



CAPITAL UNIVERSITY
of Science and Technology

ANNUAL REPORT

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Annual Report 2022

Prepared by:
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ISLAMABAD

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The purpose of this document is to spread awareness about Capital University of Science and Technology, Islamabad.

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Vice Chancellor's Message

It is my pleasure to introduce the Annual Report 2022 of Capital University of Science and Technology, Islamabad. The University was established with a vision to produce competent professionals, who could be instrumental in the development of a prosperous society. The University took this challenging task and devised its strategy to acquire the status of being classified as a provider for career oriented individuals, who can create a positive impact on the society. The University remained focused on its goal, and in a short span of time earned a respectable name in the field of higher education.

In an academic system, some of the vital organs that determine its quality include curriculum, faculty and teaching environment. Any compromise on these will be at the expense of academic quality. At CUST, the curriculum followed by various Faculties for their degree programs have been carefully designed to cater the needs of local industry, without compromising global trends. Though we got excellent infrastructure and other support facilities to execute our academic programs, but our main pride is our quality faculty. CUST faculty is highly professional, mission oriented and motivated. Apart from project and case study based learning, we, at CUST, make a conscious effort to expose our students into a multi-faceted environment to groom their personality and interpersonal skills. Our success so far has been the result of superb team effort by active scholars and teachers, caring and committed staff, and hardworking and exceptionally motivated students.

It is pertinent to mention here that CUST offers a good number of graduate programs, primarily in the evening to accommodate the working professionals. These programs are offered in the field of engineering, computing and management sciences. R&D is a prime thrust of our graduate programs, especially in PhD studies. In this connection the University strives to maintain a good liaison with industry and other R&D organizations. Publications made by our graduate students in the journals of international repute are a source of satisfaction for us. The University believes in constant improvement; therefore in this connection, each degree program is assessed periodically against its pre-defined outcomes. This gives the University a chance to know the quality of its graduates apropos the requirements of industry or employers. Based on stake holder's feedback, appropriate remedial actions are taken, where necessary, to stay abreast with technological and industrial needs.

In this fast changing world, irreversible changes have occurred, and our University stands ready to meet the challenges of improving economic and social well-being. The University is uniquely positioned to be innovative and capitalize on new ideas, approaches and technologies. We at CUST intend to provide our students with the key for unlocking the door to a prosperous and fulfilling future. Today, we have over 7000 alumni working in the country and abroad, and we are proud of the progress they have made, and the way they have contributed towards the betterment of humanity.

Prof. Dr. Muhammad Mansoor Ahmed

PhD (UK), CEng (UK), FIEE(UK),
SMIEEE (USA), Eur. Ing (Brussels)



Executive Summary

Capital University of Science and Technology (CUST), Islamabad a federally Chartered University established through an Act No XVI of 2015 of parliament is a research centered institute. The university is dedicated to accomplish the paramount standards in academics and research, attuned with global requirements of practicing different professions. CUST offers a wide range of academic programs at undergraduate, post graduate and PhD levels. The programs are being offered by the academic departments under five major faculties including Engineering, Management & Social Sciences, Health & Life Sciences, Computing and Pharmacy. Currently CUST is offering 42 programs at undergraduate, MS/MPhil and PhD levels in various fields of studies.

The university holds its convocation ceremonies on continual basis to recognize and acknowledge the academic achievements of graduating students. The 21st convocation of CUST was held on December 16, 2022. Dr. Mukhtar Ahmed, Chairman HEC graced the occasion as the Chief Guest while Mr. Parvez Abbasi was the Guest of Honour. A total of 967 students were privileged to receive degree in their respective fields.

Capital University of Science & Technology provides the preeminent infrastructure and associated facilities to the students and employees to facilitate the academic activities at campus. The university always strives to provide the students with the best facilities and tools so that they can excel themselves in accordance with the corporate world and industrial requirements. The whole campus is connected through the computer systems, telephones, Local Area Network (LAN), Optical fiber network and WIFI Hot spot. The lecture halls, labs, auditoriums, conference halls and faculty & staff offices are provided with state of art computer systems and IT facilities. The libraries at CUST have plentiful stock of books on all disciplines and subjects. There are study rooms and a Printing Room linked with library. There are collectively over 18,000 books and 60 hard-bidden journals present in both the libraries.

CUST owns a comprehensive University Administration System consisting of Faculty and Staff Portals to accomplish all faculty and management related actions. Capital Management System also called (ODOO) is an online system to manage all attendance related tasks and reports. CUST provides a dynamic and integrated Student Portal System for managing student academics including Program Registration, Course listing, Time-tabling, Course Attendance Management etc. The Online Admissions System provides support to the administration and admission seeking candidates by providing a faster, transparent and easy way of keeping records and use them for reference and further proceedings.

Capital University of Science and Technology has always been proactive in the field of practical research. It has been through the hard work of CUST faculty and extreme dedication of students that CUST has been successful in publishing its work in renowned Impact Factor (IF) National and International Journals. The continual growth in quality research publications in recent years showcases our resolve and persistence. We are constantly working to mediate with national as well as international academics, research and industrial organizations to facilitate and promote research culture at CUST.

The faculty and researchers of Capital University of Science & Technology are passionately motivated toward the Research and Development (R & D), and commercial projects of national prominence. The faculty members through their hard work and determination have accomplished a number of R & D projects and funding at national and international level. The university not only accomplishes research operations but also ensures continual activities in terms of capacity building. This is the foremost domain CUST is working on along with Office of Research, Innovation and Commercialization (ORIC). Numerous conferences, training, workshops and seminars are being conducted on regular basis to provide students, faculty members and professionals with the contemporary set of skills and technical tools.

"BIM Centre of Excellence" is a joint venture of Office of Research, Innovation and Commercialization (ORIC) and Civil Engineering Department CUST, which offers internationally recognized courses and certifications to academia and industry personnel. ORIC in collaboration with academic departments is working on numerous incubation companies. "Tech Flickers", "Tissue Culture" and "Flex Tracker" are recent example of students' start-ups being worked on by ORIC with students. The university aims to provide an incubation platform to students where they can practice their technical, innovative and freelancing skills for comprehensible earning.

Changing dynamics of higher education require educational institutes to build alliances with academia and industry, to expand resources and pool of information available to students, faculty and other stakeholders. CUST continues to have mutual collaborations, linkages and agreements with leading institutes and organizations both nationally and internationally in larger interest of students and faculty. We have signed mutual agreements with academia and industry including leading universities and organizations. CUST continues to organize Employment Expo, Industrial Open House and Job Fairs

on continual basis. The purpose of such events is the provision of a platform to the graduating engineers, programmers and young innovators of CUST to showcase their design projects & ideas, and prove their skills in front of renowned professionals from industry and academia.

Capital University of Science & Technology since its commencement, has tried its best to make quality education reachable to all students in Pakistan, including those from low and middle-income backgrounds. The university aims to provide equal prospects to all students in attaining their goals and targets irrespective of their financial positions or social status. Every year, the university allocates funds from its own resources in its budget exclusively for awarding scholarship. In 2022, an amount of Rs. 349.5 Million approximately has been disbursed among 6959 eligible and deserving students through various scholarship schemes.

The Office of Research, Innovation and Commercialization (ORIC), CUST provides strategic and operational support to the University's research activities/program and has a central role in facilitating the University's research outcomes. The objective of ORIC at CUST is motivation of university researchers to innovate and collaborate with the stake-holders leading to resource generation through commercialization. ORIC has the responsibility of guaranteeing that all research programs and policies reflect the core values of academic freedom, professional integrity, ethical conduct and full compliance with all policies, legal requirements and operational standards of the university.

Quality Enhancement Cell CUST was established, with a mandate to implement IQA and EQA processes set by HEC, ensuring academic standards through conduct of different surveys /assessments and provide feedback to the institutional departments for their future actions. QEC through quality interventions extend its support to the departments in improving standard of their teaching-learning and research enabling its compatibility with other national and international HEIs.

The Office of External Linkages and International Collaborations (ELIC) is a vibrant platform for student, alumni, academia and industry to interact, share and celebrate. The Career Services Office (CSO) is recently formed to enhance cooperation and working opportunities for graduates of Capital University. The focus is to maintain corporate relationship with esteemed employers for new assortment of opportunities. CSO guide students to their career needs and equip them with skills required to win an interview and job. The office is aimed to create a professional relation with potential employers and support them in finding the best fit for their organization.

Sports have very significant role in raising healthy generations, public health protection, building social peace and harmony. Understanding the wide range benefits of sports is the primary reason that Capital University encourages sporting activities and is striving to promote the physical and mental well-being of students through interdepartmental sports and Annual Sports Week on continual basis for both boys and girls.

Social responsibility is an ethical framework which in context of an individual obliges him or her to act for the benefit of society at large. Capital University of Science & Technology has established Volunteers in Service Directorate (VIS) to inculcate social responsibility and volunteerism in students. The directorate aims to foster social responsibility among students and to instill a spirit of volunteerism in youth to make them realize the importance of their role in the betterment of society. For this purpose, every graduating student of CUST is obliged to volunteer 65 hours of community service in order to make him/her a socially responsible citizen.

The university has a very comprehensive and dynamic governance structure. The Board of Governors (BOG) is a supreme body which governs and administrates managerial, academic and financial matters of the university, and lays down policies for the Institute. The Executive Committee is the executive body of the University and exercises general supervision over affairs and management of the University. The Academic Council is the principal academic body of the University and has the power to lay down proper standards of instruction, research and examinations and to regulate and promote the academic life of the university. CUST has numerous other bodies working in various domains to conduct the smooth course of university procedures.

Capital University of Science & Technology has apportioned a handsome amount of resources for its viable and market-based initiatives that allows it to start new programs, spend on infrastructure development and to sustain these initiatives with continual provision of resources. The university strives to work continuously to provide quality education to the students in terms of associated facilities and resources, and facilitation of its staff and employees in better interest of society.

About the University

Capital University of Science & Technology (CUST) is established by a federal charter and vested with the authority to award degrees at various levels in all disciplines. It started functioning in 1998 as Islamabad Campus of Mohammad Ali Jinnah University (MAJU) Karachi and achieved its recognition in the country and abroad by maintaining excellent academic standards.

In recognition to its academic strength, infrastructure and financial viability, the President of the Islamic Republic of Pakistan, on 28th Sep. 2015, gave assent to a bill converting it into a law, passed by the Parliament of Pakistan referred to as 'Capital University of Science and Technology Act' which transformed MAJU, Islamabad Campus into Capital University of Science and Technology (CUST). As per CUST Act, it is a comprehensive Institution which can have faculties including, but not limited to, Engineering, Medicines, Natural Sciences, Management, Computing, Humanities and Arts.

Capital University of Science & Technology is a dynamic institution that acts as a catalyst of change to mold the society in cast of knowledge based economy by pro-actively contributing towards the troika of industry, academia and the government. These multi-dimensional objectives are achieved by flourishing a culture of research and innovation in the university.

CUST has a multidisciplinary research culture with specialization in the field of Engineering, Bio Sciences, Computing and Social Sciences. Currently, CUST has four Faculties: Faculty of Engineering; Faculty of Computing, Faculty of Health & Life Sciences and Faculty of Management and Social Sciences. Faculty of Engineering has three Departments: Electrical Engineering; Mechanical Engineering and Civil Engineering. Faculty of Computing has Departments of Computer Sciences and Mathematics. Faculty of Health & Life Sciences has Department of Bioinformatics & Biosciences and Pharmacy. In the Faculty of Management and Social Sciences, we have Department of Management Sciences and Psychology.

To ensure the acceptability of our graduates in local as well as in foreign institutions, the University has adopted a widely accepted semester system and offers BS, MS and PhD degrees in compliance to the international norms and standards. Further, the academic programs are accredited by the respective accreditation bodies of the country. CUST aims to bring the highest possible excellence in research and innovation to transform understanding of humanity, the world we live in and the universe around us.

Our Mission

"To be recognized as a leading institution for producing competent professionals who are instrumental in development of a prosperous society."

Vision

"Capital University of Science and Technology, through the pursuit of excellence in an ethical environment, is committed to providing to a diverse student population the intellectual and technological tools necessary to meet the challenges of the future."

Strategic Goals and Objectives

- ◇ To assist the students to expand their intellectual horizons by providing them with new skills and innovative ideas
- ◇ To encourage the students to be useful and equal partners in the new world order, by acquiring professional and technological skills that compare in all respects to international standards
- ◇ To enrich the personal and professional acumen of the students by appointing, recruiting and retaining a highly qualified and competent faculty
- ◇ To provide facilities, resources and services that ensure an environment conducive to intellectual growth, research and learning for the students
- ◇ To improve students' interpersonal communication, democratic, leadership, analytical ability and creative thinking skills

1. Academics

1.1. Academic Activities at CUST

Capital University of Science and Technology (CUST) is a small but research focused institute. CUST attracts students of high intellectual caliber and energy who contribute to the strength and academic excellence of our community. Its curriculum offers students an ample opportunity to pursue their future goals. With a variety of Engineering, Management, Computer Science, Mathematics, Biosciences & Bioinformatics and Pharmacy programs, the students are guided to engage themselves in self-exploration and collaboration with other students in ways that prepare them to meet the challenges of practical life. CUST offers a wide range of academic programs at undergraduate, graduate and post graduate levels. The number of programs currently offered is 38, which includes 17 undergraduate and 21 postgraduate and PhD Programs.



The programs are being offered by the academic departments under four major faculties:

- ◇ Faculty of Computing (FoC)
- ◇ Faculty of Engineering (FoE)
- ◇ Faculty of Health and Life Sciences (FHLS)
- ◇ Faculty of Management and Social Sciences (FMSS)
- ◇ Faculty of Pharmacy (FoP)
- ◇ Faculty of Associate Degree Programs (FADP)

1.2. Faculty of Computing (FoC)

The faculty of Computing (FoC) aims at producing quality graduates in the applied sciences like computing & mathematics, who can meet the challenges of time, and transform their knowledge into real value for the benefit of the society. To achieve this objective, we have a team of highly qualified, competent and dedicated faculty members.

Academic excellence is not possible without a quality research & development (R&D) environment. There are a number of R&D groups and laboratories which are involved in various research projects. The R&D facilities are available to train our students on applied aspects of the disciplines. The faculty has also established a strong liaison with R&D organizations and industry. There are over 2700 alumni of the faculty, who are contributing effectively in the industry & academia, and thus paying their due share towards national growth.

Programs Offered in FoC

S.No.	Undergraduate Level	Postgraduate Level	Research Degree Level
1	BS Computer Science	MS Computer Science	PhD Computer Science
2	BS Artificial Intelligence	MS Artificial Intelligence	-
3	BS Software Engineering		
4	BS Mathematics	MPhil Mathematics	PhD Mathematics



1.3. Faculty of Engineering (FoE)

The Faculty of Engineering (FoE) aims at producing engineers and researchers, who are equipped with knowledge and expertise to meet the challenges of dynamic and evolving engineering domains. The academic programs are supported by well-equipped labs that strengthen the applied aspect of the disciplines, and provide hand-on skills to future engineers and researchers. The Faculty of Engineering currently offers programs in Electrical Engineering, Computer Engineering, Civil Engineering, Mechanical Engineering and Engineering Management.



The students are being prepared for a career in industry or research, by providing them with a thorough foundation of the fundamental concepts and analytical tools of contemporary engineering domains. The Faculty envisions of contributing towards a knowledge – based economy of the country, with skilled professionals having curious minds, learning attitude and ethical behaviors, who are ready to undertake engineering challenges of our society.

Programs Offered in FoE

S.No.	Undergraduate Level	Postgraduate Level	Research Degree Level
1	BS Electrical Engineering	MS Electrical Engineering	PhD Electrical Engineering
2	BS Mechanical Engineering	MS Mechanical Engineering	PhD Mechanical Engineering
3	BS Civil Engineering	MS Civil Engineering	PhD Civil Engineering
4	BS Computer Engineering	MS Engineering Management	PhD Engineering Management

1.4. Faculty of Health and Life Sciences (FHLS)

The faculty of Health and Life Sciences (FHLS) aims at producing quality graduates in the Applied Biosciences, Biotechnology, Microbiology and Biochemistry. The curriculum is designed to meet the current and future challenges in this area.

Keeping in view the current transition of Biosciences, the department offers undergraduate and graduate programs in Bioinformatics and Biosciences with the focus to produce professionals capable of dealing with biological problems.

The department promotes excellence in interdisciplinary biological and pharmacological research by encouraging independent and original work and training. Furthermore, to enhance the hands-on experience, several courses are supported by wet lab and research based assignments. To accomplish this, the department has a well-equipped wet lab facility with state-of-the-art equipment.

Programs Offered in FHLS

S.No.	Undergraduate Level	Postgraduate Level	Research Degree Level
1	BS Biotechnology	MS Biosciences	PhD Biosciences
2	BS Biochemistry	-	-
3	BS Microbiology	-	-



1.5. Faculty of Management and Social sciences (FMSS)

The Faculty of Management and Social Sciences (FMSS) is committed to deliver competent, creative, responsible business leaders and productive citizens. Faculty of management and social sciences offers a comprehensive suite of programs. These programs equip emerging leaders with the knowledge, research insights and personal effectiveness skills to make an impact on business and society.



A special emphasis has been given on business curriculum to create business leaders with high competence and ethical values. The curriculum is augmented to focus on student's ability to frame, analyze and communicate efficiently and effectively in solving unstructured business problems through industry driven research. A unique combination of classroom

experience and corporate training has been adopted in business studies to augment managerial skills, self-confidence and decision making.

Programs Offered in FMSS

S.No.	Undergraduate Level	Postgraduate Level	Research Degree Level
1	BBA	MBA	-
2	BS Accounting & Finance	MS Accounting and Finance	-
3	BS Business Analytics	MS Management Sciences	PhD Management Sciences
4	BS Psychology	MS Psychology	-
5	BS English (Language & Literature)	MS Project Management	-

1.6. Faculty of Pharmacy (FoP)

The Department of Pharmacy promotes excellence in pharmaceutical sciences by encouraging active learning in a conducive environment. To meet the challenges to healthcare and the pharmacy profession, the Department follows curriculum that not only provides a solid foundation of the discipline, it also equips our graduates with required skills and knowledge to practice as a quality health care professional to serve the community, hospitals and industry. Furthermore, to enhance the understanding and to have a hands-on experience, most of the courses are supported by practical training in well-equipped laboratories and clinical settings. Regular visits to the industry, hospital and guest lectures by experts from various pharmaceutical sectors are integral part of the training. Apart from pharmacy related courses, a number of general courses in the area of humanities, computer science and communication are compulsory in order to provide the students with a social and psychological perspectives of the training, thereby ensuring a balanced personality.



1.7. Faculty of Associate Degree Programs (FADP)

Capital University of Science & Technology (CUST) has taken an initiative to offer Associate Degree Programs in various disciplines. This 2-year Associate Degree Programs shall be replacing the conventional 2-year Annual Programs with a market driven curriculum and exceptional teaching methodology. Currently FADP offers Associate Degree Programs in Business Administration, Accounting and Finance, Computer Science and Commerce.

Programs Offered in FADP

S.No.	Business Administration	Accounting	Commerce	Computing
1	ADP Business Administration	ADP Accounting & Finance	ADP Commerce	ADP Computer Science

1.8. Student's Intake in 2022-23

The following table presents the significant information regarding student's intake in 2022-23 at undergraduate, post graduate and PhD levels. The prominent students' admittance is a proof of their credence on the institute.

S.No.	Faculty	Undergraduate	Graduate (MS/PhD)
1	Faculty of Computing (FoC)	621	69
2	Faculty of Engineering (FoE)	251	40
3	Faculty of Health & Life Sciences (FHLS)	137	47
4	Faculty of Management & Social Sciences (FMSS)	517	107
4	Faculty of Pharmacy (FoP)	153	-
4	Faculty of Associate Degree Programs (FADP)	190	-

The students not only took interest at undergraduate levels in various disciplines but also at postgraduate and PhD levels. The significant students' enrollment at research degree programs (MS/Phil and PhD) indicates the munificent availability of faculty, research labs and other associated facilities in the campus.

1.9. Department wise Students Admittance in 2022-2023

The following table depicts the significant information regarding student's intake in 2022-23 in various departments. The students were admitted in 38 different disciplines at undergraduate, post graduate and PhD levels.

S.No.	Faculty	Students
1	Faculty of Computing (FOC)	690
2	Faculty of Engineering (FoE)	291
3	Faculty of Health & Lifesciences (FHLS)	184
4	Faculty of Management & Social Sciences (FMSS)	624
5	Faculty of Pharmacy (FoP)	153
6	Faculty of Associate Degree programs (FADP)	187

The noticeable students' admissions in various fields of studies are a proof of their confidence over the institute teaching standards and academic facilities.

1.10. Total Registered Students

The following table presents the significant information about the total number of registered students currently enrolled in the university at various levels.

S.No.	Category	Registered Students
1	Undergraduate	5137
2	Postgraduate	535
3	PhD	142

The students are not only registered at undergraduate levels in various disciplines but also at postgraduate and PhD levels. The significant students' strength at research degree programs shows the accessibility of faculty, research labs and other facilities.

1.11. Department wise Detail of Currently Registered Students

The information about total students currently enrolled in the university in various disciplines and fields is detailed below. The students are studying in 18 different disciplines at undergraduate, post graduate and PhD levels.

S.No.	Faculty	Undergraduate	MS/Phil	PhD	Total
1	Faculty of Computing (FOC)	1812	142	29	1983
2	Faculty of Engineering (FoE)	631	112	42	785
3	Faculty of Health & Lifesciences (FHLS)	420	66	20	506
4	Faculty of Management & Social Sciences (FMSS)	1544	215	251	1810
5	Faculty of Pharmacy (FoP)	428	-	-	428
6	Faculty of Associate Degree programs (FADP)	302	-	-	302

The noticeable students' admissions in various fields of studies are a proof of their confidence over the institute teaching standards and academic facilities.

1.12. Students Graduated in 2022

The following table presents the statistical detail about the students' graduation in 2022 in different departments. The students were graduated in 15 diverse fields of study at undergraduate, post graduate and PhD levels.

S.No.	Department	Students Graduated
1	Electrical Engineering	72
2	Mechanical Engineering	86
3	Civil Engineering	89
4	Engineering Management	9
5	Computer Science	181
6	Software Engineering	117
7	Mathematics	30
8	Management Sciences	230
9	Project Management	55
10	Biosciences	21
11	Bio-informatics	48
12	Psychology	17
13	Microbiology	16

A total of 987 students graduated in 2022 in different fields and at various study levels. The students from all the four faculties graduated with honor and ambition to serve the country and play their promising role in society through their learned skills and resolve.

1.13. Students Graduated Till 20th Convocation-2022

The following table depicts the statistical data about the total students graduated from Capital University and Science & Technology till 18th Convocation held in December 2022. The students were graduated in 34 diverse degree programmes at undergraduate, post graduate and PhD levels under four faculties. A total of 11879 students have bwwn graduated so far in different fields at undergraduate, postgraduate and PhD levels in various fields, and serving the country in variant sectors. The alumni of CUST is working in different walks of life and playing its prospective role in development of country and society with honor and dignity.

S.No.	Department	Students Graduated
1	Electrical Engineering	1428
2	Mechanical Engineering	618
3	Civil Engineering	402
4	Engineering Management	111
5	Computer Science	2191
6	Software Engineering	414
7	Mathematics	243
8	Finance & Economics	79
10	Management Sciences	5309
11	Project Management	358
12	Bioinformatics & Biosciences	2526
13	Psychology	17

1.14. Faculty Strength

Capital University of Science & Technology has highly qualified faculty and teaching staff. The faculty members deliver the most recent knowledge about the various disciplines in accordance with present day requirements. The following statistics present the current faculty strength in the University. The teachers not only provide the updated and practical knowledge about the courses but are also quite active in academic research and development activities.

S.No.	Department	Faculty Strength
1	Electrical Engineering	14
2	Mechanical Engineering	16
3	Civil Engineering	18
4	Computer Science	33
5	Software Engineering	27
6	Mathematics	18
7	Health & Life Sciences	12
8	Management & Social Sciences	32
9	Psychology	10
10	English	11
11	Pharmacy	23



S.No.	Designation	Faculty Strength
1	Professors	21
2	Associate Professors	26
3	Assistant Professors	45
4	Lecturers	118
5	Lab Engineers/Instructors	15
6	Research Associates	2



1.15. 20th Convocation of Capital University of Science & Technology



A convocation of Capital University of Science and Technology (CUST) was held at Convention Centre Islamabad, wherein, 988 graduates were awarded degrees. The BBA, MBA, BS, MS, and PhD graduates in the fields of Management Sciences, Electrical Engineering, Civil Engineering, Mechanical Engineering, Computer Engineering, Engineering Management, Project Management, Computer Science, Software Engineering, Biosciences, Biotechnology, and Microbiology were awarded degrees. The chief guest of the occasion Dr Mukhtar Ahmed said education plays a vital role in the economic development of a country. It raises the productivity and efficiency of individuals and thus produces skilled manpower that is capable of leading the economy towards the path of sustainable economic development, he added. Parvez Abbasi (Nishan-e-Imtiaz) was the guest of honour while CUST Chancellor Mian Amer Mehmood presided over the event.



In the convocation, 22 graduates were awarded PhD degrees, including six in Management Sciences, four each in Engineering and Computing, and eight in the field of Mathematics. Moreover, 32 gold, 20 silver, and 17 bronze medals were awarded to the graduates who stood 1st, 2nd, and 3rd in their respective degree programmes. The 'Jinnah Gold Medal' was also awarded to an overall best graduate of the convocation, Adeer Khan of BS Civil Engineering programme, on his overall distinguished performance in curricular and extracurricular activities.



1.16. Detail of Medals Awarded in Convocation-2022

The medals were awarded to high achievers of all departments and those who graduated with distinction by honorable guests. The department wise information of students awarded with distinctive medals is detailed below.

S. No.	Name	Department	Degree	Medal
Faculty of Management & Social Sciences (FMSS)				
1	Tayyab Mehmood Khokhar	Accounting and Finance	BS(A&F)	Gold
2	Faryal Waheed	Accounting and Finance	BS(A&F)	Silver
3	Shanzah Aamer	Accounting and Finance	BS(A&F)	Gold
4	Hafiz Muhammad Mustafa	Accounting and Finance	BS(A&F)	Silver
5	Ayesha Dilpazir Abbasi	Accounting and Finance	BS(A&F)	Bronze
6	Ekrama Khalid	Business Administration	BBA	Gold
7	Fatima Sarfraz	Business Administration	BBA	Silver
8	Rizwan Mirza	Business Administration	BBA	Bronze
9	Syeda Qandeel Naqvi	Business Administration	BBA	Gold
10	Summaiya Farooq	Business Administration	BBA	Gold
11	Asma Amin	Business Administration	BBA	Silver
12	Shinza Naeem	Business Administration	BBA	Silver
13	Maheen Razzaq	Business Administration	BBA	Bronze
14	Maryam Hanif	Business Administration	MBA(R)	Gold
15	Asma Nawaz	Business Administration	MBA(R)	Silver
16	Fatima Zahra	Business Administration	MBA(R)	Bronze
17	Nageen Gul	Business Administration	MBA(R)	Gold
18	Asad Ali	Business Administration	MBA(R)	Silver
19	Ahmad Zaryab Ghuman	Business Administration	MBA(R)	Bronze
20	Anum Sheraz	Business Administration	MBA(G)	Gold
21	Maheen Khan	Business Administration	MBA(G)	Gold
22	Hira Fatima Jan	Management Sciences	MS(MGMT)	Gold
23	Gul-E-Nayaab Abid	Management Sciences	MS(MGMT)	Gold
24	Rimsha Farooq	Project Management	MS(PM)	Gold
25	Sonia Bostan	Project Management	MS(PM)	Gold
26	Nayab Kanwal	Psychology	BS(Psy)	Gold
27	Komal Farooq	Psychology	BS(Psy)	Silver
28	Maryam Mukhtar	Psychology	BS(Psy)	Bronze
Faculty of Engineering (FoE)				
1	Muhammad Usama	Civil Engineering	BS(CE)	Gold
2	Rehan Asif	Civil Engineering	BS(CE)	Silver
3	Adeer Khan	Civil Engineering	BS(CE)	Silver
4	Sardar Abdul Saboor Khan	Civil Engineering	BS(CE)	Bronze
5	Umer Ashraf	Electrical Engineering	BS(EE)	Gold
6	Laila Khalid Choudhry	Electrical Engineering	BS(EE)	Silver
7	Noor Ul Hussnain	Electrical Engineering	BS(EE)	Bronze
8	Shams Musheer	Mechanical Engineering	BS(ME)	Gold
9	Asadullah Nauman	Mechanical Engineering	BS(ME)	Silver
10	Wahaj Nasir	Mechanical Engineering	BS(ME)	Bronze
11	Muhammad Abrar	Civil Engineering	MS(CE)	Gold
12	Rana Haseeb Riaz	Mechanical Engineering	MS(ME)	Gold

Faculty of Computing (FoC)				
1	Muhammad Talha Lodhi	Computer Science	BS(CS)	Gold
2	Ch Mohammad Ibrahim	Computer Science	BS(CS)	Silver
3	Syed Mustafa Ahmed	Computer Science	BS(CS)	Bronze
4	Muhammad Shaban Qabil	Computer Science	BS(CS)	Gold
5	Muhammad Zameer	Computer Science	BS(CS)	Silver
6	Ambreen Waris	Computer Science	BS(CS)	Bronze
7	M Hamza Rasheed	Software Engineering	BS(SE)	Gold
8	Aleena Akhtar	Software Engineering	BS(SE)	Silver
9	Abdul Rehman	Software Engineering	BS(SE)	Bronze
10	Faiza Kousar Satti	Software Engineering	BS(SE)	Gold
11	Hifza Kashif	Software Engineering	BS(SE)	Silver
12	Ubaid Ur Rehman	Software Engineering	BS(SE)	Bronze
13	Muhammad Rehan	Computer Science	MS(CS)	Gold
14	Mehwish Siddique	Computer Science	MS(CS)	Gold
Faculty of Health & Lifesciences (FHLS)				
1	Kainat Khurshid	Biosciences	BS(BS)	Gold
2	Zoya Rafi	Biosciences	BS(BS)	Silver
3	Shinza Noureen	Biosciences	BS(BS)	Bronze
4	Hira Bashir	Biotechnology	BS(BT)	Gold
5	Hina Majid Khan	Biotechnology	BS(BT)	Silver
6	Bushra Bibi	Biotechnology	BS(BT)	Bronze
7	Urooj Tanveer Hussain Zia	Biotechnology	BS(BT)	Gold
8	Iqra Shakeel	Biotechnology	BS(BT)	Silver
9	Sehrish Sohail	Biotechnology	BS(BT)	Bronze
10	Rida Tariq	Microbiology	BS(MB)	Gold
11	Nayab Shuja	Microbiology	BS(MB)	Silver
12	Kainat Tariq	Microbiology	BS(MB)	Bronze
13	Maheen Tahir	Microbiology	BS(MB)	Gold
14	Narjis Khatoon	Biosciences	MS(BS)	Gold

2. Physical Infrastructure

2.1. Physical Infrastructure

Capital University of Science & Technology provides the preeminent infrastructure and associated facilities to the students and employees to facilitate the academic activities at campus. The university construction and developmental projects are student oriented and are focused to facilitate them with the state of art services. The university always strives to provide the students with best facilities and tools so that they can excel themselves in accordance with the corporate world and industrial requirements. The following table depicts the physical infrastructure of university in brief.

