

## CCIB Workshop on Bioenergy for Carbon Neutrality

COMSATS Joint Centre for Industrial Biotechnology (CCIB) holds workshop to discuss prospects of utilizing bioenergy as an alternative energy resource.

COMSATS Joint Centre for Industrial Biotechnology (CCIB) organized an online workshop on 'Bioenergy: A Road to Carbon Peaking and Carbon Neutrality' under its Joint R&D Group on Bioenergy. Held on 14th June 2022, the Workshop was aimed at



encouraging meaningful dialogue between scientists and exploring potential cooperation for joint R & D to meet industrial needs. Over a 100 scientists and researchers from

China, Egypt, Iran, Jordan, Pakistan, Tanzania, Thailand, and Türkiye participated in the Workshop.

Seminar on “Climate Change: Act Now” took place at the Video Conference Hall, Junaid Zaidi Library, COMSATS University Islamabad, on December 6, 2022. The event was organized by Dr. Jabir Hussain Syed, Tenured Associate Professor, from the Department of Meteorology at COMSATS University Islamabad (CUI), Islamabad Campus.

## Air-Quality Monitoring System at COMSATS University Islamabad:

An ambient air-quality monitoring system, HAZ-SCANNER, has been acquired by Dr. Kalim Ullah, Chairman Department of Meteorology, through the NRPU HEC project. Data for student research work is collected using the HAZ-Scanner (HIM 6000), a real-time air quality monitoring station that measures trace-level gases, particulate matter, and atmospheric characteristics according to the guidelines of the European Union (EU) and the United States Environmental Protection Agency (US EPA). The HAZ-SCANNER system collects data on a minute-by-minute basis, providing a high-resolution perspective of temporal changes in pollutant levels.

This air-quality monitoring system directly supports SDGs by enhancing quality education. By incorporating this technology into student research, it provides hands-on experience and practical understanding of environmental challenges. Real-time monitoring empowers students to analyze air quality data, promoting informed, environmentally conscious individuals. This aligns with SDG4's goal of promoting education that addresses sustainability issues. Ultimately, integrating HAZ-SCANNER contributes to building a more environmentally aware society, aligning with broader global sustainability goals.

Sustainable Development Goal 14 (SDG 14) is one of the 17 global goals set by the United Nations as part of the 2030 Agenda for Sustainable Development. SDG 14 is focused on "Life Below Water" and aims to conserve and sustainably use the oceans, seas, and marine resources for sustainable development. The goal recognizes the critical role that oceans play in supporting

life on Earth and emphasizes the need to address various challenges related to marine ecosystems.

## Contribution towards SDG-14: Life Below Water

COMSATS University Islamabad offers educational programs on freshwater ecosystems for local or national communities. These programs are likely designed to provide knowledge and awareness about the importance of freshwater ecosystems and their conservation. The university's initiative in offering such educational programs demonstrates its commitment to environmental education and community engagement.

COMSATS University Islamabad's environmental science department is actively involved in conducting educational outreach activities for local communities. Raising awareness about issues like overfishing, illegal, unreported, and unregulated fishing, as well as destructive fishing practices, is essential for promoting sustainable fishing practices and conserving marine ecosystems. Educational outreach activities can play a crucial role in engaging and empowering community members to become actively involved in addressing these environmental challenges.

COMSATS University Islamabad in collaboration with UNESCO, established a water chair at the university. The UNESCO Chair aims to enhance knowledge and understanding of integrated water resource management and foster cooperation among stakeholders in Pakistan. Through various awareness talks and events, the collaboration between Comsats University Islamabad and the UNESCO Chair seeks to educate students, faculty, and the wider community about the importance of sustainable water management and the need to adhere to the policies set by the government. By following the Water Policy 2018 and actively engaging with the UNESCO Chair, Comsats University Islamabad contributes to the national goal of ensuring water security and sustainable development in Pakistan.

PhD in Environmental Sciences and BS Agriculture Program at

CUI Vehari campus

PhD in Environmental Sciences, after NOC by HEC, will be offered from Spring 2023 semester and BS Agriculture has been approved by Academic Council.

