



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)

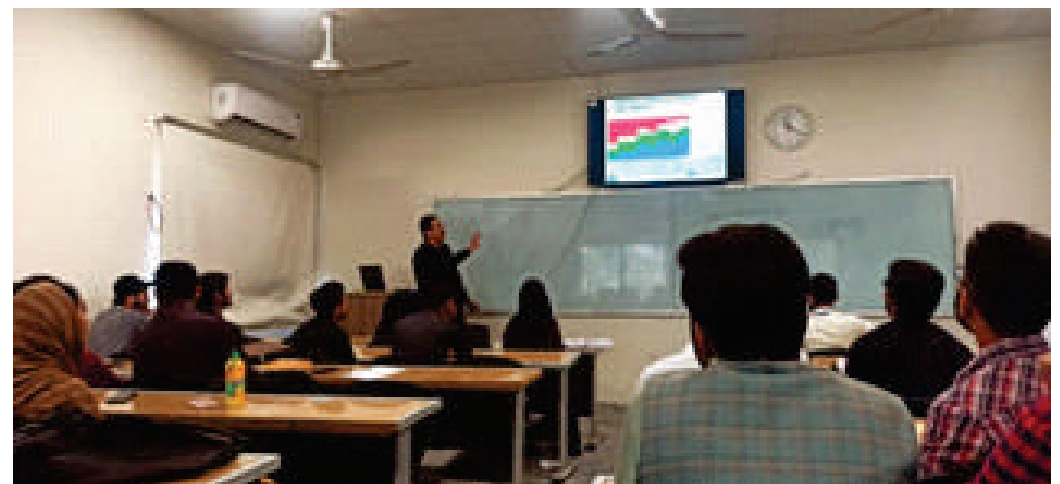
The Third International Training Course on 'Industrial Synthetic Biotechnology' (online training), was jointly organized by the Tianjin Institute of Industrial Biotechnology (TIB), in collaboration with the Alliance of International Science Organizations (ANSO); and the Commission on Science and Technology 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.