S.No.	Description	No of Floors	Covered Area (Sq.ft.)
1	Block A	4	25246.88
2	Block B	4	36406.88
3	Block C	3	13242.88
4	Block D	3	13242.88
5	Block E	4	36406.88
6	Block F	4	36406.88
7	Block G	4	24612
8	Block H	4	25246.88
9	Block I	4	12000
10	Block J	4	25246.88
11	Block K	4	25246.88
12	Block M	4	36406.88
13	Block L	4	1100
14	Guards Residence	4	7424
15	Forging Mech. Shop	2	5640
16	Cafeteria Pump Room	1	2285
17	Main Cafeteria	1	11060
18	Main Gate Reception	1	779.37
19	Food Street Shops	1	1011.75
20	Check Posts	1	224
21	Electrical Panel Room	1	321.75
22	Electric Meter Room	1	360
23	Driver Waiting Room	1	311.75
Total Covered Area			265576.66 sq. ft.



2.2. Lecture Halls

There are a total of 44 state of art lecture halls with 12 newly furnished rooms in M-Block. Each class room is provided with the following facilities:



- 1 PC
- 2 Multimedia projector
- 3 Internet connection
- 4 White Board
- 5 Markers
- 6 Speakers
- 7 Air Conditioners and Fans

2.3. Laboratory Equipment

Students cannot excel in any particular technological area unless they have hands on practical experience along with theoretical subject matter. CUST has provided the students with state of art lab facilities to meet the challenges of modern world. The lab equipment is updated on continual basis in accordance with industry, technology and market requirements. The new labs are also being constructed with state of art equipment in accordance with the corporate world requirements.

CUST Laboratories Detail

Labs Specification	Detail	Venue
Computing	i. Main Computer Lab	(A- Block)
	ii. Main Computer Lab	(H-Block)
	iii. Instruction Lab-01	(M-Block)
	iv. Instruction Lab-02	(M-Block)
	v. Instruction Lab-03	(M-Block)
	vi. Instruction Lab-04	(M-Block)
	vii. Instruction Lab-05	(M-Block)
	viii. Instruction Lab-06	(M-Block)
	ix. Instruction Lab-07	(B-Block)
	x. Instruction Lab-08	(E-Block)
	xi. Instruction Lab-09	(F-Block)
	xii. Instruction Lab-10	(H-Block)

	xiii. Instruction Lab-11	(H-Block)
	xiv. Operating Systems Lab	(B-Block)
	xv. Research Mathematics Lab	(F-Block)
	xvi. Semantic Computing Research Lab	(B-Block)
	xvii. Network and Telecomm Research Lab	(B-Block)
Bioinformatics and Bio sciences	i. WET lab	(B-Block)
	ii Tissue Culture Lab	(B-Block)
	iii Bioinformatics and Bio sciences Research Lab	(B-Block)
	iv. Bioinformatics Computing Lab	(B-Block)
Electrical / Electronic Engineering	i Electrical Machines Lab	(B-Block)
	ii Wireless Communication Research	(C-Block)
	iii. Control Systems Lab	(B-Block)
	iv. EE Project Lab	(E-Block)
	v. Machine Vision & Pattern Recognition Lab	(B-Block)
	vi. Digital Signal Processing Lab	(B-Block)
	vii. Analogue Electronics Lab	(B-Block)
	viii. Digital Electronics Lab	(B-Block)
	ix. Control and Automation Lab	(B-Block)
	x. Digital Electronics Lab	(B-Block)
	xi. Communication Systems Lab	(B-Block)
	xii. Analogue Electronics Lab – 1	(B-Block)
	xiii Analogue Electronics Lab – 2	(B-Block)
	xix Digital Signal Processing Lab	(B-Block)
	xv. Power Systems Lab – 1	(F-Block)
	xvi. Power Systems Lab – 2	(F-Block)
	xvii Project Lab	(E-Block)
Mechanical Engineering	i. Statics Lab	(E-Block)
	ii. FPGA Lab	(F-Block)
	iii. Research Mechanical Engineering Lab	(F-Block)
	iv. Dynamics Lab	(E-Block)
	v. Mechanics of Materials Lab	(E-Block)
	vi HPC Lab	(E-Block)
	vii. CAD Lab	(E-Block)
	viii. CS Project Lab-1	(E-Block)
	ix. Heat and Mass Transfer Lab	(E-Block)
	x. Fluid Mechanics Lab	(F-Block)
	xi. Precision Engineering & Metrology Lab	(F-Block)
	xii. Mechanics of Machines Lab	(F-Block)
	xiii. Thermodynamics Lab	(G-Block)
	xiv. Refrigeration and Air Conditioning Lab	(G-Block)
	xv. Mechanical Vibrations Lab	(F-Block)
	xvi. Manufacturing Processes Lab	(G-Block)
	xvii. Mechanical Workshop	(F-Block)

	xviii. Internal Combustion Engines Lab	(G-Block)
	xix. Engineering Drawings and Graphics Lab	(E-Block)
	xx. CAD Lab	(E-Block)
Civil Engineering	i. Civil Engineering Materials Lab	(H-Block)
	ii. Fluid Mechanics Lab	(F-Block)
	iii. Soil Mechanics Lab	(H-Block)
	iv. Geotechnical Lab	(H-Block)
	v. Drawing Hall	(E-Block)
	vi. Highway Lab	(H-Block)
	vii. Irrigation & Hydrology Lab	(H-Block)
	viii. Environmental Engineering Lab	(H-Block)
	ix. Structural Lab	(H-Block)
	x. Survey Store	(H-Block)
	xi. STM Room	(STM)
	xii. Instruction Lab	(H-Block)
	xiii. Engineering Mechanics Lab	(E-Block)
Pharmacy	i. Pharmaceutics Lab	(J-Block)
	ii. Pharmaceutical Chemistry Lab	(J-Block)
	iii. Basic Medical Science/Pharmacology Lab	(J-Block)
	iv. Pharmaceutical Microbiology Lab	(J-Block)
	v. Pharmacognosy Lab	(J-Block)
Faculty of Management & Social Sciences	i. Psychology Lab	(F-Block)
	ii. Management Sciences Lab	(F-Block)
	iii. CORDE Research Lab	(C-Block)



2.4. Libraries

There are two libraries in CUST with ample stock of books on all disciplines and subjects. The main campus library is located in A-Block while the other one is located in H-Block. There are two study rooms and a Printing Room linked with library. There are collectively 18,070 books and 60 hard bidden journals present in both the libraries. The university has also

provided online access to HEC Digital Library with admittance to around 1,24,000 E-books, 300 journals with 20 Journal's Databases, Moreover the library have 19 IEEE Journals, 06 ACM Journals and 06 The Economist & Aaurara Journals. The library has following HEC Digital Resources:

- 1 INFORMS
- 2 Proquest
- 3 Springerlink
- 4 Taylor & Francis
- 5 Wiley Blackwell



2.5. Conference and Workshop Rooms

Capital University of Science & Technology has four Conference and Workshop Rooms. The main Conference Room is located in D-Block which is usually reserved for high level meetings like Executive Committee, Academic Council, Board of Advanced Studies and Research etc and other high profile meetings and talks. The other three Conference Rooms are used for internal meetings, Regulaory Bodies/Council meeting and Training/Workshops. Besides these major Conference Rooms, there are four small Conference Rooms which are also used as faculty staff rooms.



The Workshop Room located in B-Block and Conference Rooms located in F-Block and M-Block respectively are mainly reserved for departmental, corporate and industrial meetings. The project and thesis defense presentations of students are also held here. These rooms are provided with all required facilities like:

- 1 Computer Systems
- 2 Multimedia projector

- 3 Internet connection
- 4 White Board
- 5 Markers
- 6 Speakers

2.6. Auditoriums

Capital University has two main Auditoriums located in A-Block namely, A-1 and A-2. These auditoriums are reserved for academic and co-curricular activities. The class lectures and exams are also held in these rooms. The auditoriums also host various events like workshops, seminars, training and similar academic and social activities. The auditoriums are equipped with:

- 1 Computer Systems
- 2 Multimedia Projector
- 3 Microphone
- 4 Internet Connection
- 5 White Board
- 6 Markers
- 7 Speakers

2.7. Project and Study Rooms

To facilitate students in their project work, separate Project Rooms are allocated to each department with adequate facilities. The students without any disturbance can concentrate on their particular tasks there. Similarly study rooms can benefit students in their lecture revision and exams preparation.



2.8. Security Measures

To safeguard students and employees, so that they can attain education and perform their duties adequately without any distress, maximum security measures are being exercised in the campus which include:

- Video Surveillance in all covered areas
- Three Security Check-Posts
- Walk-through Gates on each Entrance
- MOU with Security Company for Security Guards
- More than 500 CCTV Cameras

3. Technological Infrastructure

3.1. IT Support

Strengthening and up gradation of computer labs, libraries and academic facilities are essential for achieving excellence in skill set of students. The university has therefore spent huge amount in upgrading and setting up IT infrastructure. CUST has centralized IT Support Center whose sole purpose is the provision of IT facilities to every one within university.

IT support Department manages and maintains the Computer labs, CCTV Cameras, Multimedia, WIFI and Telephone systems within university. The whole campus is connected through computer systems, telephones, Local Area Network (LAN), Optical fiber network and WIFI Hot spot.



The lecture halls, labs, auditoriums, conference halls and faculty & staff offices are provided with state of the art computer systems and IT facilities. Every block has its separate IT support Room with well equipped and skilled experts. Following is the brief summary of IT facilities at CUST.

S.No.	Equipment	Number
1	Computer Systems	1136
2	CCTV Cameras	597
3	Multimedia Projectors	150
4	Telephone Extensions	317
5	IT Labs	12
6	Faculty Laptops	158



3.2. CUST Employee Self Service Portal (ODOO)

Capital Management System also called ODOO is an online system to manage all attendance related tasks and reports. CMS provides dynamic and integrated solutions to smoothly run and streamline the university and employees attendance related operations.

Main Features

- Daily Check-in/Check-out Status
- Daily Attendance Report
- Monthly Attendance Report
- Leave Application Submission System
- Monthly working hour Calculation
- Self Appraisal Module
- Evaluation Report
- Employees Record
- Individual Employee leave and Attendance History
- Leave Report
- Pay Slips
- Appraisals



3.3. Student Portal

CUST Data Base Administration System provides a dynamic and integrated Student Portal System for managing students' Academics, including Program Registration, Course listing, Time-tabling, Course Attendance Management, Resource Management, Exams, Feedback and other activities. The student Portal maintains, update and provide accurate personal and academic information about all current and past students with in university. FYP Portal is a new addition in the previous system which provides complete details about every single aspect of the student's Final Year Project including its Start and Finish Date, Grading, Supervisor and Evaluation Panel.

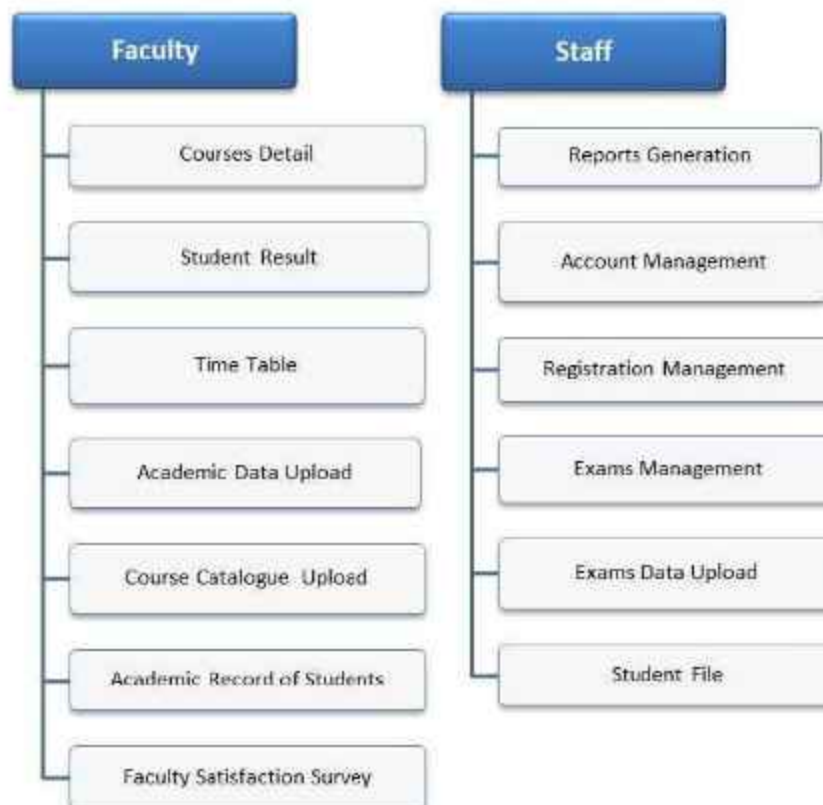
Notice Board
Result Card View/Print
Lectures and Assignments Upload/Download
Academic Results
Leave Status
Transcript
Program Education Objectives (PEOs)
Program Learning Objectives (PLOs)
Scheme of Studies
Online Registration
Challan Generation and Print
Fee Summary Report
FYPs Portal
Evaluation & Feedback

CUST Student Portal is updated on continual basis to maximally benefit the students in accordance with digital world requirements. The new features are added regularly to make it more user friendly and make it as per students' requirements.



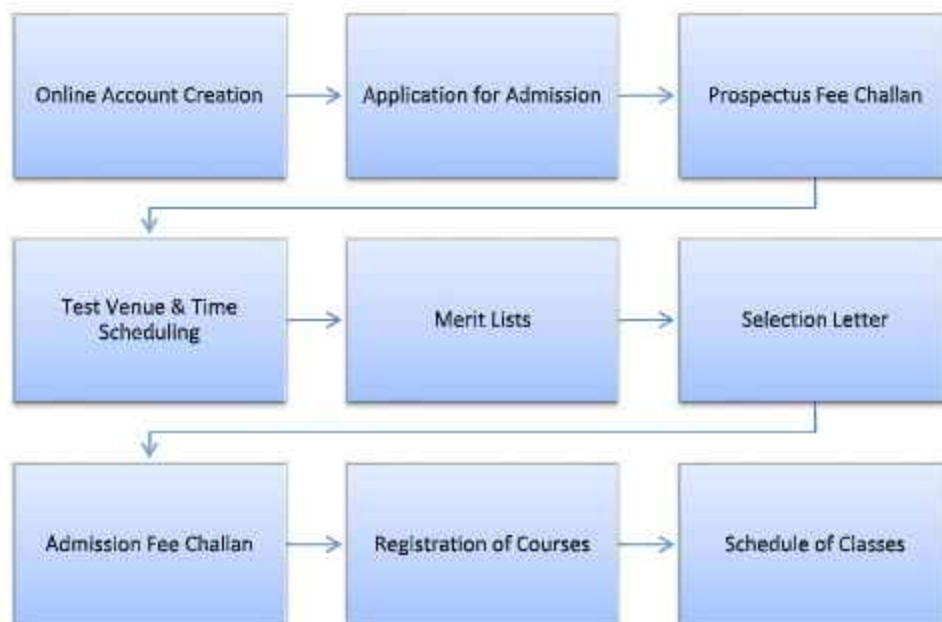
3.4. Faculty and Staff Portal

CUST owns a comprehensive University Administration System consisting of Faculty and Staff Portals to accomplish all faculty and staff related actions. The portal allows faculty members to manage their academic activities and access the updated data about the students. Similarly administrative departments like Registration, Exams Office, Accounts Office etc. can manage their tasks using the given portal. Faculty Satisfaction Survey and Student File are recent addition to this portal to facilitate the faculty in respective regard.



3.5. Online Admissions system

The Online Admissions System has automated the Institute's admission structure with associated operation and functionality. It provides support to the administration and admission seeking candidates by providing a faster, transparent and easy way of keeping records and use them for reference and further proceedings. CUST has a robust Online Admissions System which offers various features like student admission, fee collection, seat allocation, canceling the admission etc. The fee can also be paid online against the conventional submission procedures.



3.6. Digital Library

The purpose of HEC Digital Library facility in CUST is to provide faculty members, researchers and students within university with access to international scholarly literature based on electronic (online) delivery, providing access to high quality, peer-reviewed journals, databases, articles and e-Books across a wide range of disciplines.



The e-books support program allows researchers to access most of the important text and reference books electronically in a variety of subject areas. Around 75,000 number of electronic content is available through the Digital Library Program. The Higher Education Commission (HEC) has made available 1,58,000 online books in addition to 23,000 journals to researchers within public and private universities in Pakistan under the Digital Library Program.

4. Research Operations and Development

4.1. CUST Research Groups

CUST has numerous well reputed Research Groups working in each constituent department, which are doing extensive applied research on novel ideas and industrial problems. The research is done in close collaboration with R&D organizations and industry, and supported by the national & international funding agencies.

The major objective for the formulations of the Research Groups at CUST is to instigate faculty members and researchers to develop a research culture and benefit the society with its prolific outcomes. The Research Groups are working in following key areas.

Faculty of Computing (FoC)

S.No.	Research Area	Department
1	Data Science and Artificial Intelligence	Computer Science
2	Information Security and Forensics	Computer Science
3	Parallel Computing and Networks	Computer Science
4	Design and Machine	Computer Science
5	Algebra and Cryptography	Mathematics
6	Celestial Mechanics and General Relativity	Mathematics
7	Fluid and Wave Mechanics	Mathematics
8	Functional Analysis	Mathematics

Faculty of Engineering (FoE)

S.No.	Research Area	Department
1	Power Systems	Electrical Engineering
2	Digital System Design	Electrical Engineering
3	Control Systems	Electrical Engineering
4	Signal and Image Processing	Electrical Engineering
5	Telecommunications and Networks	Electrical Engineering
6	Microelectronics and Microwaves	Electrical Engineering
7	Manufacturing Industrial and Systems Engineering	Mechanical Engineering
8	Thermo-fluids	Mechanical Engineering
9	Control and Automation	Mechanical Engineering
10	Design and Machine	Mechanical Engineering
11	Structural Materials	Civil Engineering
12	Water Resources and Environment	Civil Engineering
13	Construction Management	Civil Engineering

Faculty of Pharmacy (FoP)

S.No.	Research Area	Department
1	Drug Discovery and Development	Pharmacy
2	Drug Formulation and Drug Delivery	Pharmacy
3	Clinical Pharmacy and Pharmacy Practice	Pharmacy

Faculty of Health & Life Sciences (FHLS)

S.No.	Research Area	Department
1	Integrative BioSciences	Biosciences
2	Cancer Cytogenetic	Biosciences
3	Genetic and Molecular Epidemiology	Biosciences
4	Green Biotechnology	Biosciences
5	Industrial & Environmental Bio Technology	Biosciences
6	Drug Discovery and Development	Pharmacy
7	Drug Formulation and Drug Delivery	Pharmacy
8	Clinical Pharmacy and Pharmacy Practice	Pharmacy
9	Natural Products Research	Pharmacy

Faculty of Management & Social Sciences (FMSS)

S.No.	Research Area	Department
1	Financial Markets	Management Sciences
2	Organizational Behavior	Management Sciences
3	Governance, Social Responsibility and Ethics	Management Sciences
4	Consumer Behavior	Management Sciences
5	Entrepreneurship	Management Sciences
6	Clinical Psychology	Management Sciences
7	Environment & Sustainability	Management Sciences

**4.2. Industrial Outreach Committees**

To fulfill the OBE criteria No. 09 of Pakistan Engineering Council and uphold industry-academia linkage, Departmental Outreach committees of Faculty of Engineering are constituted. Currently three Industrial Outreach Committees of Electrical, Mechanical and Civil Engineering Department are working.

Each committee is headed by a convener and constitutes specific members and a secretary. The major purpose of these committees is the establishment of Academia-Industry Linkage and playing a productive role in graduates' employment.

Following are the key responsibilities of Outreach Committees.

- To identify local industries and define mechanism for having feedback from industries
- To take measures to improve the employment of our graduates in the local industry
- To look for supervision/consultancy for faculty members with the industry
- To propose consultancy frame work beneficial for both university and industry
- To provide help in project proposals to the faculty members
- To look for equipment and sponsors from industry along with joint supervision for FYPs

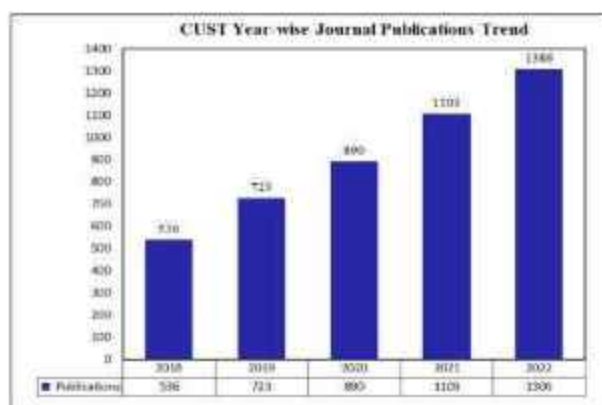
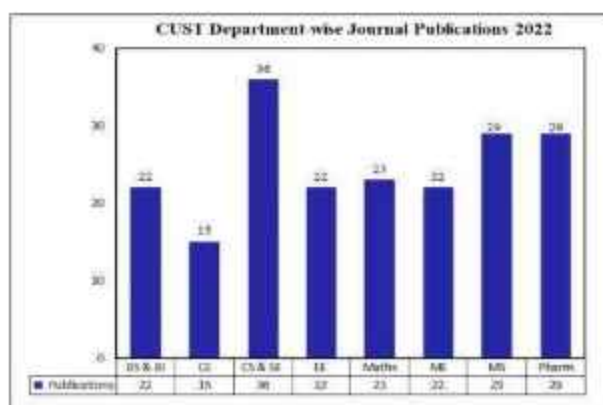
4.3. CUST Publications

Apart from keeping high standards in teaching, research at CUST is methodically pursued and befittingly rewarded. Our research output is en-rooted with national needs and contributes towards social and economical development of the country. We are constantly working to mediate with national as well as international academics, research and industrial organizations to facilitate and promote research culture at CUST.

4.4. Journal Publications Trend

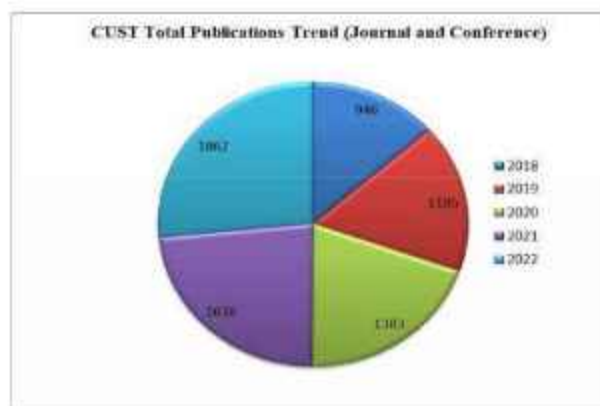
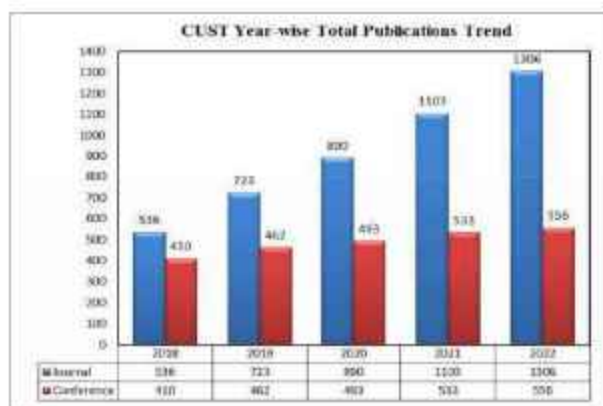
Capital University of Science and Technology has always been proactive in the field of practical research. It has been through the hard work of CUST faculty and extreme dedication of students that CUST has been successful in publishing its work in renowned Impact Factor (IF) National and International Journals.

The continual growth in quality research publications in recent years showcases our resolve and persistence. The following graphs depict the department-wise detail of Journal publications accomplished by CUST faculty in 2022 and also the publications trend of last five years.



4.5. Total Publications Trend

The following graphs depict the increase in total publications trend of CUST faculty in recent years. The numbers include both the Journal and Conference publications accomplished over the years.



4.6. Research Proposals

Research Proposals Submitted

The following table briefs the list of research proposals submitted by faculty members in collaboration with Office of Research, Innovation and Commercialization to various funding agencies.

S.No.	Title	Principal Investigator/ Collaborator	Department	Submission/Funding Agency		
1	Towards the Application of Artificial Intelligence for Sustainable Livestock Management - A Pilot Project to uplift Socio-economic Conditions of Rural Women	Dr. Saira Ahmed	Management Sciences	Local (LCF)	Challenge Fund	
2	Behavioral Intervention for Sustainable Agricultural Practices: A Field Experiment for Water Conservation	Dr. Sabahat Haqqani	Management Sciences	Local (LCF)	Challenge Fund	
3	Current and Future Impact of Public Sector Secondary Education in Pakistan	Prof. Nayyer Masood	Computer Science	Local (LCF)	Challenge Fund	
4	Project Concept Paper for Center of Excellence for Training, Testing and Facilitation in Electric Vehicle Technology	Prof. Aamer Iqbal Bhatti	Electrical Engineering	Planning & Development Board, Punjab		
5	Indigenous Development of Drone Detection Radar	Prof. Aamer Iqbal Bhatti	Electrical Engineering	Ministry of Education, Saudi Arabia		
6	Collaborative Proposal for GCF with ERC, COMSATS Lahore	Prof. Aamer Iqbal Bhatti	Electrical Engineering	Grant (GCF)	Challenge Fund	
7	Revision Submission of Investigation of Drug Resistant Strains of Mycobacterium Proposal	Prof. Shaukat Iqbal Malik	Biosciences	Pakistan Science Foundation (PSF)		

S.No.	Title	Principal Investigator/ Collaborator	Department	Submission/Funding Agency
8	eHealth Supported Intervention for improving care for young people with substance use disorder in Pakistan	Dr. Ishrat Yousaf	Psychology	National Research Program for Universities (NRPU)
9	A Multi-Biometric Access Control System for Highly Secured Environment	Prof. Imtiaz Ahmad Taj	Electrical Engineering	National Research Program for Universities (NRPU)
10	Development of Consortium for Enhanced Recovery of Residual Petroleum: Step towards Sustainable Energy Exploration and Exploitation	Dr. Arshia Amin Butt	Bioinformatics	Local Challenge Fund (LCF)
11	Screening of Benzimidazole Derivatives as Potential agents for Diabetic Neuropathy and associated Pathological Mediators	Dr. Muzaffar Abbas	Pharmacy	National Research Program for Universities (NRPU)
12	Plastic Recycling: Development of Plastic Tile Production Machine	Dr. Salman Sagheer Warsi	Mechanical Engineering	Pakistan Science Foundation (PSF)
13	Design & Development of a Wideband and Low Noise Pre-Amplifier having Adjustable Gain	Dr. Muhamamd Ashraf	Electrical Engineering	Public Sector Organization
14	AI Based Tool for Intelligent Analysis of Software Development Life cycle Artifacts	Dr. Aamer Nadeem	Software Engineering	Public Sector Organization
15	C to XML Converter Tool	Dr. Aamer Nadeem	Software Engineering	Public Sector Organization
16	Software Tool for Automated Metrics Extraction to Predict Faults in Software Code	Dr. Aamer Nadeem	Software Engineering	Public Sector Organization
17	Genetic Algorithm Based Functional Testing	Dr. Aamer Nadeem	Software Engineering	Public Sector Organization
18	Development of Building Products from Recycled Plastic for Housing	Dr. Majid Ali	Civil Engineering	National Research Program for Universities (NRPU)

ORIC Proposals Dashboard

ORIC has designed a Proposals Dashboard which contains the data related to research proposals being worked on by ORIC in collaboration with other departments. The dashboard is divided in to following tabs/categories which contains a brief description about each proposal in accordance with its status:

1 Submitted

- 2 Submitted and Under Review
- 3 Under Final Revision
- 4 Approved

HEC National Research Program for Universities (NRPU)

National Research Program for Universities (NRPU) is a flagship Research Program of HEC for funding research grants on competitive merit for high-level and promising scientific research projects that demonstrate strategic relevance and impact to local industry and society. The faculty researchers of Capital University of Science & Technology have submitted numerous proposals on diverse and innovative research projects and ideas under HEC National Research Program for Universities (NRPU). Office of Research, Innovation and Commercialization have copiously facilitated the researchers in their proposals submission and associated documentation and paperwork.

HEC Local Challenge Fund (LCF)

The Local Challenge Fund (LCF) is a key element of the Higher Education Development in Pakistan Project supported by the World Bank and implemented by the Higher Education Commission (HEC) to support research projects that address locally relevant socio-economic issues and topics associated with Sustainable Development Goals (SDGs), and will provide funds to selected institutions based upon a competitive, peer-reviewed evaluation of proposals. Office of Research, Innovation and Commercialization have copiously facilitated researchers in their proposals submission and associated documentation and paperwork for LCF.



HEC Approved Research Proposals for Funding

Higher Education Commission (HEC) have accepted 07 proposals submitted by CUST faculty researchers under National Research Program for Universities (NRPU) and Local challenge Fund (LCF). The following table depicts the Research Proposals accepted for funding by HEC under mentioned programs.

S.No.	Title	Principal Investigator/ Collaborator	Department	Submission/Funding Agency
1	eHealth Supported Intervention for improving care for young people with substance use disorder in Pakistan	Dr. Ishrat Yousaf	Psychology	National Research Program for Universities (NRPU)
2	A Multi-Biometric Access Control System for Highly Secured Environment	Prof. Imtiaz Ahmad Taj	Electrical Engineering	National Research Program for Universities (NRPU)
3	Development of Consortium for Enhanced Recovery of Residual Petroleum: Step towards Sustainable Energy Exploration and Exploitation	Dr. Arshia Amin Butt	Bioinformatics	Local Challenge Fund (LCF)
4	Screening of Benzimidazole Derivatives as Potential agents for Diabetic Neuropathy and associated Pathological Mediators	Dr. Muzaffar Abbas	Pharmacy	National Research Program for Universities (NRPU)
5	Development of Building Products from Recycled Plastic for Housing	Prof. Majid Ali	Civil Engineering	National Research Program for Universities (NRPU)

Erasmus Plus Capacity Building Project: Strategic Support for Accreditation of Programs and Internationalization at South Asian Higher Education Institutes (HEIs) / SSAPI

Capacity-building projects in the field of higher education support the modernization, accessibility, and internationalization of higher education in Partner Countries. These projects build on the success of the Alfa, Edu-link, and Tempus programs. The projects aim to encourage cooperation between the EU and Partner Countries and support eligible Partner Countries in addressing challenges in the management and governance of their higher education institutions. This includes improving the quality of higher education, developing new and innovative education programs, modernizing higher education systems through reform policies as well as fostering cooperation across different regions of the world through joint initiatives.