Faculty Distinction Dr. Zia-Ul-Haq Khan, Assistant Professor, Department of Environmental Sciences has been awarded with Dr. Atta-Ur-Rehman Gold Medal (2022) by Pakistan Academy of Sciences for his wonderful achievements in the field of Chemistry for Scientists under 40 years age.

## 19th International Conference on Frontiers of Information Technology

19th International Conference on Frontiers of Information Technology held on December 12-13, 2022 at COMSTECH Secretariat, Islamabad, Pakistan under the umbrella of UNESCO Water Chair on Knowledge Systems for Integrated Water Resources Management (IWRM).

A two-day 19th International Conference on 'Frontiers of Information Technology' (FIT-2022), organized by COMSATS University Islamabad (CUI) started on Monday, December 12, 2022 at COMSTECH Secretariat, Islamabad. Minister, Planning and Development and Special Initiatives, Mr. Ahsan Iqbal Chaudhary and Executive Director COMSATS, Ambassador Dr. Mohammed Nafees Zakaria graced the occasion and inaugurated the COMSATS University Islamabad's 19th International Conference on Frontiers of Information Technology on Monday.

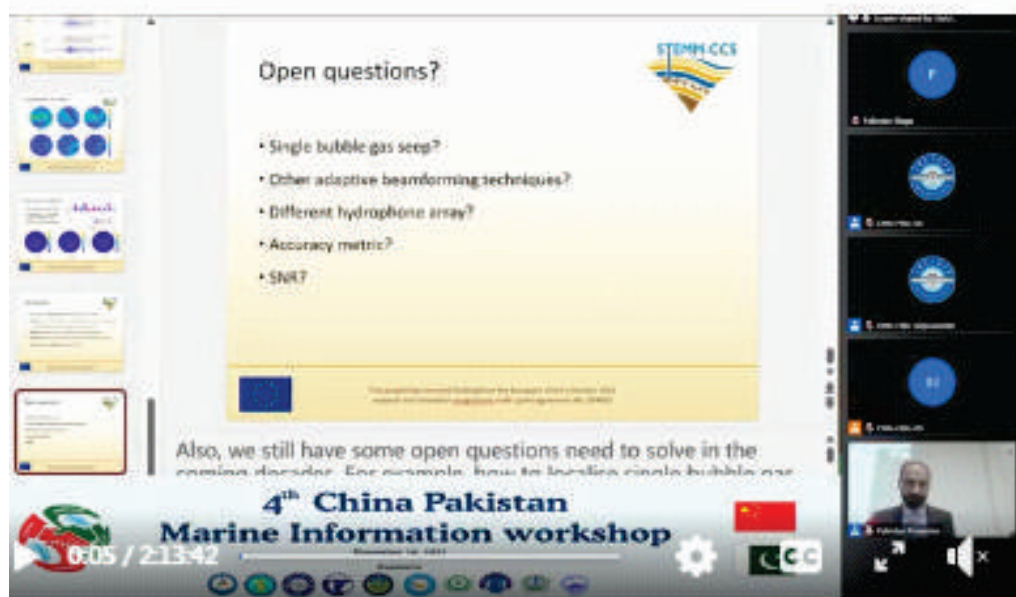
## The 4th China Pakistan Marine Information Workshop (CPMI-2022)

The 4th China Pakistan Marine Information (CPMI-2022) was held in CUI Wah campus, on November 16, 2022 and was jointly organized by academic and research institutions from China and Pakistan; including COMSATS University Islamabad, FAST,



Pakistan Science Foundation, Pakistan Scientific & Technological Information Center, National Institute of Oceanography (Pakistan Partners), and Harbin Engineering University, China Association of Science & Technology, Chinese Society of Naval Architecture, and Heilongjiang Science and Technology Association (Chinese Partners). This was the fourth workshop of this series as part of the One Belt One Road initiative under China Pakistan Economic Corridor (CPEC) with this year's theme "Smart Ocean Informatics" with oral and poster presentations. The worthy Rector CUI, Prof. Dr. Muhammad T. Afzal was the chief guest. On behalf of Chairman, Pakistan Science Foundation (PSF), Dr. Miskatullah graced the opening ceremony as guests of honor.