Sensing Artificial Intelligence, and Edge Networking towards Rural Health Monitoring (SAFF-RH)

SAFE-Rural-Health program aims to build a digital healthcare community that bridges the gap in knowledge between health and computing and addresses the present and future complexities of design and development of digital health solutions. The intent of SAFE-Rural-Health in Pakistan is to support the provision of health care services to reduce the mortality rate of women and children, to timely address the maternity related issues in remote areas and to monitor old people. Applying Remote Health Monitoring in rural areas of Pakistan to deliver and assist with the delivery of healthcare services can reduce or minimize challenges and burdens patients' encounter, such as transportation issues related to traveling for specialty care. Remote Health Monitoring can also improve monitoring, timeliness, and communications within the healthcare system.

Erasmus Plus Capacity Building Project: Capacity Building for Digital Health Monitoring and Care Systems in Asia - DigiHealth-Asia

This project aims to build capacity in HEIs of the partner countries (of DigiHealth-Asia project) to develop and implement ICT-based digital Healthcare solutions that would begin a new transformation in the operation of Asian Healthcare systems. The main objective of this project is to harness the power of ICT in developing integrated solutions that would aid the healthcare professional in remote monitoring of post-treatment patients with longer-term medical conditions. The system would integrate a combination of ICT technologies including machine learning algorithm based on multi-view metric learning to learn to the relative importance of different types of sensors dependent on the location of the user, networking and user-friendly application development for collection and analysis of the collected medical data.



4.7. Research and Development (R & D) Projects

The faculty and researchers of Capital University of Science & Technology are passionately motivated toward the Research and Development (R&D) and commercial projects of national prominence. The highly reputed faculty members have completed a number of R&D and joint Projects in capacity of projects directors with various national and international funding agencies and organizations.

Brief Overview	
Research Budget Allocated by CUST in 2019-20	11.52 Million PKR
External Funding & Research Grants Till Date	495.199 Million PKR
Total R & D Projects	28
Number of PhDs Funded	22
Number of Prototypes Developed	5



4.8. R&D Projects at National Level

The faculty members through their hard work and determination have accomplished a number of R&D projects. The projects were sponsored by numerous organizations and funding agencies including highest reputed public sector organizations. The work on various joint projects is still in continual phase.

Development of Consortium for Enhanced Recovery of Residual Petroleum: Step towards Sustainable Energy Exploration and Exploitation

Project Status	In-Progress
Project Director	Dr. Arshia Amin Butt
Total Budget	Rs. 18.156 Million
Funding Agency By	HEC (LCF)

A Multi-Biometric Access Control System (MBACS) for Highly Secured Environment

Project Status	In-Progress
Project Director	Prof. Imtiaz Ahmed Taj
Total Budget	Rs 6.009 Million
Funding Agency By	HEC (NRPU)

Development of Building Products from Recycled Plastic for Housing

Project Status	In-Progress
Project Director	Prof. Majid Ali
Total Budget	Rs 9.982 Million
Funding Agency By	HEC (NRPU)

eHealth supported intervention for improving care for young people with substance use disorder in Pakistan

Project Status	In-Progress
Project Director	Dr. Ishrat Yousaf
Total Budget	Rs 7.3185 Million
Funding Agency By	HEC (NRPU)

Screening of Benzimidazole Derivatives as Potential agents for Diabetic Neuropathy and associated Pathological Mediators

Project Status	In-Progress
Project Director	Prof. Muzaffar Abbas
Total Budget	Rs 7.1 Million
Funding Agency By	HEC (NRPU)

Plastic Recycling: Development of Plastic Tile Production Machine

Project Status	Completed
Project Director	Dr. Salman Sagheer Warsi
Total Budget	Rs 0.61 Million
Funding Agency By	Pakistan Science Foundation (PSF).

C to XML Converter Tool

Project Status	Completed
Project Director	Dr. Qamar Uz Zaman
Total Budget	Rs 0.1 Million
Funding Agency By	Public Sector Organization

AI Based Tool for Intelligent Analysis of Software Development Life cycle Artifacts

Project Status	Completed
Project Director	Dr. Aamer Nadeem
Total Budget	Rs 0.1 Million
Funding Agency By	Public Sector Organization

Software Tool for Automated Metrics Extraction to Predict Faults in Software Code

Project Status	Completed
Project Director	Dr. Aamer Nadeem
Total Budget	Rs 0.1 Million
Funding Agency By	Public Sector Organization

Genetic Algorithm Based Functional Testing

Project Status	Completed
Project Director	Dr. Aamer Nadeem
Total Budget	Rs 0.1 Million
Funding Agency By	Public Sector Organization

Generative Adversarial Networks (GANs) based on Data Augmentation for Multiple Image

Project Status	Completed
Project Director	Prof. Imtiaz Ahmed Taj
Total Budget	Rs 0.2 Million
Public Sector Organization partners	

Vision Based Tracking using Deep CNNs

Project Status	Completed
Project Director	Prof. Imtiaz Ahmed Taj
Total Budget	Rs 0.2 Million
Public Sector Organization partners	

High Quality Tele-Medicine-Driven Video Encoding System Under Very Low Bitrates

Project Status	Completed
Project Director	Prof. Dr. Muhammad Abdul Qadir
Total Budget	Rs 25.54 Million
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan

Automatic Personal Identification Biometrics System (APIBS) for Large Scale Applications

Project Status	Completed
Project Director	Prof. Dr. Imtiaz Ahmad Taj
Total Budget	Rs 14.7 Million
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan

Real Time Implementation of H.264 Decoder for Heterogeneous Multicore Architectures

Project Status	Completed
Project Director	Prof. Dr. Imtiaz Ahmad Taj
Total Budget	Rs 16.64 Million
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan

Autonomous Landing/Takeoff of Unmanned Aerial Vehicle (UAV)

Project Status:	In Progress
Project Director:	Prof. Dr. Aamer Iqbal Bhatti
Total Budget:	PKR 2.86 Million
Funding Agency:	Public Sector Organization

Modeling and Simulation of LPI Radar for System Level Design and Optimization

Project Status	Completed Successfully
Project Director	Prof. Dr. Aamer Iqbal Bhatti
Total Budget	Rs 1 Million
Funding Agency By	RWR

Development of Radar Signal Processing (RSP) algorithms for Active Electronically Scanned Array (AESA) Radar

Project Status:	In Progress
Project Director:	Prof. Dr. Aamer Iqbal Bhatti
Total Budget:	PKR 1.85 Million
Funding Agency:	Public Sector Organization

End-to-End Mobility Management Framework (EMF) for Multihomed Mobile Devices

Project Status	Completed Successfully
Project Director	Prof. Dr. Amir Qayyum
Total Budget	Rs 14.897 Millions
Funding Agency By	ICT R&D Fund, Ministry of Information Technology Govt. of Pakistan
Commercialization	Source Code

Network based P2P Flow Recognition

Project Status	Completed Successfully
Project Director	Prof. Dr. Amir Qayyum
Total Budget	Rs 0.2 Millions
Funding Agency By	Nayatel Pvt Ltd. Islamabad
Commercialization	Actual Deployment

3GPP-IMS Compliant E2E Mobile IPTV Solution for 4G/LTE Networks

Project Status:	In Progress
Project Director:	Prof. Dr. Amir Qayyum
Total Budget:	PKR 31 Million
Funding Agency:	EMI Networks Pvt. Ltd
Commercialization:	Prototype Development

Control of Underground Coal Gasification

Project Status	Completed Successfully
Project Director	Prof. Dr. Aamer Iqbal Bhatti
Total Budget	Rs 2.8 Million
Funding Agency By	Thar Energy Board

Modeling and Control of UCG

Project Status	Completed Successfully
Project Director	Prof. Dr. Aamer Iqbal Bhatti
Total Budget	Rs 14.3 Million
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan

Information System for Early Fault Warning in Automotives

Project Status	Completed Successfully
Project Director	Prof. Dr. Aamer Iqbal Bhatti
Co-Projector Director	Prof. Dr. Amir Qayyum
In Collaboration with	Control and Signal Processing Research Group (CASPR), M. A. Jinnah University, Islamabad
Total Budget	Rs 14.34 Millions
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan
Commercialization	Prototype Development

Development of Phased Array Radar

Project Status	In-progress
Project Director	Prof. Dr. Aamer Iqbal Bhatti
Total Budget	Rs 12.6 Million
Funding Agency By	Public Sector Organization
Commercialization	Prototype Development

Underwater Vehicle Dynamic modeling and Control

Project Status	In progress
Project Director	Prof. Dr. Aamer Iqbal Bhatti
Total Budget	Rs 0.1 Million
Funding Agency By	Public Sector Organization

CFD Analysis of Atomization of Liquid Fuel

Project Status	In progress
Project Director	Dr. Muhammad Mahabat Khan
Total Budget	Rs 0.5 Million
Funding Agency By	Public Sector Organization

Computational Model for Combustion in the wake Region of flame Holder

Project Status	In progress
Project Director	Dr. Muhammad Mahabat Khan
Total Budget	Rs 0.5 Million
Funding Agency By	Public Sector Organization

Molecular Epidemiology and Prevalence of Antibiotic Resistance Genes in Smog Particulate Matter: Implications for Human Exposure in Pakistan

Project Status	Approved for Funding
Project Director	Dr. Arshia Amin Butt
Total Budget	Rs 6.5 Million
Funding Agency By	NRPU, HEC

Preparation of Indigenous Manual Based Intervention for Lowering anxiety and Depression Levels among Pakistani Youth

Project Status	Approved for Funding
Project Director	Dr. Sabahat Haqqani
Total Budget	Rs 14.63 Million
Funding Agency By	NRPU, HEC



4.9. R&D Projects at International Level

The faculty and researchers of Capital University of Science & Technology have not only accomplished the national level projects of highest repute with topmost organizations but also worked with variant international organizations. A number of Research and commercial projects have been successfully completed in collaboration with various international funding agencies and organizations which shows the inclination of faculty toward research culture.

Sensing Artificial Intelligence, and Edge Networking towards Rural Health Monitoring (SAAF-RH)

Project Status:	In Progress
Project Director:	Prof. Nayyer Masood
In Collaboration:	2 European partners and 3 Asian partners
Total Budget:	PKR 127.23 Million
Funding Agency:	European Commission

Strategic Support for Accreditation of Programs and Internationalization at South Asian Higher Education Institutes (HEIs) / SSAPI

Project Status:	In Progress
Project Director:	Prof. Dr. Amir Qayyum
In Collaboration:	2 European partners and 9 Asian partners
Total Budget:	PKR 169.92 Million
Funding Agency:	European Commission

Capacity Building for Digital Health Monitoring and Care Systems in Asia - DigiHealth-Asia

Project Status:	In Progress
Project Director:	Prof. Dr. Amir Qayyum
In Collaboration:	3 European partners and 6 Asian partners
Total Budget:	PKR 184.25 Million

Funding Agency: European Commission

Framework for Control and Monitoring of Wireless Mesh Networks (WMN) using Software Defined Networking (SDN)

Project Status:	In Progress
Project Director:	Prof. Dr. Amir Qayyum
In Collaboration:	Government of France
Total Budget:	PKR 2.3 Million
Funding Agency:	Govt. of France & HEC

Core Components of the 4th Generation Telecom Infrastructure (IMS)

Project Status	Completed Successfully
Project Director	Prof. Dr. Amir Qayyum
In Collaboration with	C M. A. Jinnah University, Islamabad and Media Routes Inc., Canada
Total Budget	Rs 14.88 Millions
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan
Commercialization	Actual Deployment

Vehicle Based Road/Environment Condition Warning System using Vehicular Ad hoc Networks (VANETs)

Project Status:	In Progress
Project Director:	Prof. Dr. Amir Qayyum
In Collaboration:	Telecom Sud Paris, France and Universiti Teknologi Petronas Malaysia
Total Budget:	PKR 11.9 Million
Funding Agency:	Govt of France, under the ICT-ASIA Program and in Collaboration With three project partners
Commercialization:	Prototype Development

EduScope: A New Learning System

Project Status	Completed Successfully
Project Director	Prof. Dr. Amir Qayyum
Total Budget	Rs 1.8 Million
Funding Agency By	Internet Society (ISOC) Washington, USA and M. A. Jinnah University Islamabad

Design and Development of Hybrid IPv4 and IPv6 Network for QoS Enabled Video Streaming Multicast Application

Project Status	Completed Successfully
Project Director	Prof. Dr. Amir Qayyum
Co-Projector Director	Dr. Mudassir Tufail, Cisco Systems Inc., USA
Total Budget	Rs 14.202 Millions
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan



4.10. Research Commercialization

The faculty of Capital University of Science & Technology is actively involved in commercialization of Research and Development (R&D) projects of national and international prominence. The faculty members through their resolve and determination have accomplished a number of projects toward their commercialization. Following is the brief list of such projects.

S.No.	Project Title	Commercialization
1	Vehicle Based Road/Environment Condition Warning System using Vehicular Ad hoc Networks (VANETs)	Prototype Development
2	EduScope: A New Learning System	Actual Deployment
3	Core Components of the 4th Generation Telecom Infrastructure (IMS)	Actual Deployment
4	Design and Development of Hybrid IPv4 and IPv6 Network for QoS Enabled Video Streaming Multicast Application	Actual Deployment
5	Information System for Early Fault Warning in Automotives	Source Code
6	Network based P2P Flow Recognition	Actual Deployment
7	End-to-End Mobility Management Framework (EMF) for Multihomed Mobile Devices	Prototype Development
8	3GPP-IMS Compliant E2E Mobile IPTV Solution for 4G/LTE Networks	Prototype Development
9	Vision Based Tracking using Deep CNNs	Defense Industry
10	Generative Adversarial Networks (GANs) based on Data Augmentation for Multiple Image	Defense Industry
11	Automatic Personal Identification Biometrics System (APIBS) for Large Scale Applications	Defense Industry
12	Modeling and Simulation of LPI Radar for System Level Design and Optimization	Defense Industry
13	Development of Phased Array Radar	Defense Industry
14	Autonomous Landing/Takeoff of UAV	Defense Industry
15	Underwater Vehicle Dynamic modeling and Control	Developed for RWR
16	Development of Radar Signal Processing (RSP) algorithms for Active	Defense Industry
17	Electronically Scanned Array (AESA) Radar	Defense Industry
18	Control of Underground Coal Gasification	Defense Industry
19	CFD Analysis of Atomization of Liquid Fuel	Defense Industry
20	Computational Model for Combustion in the wake Region of flame Holder	Defense Industry
21	C to XML Converter Tool	Defense Industry
22	AI Based Tool for Intelligent Analysis of Software Development Life cycle Artifacts	Defense Industry

5. Collaborations and Linkage

CUST continues to have mutual collaborations, linkages and agreements with leading institutes and organizations both nationally and internationally in larger interest of students and faculty. We have signed Memorandums of Understandings (MoUs) with both academia and industry with leading institutes and organizations. The sole purpose of these collaborations is mutual benefit with respect to students in particular.

5.1. National Collaborations

Focus & Rulz Pharmaceuticals (Pvt)Ltd

Memorandum of Understanding (MoU) signed between Capital University of Science and Technology and Focus & Rulz Pharmaceuticals (Pvt) Ltd to exchange scientific, academic and technical information, identify opportunities for exchanges and cooperation and joint Research and Development, Commercialization of technology, students Internships and sponsorships.

Bio Labs Pvt Ltd

Memorandum of Understanding (MoU) signed between Capital University of Science and Technology and Bio Labs Pvt Ltd for exchanges and cooperation and joint Research and Development Projects and Commercialization of technology. Both parties agreed to facilitate each other in R&D Projects, Labs and Testing Facilities, Training/Special Courses, input in Curriculum Design, participation in Industrial Advisory Board meetings, Hiring and Internships of students and will discover the opportunities for the Commercialization of Technology.



Sparknetics Pvt Ltd

Memorandum of Understanding (MoU) signed between Capital University of Science and Technology and Sparknetics Pvt Ltd to adequately market and promote training course/program to its audience with the purpose of getting students on board. Sparknetics has been indulged in consulting business and are offering a wide range of profitable business opportunities and has also established online assets in the field of E-commerce. Both the parties agreed to conduct trainings and awareness sessions at CUST on "Sell on Amazon" based on understanding set out in Memorandum of Understand (MoU).

DMTL Pvt Ltd, Pakistan

A Memorandum of Understanding was signed between CUST and DMTL Pvt Ltd on Thursday i.e. July 16, 2020. DMTL Pvt Ltd is a Digital Marketing Training Firm which provides various training on marketing strategies on different digital forums. The Office of Corporate Linkages was lead by the Director, CL, Dr. Arif Vaseer who was accompanied by Head of

the Department, FMSS, Dr. Mueen Zafar whereas DMTL was lead by the founder of DMTL Pvt Ltd, Mr. Husbi Ahmed who was accompanied by Mr. Ali Kamal. Both the organizations agreed to engage in joint activities regarding digital marketing training, considering its demand and requirement in the present times.



M/s Naqvi and Siddique, Islamabad

Memorandum of Understanding (MoU) signed between Capital University of Science and Technology and M/s Naqvi and Siddique, Islamabad for opportunities of exchange and cooperation in joint Academic and Scientific Activities, such as Seminars, Advisory council etc., and identification of industrial placement and internships. The parties also agreed for collaborative research projects and industrial sponsorship at undergraduate and graduate levels.



M/s Engineering & Design Consultants (E & DC)

Memorandum of Understanding (MoU) signed between Capital University of Science and Technology and M/s Engineering & Design Consultants (E & DC), Islamabad for opportunities of exchange and cooperation in joint academic and scientific activities, and identification of industrial placement and internships. The parties also agreed for collaborative research projects and industrial sponsorship at undergraduate and graduate levels.

NESCOM

Memorandum of Understanding (MoU) signed between Capital University of Science and Technology and National Engineering and Science Commission (NESCOM), Islamabad for enrollment of suitable Engineers and Scientists from NESCOM in regular and split MS/PhD Program in CUST and Chinese University. The parties also agreed for Collaborative Research Projects, Scholarships and Teaching, consultancy services and capacity building through Training, Courses and Symposiums for NESCOM employees and officers.

M/s Khubeeb Khan Architects (KKA), Pakistan

Capital University of Science and Technology and M/s Khubeeb Khan Architects (KKA) signed an agreement of mutual interest on March 12, 2020 regarding the identification of opportunities for exchange and cooperation in joint academic and scientific activities like seminars, advisory council and collaborative research projects. The parties also agreed to continue the collaboration through student internships and industrial sponsorship.



M/s City Engineering consultants, Islamabad

Memorandum of Understanding (MoU) signed between Capital University of Science and Technology and M/s City Engineering consultants, Islamabad for opportunities of exchange and cooperation in joint academic and scientific activities, and identification of industrial placement and internships. The parties also agreed for collaborative research projects and industrial sponsorship.

National Institute of Banking and Finance, Islamabad

A Memorandum of Understanding (MoU) was signed between Capital University of Science and Technology and National Institute of Banking and Finance on 28th Oct, 2019. The parties agreed to collaborate in exploration of areas of mutual interest in developing and grooming human resources in the fields of banking and finance.

Media Mint (Pvt.) Ltd. (Rime TV), Pakistan

Capital University of Science and Technology and Media Mint (Pvt.) Ltd. (Rime TV) signed an agreement of mutual interest on June 22, 2020 for opportunities of exchange and cooperation as well as joint research and development in disciplines of mutual interest and creation of a vibrant Entrepreneurial Ecosystem and promotion of Entrepreneurial Environment for the students. The parties also agreed for identification of opportunities for student internship and job opportunities, and promotion of innovation and creativity in youth.



DESIGNMEN Consulting Engineers (Pvt) Ltd, Pakistan

A Memorandum of Understanding (MoU) was signed between Capital University of Science and Technology and DESIGNMEN Consulting Engineers (Pvt) Ltd. on March 18, 2020 to identify the opportunities for exchange and cooperation in joint academic and scientific activities, students' internships and collaborative research projects at undergraduate and graduate level. The parties also agreed to identify the opportunities for industrial sponsorship for collaborative research projects.



Inspire Pakistan, Islamabad Campus, Pakistan

A Memorandum of Understanding (MoU) was scribbled between Capital University of Science and Technology and Inspire Pakistan, Islamabad Campus on December 20, 2019. Both the parties agreed to collaborate and support each other in exchange and cooperation in joint academic activities such as seminars, conferences, research work etc. and identify endeavors and opportunities for supporting education and making its accessible to marginalized segments of society.

Rawalpindi Chamber of Commerce and Industry, Pakistan

Capital University of Science and Technology and Rawalpindi Chamber of Commerce and Industry signed an agreement of mutual interest regarding the identification of opportunities for commercialization of technology and help each other in building the Entrepreneurial Ecosystem of Pakistan through building incubators.



The University of Lahore, Islamabad Campus, Pakistan

An Accord of Mutual Interest was inscribed between Capital University of Science and Technology and University of Lahore, Islamabad Campus on January 8, 2020 with regard to the possibilities and opportunities for exchange and cooperation as well as joint research and development in disciplines of mutual interest, vocational training and joint seminars, workshops and advisory council.

National Testing Service (NTS) Pakistan, Pakistan

A Concord of Mutual Interest was penned between Capital University of Science and Technology and National Testing Service (NTS) Pakistan on December 10, 2019 regarding the cooperation in areas of staff training and development of test material for conducting employment tests. NTS also agreed to facilitate CUST students in internships and related opportunities.



National Incubation Center (NIC) Pakistan , Pakistan

Memorandum of Understanding (MoU) was signed between Capital University of Science and Technology and National Incubation Center (NIC) Pakistan on November 19, 2019. Both parties agreed to identify opportunities for exchanges and cooperation , and joint research & development in disciplines of mutual interest and to help each other in building Entrepreneurship Eco System of Pakistan.



IdeaGist, Pakistan

IdeaGist, Pakistan is the sole distributor of IdeaGist Global Platform, connecting innovators, entrepreneurs, investors, and students from 195 UN recognized countries and territories. Under the umbrella of the Prime Minister's Startup Pakistan, IdeaGist plans to invest PKR 8 billion, over the next five years in the entrepreneurial and innovation ecosystem in Pakistan.

Both parties agreed to provide online entrepreneurship training to final year students, offering entrepreneurship as a career choice to the university students and support business incubation center workshops, one-on-one mentoring, process guidelines and connecting the incubator to a global pool of investors.



National Testing Service Pakistan

National Testing Service (NTS) Pakistan and Capital University of Science & Technology, Islamabad agreed through an agreement of mutual understanding to accept NTS tests for admission at CUST at undergraduate and graduate levels.

University of Sciences and Technology (UST) Bannu

University of Science and Technology (UST) Bannu and Capital University of Science & Technology, Islamabad agreed upon through an agreement of mutual interest for sharing human and material resource to undertake scientific and technical collaboration for the exchange of ideas, skills and techniques on problem of mutual interest as granted from time to time.

Career Pakistan

An agreement of mutual interest was signed between Capital University of Science & Technology, Islamabad and Career Pakistan for capacity building in areas of Management Sciences, Engineering, Computer Science, Social Science, and Corporate Social responsibility for mutual benefit of both organizations.

H-Cube Group of Companies

MoU was signed between Capital University of Science and Technology and H-Cube Group of Companies to establish multiple fronts via initiating internationally recognized certifications along with diplomas and professional development courses through deployment of H-Cube's international industrial partners' tools, products and services in accordance with CUST's respective needs and objectives.

The establishment of Autodesk Building Information Modeling (BIM) Centre of Excellence (CoE) was also agreed through this joint agreement.



Heavy Industries Taxila (HIT)

Capital University of Science and Technology and Heavy Industries Taxila (HIT) signed a mutual agreement to promote industry-academia collaboration through joint research and development activities of mutual interest in accordance with their respective needs and objectives.



Defense Science and Technology (DESTO) Rawalpindi

Capital University of Science & Technology and DESTO Rawalpindi formally agreed to recognize the value to technical and scientific collaborations between universities and Research and Development (R&D) organizations of Pakistan. Both parties established for joint submission of proposals, information exchange and invite on voluntary basis representatives of other institutions to participate in scholarly conferences and colloquia.

Sustainable Development Policy Institute

MoU was signed between Capital University of Science & Technology, Islamabad and SDPI for launching new research and training initiatives. The proposed areas of cooperation may include any program or project, nature of which shall be

mutually agreed upon by the parties. Both parties agreed upon development of joint research proposals, activities and publications, joint organization and participating in seminars, conferences, workshops and academic professional meetings.

5.2. International Collaborations

CHECKOUT US

Memorandum of Understanding (MoU) signed between Capital University of Science and Technology and CHECKOUT US to adequately market and promote training course/program to its audience with the purpose of getting students on board.

Universidade De Evora, Portugal

A Memorandum of Understanding (MoU) was signed between Capital University of Science and Technology and Universidade De Evora. The parties agreed to collaborate in terms of Joint Research Projects, Faculty and Students Exchange, organization of courses, seminars, symposia and other areas of mutual interest.

The Shanghai-Islamabad-Belgrade joint innovation Center, China

The Shanghai Jiao Tong University, China (SJTU) and the Capital University of Science and Technology, Pakistan (CUST) share a common interest in research on bacterial antibiotic resistance (ABR), an urgent global problem. SJTU and CUST agreed to collaborate on establishing the "Shanghai-Islamabad-Belgrade joint innovation center on Antibacterial Resistance" (Center) via application for the funding from by the Shanghai Science and Technology Committee in 2019.

The Center was scheduled to commence on the date of 1st January 2020 and shall terminate on 31st December 2022.

Mayo Clinic Jacksonville

MoU was signed between Capital University of Science & Technology, Islamabad and Mayo Clinic Jacksonville on mathematical modeling of cancer biology and anti-cancer therapy related to human cancer cell lines or patients with hematologic cancers or solid tumor. It was agreed upon that data would be shared with each other for the purpose of examination and evaluation. Each party agreed to maintain the confidentiality of and not use or disclose such confidential Information to some other institute of party.



Graz University of Technology

A formal agreement was contracted between Graz University of Technology, Graz Austria and Capital University of Science & Technology, Islamabad, Pakistan for research and development collaboration. The collaboration possibilities both parties agreed upon, include exchange of students and faculty, co-supervision of MS thesis, participation in ERASMUS+

program, joint organizations of conferences and seminars, and invitation to speakers for conferences, workshops, seminars and research visits.

Mevlana Exchange Programme

Capital University of Science & Technology, Islamabad and Mevlana Exchange Programme have signed an MOU for exchange of students and academic staff between the Turkish Higher Education institutions and CUST. The students interested in Mevlana Exchange Program may study abroad for one (minimum) or two (maximum) terms while academic staff which is interested in taking part in the program may lecture abroad from one week to three months in maximum.

European Commissions Erasmus Mundus Programs

The institutions agree to cooperate for the exchange of students and/or staff in the context of the Erasmus+ program they commit to respect the quality requirements of the Erasmus charter for Higher Education in all aspects of the organization and management on the mobility, in particular the recognition of the credits awarded to students by the partner institution. The institution also commit to sound and transparent management of funds allocated to them through Erasmus+.

Bremen Research Cluster for Dynamics in Logistics of the University of Bremen

An agreement of mutual Interest was signed between Bremen Research Cluster for Dynamics in Logistics of the University of Bremen and Capital University of Science & Technology, Islamabad for exchange of faculty, researchers, scientists, students and implementation of joint research projects. The collaboration also includes organization and conduction of mutual conferences and exchange of publications and other material.

The Università' degli studi di Brescia

MoU was signed between the Università' degli studi di Brescia, Department of Industrial & Mechanical Engineering and Capital University of Science & Technology, Islamabad, Department of Mechanical Engineering to promote academic collaboration including exchange of professors, researchers and students. In particular the research activity will be carried out in the fields of industrial engineering and service and supply chain management with the purpose to promote, develop and coordinate joint research programs and encourage the exchange between researchers in these fields.

Gheorge Asachi Technical University of IASI

Gheorge Asachi Technical University of IASI and Capital University of Science & Technology, Islamabad formally agreed to promote cooperation in teaching, research, international exchange of staff, students and Knowledge. Upon mutual consent of parties collaboration will be carried out for student exchange, articulation of students between award at the two universities, visit between universities by academic staff (Faculty), sharing of academic materials, joint organizations of conferences, seminars, joint production and delivery of courses programs.

SAP University Alliances

SAP grants to Educational Institution the right to use SAP University Alliances Academic Educational Material for teaching purpose only. SAP will provide access to the required SAP UA Academic Educational Material that Education Institution, as an associate member of University Alliances, may use in compliance with the restrictions agreed between SAP and educational institutions in the contract.

MoU between MAJU, UET Lahore and OHIO State University

In accordance to mutual desire to promote further cooperation in higher education between United States of America and Pakistan, the Controls and Signal Processing Research Group (CASPR) at Department of Electronic Engineering at the

Muhammad Ali Jinnah University (MAJU) and the Center of Energy Research and Development (CERAD) at the Kala Shah Kaku Campus, University of Engineering and Technology, and the Ohio State University (OSU) on behalf of its Center of Automotive Research (CAR) in the OSU College of Engineering, Columbus, Ohio, USA enter into formal agreement for the purpose of educational and cultural exchange.

Institute Telecom ParisTech, France

A formal MOU was signed between Capital University of Science & Technology and Institute Telecom ParisTech, France for research collaboration.

6. Capacity Building

6.1. Technology Innovation and Incubation

Capital University of Science & Technology, Islamabad not only accomplishes research and development operations but also ensures continual activities in terms of technology innovation and incubation. This is the foremost domain CUST is working. In this regard numerous conferences, technical trainings, workshops and seminars are being conducted on regular basis to provide students, faculty members and professionals with the contemporary technical tools and skills. The university is also working on establishment of Business Incubation Centers and commercialization of research leading to resource generation.

6.2. National and International Conferences

Conferences are great opportunity to connect with attendees from different perspectives and views, learn from them, make new relationships, and strengthen existing ones. Conferences pave the way for scientific cooperation by meeting and connecting with researchers from different academic and professional backgrounds. They also help in cooperating collective research projects such as edited books, special issues in peer-reviewed journals and funding applications. They are great opportunity not only for researchers and scientists, but also for experts, policy makers, stakeholders and students. Capital University of Science and Technology in recent time has organized five conferences on various themes. The particular conferences were organized by Biosciences, Management sciences, Mechanical Engineering Civil, Engineering and Computer Science departments respectively as detailed below.



10th International Conference on Biological and Computational Sciences (C-BICS 2022)

10th International Conference on Biological and Computational Sciences (C-BICS 2022) was organized by the Department of Bioinformatics and Biosciences, Capital University of Science & Technology on November 12, 2022. The event covered important issues in scientific research. The theme of the conference was 'Advances in Biological and Computational Sciences to Address Emerging Issues in Life Sciences'. More than 40 universities participated in this event. Starting with 4 high experts talks, 15 oral presentations were given and equal opportunity was provided to both faculty members and students. Conference received more than 30 poster submissions.

4th Conference on Sustainability in Civil Engineering (CSCE-2022)

Department of Civil Engineering organized its 4th Conference on Sustainability in Civil Engineering (CSCE-2022) on August 31, 2022. The conference started with the recitation of the Holy Quran. Worthy Vice Chancellor Prof. Dr. M. Mansoor Ahmed addressed the opening ceremony. This was followed by keynote speakers where three keynote speakers shared

their research experiences with the attendees. After the keynote session, the parallel sessions were conducted throughout the day as per the conference program. A total of 225 manuscripts were received from different countries around the world including UK, Ireland, Cyprus, China, Egypt, Malaysia, KSA, and Pakistan. All papers underwent a comprehensive and critical double-blind review process. The review committee comprised of 51 PhDs serving in industry and academia of the UK, USA, Australia, New Zealand, Hong Kong, Poland, Italy, Thailand, Chile, Malaysia, China, Turkey, Oman, KSA, and Pakistan. After the screening and reviewing process, 67 papers were selected to be presented at Conference. The main focus of CSCE-2022 was to highlight sustainability related to the field of civil engineering. It aimed at providing a platform for civil engineers from academia as well as industry to share their practical experiences and different research findings in their relevant specializations. The conference was concluded with special thanks to the participants and keynote speakers.



2nd International Conference on Advances in Mechanical Engineering 2022 (ICAME-2022)

Second International Conference on Advances in Mechanical Engineering 2022 (ICAME-2022) was held on August 25, 2022 at the Capital University of Science and Technology, Islamabad. Dr. Mohammad Javed Hyder and Dr. Mahabat Khan honored the event as Secretary and Chair respectively. The ICAME-2022 was inaugurated by Prof. Dr. Shahid Mahmood Baig, (SI), Chairman, Pakistan Science Foundation, and Vice Chancellor CUST Prof. Dr. M. Mansoor Ahmed. During the conference, five keynotes and thirty-six research papers were presented. The international keynote speakers, presenters, and participants joined the conference virtually. Prof. Alexey Burluka, Northumbria University, UK, Prof. Sam Yu (Yu Poshan), Vice President Tinbowah Investment China, Prof. Aamir Farooq, King Abdullah University of Science and Technology (KAUST) Saudi Arabia, Prof. Neyara Radwan, Suez Canal University, Egypt, and Prof. Lei Yue Guangzhou University, China enlightened the audience by sharing their thoughts with them. All conference articles underwent a rigorous double-blind peer review process. The conference proceedings are published in the Engineering Proceeding Journal of MDPI as a special issue. The event provided an excellent platform for industrialists, engineers, scientists, and technologists to exchange knowledge and benefit from the experiences of colleagues.

International Conference on Computing Research-2022

The Departments of Computer Science and Software Engineering jointly organized “International Conference on Computing Research (ICCoR 2022)” on December 17, 2022. The main objectives of the conference were to provide a platform to the researchers to present and discuss their research ideas in-making or in-incubation stage and to facilitate industry-academia linkages. The conference was attended by approximately 100 participants. The Chief Guest and Keynote Speaker of the opening session was Professor Dr. Saad Naeem Zafar, Deputy Vice Chancellor of Riphah International University. Dr. Saad delivered his keynote speech on the role of Artificial Intelligence in Healthcare. The second keynote address was given by Professor Dr. Irfan Awan of University of Bradford, UK. The title of his talk was “Security of Smart Environment: A Brewing Storm”. The tutorial session was conducted by Mr. Farrukh Mahmood, CEO of 11 Values, on the topic “Cyber Attacks are a New Normal”. The closing session of the conference was chaired by Professor Dr. Muhammad Abdul Qadir, Dean Faculty of Computing. In his closing address, Dr. M. Abdul Qadir thanked all the participants, invited guests and conference organizers.

At the end of session, Dr. M. Abdul Qadir distributed participation certificates among the conference participants, the best and runner-up paper awards, and presented conference souvenirs to the session chairs.



PEP National Policy Conference on “Fiscal Policy Response to COVID-19: Case of Pakistan”

The Directorate of Sustainability & Environment at the Capital University of Science & Technology along with the Partnerships for Economic Policy Network (PEP-NET) and International Development Research Centre (IDRC) Canada, organized the PEP National Policy Conference on the topic “Fiscal Policy Response to COVID-19: Case of Pakistan”. The event was held on March 28, 2022.

Dr. Saira Ahmed gave the opening presentation on the topic and also moderated the event. The honorable speakers included Mr. Faheem Sardar, Senior Policy Specialist at the Prime Minister’s Office, Mr. Mohammad Ali Gulfaraz, Director and CEO of Bank of Khyber and Dr. Arshad Hassan, Dean, Faculty of Management and Social Sciences, CUST. The speakers discussed the findings presented by PEP Pakistan Team and appreciated the thorough findings and simulations about the key aspects of pre-covid19 and post-covid19 fiscal relief measures. Moreover, they also discussed the issues pertaining to the persistent shortcomings in fiscal policy of Pakistan.

The audience benefitted from the discussions which led to a very engaging Q&A session at the end of the event. The guest speakers were given a vote of thanks by Dr. Arshad Hassan who later distributed shields among the guests. Dr. Jaleel Ahmed, Head of Department, Department of Accounting & Finance also graced the occasion. The event concluded with a networking coffee session with the Vice Chancellor CUST, Dr. M. Mansoor Ahmed. The guests appreciated the custom-built green campus of CUST and thanked the Vice Chancellor for the opportunity to interact with students and faculty.

6.3. Technical Trainings, Workshops and Seminars

Inaugural Ceremony of SPELL Magazine

The Department of English arranged an inaugural ceremony to launch SPELL Magazine on July 04, 2022. SPELL Magazine (Students’ Panel of English Literature and Linguistics) is a platform provided by the Department of English for the students to showcase their thoughts and talents in the form of essays, short stories, poems and quotations. A number of students from various departments of the university made their contribution in making this magazine a success. Dr. Arshad Hassan, Dean, Faculty of Management and Social Sciences, appreciated the faculty members and students for making this possible in a very short span of time. At the end, students who performed well in different academic and co-curricular activities were awarded with appreciation certificates.



Pharma Spark Society Arranged Awareness Walk and Seminar on “World No Drug Abuse Day”

Pharma Spark Society, Faculty of Pharmacy arranged a seminar as an awareness campaign about “World no Drug Abuse Day” on June 27, 2022. The guest speaker was Dr Tanveer Ahmad Khan, who is currently working as in charge of Federal Narcotics Testing Laboratory (NIH), Pakistan. The honorable speaker presented various details as awareness in the use of narcotics. He also shared the sampling and testing methods of narcotics in national control laboratories. Honorable guest was presented souvenir by Dr Nadia Shamshad Malik and after that the session progressed for “A walk for a noble cause”.

Pharma Spark Society Organized a “No Bag Pack Day”

Pharma Spark Society organized a ‘No Backpack Day’ where many students in the department participated cheerfully and depicted numerous alternatives to the traditional school bag. The substitutes were not limited to bindles and hangars, but included cauldrons and weightlifting belts. The day was very much adored and relished as students were eager to show the ideas they had come up with.



Pharma Spark Society Commemorated United Nations Public Service Day

Pharma Spark Society of Faculty of Pharmacy, Capital University of Science and Technology, Islamabad celebrated United Nations Public Service Day on June 23, 2022. A special session regarding the day was led by Dr. Muzaffar Abbas (Dean, Faculty of Pharmacy) and Ms. Nitasha Gohar (Patron, Pharma Spark Society). The Social Welfare Club of Pharma Spark Society turned out the day better. The tokens of Thanks were distributed among the staff members, attendants, guards and bus drivers in order to acknowledge and apprehend the devoted services delivered by them. Day ended with the smiles at every face.

Introductory Session on IELTS

The Department of English organized a free 'IELTS Introductory Session' on June 20, 2022. Dr. Muhammad Saqib Zaigham, IELTS Specialist and Trainer, Department of English, CUST, served the occasion as a resource speaker. Dr. Muhammad Saqib Zaigham has more than twenty years of experience conducting IELTS training sessions at national and international level. The speaker shared various tips and tricks to successfully enhance listening, speaking, reading and writing capabilities. Moreover, the speaker also enlightened the participants with essential DOs and DONTs of IELTS examination. Dr. Muhammad Saqib Zaigham also informed the participants about a one-month IELTS session to be held in Summer-2022. At the end of the session, a brief and productive question/answer session was held to address the queries of the participants.



Awareness Session on Environment Protection

On May 17, 2022, a group of 14 students went to Lake View Park with the intention of raising awareness about protecting the environment, which turned out to be highly creative and educational.

On May 23, 2022, 16 pupils went to the Fauji Foundation Hospital. The intention was to raise awareness of the detrimental effects of drug use while also offering psychological first aid. Our students did their utmost to raise awareness of both "Medical first Aid and psychological first aid".

Our religion places a high value on cleanliness and purity. No worship of ours can be accepted without them. Cleanliness is half religion, according to a hadith narrated by the beloved Master Prophet (peace and blessings of Allah be upon him). In numerous places in the holy Qur'an, Allah also commanded hygiene and purity. Hence, on May 25, 2022, a group of 9 students went to DHA Park to raise awareness about the need of environmentalism and Dengue. This turned out to be both interesting and informative. They as business students learned a lot, which improved their competencies and skills.

Awareness Seminar on "PMEX Future Trading"

The seminar titled "PMEX Future Trading" was organized on Tuesday, June 21, 2022, under the collaboration of Dr. Jaleel Ahmed and Dr. Nousheen Tariq Bhutta. The guest speaker, Mr. Sameer Ahmed, from the Floret Commodities, is a branch head and with experience in the field of trading. The purpose of this seminar was to enlighten the students on the importance of commodity trading at PMEX.



Walk Activity on Awareness of Drugs

On 24th June 2022, Department of Associate Degree Computer Science held walk activity on the Awareness of Drugs, under the supervision of Ms. Javeria Khalid. The activity was fully funded. The activity was inaugurated by HOD of Associate Degree Programs Wg. Cdr. Saqib Naveed. Faculty members and student from different departments of Capital University of Science & Technology graced the occasion with there presence. Throughout, the activity the discipline was maintained.

Samsung Innovation Campus Certificate Distribution Ceremony

The Faculty of Computing FoC, organized a Certificate Distribution Ceremony on June 22, 2022 to distribute certificates among the participants of a Samsung Innovation Campus Program. The Samsung Innovation Campus Program was held at Capital University of Science & Technology from September 27, 2021 to December 15, 2021. It was an extensive course of over 200 hours with focus on Artificial Intelligence. 41 Students from Department of Software Engineering, Department of Computer Science & Department of Electrical Engineering participated in the course. 11 Faculty members from SE, EE & CS department took part as Trainer and Facilitator in this course. Dean FOC, Dr. M. Abdul Qadir awarded the participants with certificates.



Seminar on "Emotional Intelligence"

Department of Psychology organized a session on Wednesday June 22, 2022. Mr. Sabahuddin Waqar, EQ Trainer and Coach served the occasion as a guest speaker. The goal of the session was to enlighten the meaning of Emotional Intelligence (EI) in its true essence along with the techniques to read and label different emotions as well as learning strategies to manage them. Guest speaker comprehensively addressed the key features of EI by involving the audience via different activities. At the end, Ms. Rabia Batool, the organizer of seminar presented a souvenir to the guest and delivered the closing remarks.

Interactive Session on “Tips & Techniques of trading on Pakistan Stock Exchange (PSX)”

A seminar on “Tips & Techniques of trading on Pakistan Stock Exchange (PSX)” organized on June 21st, 2022, under the supervision of Ms. Rabia Habib. The guest speaker was Mr. Sana Ullah Marwat, Head Compliance department, Askari Securities Limited. The guest speaker shared the procedure for opening account with CDC (Central Depository Company). He further elaborated the trading procedure on the stock exchange through registered brokerage house/broker. An overview of the Karachi stock Exchange was given, followed by detailed analysis of Live Trading Session of Pakistan Stock exchange (PSX). The Guest speaker highlighted the concept of candlestick & unfilled candles. Students were handed over with list of trading companies and were asked to comment. The students were able to analyze the impact of different colors of candlesticks in the Live Trading Session. Towards the end of the seminar, students were able to interpret the Bullish & Bearish trends of securities. The seminar provided students with an opportunity to understand the requirements for trading on PSX.



Culture Day Organized by Psychology Department

Keeping in mind the value and importance of cultures the students of 5th semester Psychology department of Capital University of science and Technology organized a culture event under the supervision of instructor Miss Saniya Moazzam on 2nd June 2022 for the purpose of cultural representation of all the provinces. Provinces include Punjab, Sindh, KPK, Balochistan, Gilgit. Student had represented the cultural foods, songs, poetry, costumes in the cultural event. Many faculty members had visit to that cultural event and in the end head of the Psychology department, Dr. Sabahat Haqqani visited in the event and made the event more worthy.

Seminar on “Four Pillars of the Character Building – A Motivational Talk”

Department of Accounting and Finance organized a seminar titled “Four Pillars of Character Building” under the supervision of Ms. Hajra Qayyum, on June 17, 2022, at 11:00 AM. in auditorium A2. The guest speaker was Mr. Ahmed Siddiqui – Assistant Chief Manager (ACM) – State Bank of Pakistan. He has worked for the State Bank for more than three decades and has vast knowledge and experience in central banking. He is a lecturer and a trainer at the National Institute of Banking and Finance (NIBAF) and various other commercial banks. The seminar aimed to guide the students regarding the pillars that can help them build a strong character along with techniques as to how to discover and experience which qualities and behaviors are an expression of good character. It aimed at providing students with an opportunity to look into their character to improve themselves and to evaluate which traits to let go of or incorporate into their behavior.



Awareness Walk on “Emerging Trends in the Field of Accounting to Provide Financial Literacy”

Department of Bio-informatics and Bio-Sciences organized a “Walk on Emerging trends in the field of Accounting to provide Financial Literacy” on Thursday, 16th June 2022. The purpose of the walk to provide financial literacy to the students with emerging trends in the field of accounting. Financial literacy is very important ingredients for every individual. Financial literacy is the ability to understand and effectively use various financial skills, including personal financial management, budgeting, and investing. Financial literacy is the foundation of your relationship with money, and it is a lifelong journey of learning. The walk was organized by Ms. Saddam Adalat for the students of BS Bio-Informatics and Bio-Sciences studying the course, “Accounting-1”. By using different colorful posters and banners made by the student of 7th & 8th semester of Bio-informatics and Bio-Sciences convey the message on emerging trends includes Forensic Accounting, Cloud Accounting, Role of AI in Accounting, Data Science in Accounting, Block Chain and Cryptocurrency, Automated Accounting Processes/Software and Out Sourcing. Faculty members includes Dr. Sahar Fazal, HOD Bioinformatics and Biosciences Program and Dr. Syeda Marriam Bakhtiar appreciated the work done by the students.

Egg Drop Competition held by Al-Muhandis Society

Al-Muhandis society has conducted its second event this semester, among the engineering students of all departments. The event will revolve around Students exploring how students have developed parachutes over the years, and learning about the principles of aerodynamics. They work in teams to construct and design parachutes that will be dropped under teacher supervision. The students compare their performances and challenges with each other



Seminar on “The Art of Communication”

Department of Psychology has organized a seminar on The Art of Communication under the supervision of Ms. Javeria Khalid for the students of Verbal Communication. The goal of the seminar was to enable to be a more articulate, fully-

rounded person who is ready to participate in and contribute to the important conversations in my own life and in society as a whole. The guest speaker emphasized that the art of communication allows us to share emotionally, and interact socially, giving communication a wide range of creative uses as an art form. Communication is, first and foremost, an interaction between or among human beings. Ultimately the foundational elements of communication are to successfully exchange messages and have useful dialog. Dr. Sabhat Haqqani, HoD Psychology thanked the organizers for arranging a successful seminar. The faculty members also appreciated students for active participation. At the end guest of honor Dr. Sabhat Haqqani delivered the closing remarks and presented a souvenir to the guest.

Seminar on “Financial Decision Making & Role of Financial Analyst”

A seminar “Financial Decision Making & Role of Financial Analyst” organized on June 15th, 2022, under the supervision of Ms. Rabia Habib. The guest speaker was Mr. Jamal Anis Abbasi, Head Finance Dept. Helping Hands. An overview of financial decision making followed by a brief introduction of forecasting techniques used to evaluate projects within an organization. The financial criteria used for acceptance or rejection of projects along-with elaborate discussion on the role of financial analyst in the process. Mr. Jamal Anis scrutinized the federal budget 2022 and highlighted the main segments of budget and major stakeholders. Towards the end of the session, the guest speaker discussed the major challenges faced by Pakistan and shed light on the role of financial analyst in improving the economic turmoil.



Awareness Walk on “World Food Safety Day”

On 14th June 2022 – The Department of Psychology organized an event on World Food Safety Day with the theme of “Safer Food, Better Health”. The event comprised a food safety awareness walk, a Poster competition has been took place under the supervision of Ms. Javeria Khalid. The purpose of this walk was to convey the message by using different colorful posters, and banners made by the student of 3rd-semester Psychology. Faculty members including Ms. Maryam Khan and Ms. Ms. Sumaira Manzoor appreciated the work done by the students.

Awareness Session on “Accounting a language of business”

Genix society at Department of Bioinformatics and Biosciences, organized a workshop seminar on June 09, 2022. Ms Tahira Zahoor (Acc Manager) guest speakers. The speakers delivered a brief and an effective lecture on ‘Overview of Quick book’ to enlighten the participants with the importance of accounting software. Additionally, The session, lasted for an hour and a half, followed by scholastic discussion from participants’ end in questions/answers mode.



Pharma Spark Society Organized Blood Donation Camp

Pharma Spark Society, Faculty of Pharmacy, Capital university of science and technology celebrated “World Blood Donor Day” On 14th of June, 2022. The event comprised of seminar, walk and blood camp in collaboration with Regional Blood Centre, Ministry of Health, Pakistan. The main agenda points of the seminar were to raise awareness among the students regarding blood donation and its importance for patients such as thalassemic patients as well as health benefits for the donors. The chief guest of the event was project director of regional blood center, Abdul Sattar Khokar, Joint Secretary/ Project Director, SBTP. The seminar enlightened the topics of the importance of blood donation by Ms. Hina Bilal, safe blood transfusion by Mr. Fazal Mabood and importance of blood donation and transfusion for thalassemia patients by Dr. Amna Latif. At the end of seminar Faculty of Pharmacy and regional blood center signed an MOU for the future cooperation. Souvenirs were presented to the honorable guest speakers and chief guest of the event by Dr Muzaffar Abbas, Dean Faculty of Pharmacy. The seminar was followed by an awareness walk from Auditorium 1 to K block where blood donation camp was organized.

Technology Expo Organized By Rawalpindi Chamber of Commerce & Industry

Capital University of Science and Technology, Islamabad participated in Tech-Expo organized by Rawalpindi Chamber of Commerce & Industry (RCCI). This expo was held in Pearl Continental Hotel, Rawalpindi on 3rd and 4th June, 2022. Various other universities and firms have also participated in this event such as NUST, IST, NUTECH, Sun Consulting (Pvt.), Wolfiz Technologies, Blue Arc Design & Developments and many more. H.E. Dean of Diplomatic Corps, the ambassador of China was the chief guest of this event. The students from the all the departments of the university participated in this event and exhibited their projects under the guidance of concerned departments. CUST exhibited several projects which were very much appreciated in the expo. Visitors were very much interested in the projects by CUST students and many industrial visitors also asked for their contacts for future correspondences. At the end of the two day exhibition a shield was given to each of the participating institutes by the organizers, RCCI.



Seminar on “Preparing the Psychological Assessment Toolkit”

The Department of Psychology organized a seminar on Friday, June 6, 2022. The purpose of the seminar was to guide the psychology students about the process of psychological assessment. Ms. Tahira Javed, Head Psychologist and CEO of Pehchan Clinic, comprehensively explained about the process followed throughout the assessment beginning with an intake interview and passing through phases of observations, choosing test batteries, administering and scoring tests. She also highlighted the professional process of making toolkits and reporting after assessment. Overall, it was an interactive session and proved to be a great source of knowledge for the students. Ms. Rabia Batool, the organizer of seminar thanked the worthy guest and presented the souvenir.

Participation of Directorate of Sustainability and Environment in Environmental Expo-2022 at ICCI

Directorate of Sustainability and Environment CUST participated in Environmental Expo 2022 organization by ICCI. SDG 14 (below water life) and SDG 15 (On land life) were presented in model. Ahsan Iqbal (Former Minister for Interior of Pakistan), Ambassadors of Vietnam, Nigeria, Portugal and Kyrgyzstan visited and highly appreciated their models. Idea of 4th R are was introduced by DSE (Rethink).



One-Day Workshop on SPSS-Psychology Department

The Department of English organized a one-day workshop on SPSS on Monday, May 30, 2022. The purpose of the workshop was to equip the participants with the most updated knowledge about SPSS (Statistical Package for the Social Sciences). Mr. Hassan Javed, PhD Scholar and Lecturer, NUML, Rawalpindi, served the occasion as a trainer and shared his valuable thoughts on the subject-matter. The workshop was organized by Ms. Saddaf Adalat for the students of BS English. SPSS (Statistical Package for the Social Sciences) is a software program used by researchers in various disciplines for

the quantitative analysis of complex data. SPSS provides a fast-visual modelling environment for models ranging from the simplest to the most sophisticated. SPSS data is used for surveys, data mining, market research, and other purposes. Overall, it was an interactive session and proved to be a great source of hands-on knowledge for the participants. Dr. Muhammad Umar Farooq, Head Department of English, gave the closing remarks and presented the souvenir to the guest.

Seminar on “Health Hazards of Tobacco Smoking”

Faculty of Pharmacy organized a seminar on Health Hazards of Tobacco Smoking on World No Tobacco Day, May 31, 2022. The guest speaker was Dr. Rubina Aman, Associate Professor of Pulmonology, working as HoD Medical Unit, Riphah International Hospital. The event was arranged to aware the students about causes, risk factors and harmful effects of smoking on human body. The awareness session was followed by a walk within university premises. The honorable guest was presented a university shield by Dr. Muzaffar Abbas, Dean Faculty of Pharmacy.



Anti-Drugs Awareness Talk

The Psychology Department of Capital University of Science and Technology organized an Anti-Drug Awareness Talk with the collaboration of Anti-Narcotics Force department, Pakistan on 20th April 2022 to give awareness to our youth regarding this serious issue. In this awareness talk, the Psychology Department of CUST invited the Director General Anti-Narcotics Force Pakistan, Maj. Gen. Ghulam Shabeer Narejo as a guest speaker with Force Commander ANF North Region, Brig. Ammar Ali. Guest speaker gave a very comprehensive talk and discuss all the issues that our youth is facing due to drugs and this talk increase the knowledge and awareness regarding drug among students. In the end of the session Dean faculty of Management and social science Dr. Arshad Hassan and Head of Psychology department Dr. Sabahat Haqqani thanks the worthy guest and exchange the souvenirs.

Guidance Seminar for FYP Students by Office of External Linkages and International Collaborations (ELIC)

The office of External linkages and International Collaborations (ELIC) organized a seminar for the students of the university which are doing their FYP's (Final Year Projects) on 14th April 2022. More than 100 Students from five departments: Mechanical Engineering, Electrical Engineering, Civil Engineering, Computer Science and Software Engineering attended the seminar. The guest speaker Mr. Waqar Haider Awan, CEO, Complete Human Resource Solution (CHRS) talked to the students. In this seminar, Mr. Waqar Haider Awan told the students about the market trends and what employers usually ask in an interview. He advised the students to explain the employer about their skills which include transferable skills, special skills, interpersonal strength and experiences. He also explained the students about how to select their career and some important skills that an employer expects in a candidate before offering a job and then he explained one by one some of the most important skills required for a job. This session lasts for one hour and more than 100 students attended this seminar. Dean ELIC, Dr Amir Qayyum concluded the session by a word of thanks to the audience and the resource person, and presented the shield to the speaker.



Hult Prize Competition

HULT PRIZE competition was arranged on campus at Capital University of Science and Technology, Islamabad. The event was conducted under the domain of civil engineering society ACE and supervised by Professor Engineer Dr. Ishtiaq Hassan (HOD Civil Engineering Department) and Engineer Abdul Qadeer (Patron ACE). Mr. Sajjad Khan Niazi was leading the event as Campus Director of Hult Prize and the Vice President of ACE.

The Event started at January 21, 2022 and concluded at March 28, 2022. The first week was the registration week and almost 47 teams got registered at the start. The event proceeded further by arrangement of many webinars and On-Campus training sessions for the participants, eminent entrepreneurs were invited as jury members to assess the business models of the participants. The business models were presented with great avidity by all the participants. The jury members selected 8 final teams who presented the finest business models. The Hult Prize 2.2 On-Campus event was concluded on March 28, 2022 with a magnificent grand finale and "The Vigilantes" being the victorious team of the whole event.

Interactive Session on "Current Industry Trends and Employability"

A seminar on the topic "Current Industry Trends and Employability" was organized in collaboration with Career Pakistan's Talk World Program under the joint supervision of Office of External Linkages and International Collaborations (ELIC) and Directorate of Sustainability and Environment (DSE) at CUST. The purpose of this seminar was to create awareness among graduating students about the on-demand employability skills required in the job market. The Guest Speakers for the event was Mr. Mohammad Ali Gulfaraz, (Director and CEO of Bank of Khyber).

Mr. Gulfaraz commenced by his brief introduction and shed light on the global supply chain issues that hinder employment opportunities. Mr. Gulfaraz stressed that graduates need to clearly understand their field of interest to pursue a future career path. He highlighted the importance of remote and freelance jobs which is a growing market especially post-Covid19.

Dr. Arshad Hassan, Dean Faculty of Management Sciences at CUST, expressed a vote of thanks to the worthy guest for sharing his insights with the audience. The talk world program attracted a large audience. The session ended with a highly engaging Q&A session which in itself was a testimony to the high level of interest and enthusiasm demonstrated by the audience.



Visit to Islamia University Bahawalpur for Project Meeting of SAFE-RH Pakistani Partners

Capital University of Science and Technology Islamabad with COMSATS University Wah visited Islamia University Bahawalpur for a two day project meeting of SAFE-RH on 24th February, 2022 to discuss the current progress and further agenda of research. SAFE-Rural-Health is a project funded by European Union which provides an education and training system to help doctors and healthcare workers understand the effectiveness of new technologies. It is aimed to develop a system that can provide digital health services to patients living in remote areas of Pakistan which are often difficult to reach. The overall objective of developing Smart Healthcare system in Pakistan is to support the provision of healthcare services.

The seminar titled “Transformation to Smart Health Services” on day one was arranged for the awareness of the project with different doctors and medical students at IUB old campus. Prof Dr. Naeem Ramzan, from the University of the West of Scotland, Dr. Nayyer Masood from Capital University of Science and Technology, Islamabad, Dr. Ehsan Ullah Munir from COMSATS Institute of Information Technology Islamabad and Dr. Dost Muhammad Khan from Islamia University Bahawalpur discussed the project overview and its impact on the health sector of Pakistan. Prof. Dr. Naveed Akhtar, Pro Vice-Chancellor, IUB graced the seminar as the chief guest. Deans, Directors, Faculty Members, Medical Doctors, Researchers and dignitaries attended the seminar.

On day two, A Technical Session of project “Sensing, Artificial Intelligence, and Edge Networking Towards Rural Health Monitoring” was held on Saturday 26th February 2022 in SAFE-RH Lab. IUB. Dr. Nayyer Masood and his team from Capital University of Science and Technology, Islamabad, Dr. Ehsan Ullah Munir and his team from COMSATS University Islamabad Wah Campus and Dr. Dost Muhammad Khan and his team from the Islamia University of Bahawalpur discussed 3 different pilots, architecture and implementation of project in different rural areas. The purpose of the visit was to get insights into the current progress of each partner University and to build up more collaborative strategies of the SAFE-RH project. The project meeting helped all the participants to understand the works of each partner University. Furthermore, it provided opportunities for the members to exchange new ideas and new tasks to be accomplished were set by each partner along with the deadline of completion. Each partner gave presentations of their work done, and ongoing work.

Orientation for Spring 2022 Intake

Capital University of Science and Technology (CUST) has organized orientation on March 12, 2022 for newly enrolled students in Spring-2022 semester. The event was arranged to give brief overview to the newly enrolled students regarding curriculum, University rules and regulations and teaching methodology etc.

Respective Deans, HoDs and Faculty members addressed the students and welcomed them. They informed the students that they are unique and talented mix of students, who have come to join us from every corner of the country. We are all happy and excited, to see you become part of this great family known as CUST family. The CUST community consists of academicians, administrators, and support staff, who are all dedicated to ensure that you achieve their goals.

At the end of the briefing session, students were taken on a visit of the campus, including the library, academic blocks and other important sections. Which gave them a wholesome image of, what CUST has to offer to its students. At the end,

students were arranged in the form of groups with accordance to their programs for a portrait, after which students were guided towards lunch arranged by the University.



Participation of CUST at Youth Robo Tech-2022

The stars from Capital University of Science and Technology shines at Youth Robo Tech Competition 2022 by securing the second position in a line follower module of this event. The event was organized by the University of Engineering and Technology, Peshawar. A sum of forty teams participated in this event.

Session on "Avoiding under-theorization Through Critical Review of Literature"

Professional Development Planning team, Department of English, organized its 2nd seminar on January 18th, 2022. Dr. Inayat Ullah, Head of English Department, Graduate Studies, NUML Islamabad, served the occasion as a guest speaker. Dr. Inayat Ullah is a well-known academician and researcher who has worked in many reputable local and international organizations. He delivered a brief and an effective lecture on 'Avoiding Under-theorization Through Critical Review of Literature' to enlighten the participants with the approaches related to literature review. Additionally, the honorable speaker discussed how a specific theory could be supported and augmented through critically reviewing literature. The session, lasted for an hour and a half, followed by scholastic discussion from participants' end in questions/answers mode.



Seminar on "Entrepreneurship/Business Enhancement"

On campus first seminar of hult prize took place on January 10, 2022 under the domain of ACE and Mr. Abu-Bakar took out his precious time for the students and shared his experiences with them. His enthusiasm overwhelmed the students and motivation was up to the mark. Looking forward to more.

Seminar on "Islam is a deen, not a religion"

Cust Character Building Club organized a seminar on 3rd January 2022 on the topic "Islam is A Deen, Not a Religion". All the university's internal students were invited by the club. The club invited Mr. Raja Zia ul Haq (Youth Club President) as a chief guest speaker and to deliver a speech on the topic. The seminar was started with the recitation of the Holy Quran by Samad Farooq, President CCBC. Mr. Raja Zia ul Haq delivered the speech for 40 minutes. In the middle of the seminar, his media team joined the seminar. In the speech, the speaker tried to prove that Islam is not only a prior religion but it is a complete code of life none can negate this. He proved through examples that every single person knows that Islam is a peaceful and complete code of life but due to some external elements no one is willing to accept. Around 300 students attended the seminar. At the end of the seminar, a souvenir was presented to Mr. Raja Zia ul Haq by Dr Sahar Fazal, HOD of the Department of Health and Biosciences.



Seminar on "Envision through Emotional Intelligence"

The topic of the seminar was "Envision through Emotional Intelligence". Emotional intelligence is the ability to understand, use, and manage your own emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges and defuse conflict. The goal of the seminar was to convey the basic understanding of Emotional Intelligence/EQ and the importance of it in our daily lives. Often we forget about our mental well-being and push too strong on our physical abilities avoiding our emotions and sentiments. This seminar enlightened us in numerous ways in how to take charge of our life mentally. Dr. Sarwad explained different human emotions and behavioral patterns which cause an imbalance in our routines and personalities, how our mental health is as important as our physical health and we tend to neglect it due to societal pressure. Furthermore, the guest speaker emphasized on the positive/negative mindsets we grow on ourselves unconsciously. There are different exercises and practices to control your emotions and take charge of your mindset but it is only possible when you start acknowledging the concept of Emotional Intelligence.