#### China Pakistan Marine Information



Achieving these targets under SDG 15 is crucial for ensuring the health and sustainability of terrestrial ecosystems, protecting biodiversity, and promoting the well-being of present and future generations. It involves a collective effort from governments, businesses, communities, and individuals worldwide to address the complex challenges associated with land use and conservation.

### Contribution towards SDG-15: Life on Land

Comsats University Islamabad, as an educational institution, may have initiatives and programs aimed at maintaining and extending existing ecosystems and their biodiversity. These efforts could include research, conservation projects, and educational campaigns focused on protecting threatened ecosystems and the plants and animals within them. COMSATS University Islamabad is working with local communities on the conservation of Ecosystems. CUI offers programs on flora and fauna like Fundamentals of Biology, Landscape Design, and natural resource management.

COMSATS University Islamabad offers programs related to the management of land for agriculture. These programs include disciplines such as soil science, environmental geology, soil and water conservation, and natural resource management. These fields of study focus on understanding and implementing sustainable practices for land use, soil health, water conservation, and the management of natural resources in agricultural settings. Additionally, COMSATS University Islamabad also provides consultancy services to the local farmers on postharvest of vegetables. This involves offering expertise and guidance on techniques and technologies to ensure the proper handling, storage, and preservation of vegetables after they have been harvested.

COMSATS University Islamabad offers programs focused on the conservation and restoration of land. These programs include disciplines such as soil and water conservation and natural resource management. These fields of study aim to develop strategies and techniques for the sustainable use and management of land resources, including soil and water, to prevent degradation and promote conservation.

### World Environmental Day organized by Department of Environmental Sciences

Department of Environmental Sciences COMSATS University Abbottabad Campus organized a one-day event on world

environmental day. This day is specially celebrated to aware the people of environmental issues and this event. Environmental protection society Department of Environmental Sciences and collaboration with WASSA and WWF jointly organized the event mainly lead by the chairman Prof. Dr. Irshad, HoD, Dr. Faridullah and also convene with Dr. Malik Tahir Hayat, and advertising committee Dr. Shumaila, DOO Environmental Sciences Dr. Awais Arfeen, and their team. At this event, they invite some students from City School. They performed different activates about environmental issues. A quiz competition was also taken.

COMSATS University, Abbottabad Campus sign MoU with Water and Sanitation Services Company, Abbottabad (WSSCA) on Friday, July 29, 2022

At Department of Environmental Sciences COMSATS University Islamabad (CUI) – Abbottabad Campus a working Memorandum of Understanding (MoU) has been signed with Water and Sanitation Services Company, Abbottabad (WSSCA). The signing ceremony was held in CUI-Abbottabad campus on 29.07.2022 (Friday) in the Conference room of Admin Block from 11:00 am to 12:00 pm. CUI-Abbottabad campus-director Prof. Dr. Muhammad Maroof Shah and Chief Executive Officer (CEO) WSSCA-Abbottabad signed the document as the representatives of contributing organizations.

### Maritime Security Workshop (MARSEW-5)

The Director Campus attended the fifth edition of Maritime Security workshop from December 7 – 10, 2022 at Pakistan Naval War College Lahore. This year the theme of the workshop was “Secure Seas – Prosperous Pakistan”. The workshop was divided into two phases. In the first phase of MARSEW-5 involved discussion on various maritime and maritime security related topics, in the second phase the field trip of Pakistan Navel's operational commands and coastal facilities of Creeks Area at Karachi was witnessed.



### The Training Workshop on “Geospatial Techniques for Hydrological Resources” was organized by the Department of Meteorology, CUI, Islamabad, on June 22, 2022.

The Training Workshop on Geospatial Techniques for Hydrological Resources was an excellent educational experience that contributed to Pakistan's progress toward SDG 15. The training was conducted and organized by Mr. Irfan Mahmood, Research Assistant, Dr. Farooq Iqbal, Assistant Professor and Dr M Imran Shahzad, Tenured Associate Professor and Head Department of Meteorology. The program helped to strengthen participant's capacity to address difficult water management concerns and promote sustainable development by providing them with knowledge and skills in GIS approaches for hydrological resources.