One day long Research Meeting of SAFE-RH Pakistani Partners

Capital University of Science and Technology Islamabad in collaboration with COMSAT University Islamabad and Islamia University Bahawalpur organized a one day Research Meeting of SAFE-RH Pakistani Partners on 7th Dec, 2021 to discuss the current progress and further agenda of research. SAFE-Rural-Health is a project funded by European Union provides an education and training system to help doctors and healthcare workers understand the effectiveness of new technologies. It is required to develop a system that can provide digital health services to patients living in remote areas of Pakistan which are often difficult to reach. The overall objective of developing Smart Healthcare system in Pakistan is to support the provision of healthcare services.

The Meeting was hosted by Prof. Dr. M. Mansoor Ahmad (VC CUST), Dr. M. Abdul Qadir (Dean FoC), Dr. Amir Iqbal Bhatti (Dean ORIC), Dr. Amir Qayyum (Dean ELIC), and Dr. Nayyer Masood (Coordinator SAFE-RH). Other members from CUST were Dr. Qamar Mahmood (SAFE-RH) Mr. Salman Ahmed (SAFE-RH), Mr. Ali Hassan (Developer, SAFE-RH), Ms. Anum Munir (Research Associate, SAFE-RH), Mr. Saad Irfan (SAFE-RH), and Ms. Saba Nawaz (SAFE-RH). The Meeting was attended by Prof. Dr. Muhammad Abid (Director COMSAT Wah) and Dr. Ehsan Munir (Coordinator SAFE-RH, COMSAT Wah). From

Islamia University Bahawalpur, Eng. Prof. Dr. Athar Mahboob (Vice Chancellor), Dr. Dost Muhammad Khan (IUB Coordinator SAFE-RH), Dr. Najia Saher, Dr. Arif Mahmood, Mr. Muhammad Suleman, and Mr. Mustafa Hameed attended the seminar.

Dr. Nayyer Masood welcomed the partner universities himself. The purpose of the meeting was to get insights into the current progress of each partner University and to build up more collaborative strategies of the SAFE-RH project. The research meeting helped all the participants to understand the works of each partner University. Furthermore, meeting provided opportunities for the members to exchange new ideas and new tasks to be accomplished were set by each partner along with the deadline of completion. Meeting was started at 12:15 pm noon. Each partner gave presentations of their work done, and ongoing work.



6.4. Entrepreneurship Marketing Gala-2022

Entrepreneurial Marketing Gala 2022 was organized, by the Department of Management & Social Sciences in December, 2022 at Capital University of Science and Technology. Students organized various stalls. The event was an experiential activity of Entrepreneurship and Marketing Students where students displayed their products and services for selling and promotion perspective. More than 100 stalls were displayed which were comprising of entrepreneurial startup, marketing stalls, Gaming Zone, and Food Junctions.



The students showed great quality of planning to make the event successful. The University students took keen interest in the event and participated with full enthusiasm. At the end, Dean Management Department, Dr. Arshad Hassan, gave the shields and cash prizes to the winners of event. During his address, he appreciated the efforts of organizing teams and emphasized that these kinds of activities should be continued in future as well.



BIM Centre of Excellence (BIM-CoE)

Capital University of Science and Technology (CUST) through its outstanding faculty and state of the art lab facilities ensures that the engineers of tomorrow are not only well equipped theoretically but also have hands-on training of modern engineering tools. Keeping in view the future concerns, the Department of Civil Engineering and Office of Research Innovation and Commercialization (ORIC) at Capital University of Science and Technology (CUST) in collaboration with H-CUBE has achieved a milestone towards Industry Academia Linkage by establishing "BIM Centre of Excellence (BIM CoE)" at its campus to offer international courses and certifications.

Workshops Conducted by BIM Centre of Excellence

Until now eight different workshops have been conducted by BIM Centre of Excellence for students, faculty members and professionals as detail listed below.

S.No.	Workshop Title	Duration	Dates
1	Revit Architecture Fundamentals	2 Days	Jan 11th & 12th 2019
2	Revit Structure Fundamentals	3 Days	Feb 15th, 16th & 22nd 2019
3	Revit Mechanical Fundamentals	3 Days	March 15th, 16th & 22nd 2019
4	Revit Electrical Fundamentals	3 Days	April 12th, 13th & 19th 2019
5	Revit Architecture Fundamental	2 Days	Oct 25th & 26th 2019
6	Autodesk REVIT Electrical Workshop	2 Days	Jan 02nd & 04th 2020
7	Autodesk REVIT Architecture Fundamentals	2 Days	Aug 26th & 27th 2021
8	Autodesk REVIT Architecture Fundamentals	2 Days	Aug 16th & 17th 2022



7. Office of Research Innovation and Commercialization (ORIC)

The Office of Research, Innovation and Commercialization (ORIC), CUST provides strategic and operational support to the University's research activities/program and has a central role in facilitating the University's research outcomes. The objective of ORIC at CUST is motivation of university researchers to innovate and collaborate with the stake-holders leading to resource generation through commercialization.

7.1. ORIC Domains

ORIC at CUST is working under following major domains:

- Research Operations
- Technology Incubation and Innovation
- Industrial Liaison
- Commercialization



Research Operations

ORIC has the responsibility of guaranteeing that all research programs and policies reflect the core values of academic freedom, professional integrity, ethical conduct and full compliance with all policies, legal requirements and operational standards of the university. During its short span of time ORIC has worked on facilitating its faculty and students in doing quality research. ORIC plays its prospective role to reward faculty and researchers through Research Honorarium and assisting them to acquire research grants from various funding agencies. To depict the research culture in a presentable way, research group posters have been designed and displayed by ORIC in all departments across the University. ORIC has also maintained a comprehensive data base of University publications published at national and international Journals & Conferences.

Technology Incubation and Innovation

Capacity building is the topmost precedence of ORIC. ORIC guarantee that technical workshops, seminars and business plan competitions are conducted on continual basis so that students remain well equipped with modern tools and skills vital for the industry and corporate world.

ORIC has worked on establishment of Incubation and Business centers and facilitation of Startups to inculcate the culture of innovation and commercialization through entrepreneurship among the youth and nourishing them to be a productive entity.



Industrial Liaison

In pursuit of academia-industry linkage MOUs and joint agreements on spheres of mutual interest are signed with various national/international organizations. A number of ventures are done with industry through mutual collaborations and joint projects. ORIC has a central role in facilitating university's research outcomes and Technology Incubation & Innovation activities.

Commercialization

Since its inception, the ORIC at CUST is facilitating value-added innovation in both basic and applied research. ORIC aims to develop and commercialize promising innovative processes, products, and technologies according to market-driven requirements in shortest possible time. Faculty can commercialize their research work to the industry for benefit of the nation which will develop a trust worthy relationship for future mutual benefit.

7.2. Operational Hierarchy of ORIC

ORIC at CUST is headed by Vice Chancellor and works in accordance with following operational hierarchy.



Key Functions of ORIC

- Promoting and enhancing cross-cutting and multi-disciplinary research initiatives
- Increasing and diversifying external research funding
- Improving integration of research and education at all levels of the university
- Improving translation of research into the public benefit
- Strengthening university-industry relationships
- Promoting entrepreneurship, technology-transfer and commercialization activities.

- Managing campus-wide record of University publications with associated detail.
- Managing the database of R & D Projects, Collaborations and MOUs of University.
- Working on IP Disclosures/Patents/Copy Right/Policy Briefs.
- Running and Managing Business Incubation Center.

ORIC Steering Committee (OSC)

To enhance the research activities of university and to move towards commercialization, ORIC Steering Committee (OSC) was established. The committee members have significant industry/corporate experience at highest level. Most of the members are Executives/CEOs of the corporate companies. The purpose of OSC is strategic guidance about innovation, commercialization and industry requirements, and promotion of CUST in the local Industry. The Steering Committee Meeting is held once in a year.

The committee jointly chaired by Vice Chancellor and an eminent representative from Industry (Mr. Mian Mudassir Farooq-Head, Tower Tech Pvt Ltd) comprises of following members.

• Mr. Abdul Qadeer	Director, Berkeley
• Mr. M. Furrukh Mahmood	CEO, 11 Values
• Mr. Jafar Safdar	CEO, AQL Tech Solutions
• Mr. Tahir Mahmood Chaudhry	CEO, Falcon Engineering
• Mr. Raise Naqvi	CEO, Electronic Interconnect Engineering (EIE)
• Mr. Mehmood Ahmad Warraich	Director, Pre - Cast Products
• Mr. Bilal Farooq	Founder, Consulting 360
• Dr. Amir Qayyum	Professor, CUST
• Dr. Majid Ali	Professor, CUST
• Dr. Muzaffar Abbas	Professor, CUST
• Dr. Nadeem Anjum	Associate Professor, CUST
• Dr. M. Kamran Naqi Khan	Director ORIC
• Mr. Jahanzeb Sarwar Malik	Manager ORIC

7.3. ORIC Research Committee

ORIC Research Committee is a constituted body at CUST to oversee the operations and functions of ORIC. The Committee provides feedback and actively contributes towards ORIC activities and progress within the campus.



The ORIC Research Committee Meeting takes place once in every two months to review the ongoing progress of ORIC and contribute effectively towards its betterment as per HEC requirements. Dr. Muhamamd Kamran Naqi Khan, Director ORIC is convener of the committee.

The Committee consists of following members.

1	Dr. Imtiaz Ahmad Taj	Dean FoE/Professor, Electrical Engineering
2	Dr. Nadeem Anjum	HoD/Associate Professor, Computer Science
3	Dr. Majid Ali	Professor, Civil Engineering
4	Dr. Abdul Rahman Kashif	Associate Professor, Mathematics
5	Dr. Waqas Akbar Lughmani	Associate Professor Mechanical Engineering
6	Dr. Mahboob Alam	Associate Professor, Pharmacy
7	Dr. Arshia Amin Butt	Assistant Professor, Computer Science Dept.
8	Dr. Mudassar Ali	Assistant Professor, Management Sciences

7.4. Research Operations

ORIC has responsibility of guaranteeing that all research programs and policies reflect the core values of academic freedom, professional integrity, ethical conduct and full compliance with all legal requirements and operational standards of university. The job of ORIC is to facilitate its faculty/students in doing quality research. ORIC plays its potential role to reward faculty/researchers and assist them to acquire research grants from various funding agencies.

Meetings and Interactive Sessions

1 Twentieth (20th) ORIC Research Committee

The 20th ORIC Research Committee Meeting chaired by Dean Research & Innovation was held on 06th December, 2022. The meeting was held on agenda points including "HEC Academic-Industry-Government Linkages Portal", "CUST Incubation Center Cohort Launch-II", "Annual Research Database Update-2022" and "CUST Selling Points Presentation".



2 Meeting with NESCOM Officials on Funded R&D Projects

A meeting with NESCOM Officials on Funded R&D Projects was held in last week of October, 2022. The officials presented/offered their list of R&D Projects to Dean Research & Innovation for MS students of EE Department of CUST.

3 Meeting with Dean FHLS on Tissue Culture Project

A collaborative meeting of ORIC with Dean Faculty of Health & Life Sciences (FHLS) was held to discuss the prospective outcomes and future endeavor of the startup. A specific working plan was also discussed.

4 Collaborative Meeting with CEO of SLOSH AI Solutions, Islamabad

A collaborative meeting with CEO of SLOSH AI Solutions was held on 17th November, 2022 in ORIC Office. SLOSH works in cancer screening and has a dedicated team of engineers and doctors. SLOSH is working on Artificial Intelligence (AI) based processes/business in medicine to meet millennium AI challenges for Pakistan.



5 ORIC Innovation Committee Meetings

CUST Innovation Committee was constituted with the aim to commercialize the developed products/prototypes and achieve on ground success. The committee has active participation from each department. In Spring-2022, two meet ups of the committee were held to discuss and proceed towards commercialization of products/prototypes. The committee consists of at least one member from each department with innovation/entrepreneurship background.

6 Nineteenth (19th) ORIC Research Committee Meeting

The 19th ORIC Research Committee Meeting chaired by Dean Research & Innovation was held on 10th March, 2022. The meeting was held on single point agenda "ORIC FYPs Funding". The brief Presentations of initially scrutinized FYPs were taken for Funding. The students presented their project ideas and business plans before ORIC Research Committee. The committee evaluated the presentations according to a devised criterion based upon the practical feasibility, business plan and marketability of each project.

Research Proposals Advertisement, Documentation and Facilitation

1 Advertisement for Call for Proposal- Technology Development Fund (TDF)

The advertisement of Call for Proposals of Technology Development Fund (TDF) was done by ORIC. The advertisement/associate procedures/requirements were shared with faculty members. The full guidance was provided to faculty members in this regard.



2 HEC Innovator Seed Fund (ISF) Advertisement

HEC has launched the Higher Education Development in Pakistan (HEDP) project to help in accelerating the economic engines of the country. Innovator Seed Fund (ISF) is an initiative under HEDP that aims at engaging entrepreneurs and upcoming aspirants who want to convert their business ideas into action. The Call for Proposals of Innovator Seed Fund (ISF) was projected by ORIC across all the departments and relevant support/guidance was provided.

3 PM National Innovation Award Advertisement

PM National Innovation Award is an initiative of Prime Minister's Youth Program to turn your idea into business; take the challenge and propose your innovative idea. The Seed money of the program was PKR 2-million each project, and technical support with incubation options. ORIC advertised the PM Innovation Award details with students and faculty members across all the departments, and facilitated them.



4 Advertisement of RAPID Technology Transfer Grant (RTTG)

The RAPID Technology Transfer Grant (RTTG) is the key element of the Higher Education Development in Pakistan (HEDP) Project supported by the World Bank and implemented by the Higher Education Commission (HEC). The RTTG is a fast-track funding mechanism dealing with themes, topics, and issues of severe urgency for quick-response research on Flood response, Climate Change and Environment. The Call for Proposals of RTTG was projected by ORIC across all the departments employing various advertisement channels.

5 Advertisement of NESCOM R&D Funded Projects

Research & Academia Coordination (R&C), Directorate General HRD, NESCOM shared some Research Projects with ORIC. A total of 04 (R&C) Projects are currently being worked on and 04 are recently completed by CUST faculty members. The new list of projects was projected/shared with relevant departments.

R&D and Design Projects Funding

1 Research Funding Grants Won by CUST Faculty

National Research Program for Universities (NRPU) and Local challenge Fund (LCF) are competitive research grants of HEC for high-level and promising scientific projects that demonstrate strategic relevance and impact to local industry and society. The faculty researchers of CUST have submitted numerous proposals on diverse and innovative research projects/ideas in NRPU and LCF. CUST faculty has recently won two projects worth 24.165 PKR million under, one each in NRPU and LCF programs.

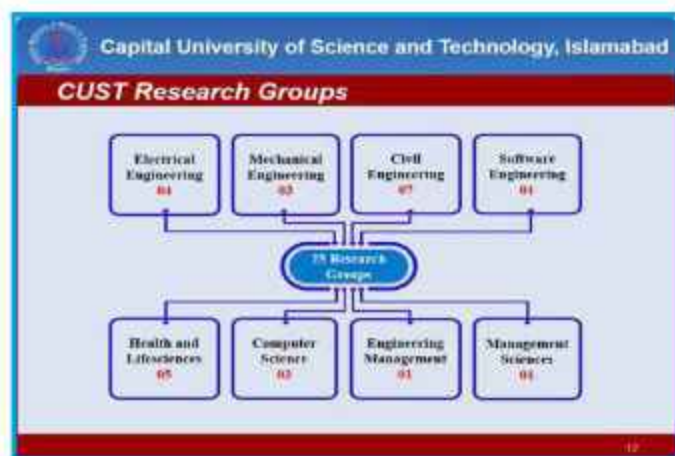
2 IGNITE Funding

IGNITE has shortlisted Thirteen Undergraduate Final Year Projects (FYPs) of CUST students for seed funding. The projects were funded based upon their innovation and commercialization aspects. ORIC has done the advertisement, coordination and documentation of projects in collaboration with IGNITE. An amount worth 1,040,000 would be disbursed to the award-winning students of various departments.

Research Database and Repository

1 Updation of Research Database and Research Groups 5Ps Data

The Research Database was updated including updating university Journal and Conference Publications, MOUs signed and Research & Development Projects accomplished by CUST faculty in Fall-2022 and Spring-2022. The Research Groups 5Ps data was also updated which included information about number of Publications, PhDs produced, Prototypes developed, Patents filed and R&D Projects won/completed by CUST faculty.



2 CUST PhD Repository and Research Posters

ORIC maintains a comprehensive database of PhD Graduates of CUST which includes all details of PhD alumnus including name, thesis title, supervisor name and year. ORIC has also designed a standard PhD Poster Template and is responsible for coordination and revision of students' posters. It is requirement for every PhD student to submit a poster related to his research to ORIC. The objective is to promote/acknowledge research work of students and faculty. The posters are displayed in university to highlight research output of departments.

3 Impact Factor Verification of Faculty Research Honorariums

It is core responsibility of ORIC to verify the Impact Factor of faculty research publication honorariums in accordance with the updated HEC Journal Recognition System (JRS). ORIC performs this activity on daily basis.

4 ORIC Dashboards Update

Office of Research, Innovation and Commercialization (ORIC) designed Proposals, Workshops, Innovations and Incubation Dashboards to present/document ORIC Progress Report in respective domains. The mentioned dashboards are updated on continual basis.



5 Upgradation of ORIC Webpage

The webpage of ORIC is updated on monthly basis as per directions of Vice Chancellor. The data about ORIC Events, Industrial Collaborations, R&D Projects, Research Publications, PhD Repository and Downloads Section is updated regularly.

6 Faculty Research Profiles/Publication Update

The faculty research profiles were updated on website by ORIC under the kind directions of Vice Chancellor. The Resumes/CVs were taken from faculty members to attain the relevant research profile. The latest data was obtained and shared with Web Development Office.

7 CASPR Research Group Poster Designing

The Control and Signals Processing Research Group (CASPR) of CUST has accomplished 32 PhDs in the discipline of Control Engineering and allied fields. To celebrate/project the research achievement of CASPR, a unique poster was designed, printed and displayed by ORIC in university.



8 CUST International Conferences Database

As per kind request of Registrar Office, the database of CUST International Conferences as created and shared by ORIC. The data includes the list/associated detail of all the International Conferences accomplished by CUST till date.

9 Jinnah Business Review (JBR) Journal

ORIC has responsibility to regularly issue DOIs to CUST Jinnah Business Review (JBR) Journal. Recently, the DOIs of Volume No. 10 and Issue No. 2 were allotted.

10 CUST Research Excellence Awards-2021

To recognize and celebrate the intellectual & valuable contributions of its faculty at National and International level, CUST hosted the Research Excellence Awards (REA)-2021. On the basis of detailed evaluation of research impact and achievement of cumulative impact factor above 100, the six Professors were honored with the REA-2021. The honorable Vice Chancellor, Dean Research & Innovation, Professors and Associate Professors were amongst the participants of the REA-2021. The winners of the REA were given a souvenir, certificate and letter of appreciation, and special Cash Prize. The Vice Chancellor congratulated all the awardees and appreciated their valuable contributions in the field of research.



11 Scrutiny/Verification of R&D Data for QEC YPR-2022

QEC requested ORIC to provide the data related to Research Publications, R&D Projects and Research/Intellectual Rights Policies. ORIC Scrutinized/Verified and provide the updated data. The R&D data was required for QEC YPR and International Ranking Application.

12 HEC Civil Awards

The HEC Civil Awards are conferred upon the teachers and administration of Universities / Degree Awarding Institutions in recognition of their achievements and services rendered for the development of the institution and society. The Government of Pakistan invites nominations every year for different categories of Civil Awards to be announced by the President, of the Islamic Republic of Pakistan on 14th August, while the investiture for these awards takes place on Pakistan Day i.e., 23rd March every year. The Civil Awards Cases of Prof. Aamer Iqbal Bhatti and Prof. Majid Ali were prepared/documented/submitted in HEC.



7.5. Technology Incubation and Innovation

ORIC not only accomplishes research and development operations but also ensures continual activities in terms of technology innovation and incubation. In this regard numerous technical trainings, workshops, short courses and seminars are conducted on regular basis to provide students, faculty members and professionals with the contemporary technical tools and skills in accordance with industry and corporate world. ORIC is running an active CUST Incubation Center (CIC) and is also animatedly working on various commercialization endeavors including students/faculty startups and projects.

Capacity Building Events

1 Experiential Training Session on Latex for PhD Researchers

Office of Research, Innovation and Commercialization (ORIC) organized “Two-Days Workshop on Latex” on 05th-06th December, 2022. The purpose of the workshop was to equip participants with the most updated knowledge about Latex with practical illustrations. The workshop was conducted by Mr. Omaid Ghayyur, Lecturer (CS, Department), CUST. 16 participants including PhD students from various departments attended the workshop.



2 QEC Office Management Workshop (03 Module)

The Assistant Director (Research Management), Mr. M. Raheel Anjum took part in "Office Management Workshop" held by Quality Enhancement Cell (QEC), CUST. The training consisted of 03 modules held on three different days in recent semester. On concluding session, a comprehensive Evaluation/Feedback Report was also submitted to QEC.

3 Crash Course on Amazon Trading (FBA Wholesale)

Office of Research Innovation and commercialization (ORIC) in collaboration with Sparknetics conducted one-week Hands-on Workshop on Amazon Trading. The workshop was conducted from 01st to 04th November, 2022 by resource persons from Sparknetics. The participants of the workshop were provided hands-on practice on product hunting for wholesale, product sourcing, order management, buy box war strategies and client hunting. A total of 15 students participated in the workshop.



4 Hands-on workshop on SPSS for FHLS students

Office of Research, Innovation and Commercialization (ORIC) in collaboration with Dean Faculty of Health & Life Sciences (FHLS) organized "Two-Days Hands-on Workshop on SPSS" on 29th December, 2022 and 05th January, 2023 in Instructions Lab-6, M-Block. The workshop was conducted by Dr. Sohail Rizwan from Fatima Jinnah Women University (FJWU), Rawalpindi. A total of 15 participants including students from Biosciences/Bioinformatics/Microbiology Departments attended the workshop.

5 Series of CASPR IEEE CSS Seminars

ORIC under Control and Signals Processing Research Group (CASPR) has organized numerous Seminars/Interactive Sessions. This is a regular weekly based activity managed by ORIC. A total of 10 seminars were conducted and reported on IEEE CSS Website. The general audience of these sessions included CUST Research Scholars, Faculty Members and CASPR Alumni.



6 “React JS Front End JavaScript Library” for Web Developers

Office of Research, Innovation and Commercialization (ORIC) conducted Twenty (20) Hours Hands-on Course on “React-JS” starting from 01st June, 2022. The course consisted of two modules spanning Ten (10 hours) each. The objective of the course was to provide participants with advanced hands-on knowledge about React JS and its application in web development. The course contents included the key topics like: ESC Refresher, React Hooks, NPM Packages, Routing, Formik, Consuming APIs, Postman//GitHub, Firebase & Heroku Development etc. with two real time projects. The concluding ceremony held on 17th June, 2022 was graced by HoD CS, Prof. Nayyer Masood.

7 Hands-On Workshop on “Docker Tools”

Considering the significance of Docker Tools for software developers/freelancers, Office of Research, Innovation and Commercialization (ORIC) organized three days Online Workshop on “Docker Tools” from 25th to 27th April, 2022. The objective of the workshop was to provide students with essential Docker Tools that can potentially help them in upscaling their job chances, and train them for self-employment and freelancing projects. The workshop participants included IT professionals from NUST, Mobilink Microfinance Bank, MUET, and CUST students.



8 Hands-On Crash Course on “Cyber-Security and Ethical Hacking”

Office of Research, Innovation and Commercialization (ORIC) organized twenty (20) hours Crash Course entitled “Ethical Hacking and Cyber-Security” starting from 13th June 2022. The course encompassed advanced understanding of cyber-security, cyber threats, modern approaches to protect against cyber-attacks and virtuous hacking. The concluding ceremony was graced by HoD CS, Prof. Nayyer Masood. A total of 20 participants attended the course including the faculty members from IBA Sukkur and FAST NU, Faisalabad. The Resource Person for the course was Mr. Amer Zaheer (faculty member, CS Department, CUST).

9 Interactive Seminar on “NERC (Robotics Competition)”

To enlighten/motivate CUST students about NERC, Office of Research, Innovation and Commercialization (ORIC) in collaboration with Electrical Engineering (EE) Department, CUST invited a focal team from EME College, NUST for a special session about robotics on 09th June 2022. The team consisted of Mr. Usman Asad and Ms. Arshia Arif (faculty members from Mechatronics Engineering Department, NUST). The session ended with acknowledgement and presentation of university memento by Dr. Umer Amir Khan (Asst. Professor, EE Department) as a token of appreciation to the Resource Persons.



10 Practice Oriented Workshop on “Terraform and Ansible”

Considering the significance of DEVOPS Tools for software developers, Office of Research, Innovation and Commercialization (ORIC) organized Four Days Hands-on workshop on “DEVOPS Tools (Terraform and Ansible)” from 15th to 20th March, 2022. The objective of the workshop was to provide students with essential DEVOPS skills that can potentially help them in upscaling their job chances, and train them for self-employment. A total of fourteen (14) participants attended the workshop including students from CS, SE and EE Departments.

11 Industry Relevant Hands-On Workshop on “WordPress”

Office of Research, Innovation and Commercialization (ORIC) in collaboration with Tech Flickers (First SECP Registered Incubation company of CUST) organized Four Days Hands-on Workshop on “WordPress” from 28th March to 2nd April, 2022. The workshop was aimed to equip students with application-based knowledge of WordPress with practical illustrations. The workshop included students from CS, SE, EE and MS departments. A total of seventeen (17) students successfully completed the workshop.

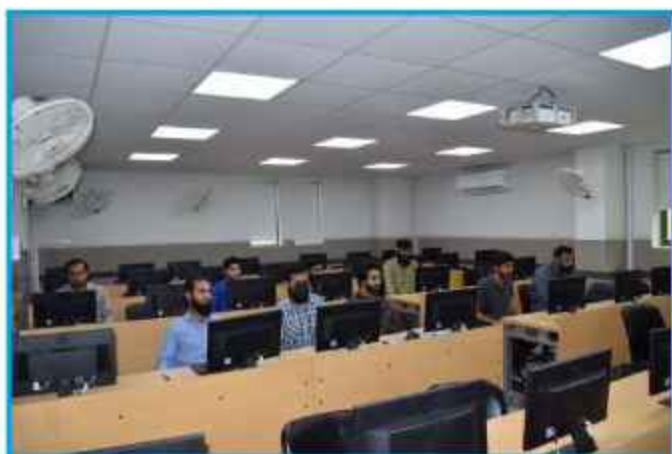


12 Experiential Training Session on Latex

Office of Research, Innovation and Commercialization (ORIC) organized “One-Day Workshop on Latex” on 28th April, 2022. The purpose of the workshop was to equip participants with the most updated knowledge about Latex with practical illustrations. The workshop was conducted by Mr. Muhammad Farhan, Assistant Director (Innovation & Commercialization), CUST. The session lasted for two hours including Q/A session. Around 20 participants including PhD students from various departments attended the workshop.

13 Crash Course on “Amazon Web Services (AWS)”

Office of Research, Innovation and Commercialization (ORIC) has started the series of short courses on AWS. The two-week hands-on course on “Amazon Web Services (AWS)” was held from 29th August, 2022 to 09th September, 2022 online on MS Teams. The objective of the course was to provide participants with essential AWS skills to upscale their job chances both in national and international market, help in preparation of fundamental AWS Certification and enable them to work as freelancer. The students from various departments attended the training.



14 Workshop on “Measure of Software Similarity (MOSS)”

Keeping in view the significance of MOSS in context of faculty development, Office of Research, Innovation and Commercialization (ORIC) in collaboration with Computer Science (CS) Department organized “Two Hours Hands-On Session on MOSS” on 15th August, 2022. The workshop was held specifically for the faculty members of Computer Science (CS), Software Engineering (SE) and Electrical Engineering (EE) Departments. The session was conducted by Mr. Omaid Ghayyur, Lecturer, CS Department, CUST.

15 Hands-On Workshop on “Flutter Software”

Office of Research, Innovation and Commercialization (ORIC) organized One-Week Hands-on Workshop on Flutter starting from 05th September, 2022. The objective of the workshop was to provide the participants with practical and industry-oriented insights about flutter, get a better job/promotion and enhance their job chances in both national and international markets. A total of 21 participants attended the course including the computing students from CUST and UET Taxila. The participants were also provided certificates upon successful completion of the workshop.



16 Series of Hands-On Short Courses on “Amazon Trading”

Office of Research Innovation and commercialization (ORIC) in collaboration with Sparknetics conducted series of Crash Courses on Amazon Trading. The courses were conducted from 31st May to 03rd June, 2022 and 16th -19th August, 2022 respectively by the resource persons from Sparknetics. The participants of the training were provided hands-on practice on product hunting for wholesale, product sourcing, order management, buy box war strategies and client hunting. More than 40 students were trained on the most advanced market-oriented expertise about Amazon Business.

Innovation Endeavors

1 Patent of “Design and Development of Elbow Exoskeleton System”

ORIC has prepared patent of Elbow Exoskeleton System. The project is a joint venture of ORIC and ME department. The development of a passive type portable elbow exoskeleton allow for the delivery of two phases if rehabilitation in a single structure without impairing range of motion or safety aspect. Two steps comprise the recovery training. The first stage controls joint movement actuated by an external motor. The second stage focuses on assisting motions using assistive force by using extension spring.

2 ORIC Innovations Dashboard

Innovation is the introduction of a good or service that is new or has significantly improved characteristics or intended uses. Office of Research, Innovation and Commercialization (ORIC) plays a central role in facilitating university’s research outcomes and Technology Incubation & Innovation activities. ORIC has worked to establish a culture of innovation and commercialization through entrepreneurship within the departments. The ORIC Innovation Dashboard displays/depicts the innovation endeavors of ORIC with various departments.



3 Amazon Web Services (AWS)-Hostel4U

Hostels4U provides a platform to hostel administrators/students to connect online in a highly convenient way. With a number of hostel listings, and hundreds of students likely to be its visitors, Hostels4U is the option that best suits students and hostel administrators. Hostels4U gives students the best hostel options with secure and conducive environment, and up to the mark services. The Project was an initiative of ORIC in collaboration with CS Department.

4 Patent of Robot Vacuum Cleaner

Office of Research, Innovation and Commercialization (ORIC) has filed patent of Robot Vacuum Cleaner. The project is a joint venture of ORIC, Mr. Syed Abu Turab Naqvi (Electrical Engineering (EE) Department, CUST) and EE students. The Robot Vacuum Cleaner is an autonomous mechanized floor cleaning system that works by automatically judging the floor and performing its operation accordingly through mapping and navigation algorithm using VSLAM Technique. The benefits of vacuum robot include enhanced productivity, time saving, efficient work, reduced human labor and low maintenance etc.

Incubation Center and Startups

1 CUST Incubation Center (CIC)

Office of Research Innovation and Commercialization (ORIC) under the mentorship of Vice Chancellor initiated the concept of Incubation Center at CUST. The purpose was to help CUST students and alumni initiate new startups, and develop their business by providing facilities like workspace, high speed internet, mentoring, and training. ORIC is also providing technical and legal documentation support to these startups to get registered at Securities & Exchange Commission of Pakistan (SECP).



2 Tech Flickers- CUST first SECP Registered Startup

Tech Flickers, the first SECP registered software company of CUST provides various quality services. Its services include WordPress Designing, Web Development, Digital Marketing, Graphic Designing, SEO Services etc. Tech Flickers is also selling digital products like software, tools and courses to clients all around the world. The company has an experienced team of 10 members. They are also working on modern technology stacks & techniques to deliver future oriented solutions. The company always upgrade itself to meet industry & international standards. As far as products are concerned, some of the Management Systems include Restaurant, School, Hospital, Ticket Booking, and CRM & Sale System.

3 Walzona Pvt Ltd- Novel Startup of Tech Flickers

Walzona Ltd is a registered limited company of Tech Flickers in UK which sells furniture and apparel products in UK and US markets. Walzona have products from UK-registered retailers and whole sellers, and deliver custom-designed apparel

products from print-on-demand companies. It has joined hands with sellers and retailers to sell their products through registered channel. Until now the company has sold products worth 700 pound.



4 Students' Internship at CUST Incubation Center (CIC)

Capital University of Science and Technology (CUST) in this fast-changing world stands ready to meet the challenges of training professionals regarding modern tools and technical set of skills required for the industry and improving economic and social well-being of the country. Establishment of CUST Incubation Center (CIC) showcases the efforts of CUST towards commercialization and Innovation. A total of 44 students have completed internships at CIC in various domains including: Graphic Designing, Web Development, Django Template language, Kubernetes, Machine Learning, DevOps, Terraform, Ansible, Jenkins, WordPress, HTML CSS and AWS.

5 Orientation Session at CIC

ORIC launched its 1st Cohort Competition 2021. A two-step scrutiny process was adopted to dig out potential startups based on practicality of the ideas presented, and qualification of the teams. An orientation session was conducted for the newly inducted startups to make them familiar with the CIC environment. The session conducted by Mr. Salman Khattak, lecturer FMSS focused on how to productively complete the six months' incubation time at CIC while successfully achieving the pre-defined milestones. The participants included team of Tech Flickers, Aquaponics and Remote Advertisement Management System. The participants were also provided an insight to Project Business Case and Project Benefits Management Plan so that the teams can focus on their invention/innovations.



ORIC FYPs/Startups/Projects Funding

1 Funding of GIKI Design, Build and Flying Competition Projects

American Institute of Aeronautics and Astronautics Society (AIAA) under the Department of Student Affairs organized an All-Pakistan event on 25th, 26th, 27th November, 2022 named as Design Build Fly Competition-16 (DBFC-16) at GIK Institute. There were 100 participants belonging to 20 teams from diverse backgrounds. Two teams from ME Department, sponsored by ORIC represented CUST at the event.

2 IGNITE Funding (NGIRI-2022)

The National Grassroots ICT Research Initiative (NGIRI) aims to assist final year undergraduate students of ICT related disciplines studying in the Institutions by providing them financial assistance for developing prototypes/working models of their Final Year Projects (FYP) in order to increase creativity, innovation and hands on engineering and development skills. ORIC has advertised NGIRI-2022 to faculty and students and displayed the program on notice boards. ORIC is also the official coordinator of Ignite funding.



3 IGNITE Funding Reimbursement (NGIRI-2021)

IGNITE has shortlisted Thirteen Undergraduate Final Year Projects (FYPs) of CUST students for seed funding under NGIRI-2021. The projects were funded based upon their innovation and commercialization aspects. ORIC has done the advertisement, coordination and documentation of projects in collaboration with IGNITE. An amount worth 1,040,000 has been disbursed among the award-winning students of various departments.

ORIC FYPs Business Plan Funding

Office of Research, Innovation and Commercialization has continued its initiative of Final Year Projects funding for undergraduate students. The purpose of the activity is financial encouragement of students whose project ideas have particular business and marketing prospective. The event was advertised in the start of November, 2021 and the proposals for funding were received till 31st December 2022. The evaluation of the applications was done by ORIC Research Committee based upon the practical feasibility, business plan and marketability of each project. After a systematic assessment, the top six projects were shortlisted for a total funding encompassing 180,000 PKR.



7.6. Industrial Liaison

ORIC at CUST is continuously working on to build and maintain strong Academia-Industry Linkage with the focus on promoting and making CUST graduates the premium choice for the employers. ORIC is working in collaboration with various departments to promote Academia-Industry Linkage. The industrial visits for either side are being arranged on continual basis to promote academic collaborations and explore the areas of mutual interest and employment propensities for CUST students.

MOUS and Collaborations with Industry/Corporate Sector

1 Memorandum of Understanding (MOU) with Islamabad Diagnostic Center

Islamabad Diagnostic Centre, brain child of Dr. Rizwan Uppal is the first diagnostic facility providing entire spectrum of imaging & lab services under one roof. Since inception, IDC has built a successful track record and is known for its latest imaging technologies, broad range of laboratory tests and quick turn-around times, with over 2500 staff members, and one of Pakistan's largest pool of qualified Radiologists and Pathologists on its team. ORIC has approached IDC for liaison in the areas of mutual collaboration. The working MOU in this regard is in final phase.

2 Memorandum of Understanding (MOU) with Marhaba Pakistan Pvt Ltd

Marhaba Laboratories (Pvt) Ltd. is a household name not only in Pakistan but all over the world where Asian and other people conversant with the efficacy of oriental medicines live. The company produces oriental medicines and natural dietary supplements in a modern and scientific manner so that the age-old prescriptions and remedies, reach the customer in a ready to use form, without in any way affecting their efficacy and natural qualities. Marhaba approached ORIC and Pharmacy Department to bring strong liaison in the areas of mutual interest. The agreement of mutual interest is in final phase.



3 Memorandum of Understanding (MOU) with Sparknetics Pvt Ltd

CUST partnered with Sparknetics on 21st April, 2022 to conduct training and provide mentorship to students for easy earnings. Sparknetics has been indulged in consulting business and are offering a wide range of profitable business opportunities, and has also established online assets in the field of E-commerce. Both the parties agreed to conduct trainings at CUST on "Sell on Amazon". Mr. Ammar Yasir Co-Founder of Sparknetics and Prof. Aamer Iqbal Bhatti, Dean Research & Innovation, CUST signed MoU on behalf of their respective organizations.

4 Memorandum of Understanding (MOU) with Focus and Rulz Pharma (Pvt.) Ltd.

On 12th September, 2022, Dean Faculty of Pharmacy, Dean Faculty of Health and Life Sciences and Assistant Director ORIC visited Focus & Rulz Pharmaceuticals (Pvt.) Ltd. and signed an MoU with their MD & CEO, Mr. Fazli Hanan. Both parties agreed to facilitate each other in R&D Projects, Labs and Testing Facilities, Training/Special Courses, input in Curriculum Design, participation in Industrial Advisory Board meetings, Hiring and Internships of students, and discover the opportunities for the Commercialization of Technology. Both parties shown their gratitude to the valuable agreement and desired to continue the collaboration in the areas of mutual interest.

5 Memorandum of Understanding (MOU) with Bio-Labs (Pvt.) Ltd

To formalize collaboration between CUST and Bio-Labs (Pvt.) Ltd. and to make it sustainable, Dean Pharmacy and Assistant Director ORIC visited Bio-Labs on 25th August, 2022 to have a productive discussion on industry academia linkages with Director Technical Operations Mr. Zia Ud Din. On 21st September 2022, General Manager Bio – Labs, Mr. Kashif Yaseen signed an MoU with CUST. Both parties agreed to facilitate each other in R&D Projects, Labs and Testing Facilities, Training/Special Courses, Curriculum Design, Industrial Advisory Board Meetings, Placement and Internships for students.

Industrial and Societal Outreach

1 Visits of Pharmaceutical Industries for Academia – Industries Linkages

More than 30 Pharmaceutical Industries were contacted to sign MoUs with CUST for Academia – Industries linkages. In this regard, Dean Pharmacy, Dean Biosciences and ORIC visited various pharma companies for potential Industry-Academia collaboration.



2 Meeting with President of Islamabad Industrial Association (IIA)

The president of Islamabad Industrial Association (IIA) visited ORIC on October, 25, 2022. The meetup focused on Industry Academia linkages and prospective strategies to bring liaison with local Industry. The president ensured his full support to bring together local industries with CUST.

3 Visit of ICCI Top Officials at CUST

A team of 07 top officials led by Engr. M. Azhar-UI-Islam Zafar, Vice President, ICCI Islamabad Chamber of Commerce & Industry (ICCI) visited Capital University of Science and Technology (CUST) on December 19th, 2022. The agenda of the meeting was to promote joint academic and R&D activities of mutual interest in accordance with their respective needs and objectives as well as to promote academia-industry linkages.



4 Visits of Pharmaceutical Industries for Academia – Industries Linkages

More than 30 Pharmaceutical Industries were contacted to sign MoUs with CUST for Academia – Industries linkages. In this regard, Dean Pharmacy, Dean Biosciences and ORIC visited various pharma companies for potential Industry-Academia collaboration.

5 Meeting with Industry Experts on CUST Open House-2022

On 8th September, 2022 CUST organized Industrial Open House for engineering students. More than 30 employers and industrial experts visited Final Year Projects of undergraduate students. Some employers also conducted interviews of the selected students.



6 Visit of ORIC Team to Safe Solutions Consultancy Pvt Ltd

In pursuit of Industry-Academia Linkage, Safe Solutions Pvt. Ltd. invited ORIC for collaboration in the areas of Building Information Modelling. Safe Solutions specializes in Architectural, Structural and MEP Modeling including 3D-4D Modeling, BIM Implementation and BIM Modeling Services. After a comprehensive discussion both parties agreed on various domains of mutual interest including students' internships and job opportunities, BIM based Courses for undergraduate/postgraduate levels and capacity building of CUST students/faculty through training, workshops and short courses.

Capacity Building Endeavors with Industry and Corporate World

1 Participation of ORIC at NEPRA for Debate on Academia Industry Liaison

Capital University of Science and Technology participated in a session on Industry-Academia Liaison held at NEPRA under the leadership of the Chairman NEPRA, Mr. Tauseef H. Farooqi. The objective of the session was to help creating a nexus between industries and academia, figure out how Industry and academia join hands to address upcoming challenges and contribute towards national growth by aligning academic programs to meet cross-sectoral needs. The workshop was attended by large number of top professionals from the power sector and members of the academia besides NEPRA's Professionals.

2 Industry Oriented Seminar on "Printed Circuit Board (PCB) Design"

Office of Research, Innovation and Commercialization (ORIC) in collaboration with Electrical Engineering (EE) Department organized Interactive Seminar on "PCB Design" on 06th July, 2022 at 02:00 PM. The seminar encompassed industry-based understanding of concepts like Library Management, Schematic Capturing, PCB Layout/Routing, Gerber Files, Production files etc. A total of 27 Electrical Engineering students attended the session which lasted till 03:45 PM including the Q/A session. The seminar resource person was Mr. Raese Naqvi, CEO, Electronic Interconnect Engineering (EIE), Islamabad.



3 ORIC Certification Courses-Spring-2022 for Industry Professionals

Continuing Education help an individual to showcase his competency, commitment for the profession and build expertise in his professional area. Office of Research, Innovation and Commercialization held semester long Certificate Courses in Spring-2022 for professionals/ practitioners, who intend to develop on job skills and professional growth. The professionals from numerous corporate/defense organizations successfully completed the courses.

4 Tech Expo at Rawalpindi Chamber of Commerce and Industry (RCCI)

Students of CUST participated in Tech-Expo organized by Rawalpindi Chamber of Commerce & Industry (RCCI). The expo was held in Pearl Continental Hotel, Rawalpindi on 03rd and 04th June, 2022. Various other universities and firms also participated in the event including NUST, IST, NUTECH, Sun Consulting (Pvt.), Wolfiz Technologies, Blue Arc Design & Developments etc. H.E. Dean of Diplomatic Corps and the Ambassador of China were the chief guests of the event. The students from the various departments participated in this event and exhibited their projects under the guidance of concerned departments.



5 Training of AITECH, National Center for Physics (NCP) Professionals on Amazon Web Services (AWS) and DEVOPS Tools

Artificial Intelligence Technology Center (AITECH), National Center of Physics (NCP), Islamabad approached ORIC to provide two weeks course on "Amazon Web Services (AWS)". Based on mutual agreement the course was conducted at AITECH, NCP from 10th to 27th May, 2022 by the resource persons of ORIC. The course ended on a high note and proved to be a great source of knowledge to professionals from AITECH.

CUST PhD Alumni Database

Capital University of Science & Technology is one of the few institutes in the country having a mature PhD program characterized by well-established calendar of advanced postgraduate courses and crystal-clear academic processes. We own a diverse family of more than 230 PhD graduates. This has only become possible through retention of seasoned faculty in its PhD programs who not only excel in research but are also actively linked with the national industry. ORIC is maintaining CUST PhD Alumni database which contains contact numbers/emails, official addresses and designations of prestigious PhD graduates. A specific WhatsApp Group entitled "CUST PhD Alumni" was also created by ORIC with currently 166 members to create an effective outreach with respective academic and industry. Miscellaneous Tasks

ORIC Annual and Semester Publications

1 ORIC Newsletters Spring-2022 and Fall-2022

The seventh and eighth volumes of ORIC Newsletters (Fall-2021 and Fall-2022) were drafted, graphically designed and published. The Newsletters briefly showcase the progress report of ORIC in terms of its stated domains i.e., Research Operations, Technology Incubation & Innovation and Industrial Liaison. It also highlights workshops, seminars and other similar events accomplished by ORIC in Fall-2021 and Fall-2022. The Newsletters are projected across various universities with all university academic and administrative offices upon its publication.

2 ORIC Activity Reports Spring-2022 and Fall-2022

The ORIC Activities Book for Fall-2021 was compiled and published as per directions of VC Office. The book showcases the activities and events proceeded by ORIC as per its stated domains in the recent semester.

3 DSE Annual Report Designing-2022

The Directorate of Sustainability and Environment (DSE) has developed their Activities Report for 2022. The VC Office directed ORIC to graphically design/format the report. ORIC designed and submitted the report to VC Office as per instructions. The Report was also used for International Sustainability/Green Metric Ranking.

8. Quality Assurance

8.1. Quality Enhancement Cell (QEC)

Quality Enhancement Cell CUST was established, with a mandate to implement IQA and EQA processes set by HEC, ensuring academic standards through conduct of different surveys /assessments and provide feedback to the institutional departments for their future actions. Detailed remedial mechanism as devised by HEC, plays an important role in contributing towards improvement of academic programs. QEC on the basis of IQA processes receives feedback and suggest certain suggestions/recommendation to institutional management for consideration and action. CUST through implementation of these set QA standards/guidelines, develop professional knowledge, competencies and employable skills of its graduates, enabling them to contribute effectively in the job market. QEC as per regulators requirements strived hard to comply strictly with devised, structured QA approaches ensuring its implementation and contribution towards promotion of quality culture.



QEC main objective is to maintain, enhance and monitor, quality of undergraduate and graduate, academic programs periodically being offered at institutional level. IQA and EQA practices introduced through a systematic process help to monitored the quality of academic programs, safeguards institutional functioning as per its laid down mission and vision. QEC through quality interventions extend its support to the departments in improving standard of their teaching-learning and research enabling its compatibility with other national and international HEIs. QEC intend to ensure through the implementation of QA practices, production of competent graduates, equipped with requisite knowledge and skills as per requirement of existing job market.

QEC Vision

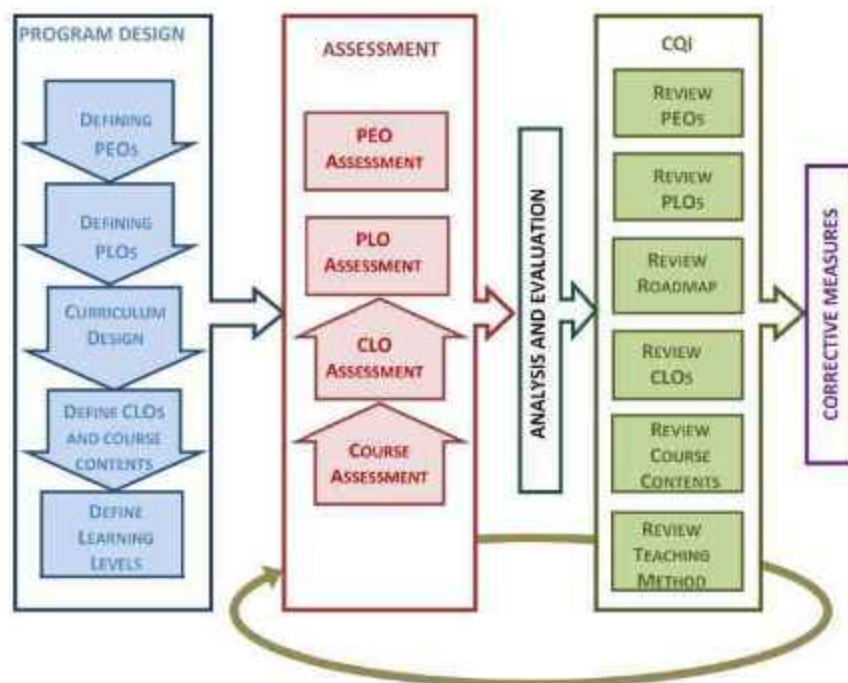
“To be recognized as the leading educational institution, instilling and pursuing the highest quality assurance practices, both nationally and internationally”

QEC Mission

“Incorporating continuous quality improvement in teaching, student learning, and administrative support mechanism”

8.2. Outcome Based Education (OBE) System at CUST

CUST follows a comprehensive Outcomes Based Education (OBE) system in designing, execution and improvement of its academic programs. This system was adopted in year 2014 and all the components of OBE including program design and approval, assessment methodology and Continuous Quality Improvement (CQI), have been incorporated in the system. Since 2014, CUST has made good progress in implementing OBE in its programs. All the undergraduate programs have fully implemented the system with its full functionality including assessment and review process.



Processes Involved in OBE System at CUST

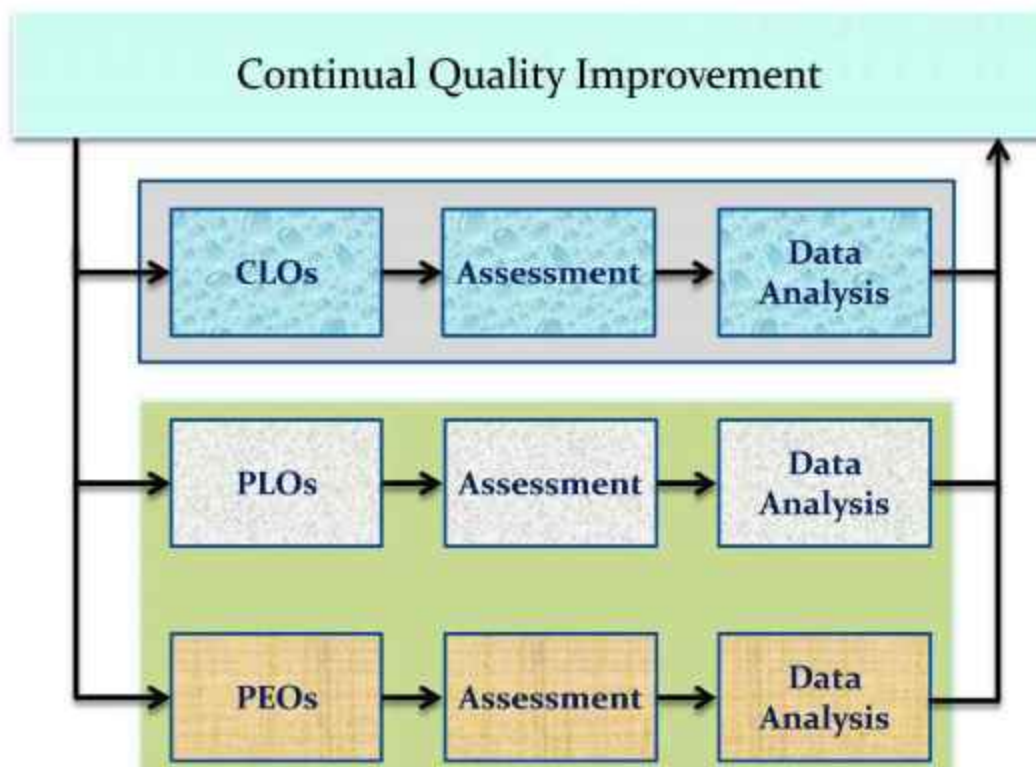
The three main processes involved in the overall OBE System at CUST include curriculum design process, which is done once in the start of an academic program and then the on-going processes of CQI are initiated for continuous improvement of the programs including OBE based assessment process and curriculum review process.

The program/courses design and CQI is a thorough process that involves various university bodies at different levels, which are a part of overall Quality Management System (QMS) of the University.

8.3. Continual Quality Improvement (CQI) Process

CQI is a philosophy that encourages all team members to continuously ask “How are we doing? Can we do it better? and What should we do to make it better?”. To improve the quality of teaching and student learning, the concept of “Continuous Quality Improvement” (CQI) was initiated by QEC, with the department of Pharmacy. The rationale behind implementing the CQI in the Pharmacy department was that the department is newly established and the CQI cycle will help its faculty to design their CLOs according to the standards of the best national and international market’s demands. Against this backdrop, QEC organized a capacity-building session on “Continuous Quality Improvement”. Prof. Dr. Ishtiaq Hassan, resource person, who has vast professional experience in industry and academics. Dr. Hassan explained the Outcome-Based Education (OBE) model that overcomes the limitations of the Input Based Education (IBE) or conventional approach. He shared that OBE is focused on product/student of the education system and it is a student-oriented approach. He also enlightened the main features of the OBE and major phases during the implementation of OBE. He also highlighted the need for quality improvement in each process which is identified, assessed, and mitigated by the CQI.

Towards the end of the session, a quick review of the design & assessment of the Program Education Objectives (PEO), Program Learning Objectives (PLOs), and Course Learning Objectives (CLOs) was done. The session was concluded by Q&A session, where all the queries were addressed by the resource person. Director QEC – CUST appreciated the resource person/participants and acknowledged their cooperation for showing keen interest in learning and implementation of CQI at Pharmacy department.



8.4. Institutional Performance Evaluation (IPE) and Post Graduate Program Review (PGPR)

Self-IPE and Self-PGPR were conducted as annual activities to assess the effectiveness of academic programs being offered, compliance of different QA guidelines, preparedness and capacity of institution performance as per HEC devised standards/ policies. As the IPE and PGPR visits for CUST were conducted in 2020 by HEC QAA, therefore, self-revisits for IPE and PGPR were organized in 2021 and 2022. Available relevant documents/ evidences, provided through University Portfolio Report were reviewed as per HEC guidelines.

Almost all CUST academic programs, research productivity and governance indicators were in line with the predefined standards of regulator and appeared to fulfilled quality prerequisites, enabling students to learn and create new knowledge. The feedback of these reviews provides academic guidance, suggest certain future actions for the compliance of university management offices/departments against recommended areas related to university governance, teaching -learning and research.



8.5. Innovation Skills and Competencies for Professional

“Learning and innovation go hand in hand. The arrogance of success is to think that what you did yesterday will be sufficient for tomorrow”. Therefore, for improving the innovation skills and competencies of the faculty members of CUST, QEC organized one day capacity-building workshop on Friday, September 17, 2021 under the title “Innovation Skills and Competencies for Professionals”. The resource person for the session was Professor Dr. Aamer Iqbal Bhatti, Dean ORIC. 21 faculty members from different departments of the university participated in the face-to-face training session. Director QEC, Mr. Fida Hussain welcomed all the faculty members and briefed them about the importance of innovation skills for the faculty members.

Dean ORIC shared the importance of innovation, the role of technology in the implementation of innovation in the marketplace, and what is required in the marketplace. It was an interactive session during which faculty members shared their views on the importance of innovation and its role in the socio-economic development of the country. The speaker also shared the latest international literature on innovation which helped faculty members to understand the concept of innovation skills and competencies. The training session was followed by a question and answer session, where all the queries of participants were addressed by the speaker after which Director QEC appreciated the efforts of the resource person and all the participants for their passion and interest during the sessions.



8.6. Continuous Quality Improvement (CQI) Cycle in Non-Engineering Faculty

Continuous Quality Improvement (CQI) is used as an effective tool to assess the quality of existing programs and attainment level of PEOs, PLOs, and CLOs. The CQI process enables departments to ascertain about the effectiveness of their program and how it would be further improved. CQI cycle basically depends on Objective Based Learning approach, focuses mainly the graduates' after completion of any educational program. Every program intended Learning Outcomes were determined first and relevant curriculum, teaching and learning methodology and supporting facilities were designed afterward. During the progression of the program, numerous measurement tools were used to assess the level of outcomes that have been attained by graduates. Different counter steps/ techniques are applied to further improve the level of achievement of these outcomes. The entire process of CQI depends on effective implementation of OBE process.

CUST QEC arranged 06 consecutive consultative session with the Faculty of Health & Life Sciences (FoHLS) and Faculty of Pharmacy (FoP). Both faculties were asked to design their academic programs on the basis of OBE strategy in order to improve their student's learning totally depending on the achievement of Program Learning Outcomes (PLOs), Course learning Outcomes (CLOs) and Program Education Objectives (PEOs).

8.7. Readiness for Virtual Learning Environment (VLE)

Rationale

After the COVID – 19 pandemic, the higher education landscape radically changed worldwide. University students in Pakistan have also been impacted by the pandemic, from campus closures to inter-city travel restrictions, social distanc-

ing, and isolation measures. On March 13, 2020, the Government of Pakistan decided to suspend all academic operations. Higher Education Commission of Pakistan (HEC) gave clear guidelines (Teaching Readiness) with the direction to the HEIs, conduct their academic activities through online education/learning by adopting a Virtual learning approach. Virtual Learning Environment (VLE) was considered as the new endeavor, that many people thought will ruin the whole education system during a pandemic. CUST was probably the first university in Pakistan, which decided to switch to VLE and practically adopted this approach, by starting regular online classes within one week, i.e., from March 20, 2020. This proved to be the best possible solution to respond wisely to the new situation, in the given circumstances, and to avoid the loss of precious time of the students. Against this backdrop, the university Learning Management System (LMS) was restructured and upgraded to facilitate especially students living far-flung during a pandemic. Students were given access to Virtual Private Network (VPN) so that they could remotely access their lectures, assignments, reading material, software, and other required material.



VLE Monitoring Committee Meetings

In continuation of the shared guidelines and as per the HEC directives, a VLE monitoring committee was constituted by the CUST competent authority. The major responsibilities of VLE monitoring committee members were to evaluate each course content and labs being offered and to take remedial necessary actions for any issues faced by students and faculty in the VLE ensuring quality assurance. In the 17th and 18th VLE Monitoring Committee Meetings, wherein, different matters including the status of online classes and course website report were discussed in detail. Moreover, Director QEC introduced the concept of 'Online Classes Peer Observation' which was thought to improve the quality and effectiveness of online teaching and learning, as practiced globally.

8.8. Professional Development Centre (PDC) Trainings/Workshops

Quality Benchmarking in Higher Education Institutions for Academic Excellence

QEC - CUST organized a capacity building session on "Quality Benchmarking in Higher Education Institutions for Academic Excellence" on Friday, June 25, 2021 for Deans, Heads of Departments, QAC members and management. The resource person of the session, Dr. Farrukh Idrees - Director QEC, Rawalpindi Medical University, was a Chartered Quality Professional, Quality Management Consultant, and Certified Six Sigma Black Belt. Vice-Chancellor CUST shed light on the importance of benchmarking in higher education and shared the quality standards being followed at CUST. Dr. Idrees explained the basic concepts of adopting benchmarking in HEIs and elucidated different types of benchmarking and their role in academic excellence. He also shared his personal experience of implementing Benchmarking as a head of QEC in various institutions.

Effective Teaching Strategies

QEC organized a capacity-building session on "Effective Teaching Strategies". The focal person Ms. Maria Mashkoor explained the advanced effective andragogical and pedagogical practices which could help to improve the student learning and overall teaching-learning cycle. The faculty members of CUST from all departments participated in the session. Ms. Maria Mashkoor explicated the importance of teaching methodology teaching cycle and shared the significant impact

of teaching strategy on student engagement, learning, classroom management, cognitive skills, and personality development. She shared international literature, learned through exemplary and the most competent international and national professors, with the faculty members about the effective teaching strategies.



Fundamental of Teaching

PDC at CUST organized a two days' workshop on the title "Fundamental of Teaching" for the newly inducted faculty to equip them with the basic necessary andragogical and pedagogical skills required for their teaching practices. Dr. Atif Bilal, resource person, has over ten years of experience as a corporate trainer, a mentor, and an instructor in the field of Management Sciences. The resource person also represented Pakistan at several world's prestigious forums including Harvard University, USA, and Oxford University, UK. QEC welcomed resource persons and participants, explained the rationale behind the workshop, acknowledges their cooperation, and motivated them to play their imperative role in upgrading the quality of academia. He also apprised that the findings of training need assessment of faculty which was conducted through focus group discussion by Dr. Ahsan Mahmood Ahmed with QEC highlights the need for capacity building sessions for faculty to improve their andragogical and pedagogical practices. He also informed participants that PDC will continuously arrange more capacity-building workshops for the professional development of faculty.

Dr. Bilal briefly explained the contents of the workshop that were course preparation, class management, resources, technological integration, assessment methods, semester closure, skills development, and related activities which faculty members had to perform during the two days' workshop. The worthy Vice Chancellor, during certificate distribution ceremony being the chief guest, briefly explained the importance of the educational quality, the role of QEC in improving the educational and overall quality of the CUST, and effective teaching for students learning. He also expressed his gratitude to the resource person for the deliverance of the workshop and apprised Director QEC for organizing such workshops regularly.

Preparation of Self-Assessment Report (SAR)

A three-day workshop on "Preparation of SAR" was organized by QEC for faculty/program team members from all academic departments of CUST. Prof. Dr. Majid Ali, resource person, had enriched academia and industrial experience. The objective of workshop was to provide detailed information related to the preparation of SAR and its role in Internal Quality Assurance (IQA) mechanism of the HEIs. He explained to the participants on how SAR is prepared, what components would be considered for its preparation, Outcome Based Education (OBE) and contribution towards improving effectiveness of academic program. He elaborated the process, about how Program Education Objectives (PEOs), Program Learning Outcome (PLOs), and Course Learning Outcome (CLOs) could be designed in accordance with the CUST vision and mission. Participants actively asked question related to topic especially how to inculcate OBE in their classroom instruction which were well addressed by the resource person.

Importance of QS Rankings

QEC organized one day workshop on “Importance of QS World University Rankings”. QAC members representing all academic departments of CUST participated in the workshop. The resource person, Dr. Fawad Sadiq, Director QEC - Riphah International University, is a profound researcher and quality practitioner. The objective of this workshop was to provide information regarding the World University Rankings system, evaluation criterion, and importance of world universities rankings for HEIs. He informed the participants regarding different world university rankings system including Times Higher Education (THE), QS and Shanghai Rankings, their assessment/evaluation indicators, and weightage allotted to the predefined indicators. Participants actively participated and abreast themselves with the concept. Director QEC thanked the resource person for sharing the valuable information with the participants on the concept.