COMSATS University Islamabad (CUI) actively participates in various local, regional, and national level committees and task forces. This includes attending meetings such as the National Assembly Standing Committee on Science & Technology, the Senate Standing Committee on Science & Technology, and the Standing Committee on Cabinet Secretariat. CUI provides advice and contributes to discussions in these forums. CUI letters regarding actionable points from the Senate Standing Committee on S&T meeting, comments from CPS on the Draft National Science, Technology & Innovation Policy, and the



Resource Enhancement Framework for Public Sector Universities.

## Contribution towards SDG-16: Peace, Justice and Strong Institutions

The Centre of Policy Studies at COMSATS University Islamabad conducts research on a wide range of policy areas, including economic growth, trade, employment, income distribution, energy, environment, and social policy. It uses advanced economic modeling techniques to analyze the impacts of policy changes, assess their effectiveness, and identify potential risks and trade-offs.

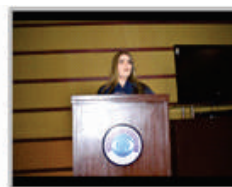
The Centre of Policy Studies also actively engages with key stakeholders, such as other academic institutions, industry organizations, and international organizations, to promote knowledge exchange and enhance the impact of its research. It regularly publishes research papers, reports, and policy briefs to disseminate its findings and recommendations.

The Centre for Policy Studies (CPS) is focused on facilitating collaboration and knowledge exchange between academia, research, and public policy-making. To effectively achieve this objective, the CPS brings together a diverse team comprising of academicians, scholarly researchers, and policy practitioners.

## CPS Seminar on “Pakistan's being on the Cusp of South Asia, Central Asia and Middle East: Pearl, Perils and Pitfalls; crisis and Opportunities”

CPS, COMSATS University Islamabad organized a seminar on June 28th, 2022, titled “Pakistan's being on the Cusp of South Asia, Central Asia and Middle East: Pearl, Perils and Pitfalls; crisis and Opportunities.” Head CPS Dr. Ghulam Shabbir, in his opening remarks said that Pakistan being the fulcrum of three grand regions has a wide potentials of integrating socio-economic and cultural strengths of these belts, yet as a community we are like

those who forget way amidst shifting sand dunes of the desert. Former Naval Chief, Admiral (R) Zafar Mahmood Abbasi said Pakistan has become like a ship adrift amidst the stormy waves of sea. We must resurrect the vision of Iqbal and Jinnah to set the dimension afresh. Senior seasoned politician Syeda Abida Hussain said we have achieved several milestones, yet we need scientific and technological education more advanced and equal to the needs of the time. She said socio-economic disparities and class system is a great hurdle in the way of our progress and prosperity. Head CPS in his closing remarks said the major strength of communities lies in common aspirations, history and cultural values. The geography of Arabian Peninsula was such a valueless entity that the Persia and Byzantine never bothered to conquer them, but when they were united on the ideology of Islam within thirty years of their splendid career, they destroyed the corrupt socio-economic structure of both empires and assumed the wheel of history. Geographies are peaceful abodes of communities, but the recurrent pattern of history suggests when communities forget their history and ideology, their geographies forget them.



## “Jinnah: The Modifier of World Map and History, the Creator of Islamic State”

CPS, CUI held a seminar titled “Jinnah: The Modifier of World Map and History, the Creator of Islamic State” on December 27th, 2022. Head CPS Dr. Ghulam Shabbir said that creation of Pakistan was the second foremost achievement of Muslims in Islam's 14 centuries career after the establishment of an Islamic state of Madina. Iqbal dreamt Pakistan for the realization of Islam's socio-political and economic ideals which Arab imperialism had forestalled. Though astonishingly swift conquests of early Islam expanded the political domain of Islam, still it was on the cost of democratization and economic organization of the community.

He said the creation of Pakistan suits to both Muslims and Hindus. Whereas Muslims would be able to remove the stamp of Arab imperialism from the Islam this very land would serve as a steel frame against any aggression from the North West corridor for India's defense. Iqbal single handedly reoriented the apologetic, West-ridden, porcupine posture or at best serving the history of others attitude of Ali-Garh Movement and All India Muslim League with such a vigor and fervor that Islam became a rallying cry of Indian Muslims. His was a genuine restatement of Islam derived from the Quran and Sunna, Sufi metaphysics of Ghazali, Ibn Taimiyya, Sheikh Sirhindi and Shah Wali Allah.











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