Effective Quality Assurance Activities in HEIs

QEC at CUST organized a workshop on the subject “Effective Quality Assurance Activities in HEIs” on June 06, 2022. Fifteen faculty members from different academic departments participated in the workshop. Prof. Dr Arshad Islam Director QEC, from FAST university was the resource person. The objective of the workshop was to share with participants the concept & role of QEC in HEIs/DAIs and various effective quality assurance mechanisms implemented & being practiced at CUST. The resource person explained the concept in detail including various effective IQA and EQA processes and standards followed by FAST QEC as per the direction of HEC-QAA. Dr. Arshad Islam highlighted the importance of QA processes, its role in improving the overall academic program quality and how QEC act and manage as a liaison between institution and regulator. Question answer session was held at the end of workshop after which Director QEC CUST, presented a memento to Prof. Dr Arshad Islam.

9. External Linkages and International Collaborations (ELIC)

9.1. Office of External Linkages and International Collaborations (ELIC)

Office of External Linkages and International Collaborations (ELIC) is a vibrant platform for student, alumni, academia and industry to interact, share and celebrate. The Directorate, over the years, has developed wide variety of programs, tasks and initiatives, which can be categorized into Networking, Skills for life, Alumni Relations and branding the university.

Through its linkages with the Chambers and Association, the Directorate has been able to hold on campus employment expos, recruitment tests and campus hiring drives. The Directorate organizes alumni reunions, faculty development programs, academic symposiums and training programs for students. The Directorate has an active and productive alumni network of more than 4500 alumni, who actively involve with the university in lecturing, delivering professional talks, assisting student in getting internship and employment and most importantly, inspiring students. DCL is actively involved in branding the university, building the alumni and industry networks and preparing the graduating students for the professional world.



9.2. Major domains of ELIC

Liaison with Industry and Chambers of Commerce

The Office of External Linkages and International Collaborations is responsible to maintain a full time liaison with the National and International Academia/Corporate world, the Chambers of Commerce, and other Regulators. Such an initiative can assist in retaining a link with prospective employers who might be inclined to visit the University in search of human capital. The industry academia linkage can lead to better employment prospects and opportunities.

Advocacy and Image Building

ELIC represents the University at Forums, Exhibitions and Conferences. Recent examples are the Employment Expos of Jang, Dawn, News etc. where a strong presence of the institution was apparent through well placed and equipped stalls.

9.3. Events Organized by ELIC

Guidance Seminar for FYP Students

The office of External linkages and International Collaborations (ELIC) organized a seminar for the students of the university which are doing their FYP's (Final Year Projects) on Thursday, 14th March 2022. 100+Students from five departments: Mechanical Engineering, Electrical Engineering, Civil Engineering, Computer Science and Software Engineering attended the

seminar. The guest speaker Mr. Waqar Haider Awan, CEO, Complete Human Resource Solution (CHRS) talked to the students. In this seminar, Mr. Waqar Haider Awan told the students about the market trends and what employers usually ask in an interview. He advised the students to explain the employer about their skills which include transferable skills, special skills, interpersonal strength and experiences. He also explained the students about how to select their career and some important skills that an employer expects in a candidate before offering a job and then he explained one by one some of the most important skills required for a job. This session lasts for one hour and more than 100 students attended this seminar. Dean ELIC, Dr Amir Qayyum concluded the session by a word of thanks to the audience and the resource person, and presented the shield to the speaker.



Declamation Contest on Anti-Corruption

CUST Character Building Club organized a Declamation Contest on “Anti-Corruption” on 6th December, 2022. Students of different departments took part actively to take on this social evil. Participants included M. Tayyab Ramzan, Sarah Saqib Ahmed, Zartash Fatima, Muhammad Zahoor, Ibrar Younis, Khadija Iqbal, Mariam Afzal and Malik Muhammad Waqas. All of the participants showed their potential and delivered best vocals. The respected guests of the event and jury panel of the contest included Mr. Muhammad Iqbal from National University of Modern Languages, Islamabad (NUML) and Dr. Muhammad Usman Farooqi, a senior faculty member from Capital University of Science and Technology, Islamabad. After the fine conclusion by the all the participants, Mr. Muhammad Iqbal delivered critics and compliments regarding performance and the topic of day. After then, Mr. M. Tayyab Ramzan was announced as Winner of the contest and Mrs. Khadija Iqbal was declared as Runner Up. The respected judges acknowledged and appreciated the efforts of the organizing team. At last, the event concluded with awarding of shields to the guests by respected Patron, CCBC, Dr. Amir Qayyum and Mr. Naeemullah Khan. The activity concluded at the expression of Thanks by organizing team in farewell to the guests for their presence and their precious time.

Collaborative Meeting with Departments on French language

Office of External Linkages and International Collaborations (ELIC) organized a meeting of the departments, which are offering French language for their students, with the representatives from French Embassy / Alliance Francaise who are dealing with the French language teaching, on Tuesday 13 September 2022 at 10:00 am in Workshop Room at CUST. The departments discussed their objectives of offering French language course to their students and the problems faced. The French embassy representatives discussed how they can help in updating the course contents, providing course materials, arranging an instructor for the course, preparing the students to pass the DELF exam, training of the instructors, awareness session for French language benefits, etc.



Visit of Dr Marie Pierre Pechoutre from Ecole Central De Nantes, France

Office of External Linkages and International Collaborations (ELIC) are trying to collaborate with the different representatives of several school/universities of France. In this regard on Thursday, 3 November 2022, Dr Marie Pierre Pechoutre from Ecole Central De Nantes, France came for a short visit in our university. Dr. Marrie gave a brief description about her institute, as it is an engineering university. In this seminar, almost 50+ faculty members and research students participated. Dr. Marrie explained the participants, which type of courses their university offer, and how to apply in her university with the help of PowerPoint slides the full details of the programs. She also told that some programs are taught fully in English language.

Seminar on Higher Education in Germany

The office of External linkages and International Collaborations (ELIC) organized a seminar for the students of CS and Biosciences students which are in 8th semester on Wednesday, 29th June 2022. About 50 plus students attended this seminar. The guest speaker was the Maj. Gen. (R) Shaukat Iqbal, HI (M) who is running a Guiding Centre with the name of P2GS (Pakistan to Germany Study) (SMC-Pvt) which has offices in Islamabad and Karachi. P2GS is Non-Profit but Self Sustaining Organization. In this seminar, Mr. Shaukat Iqbal briefed the students about the opportunities of Master's program in Free of Tuition Fee Universities of Germany and Affordable universities of Finland, Hungary and Turkey. The seminar lasted for almost 75 minutes. Mr. Shaukat Iqbal showed the students some POWER POINT SLIDES to clear the doubts in the student's mind that why they should choose Germany for higher studies. He told the students that if their CGPA is more than 3 then they are eligible to study in TUITION FEE FREE 452 PUBLIC UNIVERSITIES OF GERMANY in pure English or Hybrid Program. Hybrid program means you study in English but also get admission on German Track. For this you need to do 3 Level German Language. Then he explained the benefits of 3 Level German Language.



Tech-Expo at Rawalpindi CVhamber of Commerce & Industry(RCCI)

Capital University of Science and Technology, Islamabad participated in Tech-Expo organized by Rawalpindi Chamber of Commerce & Industry (RCCI). This expo was held in Pearl Continental Hotel, Rawalpindi on 3rd and 4th June, 2022. Various other universities and firms have also participated in this event such as NUST, IST, NUTECH, Sun Consulting (Pvt.), Wolfiz Technologies, Blue Arc Design & Developments and many more. H.E. Dean of Diplomatic Corps, the ambassador of China was the chief guest of this event. The students from the all the departments of the university participated in this event and exhibited their projects under the guidance of concerned departments. CUST exhibited several projects which were very much appreciated in the expo. Visitors were very much interested in the projects by CUST students and many industrial visitors also asked for their contacts for future correspondences. At the end of the two day exhibition a shield was given to each of the participating institutes by the organizers, RCCI.

Invitation to CUST Students by France Embassy

Office of External Linkages and International Collaborations (ELIC) is trying to collaborate with the different representatives of several school/universities of France. So on the request of Ms. Arifa Sultana, Program Officer, Cultural and Co-operation Services, Embassy of France in Pakistan invited CUST students on a Student Fair, which was held in Serena Hotel, Islamabad, on 3 November 2022. Almost 40+ students mostly those who are in 8th or 7th semester of their studies from the university attended the fair. In the fair most of the famous universities of France with their representatives were present to guide the students for their further studies. Students took interest in their respective school/universities and asked relative questions regarding admissions, fee etc.



10. Career Services Office

10.1. Office of External Linkages and International Collaborations (ELIC)

Career Services Office (CSO) formally assumed work on October 28th, 2022. In this span of time, CSO successfully organized three recruitment drives, and one seminar and provided capacity-building training to the graduating batches of Fall-2022 of all respective departments. CSO also conducted QEC 'Alumni & Employer' Survey for Fall-2021 and Spring-2022 graduated students which spans almost 1 month and received significant results comparatively from previous all years. Further, updating the alumni database of almost 11000 alumni is a major drive for CSO. So far, in the initial phase, Ph.D. graduates data has been completely compiled, and the remaining is underway of completion that is to be completed around the coming Convocation. Furthermore, CSO has inked an MoU with Google partner company IRM for providing free-of-cost skilled-based Google certifications to CUST students. Under this drive, more than 1100, so far, students and staff registered for learning, and still going on. Moreover, nearly 87 private and public companies of different sectors are contacted for the deployment of CUST graduates and the upcoming Job Fair. The resumes of almost 700 graduates are shared with more than 40 companies for hiring for multiple positions. Moving on, 500 job ads and 140 scholarship opportunities are shared on social media pages for CUST students and alumni. Summing up, CSO has designed multiple events to strengthen corporate ties with local & international organizations and make the best possible efforts to make a smooth transition of students from Campus-to-Corporate. The upcoming pages briefly explain each and every activity of the CSO.



10.2. Skills for life

The Career Services Office (CSO) prepares the graduates of CUST for employment in the market, or for self employment. An attempt is made to give the students a touch of the working environment through the RSVP program. Here volunteers are selected and are attached to various Directorates of the University where they could gain some work experience. Certificates of merit are issued to those who excel.

Students close to graduation are assisted with proper CV preparation before the corporate sector is invited to the campus. Proper binded books containing the CV's of graduating students are prepared and distributed to prospective employers. Furthermore seminars and training workshops, lectures etc. are also held for the benefit of students who are in their final semesters.



10.3. Alumni Relations

Liaison with Alumni is another essential element of the Career Services Office (CSO). The Directorate also arranges special lunches or gives out invitations for interaction with Alumni so that contact between them and the institution remains alive.

10.4. Alumni Database

updating the alumni database of almost 11000 alumni is a major drive for CSO. So far, in the initial phase, Ph.D. graduates' data has been compiled completely, and the remaining is underway of completion that is to be completed around the coming Convocation.

10.5. QEC Alumni & Employer Surveys

CSO conducted QEC 'Alumni & Employer' Survey for Fall-2021 and Spring-2022 graduated students which spans over almost 1 month and received significant results comparatively from previous all years. In order to complete this survey around 3200 phone calls and 1700 emails were made by CSO. Resultantly, 51.13 percent students responded positively and filled survey form which is said to be the highest number among previous years.

10.6. Events Organized by CSO

On-Campus Recruitment Drive

Career Services Office organized an oncampus recruitment drive on Tuesday December 20, 2022, with Genesis Lab, a leading IT Solution firm, for the graduates of the Capital University of Science and Technology. The students of the 8th semester from the departments of; Software Engineering, Computer Sciences, and Management Sciences and the most recent graduates from the same departments appeared for the above job positions. In this drive one of our graduates finally selected and joined the organization.



Series of Career Oriented Training for Graduating Students

Career Service Office organized a series of training for graduating batches of Fall – 2022 (Batch 191) which spanned over December 26, 2022, to January 12, 2023 on three different training modules includes; Resume writing, Job Hunting and Interview Skills. The trainings held in regular classes of different subjects to ensure the participation of all the students. The objective of these trainings to enhance the capacity of the students which ultimately prepare them to compete in the market.

Google Career Certification for CUST students

CSO has inked an MoU with Google partner company IRM for providing free-of-cost skilled-based Google certifications to CUST students. Under this drive, more than 1100, so far, students and staff registered for learning, and still going on. Upon successful completion of certifications, Google will provide a specialization certificate which, certainly, not only makes students more competitive in the market but also enables them to be self-sufficient to finance their studies and provide bread butter to their families. Initially, our target is to train at least 1500 students and alumni, however, at a later stage, we will provide this opportunity to all enrolled students as well.



On-Campus Seminar on competitive Exams (CSS/PMS)

Seminars are one of the ways to provide market insights to students. Seminars are also the best guide for career orientation. It helps students to make several important career-related decisions. Keeping this in view, CSO conducted a seminar on "Competitive Exams" and many more in the pipeline. Career Services office organized an On-Campus Seminar on CSS/PMS Exams-2024 that was held on March 08, 2023 for the graduating batches of all the faculties of Capital University of Science and Technology Islamabad. Mr. Mureed Hussain Jasra (40th Common) currently serving in Revenue Division invited

to provide insights on Competitive Exams (CE) and career orientations in Pakistan Civil Services (PCS). A total of 100 students from different departments benefitted from the session.

10.7. Industrial Open House

Every year Capital University of Science and Technology organizes its annual event entitled as “Industrial Open House.” The event provides a platform to the graduating engineers, programmers and young innovators of CUST to showcase their design projects and prove their skills in front of renowned professionals from industry and academia. The event is academically significant for the students as they not only get the opportunity to showcase their projects, knowledge and skills but also provides them a prospective opportunity to meet the professionals from different industries and organizations.



10.8. Industrial Open House(s) held in 2022

The departments of Computer Science (CS) and Software Engineering (SE) at the Faculty of Computing (FoC), Capital University of Science and Technology (CUST), organized Industrial Open House Fall 2022 on 9th February, 2023. The event organizing team comprised of Dr. Qamar Mahmood, Mr. Salman Ahmed, Mr. Bilal Ahmed and Mr. Hafiz Anas Bilal from the department of CS, and Mr. Shahzad Rafique, Mr. Ibrar Arshad, Mr. Awais Haider and Mr. Majid Zaman from the department of SE.

Leading experts from the software and IT industry in the twin cities of Islamabad and Rawalpindi were invited, through the Industrial Liaison Committees (ILC) of the two departments headed by Dr. Qamar Mahmood and Mr. Shahzad Rafique, to evaluate the exhibited projects and to interact with the students. For the students this event presented the opportunity to showcase their work to the experts from the industry and get their feedback. On the other hand, it allowed people from the industry to interact with graduating students of CS and SE at CUST and conduct on-spot interviews.

The event gave students an opportunity to interact with the industry experts, showcase their ideas and skills and get valuable feedback. The experts praised efforts of the students and a few students were shortlisted for interviews. Some of the organizations like Knowledge Platform, F3 Group of Technologies and JMM Technologies, showed their interest in signing MOUs to provide students with opportunities for Internships Leading to Jobs, to provide short-term paid Internships and to collaborate for offering FYP-based modules of projects running in their workplace.



Faculty of Engineering at Capital University of Science and Technology (CUST) organized the Industrial Open House on 8 September 2022. The event showcased the final year design projects of graduating students from the departments of Electrical Engineering, Mechanical Engineering and Civil Engineering. The Open House provided the industry representatives an opportunity to assess final year projects, review student resumes and schedule follow-up interviews. A total of 63 projects were on display at the Industrial Open House from three departments. There were 15 projects from the Department of Electrical Engineering, 29 from Department of Mechanical Engineering and 19 from Department of Civil Engineering. Job interviews were also conducted by some of the organizations including TereSol, Creative Electronics, Tesla Industries Pvt. Ltd and AB Technologies. Representative from the industry took keen interest in the bright ideas and solutions provided by the students of CUST. Judges from the industry also selected best projects and runner ups and the best project from each department was awarded with a cash prize of 10,000 rupees and certificates. The closing ceremony was addressed by Dr. Muhammad Mansoor Ahmad, Vice Chancellor CUST. He appreciated the hard work of students and stressed the need for such events to bridge the gap between industry and academia. At the end, shields and university souvenirs were presented to the judges and distinguished guests.



11. Student's Access

11.1. Student's Access

Capital University of Science & Technology (CUST) since its inception, has tried its best to make quality education reachable to all students in Pakistan, including those from low and middle-income backgrounds. The university aims to provide equal prospects to all students in attaining their goals and targets irrespective of their financial positions or social status. CUST is an open merit institute with equal opportunities to all students irrespective of their gender, religion, race, creed, color or region provided if they academically qualify for admissions to the courses of study offered.



11.2. Students Enrollment

CUST started its journey as Muhammad Ali Jinnah University (MAJU) back in 1998 with less than 400 students graduating from its first induction. Since then, its enrollment is on continual increase which is a clear indication of pronounced educational standards. Until now a total of 11,879 students have graduated from the institute in different disciplines. Currently more than 5800 students including 677 postgraduate students are enrolled at CUST in various disciplines.



The momentous students' strength at research degree programs (MS/Phil and PhD) shows the unsparing availability of faculty, research labs and other associated facilities in the campus.

11.3. Faculty Student (FS) Ratio

Capital University of Science & Technology enrol students from across Pakistan and prepare them to lead in their chosen fields. Students at the university enjoy mentorship from foreign qualified professors and have a direct line to unparalleled opportunities. The university provides access to esteemed faculty and mentorship that cultivates interests in students. The experience at the university prepares students to take on challenging roles in their career. The followings numbers present the overall and department wise faculty-students (FS) ratio. The overall ratio comes out to be 27.16 which is an outstanding figure showing the adequate faculty strength against the students.

S.No.	Department	Students	Faculty	FS Ratio
1	Faculty of Engineering	785	48	16.3
2	Faculty of Computing	1983	78	25.4
3	Faculty of Health & Life Sciences	506	12	33.7
4	Faculty of Management & Social Sciences	1810	53	34.1
5	Faculty of Pharmacy	428	23	18.6
6	Faculty of Associate Degree Programs	302	65	4.6
Total		5814	214	27.16



11.4. Scholarships

CUST scholarship policy has been framed with objective to assist students with their educational expenses. Every year, the university allocates funds from its own resources in its budget exclusively for awarding scholarship. In year 2022, an amount around Rs. 349.53 Million has been disbursed among 6959 eligible and deserving students. Following is the financial detail of scholarships awarded in last year only which is a clear indication of our resolve to provide equal academic opportunities to all taking aside their financial condition.

Semester	Number of Scholarships	Amount
Spring 2022	3195	147.43 Million PKR
Fall 2022	3764	202.1 Million PKR
Total	6959	349.53 Million PKR

For Undergraduate Programs (PGC Scholarship)

Category	All Degrees	Continuation Scholarship	Continuation CGPA
PGC	(25% at time of admission)	25%	2.50 or Higher
		12.5%	From 2.00 to 2.49

Undergraduate Merit Scholarships

FOE, FOC, FOP, FMSS, FHLS	Scholarship	Continuation CGPA
85% Marks in FA/FSc	100%	3.95 or Higher
80% Marks in FA/FSc	75%	From 3.90 to 4.00
75% Marks in FA/FSc	50%	From 3.75 to 3.89
70% Marks in FA/FSc	25%	From 3.50 to 3.74
2nd Semester and onwards	12.5%	From 3.00 to 3.49

Other Scholarships

Category	FMSS, FHLS, FOE, FOC, FOP	Scholarship	Continuation CGPA
Need Base	Case evaluation by the Committee	25–50%	2.50 or Higher
Disabled	Official Disability Certificate	25–50%	2.50 or Higher
Kinship	To each kin enrolled in CUST	25%	2.00 or Higher
Sports etc.	Based on Co and Extracurricular Activities	25–50%	2.00 or Higher
Contingency	On demise of Father or Guardian	50%	2.50 or Higher

MS/MPhil Programs Scholarship

Category	FMSS, FHLS, FOE, FOC, FOP	Scholarship	Continuation CGPA
Merit	3.75/4.00 CGPA	60%	3.90 or Higher
	3.50/4.00 CGPA	50%	From 3.75 to 3.89
	3.00/4.00 CGPA	40%	From 3.50 to 3.74
Alumni	2.50/4.00 CGPA	25%	3.00 or Higher
Disabled	Official Disability Certificate	25–50%	3.00 or Higher
Kinship	To each kin enrolled in CUST	25%	3.00 or Higher

Faculty Development Scholarship

Service Length at CUST	Scholarship	Continuation CGPA
Faculty with at least 3-year service	50 % Tuition Fee Waiver	GPA \geq 3.0
Faculty with at least 4-year service	75 % Tuition Fee Waiver	GPA \geq 3.0
Faculty with at least 5-year service	100 % Tuition Fee Waiver	GPA \geq 3.0

12. Extra Curricular Activities

Sports are an important part of every society, country and individual. With its economic, social and individual aspects, sports have very significant role in raising healthy generations, public health protection, building social peace and harmony. Holistic development of a student is possible only when he is physically fit and emotionally balanced and this is achieved through sports. Understanding the wide ranging benefits of sports is the primary reason that Capital University encourages sporting activities and is striving to promote the physical and mental well-being of students.



12.1. Major Sports Events of Boys held in 2022

Inauguration of Sports Activities held in 2022

Sports committee formulated for Fall 2022 by competent authority, in leadership of Dr Nayyer Masood Dar, Planned the events so that students can participate in the sports tournaments without any academic loss. The plan of activities was formulated and nominations for departmental representatives were requested from each Head of Department. After initial preparations, the events were inaugurated on November 1, 2022. Inauguration ceremony was attended by all the departmental representative, Heads of Department, Deans, sports core committee, players and students. Dr Mansoor Ahmed, Vice Chancellor Capital University of Science and Technology, graced the occasion as Chief Guest. Chairman Sports core committee, Director Students affair accompanied him in Ribbon cutting ceremony. He highlighted the significance of sports and physical activity in development of healthy society, and he appreciated the efforts and enthusiasm by players and the organizers of the event.

Inter Departmental Lawn Tennis

The tournament of Lawn Tennis was started on November 02, 2022. All thirteen departments including Pharmacy, Bioinformatics and Biosciences, Mathematics, Computer science, Software Engineering, English, Accounting and Finance, Management sciences, Psychology, Electrical Engineering, Mechanical Engineering and Civil Engineering participated with full spirit and Zeal. Departmental representatives from all departments were invited and the draws were made and schedule of 9 matches with few Bye/walkovers was planned with consent and availability of team members. The matches were conducted as per plan with maximum participation from students not only as players but also as spectators. The event ended up with final match on November 10, 2022 between player from department of Accounting and Finance and department of Civil Engineering. The Department of Accounting and Finance won the tournament.



Inter Departmental Snooker (Singles)

The tournament of Snooker was started on December 12, 2022. All thirteen departments including Pharmacy, Bioinformatics and Biosciences, Mathematics, Computer science, Software Engineering, English, Accounting and Finance, Management sciences, Psychology, Electrical Engineering, Mechanical Engineering and Civil Engineering participated with full spirit and Zeal. Departmental representatives from all departments were invited and the draws were made and schedule of 12 matches with few Bye/walkovers was planned with consent and availability of team members. The matches were conducted as per plan with maximum participation from students not only as players but also as spectators. The event ended up with final match on December 19, 2022 between Department of Associate Degree Programs and Department of

Inter Departmental Table Tennis (Singles)

The tournament of Table tennis singles was started on December 30, 2022. All thirteen departments including Pharmacy, Bioinformatics and Biosciences, Mathematics, Computer science, Software Engineering, English, Accounting and Finance, Management sciences, Psychology, Electrical Engineering, Mechanical Engineering and Civil Engineering participated with full spirit and Zeal. Departmental representatives from all departments were invited and the draws were made and schedule of 12 matches with few Bye/walkovers was planned with consent and availability of team members. The matches were conducted as per plan with maximum participation from students not only as players but also as spectators. The event ended up with final match on January 3, 2023 between player from department of Pharmacy and department of Computer Science. The Department of Pharmacy comfortably won the match.



Inter Departmental Basketball Tournament for Boys

The Inter Departmental Basketball Tournament for Boys was held from 13th January 2022 to 21st January 2022. Teams from 11 different departments participated in this event. Teams were divided into four pools and one team from each pool qualified for the semifinals. The final match was played between civil engineering department and department of computer

science on 21st January, 2022, in which the civil engineering department won after an exciting match. In the final ceremony, Dean Engineering Dr. Imtiaz Ali Taj awarded the trophy to the winning team. The tournament was conducted in a very peaceful atmosphere and all the teams played with full sports man spirit and enthusiasm.

Inter-Departmental Cricket Tournament

Capital University of Science and Technology resumed its sports activity on campus after the covid-19 wake. Multiple inter-departmental sports such as Cricket, badminton, table-tennis, football and volley ball etc. were part of the sports activity. First tournament of the session was Inter-departmental Tap ball Cricket tournament which was inaugurated by the worthy Vice Chancellor Dr. Muhammad Mansoor Ahmed. The tournament concluded with a final between Civil Engineering Department and Bio-Sciences Department. Both the teams played with great zest and enthusiasm. After a thrilling match Civil Engineering team won the trophy. The trophy was handed over to the team by worthy Dean Faculty of Computing, Dr. Muhammad Abdul Qadir in the closing ceremony. He appreciated the efforts of students and congratulated them. Dr. Nayyer Masood, Head of Computer Science Department (Convener of this event) and Mudassar Adeel Ahmed, Sports In-charge were among organizing the tournament under the overall supervision of Dr. Muhammad Abdul Qadir, Dean Faculty of Computing.



Inter Departmental Volley Ball

The tournament of Volley Ball was started on December 5, 2022. All thirteen departments including Pharmacy, Bioinformatics and Biosciences, Mathematics, Computer science, Software Engineering, English, Accounting and Finance, Management sciences, Psychology, Electrical Engineering, Mechanical Engineering and Civil Engineering participated with full spirit and Zeal. Departmental representatives from all departments were invited and the draws were made and schedule of 13 matches with few Bye/walkovers was planned with consent and availability of team members. The matches were conducted as per plan with maximum participation from students not only as players but also as spectators. The event ended up with final match on December 19, 2022 between teams from department of Pharmacy and department of Associate Degree Programs. The Department of Pharmacy was victorious of the tournament.



Inter-Departmental Football Tournament

The Inter-Departmental Football Tournament was held from December 27th, 2021 to January 17th, 2022. The purpose of the tournament was to engage the university students in extracurricular activities, especially after the Novel Coronavirus lockdown. The students actively participated in the tournament and expressed their talents. In the closing ceremony Dean, Faculty of Management and Social Sciences Dr. Arshad Hassan distribute the trophy to the winning team. The final match of boys was played between Computer Sciences (CS) and Civil Engineering (CE) departments. The Computer Science department (CS) team was the winning team for the Fall 2021 Football boys Tournament. The final match of girls was played between Bio Sciences (BS) and Pharmacy (PHY) departments. The Pharmacy department team was the winning side for the Football girls Tournament.

12.2. Major Sports Events of Girls held in 2022

Inter Departmental Table Tennis (Singles)

The tournament of Table tennis single (Girls) was started on November 02, 2022. All the thirteen departments participated in the event with full spirit and Zeal. Departmental representatives from all the departments were invited and the draws were made and schedule of 11 matches with few Bye/walkovers was planned with consent and availability of team members. The matches were conducted as per plan with maximum participation from students not only as players but also as spectators. The event ended up with final match on November 4, 2022 between players from department of Pharmacy and department of Psychology.



Inter Departmental Table Tennis (Doubles)

The tournament of Table tennis Doubles (Girls) was started on November 30, 2022. The participating departments included Pharmacy, Bioinformatics and Biosciences, Mathematics, Computer science, Software Engineering, English, Accounting and Finance, Management sciences, Psychology, Electrical Engineering, Mechanical Engineering and Civil Engineering. Departmental representatives from all departments were invited and the draws were made and schedule of 10 matches with few Bye/walkovers was planned with consent and availability of team members. The matches were conducted as per plan with maximum participation from students not only as players but also as spectators. The event ended up with final match on December 12, 2022 between teams from department of Pharmacy and department of Bioinformatics and Biosciences.

Inter Departmental Snooker

The tournament of Snooker (Girls) was started on December 28, 2022. All thirteen departments including Pharmacy, Bioinformatics and Biosciences, Mathematics, Computer science, Software Engineering, English, Accounting and Finance, Management sciences, Psychology, Electrical Engineering, Mechanical Engineering and Civil Engineering participated with full spirit and Zeal. The matches were conducted as per plan with maximum participation from students not only as players but also as spectators. The event ended up with final match on December 30, 2022 between Players from department of Software Engineering and department of Electrical Engineering. The Player from Department of Software Engineering was victorious of the event.



Inter Departmental Basketball Tournament

The Inter Departmental Basketball Tournament for Girls was held from 13th January 2022 to 21st January 2022. Teams from 8 different departments participated in this event. Teams were divided into four pools and one team from each pool qualified for the semifinals. The final match was played between department of pharmacy and department of psychology on 21st January, 2022, in which the department of psychology won after a nail-biting match. In the final ceremony, Dean Faculty of Engineering Dr. Imtiaz Ahmad Taj awarded the trophy to the winning team. The tournament was conducted in a very peaceful atmosphere and all the teams played with full sports man spirit and enthusiasm.

Inter Departmental Girls Cricket Tournament

Capital University of Science and Technology resumed its sports activity on campus after the covid-19 stretch. Multiple inter-departmental sports such as Cricket, badminton, table-tennis, football and volley ball will be played in this session. First tournament of the session was Inter-departmental Female-Cricket which was inaugurated by the worthy Vice Chancellor, Dr Mansoor Ahmad. Speaking on this event, he assured that the University would make every possible effort to encourage students to participate in different sports activities, organized at local and national level.

The tournament concluded with a final between Software Engineering Department and Bio-Sciences Department. After a thrilling match Bio-Sciences team won the trophy. The trophy was handed over to the team by worthy Dean Faculty

of Computing, Dr. Muhammad Abdul Qadir in the closing ceremony. Dr. Nayyer Masood, Head of Computer Science Department, and his team were among organizing the tournament under the overall supervision of Dr. Muhammad Abdul Qadir.

12.3. Inter Faculty Sports Competitions

Inter Departmental University Chess Competition-Clash of Academic Minds

The inter-departmental chess competition held in Capital university of science and technology, Islamabad. The University Chess Competition brought together teachers from various departments, showcasing their strategic thinking, analytical skills, and mental agility. This highly anticipated event fostered a sense of camaraderie and healthy competition among the academic faculty. The tournament featured an impressive turnout of teachers representing diverse disciplines, each displaying their intellectual mettle on the chessboard. The event commenced with an opening ceremony that emphasized the importance of mental stimulation and strategic thinking in both academics and chess. The climactic final match brought together the two most formidable players from the Software department (Dr Amir Nadeem) and Computer Science (Dr Nayyar Masood). The championship battle was a culmination of weeks of intense preparation and competition. The finalists captivated the audience with their tactical brilliance, foresight, and resilience under pressure.



12.4. Inter Faculty Sports Competitions for Girls

Sports society, Capital university of science and technology organized a sports event for female faculty members to enhance and encourage sportsman spirit. Different ideas were put forward but all departments mutually agreed on offering Chess and Table tennis competition. Matches were planned after registration of candidates and faculty members from different departments played very enthusiastically. Final match was played between Ms. Kainat Batool(CE) and Ms. Yafra Khan (CS) in Table tennis and Ms. Kainat Batool(CE) and Ms. Faiza Khalid(CE) in chess, respectively. Winner team in Table Tennis was Ms. Yafra Khan from Computer Sciences(CS) and Chess was Ms. Faiza Khalid from Civil Engineering. The activity has also provided a platform for positive interaction among different department.

12.5. Participation of CUST students at National Level Competitions

The students of CUST are not only involved in Inter University Extra- Curricular events but also participate in HEC National Level tournaments and games. The students enthusiastically took part in Badminton, Cricket, Hockey, Football and Volleyball.

Capital University Participated in HEC Badminton Championship

Education is incomplete without sports. In these days sports are an integral part of education. When students are physically fit, they will achieve more academically. Sport develops a sense of friendliness among the children and develops

their team spirit. It helps children to develop mental and physical toughness. Sport also eliminates mental exhaustion of children. Therefore, the Capital University participated in HEC Intervarsity Badminton Men Zone C Championship 2021-22 held at ARID.



Capital University Participated in HEC Tabletennis Championship

Education is incomplete without sports. In these days sports are an integral part of education. When students are physically fit, they will achieve more academically. Sport develops a sense of friendliness among the children and develops their team spirit. It helps children to develop mental and physical toughness. Sport also eliminates mental exhaustion of children. Therefore, the Capital University participated in HEC Intervarsity Table Tennis Men Zone C Championship 2021-22 held at UET Taxila.

12.6. CUST Auto Show-2022

Co-curricular activities are the true and practical experiences received by students which enable students to express themselves freely through their hidden abilities. In this backdrop, CUST Auto Show 2022 was organized, by the Department of Management & Social Sciences, in December 2012 at University campus. Students brought different types, models and styles of vehicles in the show. The students showed their keen interest in Auto Show full of fun.



12.7. Annual Musical Festival 2022

As per tradition, Capital University of Science and Technology, Islamabad organized Annual Musical Festival 2022 at Open Air Theatre Shakarparian, Islamabad. The renowned singer of Pakistan performed at Annual Musical Festival. A large

number of students and faculty members were present to amuse the event. The festival provided students with a break from their hectic study routine. The event was well enjoyed by the students and faculty.

13. Community Service and Social Work

13.1. Volunteers in Service Directorate (VIS)

Social responsibility is an ethical framework which in context of an individual obliges him or her to act for the benefit of society at large. The core objective of Volunteers in Service Directorate (VIS) is to inculcate social responsibility and volunteerism in students.

The directorate aims to foster socially responsible citizens and to instill a spirit of volunteerism in youth to make them realize the importance of their role in the betterment of society and in eradicating social evils like poverty and illiteracy. For this purpose, every graduating student of CUST is obliged to volunteer 65 hours of community service in order to make him/her a socially responsible citizen.



13.2. Students Involvement Mechanism in Community Service

Every graduating student of CUST has to perform 65 hours of volunteer work. The placement is made by the VIS directorate in one of its partner organizations.

The volunteer work may include:

- ◇ Teaching in non-formal schools
- ◇ Social welfare event designing and management
- ◇ Marketing of social welfare activities
- ◇ Participating in routine activities of a welfare organization
- ◇ Facilitating or guiding patients
- ◇ Taking care of disabled and elderly persons

13.3. MoU's and Partner Organizations

MoU's and mutual agreements are being signed with a number of social and humanitarian organizations and institutes on continual basis. Currently VIS directorate has a total of 73 partner organizations and the work is still going on at a rapid pace.

S.No.	Organization Name	Focal Person
1	Humanity Advancement through Qarz-e- Hasna	Mr. Faisal Ilyas Dar
2	Human Resource Development Network	Ms. Afshan Tehseen
3	Strive Trust	Mr. Yasir Khan
4	Pakistan Foundation Fighting Blindness	Mr. Tahir Ali

5	The Citizens Foundation	Ms. Ramsha
6	Pakistan Sweet Homes	Mr. Baber
7	Institute of Rural Management	Mr. Aasim Reza
8	Society for the Protection of the Rights of the Child	Mr. Fakhar Sohail
9	Read Foundation	Mr. M. Arfaq Malik
10	Al khidmat Foundation Pakistan	Mr. Shahzad Saleem
11	Human Appeal	Ms. Iffat Jamil
12	Anti Pollution Movement Pakistan	Mr. Zeeshan Alam
13	Idara-e-Taleem-o-Agahi	Mr. Waqas
14	Behbud Association of Pakistan	Ms. Abida Malik
15	Human Development Foundation	Mr. Azhar Saleem
16	Friends of Environment	Mr. M. Yousaf Khan
17	Shaukat Khanum	Mr. Ali Raza
18	Prime Institute	Mr. Syed Ali
19	Saba Aslam Educational & Welfare Trust	Mr. Tawseen
20	Youth Association of Pakistan	Mr. Kashif Zaheer
21	Initiative for Rights, Empowerment and Development	Mr. Dilawar Khan
22	Helping Hand for Relief and Development	Mr. Furrukh Saeed
23	Pothwar Social Welfare Association	Mr. Raja Shahmir
24	United Development Organization	Mr. Asim Saleem
25	Social Welfare & Bait-ul-Mal Department, Rawalpindi	Mr. Aslam Maitla
26	Consumer Rights Commission of Pakistan	Mr. Hamid Masood
27	Peace and Development Foundation	Ms. Romana Bashir
28	Peace & Education Foundation	Mr. Azhar Hussain
29	Special Education Department	Ms. Fozia Khursheed
30	Pakistan Red Crescent Society	Mr. Sami Ullah
31	Penny Appeal	Mr. Nadeem Tahir
32	Khubaib Foundation	Mr. Nadeem Khan
33	Islamabad Traffic Police	Mr. Rana Ishtiaq
34	National Orthopedic and Specialists Hospital	Mr. Shoaib Shafiq
35	Basera	Mr. Fazil
36	Noble Institute	Mr. Usman
37	Basic Health Unit Chakbeli	Ms. Sadia Mumtaz
38	Al-Wakeel Human Rights and Protection Cell	Mr. Khawar Riaz
39	Positive Pakistan	Mr. Abid Iqbal Khari
40	Anwer & Akram Shaheed School Pre-Cadet School & College	Dr. Brig Obaidullah
41	Clean And Green Pakistan	Mr. Tariq
42	Rifah Trust Rawalpindi	Dr. Amir Qayyum
43	The Ngo World	Mr. Sajjad
44	Vso International	Ms. Alina
45	Raazi Hospital	Mr. Iftikhar Burney
46	Jamila Sultana Foundation	Mr. Tauqir Abbas
47	Development Watch	Mr. Suhail Awan
48	Pak Women	Ms. Azra Gul
49	VistaBrainz	Mr. Malek Hafeez
50	Skyians Welfare Organization	Mr. M. Adil Khan
51	Women Awareness & Rural Development Association	Ms. Christina Peter
52	Sade Welfare Foundation	Ms. Saeeda Begum
53	Step Kashmir	Ms. Shaista Rehman
54	Skill Development Facility	Mr. Javaid Qadeer
55	Act of Kindness	Mr. Jawad Shahid

56	Initiative for Human Prosperity	Ms. Sadia Nawaz
57	Believers Life Skills Trust	Mr. Saith Usama
58	Mohib E Watan	Mr. Raja Khalid
59	Skillovenzia	Mr. Hafiz Furqan
60	Pakistan Alliance for Girls Education	Ms. Fajer Rabia
61	Taaleem Foundation	Dr. Zafar Iqbal Qadir
62	Development Alternatives	Ms. Zeb Un Nisa
63	SBZ Associates	Ms. Zeb Un Nisa
64	Kashmir Education Foundation	Brig (Retd) Sultan Maqsood
65	Taaleem Foundation Health Initiative	Dr. Anees
66	Akhuwat Foundation	Dr. Amjad Saqib
67	Zorays Energy	Mr. Zorays
68	Pakistan Thalassaemia Welfare Society	Col. Syed Javed Abbas
69	Muslim Aid	Mr. Shah Nawaz
70	Serendip	Mr. Sheikh Saleem
71	American Research Committee (International)	Dr. Tariq Cheema
72	Fauji Foundation Hospital, Rawalpindi	Maj Gen Salahuddin Qasim
73	DBTV	Ms. Bakhtawar Mahmood



VIS Activities Completion Record 2019-20

S.No.	Department	Number of Students
1	Fall-19	210
2	Spring-20	60
3	Summer-20	325
Total		595

13.4. Vounter In Services (VIS) Activities and Events

MoU with Anjuman Faiz-ul-Islam (AFI)

On special invitation of VIS Directorate-CUST, respected senior citizen known historian Prof. Dr. Riaz Ahmad, President, Anjuman Faiz-ul-Islam (AFI) visited CUST on Wednesday August 3, 2022 and meet Worthy Vice Chancellor, Prof. Dr. Muhammad Mansoor Ahmed. Anjuman Faiz-ul-Islam (AFI) is one of the oldest and remarkable organization in the region

which run several projects in the field of community welfare and education. It is worth mentioning here that AFI is not only recognized at national level but also at international level in the field of social and community welfare. He discussed various ways of coordination between CUST and AFI and appreciated VIS-CUST model in the field of community work and offered AFI cooperation to VIS-CUST. Worthy Vice Chancellor, Prof. Dr. Muhammad Mansoor Ahmed took keen interest in different projects of AFI and both sides agreed to continue cooperation in different departments and Directorates of CUST other than VIS. President AFI, Prof. Dr. Riaz Ahmad invited formally Worthy Vice Chancellor, Prof. Dr. Muhammad Mansoor Ahmed to visit Anjuman Faiz-ul-Islam complex. Finally, MoU was signed between VIS-CUST and AFI. President, Anjuman Faiz-ul-Islam, Prof. Dr. Riaz Ahmad and Worthy Vice Chancellor, Prof. Dr. Muhammad Mansoor Ahmed signed on MoU.



Collaboration with Pakistan Green Task Force (PGTF)

Deputy Director VIS-CUST Mr. Naeemullah Khan on special invitation of President Pakistan Green Task Force (PGTF), Dr. Jamal Nasir visited Citi Lab (office of PGTF) on November 3, 2022 for MOU signing ceremony between VIS-CUST and PGTF. Dr. Jamal Nasir welcomed Deputy Director VIS-CUST in his premises. A renowned social worker of twin city Dr. Jamal Nasir appreciated the model of VIS-CUST and took keen interest in to design fruitful activities for CUST volunteers. It is worth mentioning here that Pakistan Green Task Force (PGTF) is a registered welfare organization, which is working for preservation of environment in the twin cities of Rawalpindi/Islamabad. Finally, MoU was signed between VIS-CUST and PGTF. It was discussed in meeting that VIS-CUST will depute around 06 students in PGTF for volunteer work per semester. The meeting ended with vote of thanks and prayers.

Pakistan Girl Guides Association (PGGA)-MoU Proposal

Pakistan Girl Guides Association approached VIS Directorate on March 3, 2022 and submit a proposal to join hand with PGGA. A fruitful meeting was held between VIS Directorate and PGGA team on March 9, 2022 on zoom. The Team of PGGA comprises on National Commissioner, Mrs. Maria Maud Sabri, National Secretary, Ms. Sajida Farooq and Ms. Uzma Shahid. Pakistan Girl Guides Association is the largest voluntary organization working for girls and young women in Pakistan. It was initiated by the Quaid-e-Azam Mohammad Ali Jinnah on 29th December 1947 with Ms. Fatima Jinnah as the first Patron. PGGA is the member of Asia Pacific Region of WAGGGS (World Association of Girl Guides and Girl Scouts) and through WAGGGS Pakistan Girl Guides Association has consultative status and is represented in the UN. With a voluntary membership of more than 120000, the Association reaches the far-flung areas of Pakistan and has branches in: - • Baluchistan • Khyber Pakhtunkhwa • Punjab • Sindh • Islamabad Capital Territory • Azad Jammu Kashmir and Gilgit Baltistan PGGA currently working on a project "Stay Safe". This project aims to empower young women for tackling the contemporary challenges. The PGGA contacted VIS-Directorate for MoU VIS-CUST. The VIS-CUST directorate briefly explained about VIS-CUST model and explained its each and every aspect. The team of PGGA showed their keen interest in VIS-CUST model and offered to VIS-CUST to join hands with PGGA in "Stay Safe" project as well in other activities at large. PGGA also offered VIS-CUST volunteers hostel accommodation in PGGA hostels if required. Directorate VIS promised with PGGA team to communicate PGGA proposal to CUST management for approval. It was decided principally that the both institutions work together for betterment of society specially for women.



Volunteers In Service Directorate-CUST / Student Affairs & Shaukat Khanum Memorial Trust

VIS Directorate-CUST / Student Affairs organized blood donation camp in collaboration with Shaukat Khanum Memorial Trust on Monday, May 23, 2022 in Boys Lounge, K Block. The activity was highly appreciated by the students and faculty members. Director Student Affairs, Prof. Dr. Muhammad Sagheer inaugurated the camp. Deputy Director VIS, Mr. Naeemullah Khan, Manager VIS, Mr. Naeem Saud and Mr. Nouman lead the management team of the camp. Huge number of students and faculty members participated in blood camp and donated their blood. Volunteerism was also seen in this camp as no bed remains free from 11:00 am till 5:30 pm. The following numbers were recorded: - • Sum 80 bottles were donated Shaukat Khanum Memorial Trust heartfelt gratefulness is extended to all CUST esteemed donors who made the camp successful. Special thanks to Vice Chancellor, Director Student Affairs, VIS-CUST team and finally all those who cooperate and support for noble cause.

Online Session with Dr. Muhammad Amjad Saqib CEO Akhuwat Foundation

VIS Directorate arranged an online session on Thursday, January 20, 2022 with Dr. Muhammad Amjad Saqib, Co-founder and CEO of Akhuwat Foundation whom also awarded Asia Noble Prize in 2021. He was also known as "Microfinance Pioneer from Pakistan". The topic of the discussion was Qarz e Hasna. HoD, English, Dr. Muhammad Umer Farooq and Deputy Director VIS, Mr. Naeemullah Khan welcomed CEO, Akhuwat Foundation. Dr. Amjad Saqib briefed about Akhuwat Foundation. He explained that progressing from a historical and philosophical discourse towards a pragmatic model of poverty alleviation, Akhuwat was founded by Dr. Amjad Saqib in March 2001. Prior to establishing Akhuwat, he served in the Civil Services of Pakistan in the District Management Group (DMG). While serving as the General Manager of the Punjab Rural Support Program (PRSP) he had witnessed the devastating impact of poverty and was committed to dedicate the rest of his life to alleviate the suffering of the poor. He once took his friends to visited a village, Jia Bagga, to study the impact of intervention by PRSP. Dr. Kamran Shams and he had a conversation with a local woman, inquiring what has been the impact of the PKR 10,000 loan she took from the PRSP. She said, "Currently my children only eat once a day, but with the loan, I am able to feed them two meals". Deputy Director VIS also introduced briefly about VIS program at CUST. Alhamdulillah, Dr. Amjad Saqib already known about VIS and he appreciate the VIS model at CUST. He offered VIS-CUST to establish online tuitions centers in collaboration with Akhuwat for poor and needy students of Pakistan. He also thanked VIS-CUST for engaging volunteers at Akhuwat Foundation. Dr. Amjad Saqib also invited students and CUST management to visit Akhuwat University and Akhuwat head office Lahore. At the end a Question session was held by students. CEO, Akhuwat Foundation answered all. In the closing remarks HoD English and Deputy Director VIS thanked Dr. Amjad Saqib for his valuable time.



Best Performance Award for VIS-CUST

The NGO World Announced Best Performance Award for VIS-CUST Mr. Zafar Iqbal, Executive Director of The NGO World (TNW) visited VIS Directorate-CUST office on Saturday February 5, 2022. The agenda of the meeting was to discuss placement of CUST volunteers and to further enhance coordination with VIS-Directorate CUST. In the discussion ED, TNW briefed on "Barkat Project" (Islamic Micro Finance). "Barkat" is a project for Poverty alleviation through livestock; a MUDARBAH based project launched by The NGO World in the collaboration with Turkish organizations. ED, TNW offered his services for VIS-CUST to coordinate with Turkish Red Cross. In the closing remarks, Mr. Zafar Iqbal announced that VIS-CUST will be awarded best performance award on community service on World NGO Day (27 February, 2022).

Plantation Drive at CUST

VIS Directorate and Directorate of Sustainability and Environment collaboration with Helping Hand for Relief and Development (HHRD) partner of VIS-CUST arranged plantation drive in CUST campus on Wednesday March 30, 2022 at 11:00 am. Prof. Dr. M. Mansoor Ahmed worthy Vice Chancellor inaugurated the ceremony in the presence of team of VIS Directorate, Directorate of Sustainability and Environment, Faculty of Management Science, and delegates from HHRD.

To recognize and highlight the role of volunteers, the youth empowerment program of HHRD organized volunteer's presentation session and appreciation dinner on April 1, 2022 in Ambassador Inn, G-6/1 Abpara Islamabad. The team of VIS Directorate participated in this event and chief guest of the event was Deputy Director VIS, Mr. Naeemullah Khan. Officials of other universities were also invited who witnessed voluntary efforts of Capital University of Science and Technology. Director Student Affairs of Air University, Islamabad and Faculty member of International Islamic University, Islamabad take keen interest in the model of VIS-CUST and appreciate the efforts. Bahria University Islamabad wants to collaborate with VIS Directorate CUST and wish to apply same model in Bahria University.



Pre-Departure Orientation of VIS

A pre-departure orientation session was held on Monday, August 1, 2022, at Auditorium A1 and A2 as per schedule. The orientation started with the recitation of Holy Quran. More than 600 students participated in the orientation. Directorate of VIS explained aims and objectives of VIS community service program and instructed how to fulfill the requirements of this activity. Some departmental coordinators of VIS were also participated in the sessions. The questions answer session were held in the end of the orientation. It is mentation here that the VIS Directorate placed all students in thirty-nine different partner organizations in this semester and the VIS orientation plan were shared with all assigned students through email, VIS-CUST FB page and Student Affairs FB page. The Directorate arranged orientation sessions in different groups in different slots. The following plan was followed in the orientation:

Flood Relief Activities-2022

CUST Join Hands with National and International Organization in Flood 2022 Relief Activities Worthy Vice Chancellor Prof. Dr. Mansoor Ahmed held a meeting with VIS Directorate to streamline relief and rehabilitation activities for flood victims. He emphasized to continue these activities for flood victims till their complete restoration and instructed Volunteers In Service (VIS) Directorate to plan relief and rehabilitation activities in different phases in collaboration with departments and Student Affairs office. He also directed head of departments and Student Affairs office to mobilize and motivate faculty, staff and students to do what they can do for flood victims. The higher management, faculty and staff take keen interest to contribute their role in relief activities for flood victims practically in shape of cash and kinds. Volunteers In Service (VIS) Directorate of Capital University of Science and Technology Islamabad join hands with Al Khidmat, Akhuwat, Pakistan Red Crescent Society (PRCS), Helping Hand for Relief and Development (HHRD) and Islamabad Boy Scouts Association (IBSA) in flood relief activities in twin cities. The Directorate organize "CUST Flood Relief Task Force" and placed around 100 volunteers with Al Khidmat, Akhuwat, PRCS, HHRD and IBSA in phase one, in phase two VIS Directorate will organize donations camp in the campus to collect donation from faculty, staff, students, friends and families, whereas in phase three CUST plan to design rehabilitation move in collaboration with Akhuwat, Al Khidmat, Helping Hand for Relief and Development (HHRD) and Pakistan Red Crescent Society Phase 1



Prime Minister Flood Heroes Award-2022

CUST Won Prime Minister Flood Heroes Award 2022 Islamabad..... Federal Minister for Planning, Development and Reforms, Mr. Ahsan Iqbal appreciated the role of Capital University of Science and Technology, Islamabad in Rescue, Relief and Rehabilitation (RRR) in Flood 2022, addressing as chief guest in award distribution ceremony held in Prime Minister office on December 5, 2022. He saluted Pakistani heroes who stood firmly in disasters occurs in Pakistan specially in Flood of 2022 which is internationally recognized. It is fact that Pakistan managed superbly in largest disaster of Flood 2022 with limited resources. We are proud on Pakistani heroes like Mr. Ghulam Mustafa from Computer Science department of Capital University of Science and Technology, Islamabad. The team of Capital University of Science and Technology, Islamabad participated in the ceremony under the leadership of Registrar, Mr. Malik Arshad Mahmood along with Manager VIS, Mr. Naeem Saud and Mr. Ghulam Mustafa a student of Computer Science department of Capital University of Science

and Technology, Islamabad. Mr. Ghulam Mustafa received "Prime Minister Flood Heroes Award 2022" from Ambassador of Kazakhstan designated to Pakistan in presence of Federal Minister for Planning, Development and Reforms, Mr. Ahsan Iqbal, Special Assistant to the Prime Minister, Ms. Shaza Fatima Khawaja, Chairman HEC, Dr. Mukhtar Ahmed, Ambassador of UAE, CEO of Milkari, CEO of Akhuwat Foundation, Dr. M. Amjad Saqib and Vice President, Al Khidmat Foundation, Dr. Mushtaq Mangat. Earlier Worthy Vice Chancellor of Capital University of Science and Technology, Islamabad, Prof. Dr. Muhammad Mansoor Ahmed and Director Student Affairs, Prof. Dr. Muhammad Sagheer congratulated and appreciated VIS Directorate-CUST team and volunteer Mr. Ghulam Mustafa on this achievement. It is worth mention here that more than 100 volunteers of CUST participated in flood (RRR) activities organized by National and International humanitarian organizations in twin cities Rawalpindi and Islamabad. All partner organizations declared impact of volunteers work of Capital University of Science & Technology, Islamabad in "Flood Relief Campaign 2022" on 5,000 flood affectees.

14. University Governance Structure

14.1. Board of Governors (BOG)

The Board of Governors (BOG) governs and administers managerial, academic and financial matters of the university, and lays down policies for the Institute. The board consists of a chair person, 15 members and a secretary. The BOG Meeting is chaired by Mian Aamer Mahmood, Chancellor, CUST. Until now a total of 13 BOG Meetings have been conducted.

S.No.	Name/Designation	Status
1	Mian Aamer Mahmood, Chancellor, CUST	Chairperson
2	Prof. Sohail Afzal, Executive Director Education Excellence	Member
3	Mr. Muhammad Saeed Mehdi (Former Federal Secretary)	Member
4	Dr. Samar Mubarak Mand, Former Chairman NESCOM	Member
5	Mr. Wahaj us Siraj, Chief Executive Officer, Nayatel	Member
6	Ms. Khadija Amer, Director PPI	Member
7	Mian Hamza Amer, Group Director, PGC	Member
8	Dr. Muhammad Mansoor Ahmed, Vice Chancellor, CUST	Member
9	Nominee of Ministry of Education	Member
10	Nominee of Higher Education Commission	Member
11	Dr. Khurram Shahzad, Associate Dean, Riphah International University	Member
12	Dr. Muzaffar Abbas, Dean Faculty of Pharmacy, CUST	Member
13	Dr. Noor Muhamamd Khan, HoD Electrical Engineering, CUST	Member
14	Dr. Ishtiaq Hassan, HoD Civil Engineering, CUST	Member
15	Dr. Nayyer Masood, Professor Computer Science, CUST	Member
16	Dean of QEC, CUST	Member
17	Registrar, CUST	Secretary



Major Authorities and Responsibilities

- ◇ To approve proposed annual plan of work, the annual and revised budgets, the annual report and the annual statement of accounts
- ◇ To hold, control and lay down policy for the administration of the property, funds and investments of the University
- ◇ To oversee quality and relevance of the University's academic programmes and to review the academic affairs of the University
- ◇ To approve the appointment of the Deans, Professors, Associate Professors and senior faculty and administrators
- ◇ To institute schemes, directions and guidelines for the terms and conditions of appointment of all officers, teachers and other employees of the University
- ◇ To approve financial resource development plans of the University

14.2. Executive Committee

The Executive Committee is the executive body of Capital University of Science & Technology and exercises general supervision over affairs and management of the University matters. Until now a total of 38 meetings of Executive Committee have been conducted. The committee consisting of 10 members is headed by the Chair Person, Vice Chancellor, CUST. The Executive Committee of university is constituted of following personnel.

S.No.	Name	Designation	Status
1	Prof. Dr. M. Mansoor Ahmed	Vice Chancellor	Chair Person
2	Dr. M. Abdul Qadir	Dean FoC	Member
3	Dr. Imtiaz Ahmad Taj	Dean FoE	Member
4	Dr. Arshad Hassan	Dean FMSS	Member
5	Dr. Muzaffar Abbas	Dean Pharmacy	Member
6	Dr. Sahar Fazal	Dean FHLS	Member
7	Dr. Amir Qayyum	Professor CS	Member
8	Dr. Muhammad Sagheer	HoD Mathematics	Member
9	Dr. Muhammad Umar Farooq	HoD English	Member
10	Mr. Malik Arshad Mahmood	Registrar	Member
11	Mr. Fida Hussain	Director QEC	Member
12	Mr. Waseem Nasir	Treasurer	Member

Major Authorities and Responsibilities

- ◇ To transfer and accept transfer of movable property on behalf of the University
- ◇ To enter into, vary, carry out and cancel contracts on behalf of the University
- ◇ To consider the annual report, the annual and revised budget estimates, and submit these to the Board
- ◇ To receive and manage any property transferred, and grants, bequests, trust, gifts, donations, endowments, and other contributions made to the University
- ◇ To provide the buildings, libraries, premises, furniture, apparatus, equipment and other means required for carrying out the work of the University
- ◇ To establish and maintain halls of residence and hostels or approve or license hostels or lodgings for the residence of students



14.3. Academic Council

The Academic Council is the principal academic body of the University and has the power to lay down proper standards of instruction, research and examinations and to regulate and promote the academic life of the university. Until now a total of 31 meetings of Academic Council have been conducted. The committee consisting of 20 members is headed by the Chairman, Vice Chancellor, CUST as detailed below.

S.No.	Name	Designation	Status
1	Prof. Dr. M. Mansoor Ahmed	Vice Chancellor	Chair Person
2	Dr. M. Abdul Qadir	Dean FoC	Member
3	Dr. Imtiaz Ahmad Taj	Dean FoE	Member
4	Dr. Arshad Hassan	Dean FMSS	Member
5	Dr. Sahar Fazal	Dean FHLS	Member
6	Dr. Muzaffar Abbas	Dean Pharmacy	Member
7	Dr. Noor M. Khan	HoD EE	Member
8	Dr. M. Mahabat Khan	HoD ME	Member
9	Dr. Ishtiaq Hassan	HoD CE	Member
10	Dr. Muhamamd Sagheer	HoD Maths	Member
11	Dr. Nadeem Anjum	HoD SE	Member
12	Dr. Abdul Basit	HoD CS	Member
13	Dr. Lakhi Muhammad	HoD MS	Member
14	Dr. Jaleel Ahmed	HoD A & F	Member
15	Dr. M. Umar Farooq	HoD English	Member
16	Dr. M. Sabahat Haqqani	HoD Psychology	Member
17	Dr. Syeda Marriam Bakhtiar	HoD BI	Member
18	Dr. Nayyer Masood Dar	HoD CS	Member
19	Dr. Aamer Nadeem	HoP SE	Member
20	Dr. Shaukat Iqbal Malik	Professor	Member
21	Dr. S. M. M. Raza Naqvi	Professor	Member
22	Dr. Rashid Ali	Professor	Member
23	Dr. Mahboob Alam	Associate Professor	Member
24	Dr. Salman Sagheer Warsi	Associate Professor	Member
25	Dr. Imran Riaz Malik	Associate Professor	Member
26	Dr. M. Sabeel Khan	Associate Professor & BS	Member
27	Dr. Nadia Shamshad Malik	Associate Professor	Member
28	Mr. Malik Arshad Mahmood	Registrar	Member
29	Mr. Hassan Mahmood Awan	Controller of Examinations	Member
30	Mr. Hassan Mahmood Awan	Controller of Examinations	Member
31	Mr. Fida Hussain	Director QEC	Member
32	Mr. Alamgir Khan	Librarian	Member

Major Authorities and Responsibilities

- ◇ To approve the procedures pertaining to the quality of academics and teaching
- ◇ approve academic programmes
- ◇ To regulate award of studentships, scholarships, exhibitions, medals and prizes
- ◇ To approve the policies and procedures pertaining to student related functions including admissions, expulsions, punishments, examinations and certification
- ◇ To propose to the Executive Committee schemes for the constitution and organization of faculties, teaching departments and boards of studies

- ◇ To appoint paper setters and examiners for all examinations of the University after receiving panels of names from the relevant authorities
- ◇ To institute programmes for the continued professional development of University teachers at all levels



14.4. Board of advanced Studies and Research (BASR)

The objective of Board of advanced Studies and Research (BASR) is to guide authorities on all the matters concerning the promotion of advanced studies and research in the institute, and to propose regulations for the ward of research degrees. Until now a total of 33 BASR meetings have been conducted. The board consisting of 10 members is headed by the Vice Chancellor, CUST.

S.No.	Name	Designation	Status
1	Prof. Dr. M. Mansoor Ahmed	Vice Chancellor	Chair Person
2	Dr. M. Abdul Qadir	Dean FoC	Member
3	Dr. Imtiaz Ahmad Taj	Dean FoE	Member
4	Dr. Arshad Hassan	Dean FMSS	Member
5	Dr. Muzaffar Abbas	Dean Pharmacy	Member
6	Dr. Sahar Fazal	Dean FHLS	Member
7	Dr. Aamer Iqbal Bhatti	Professor EE	Member
8	Dr. Noor M. Khan	HoD EE	Member
9	Dr. M. Umar Farooq	Professor English	Member
10	Dr. Majid Ali	Professor, CE	Member
11	Dr. Jaleel Ahmad	HoD A & F	Member
12	Mr. Fida Hussain	Director, QEC	Member
13	Mr. Malik Arshad Mahmood	Registrar	Member

Major Authorities and Responsibilities

- ◇ To advise the authorities on all matters connected with the promotion of advanced studies and research in the University
- ◇ To propose regulations regarding the award of research degrees for the approval of the Academic Council
- ◇ To appoint supervisors for research students to determine the subject of their thesis
- ◇ To appoint reviewers of research thesis
- ◇ To ensure the compliance of HEC guidelines for the award of MS and PhD degrees
- ◇ To recommend Academic Council a panel of names of paper setters and examiners for research degrees

14.5. Additional Bodies

- 1 Admin Committee
- 2 Board of Faculty (Each Faculty)
- 3 Board of Studies (Each Program)
- 4 Industrial Advisory Board
- 5 QAC Committee
- 6 ORIC Research Committee
- 7 ORIC Advisory Board
- 8 Departmental Outreach Committee (FOE)
- 9 Selection Board
- 10 Discipline Committee
- 11 Finance and Planning Committee



14.6. University Offices and Centers

- 1 Registrar
- 2 Accounts
- 3 Admissions
- 4 Examination
- 5 Registration
- 6 Office of Research, Innovation & Commercialization (ORIC)
- 7 Quality Enhancement Cell (QEC)
- 8 Human Resource Management (HR)
- 9 Graduate Studies
- 10 Student Affairs
- 11 Volunteer in Service (VIS)
- 12 Library
- 13 IT Support
- 14 Database Administrator
- 15 Management Information System (MIS)
- 16 External Linkages & Internal Collaborations (ELIC)
- 17 Directorate of Sustainability & Environment (DSE)
- 18 Career Services Office
- 19 CUST Well-Being Center
- 20 Academic Writing Center (AWC)

