



Annual Report 2023-24

Prepared by:
Office of Research Innovation and Commercialization
Capital University of Science & Technology
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 2023-24 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-fascist 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 14, 2023. Dr. Mukhtar Ahmed, Chairman HEC graced the occasion as the Chief Guest. A total of 1271 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. 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 five Faculties: Faculty of Engineering; Faculty of Computing, Faculty of Health & Life Sciences, Faculty of Pharmacy and Faculty of Management and Social Sciences. Faculty of Engineering has three Departments: Electrical & Computer Engineering Engineering, Mechanical Engineering and Civil Engineering. Faculty of Computing has Departments of Computer Sciences, Software Engineering and Mathematics. Faculty of Health & Life Sciences has Department of Bioinformatics & Biosciences. Faculty of Pharmacy has Department of Pharmacy. In the Faculty of Management and Social Sciences, we have Department of Management Sciences, Psychology, Accounting & Finance and English.

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.

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."

Mission

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

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 modest, research-focused institute. CUST seeks intellectually gifted and energetic students who contribute to our community's strength and academic achievement. Its curriculum provides youngsters with sufficient opportunities to achieve their future ambitions. Our Engineering, Management, Computer Science, Mathematics, Biosciences, Bioinformatics, Law and Pharmacy programs encourage students to participate in self-exploration and teamwork to prepare for real-world struggles. CUST provides a wide range of academic programs at the undergraduate, graduate, and postgraduate levels. The number of programs currently offered is 38, which includes 17 undergraduate, 21 postgraduate, and PhD degrees.



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) strives to produce excellent graduates in applied sciences such as computer systems and mathematics who can meet the challenges of time and translate their knowledge into significant contributions for society. To accomplish this goal, we have a staff of highly qualified, experienced, and motivated faculty members.

Academic excellence requires a high-quality research and development (R&D) environment. There are several R&D groups and laboratories working on various research projects. R&D facilities are offered to train our students in the applied elements of the disciplines. The faculty has also built excellent relationships with R&D groups 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) aspires to produce engineers and researchers with the knowledge and competence to face the challenges of dynamic and developing engineering domains. Well-equipped labs assist the academic programs, enhancing the applied component of the disciplines and providing future engineers and researchers with hands-on experience. The Faculty of Engineering is offering programs in Electrical Engineering, Computer Engineering, Civil Engineering, Mechanical Engineering, and Engineering Management.



Students are being prepared to pursue a future in industry or research by providing them with a solid foundation of fundamental ideas and analytical tools from contemporary engineering disciplines. The Faculty anticipates contributing to the country's knowledge-based economy by producing qualified professionals with inquiring minds, a learning mentality, and ethical behaviours who are prepared to face our society's challenges related to engineering.

Programs Offered in FoE

S.No.	Undergraduate Level	Postgraduate Level	Research Degree Level
1	BS Electrical & Computer Engineering	MS Electrical & Computer Engineering	PhD Electrical & Computer 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 Computer Engineering	PhD Computer Engineering
5	BS Cybersecurity		
6	BS Robotics & Intelligent Systems		
7		MS Engineering Management	PhD Engineering Management

1.4. Faculty of Health and Life Sciences (FHLS)

The Faculty of Health and Life Sciences (FHLS) strives to produce high-quality graduates in Applied Biosciences, Biotechnology, Microbiology, and Biochemistry. The program is intended to address current as well as potential difficulties in this area. Keeping in mind the present state of biosciences, the department offers undergraduate and graduate programs in bioinformatics and biosciences, with the goal of producing professionals capable of dealing with biological challenges.

The department fosters excellence in multidisciplinary biological and pharmaceutical research by fostering autonomous and innovative work, as well as training. Furthermore, to improve the hands-on experience, some courses include wet lab and research-based activities. To do this, the department has a fully equipped wet lab with cutting-edge technology.

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		
4	BS Medical Lab Technology		



1.5. Faculty of Management and Social sciences (FMSS)

The Faculty of Management and Social Sciences (FMSS) is dedicated to developing competent, innovative, and responsible corporate leaders and productive citizens. The Faculty of Management and Social Sciences provides a broad range of programs. These programs provide developing leaders with the necessary knowledge, research insights, and personal effectiveness abilities to have an influence on business and society.



A significant emphasis has been placed on business curriculum in order to develop company leaders who are competent and ethical. The curriculum has been enhanced to emphasize students' abilities to frame, evaluate, and communicate efficiently and effectively in solving unstructured business challenges using industry-driven research. In business studies, a unique blend of classroom experience and corporate training has been used to improve management abilities, 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 & Finance	
3	BS Business Analytics		
4	BS Psychology	MS Psychology	
5	BS English (Language & Literature)		
6		MS Management Sciences	PhD Management Sciences
7		MS Project Management	

1.6. Faculty of Pharmacy (FoP)

The Department of Pharmacy fosters excellence in pharmaceutical sciences by fostering active learning in an encouraging environment. To meet the challenges of healthcare and the pharmacy profession, the Department relies on a curriculum that not only provides a solid foundation for the discipline, yet additionally equips our graduates with the necessary skills and knowledge to practice as a quality health care professional in the community, hospitals, and industry. Furthermore, to improve comprehension and provide hands-on experience, the majority of the courses include practical training in well-equipped labs and clinical settings. The training includes periodic visits to industry and hospitals, as well as guest lectures by specialists from various pharmaceutical fields. Aside from pharmacy-related courses, a variety of general courses in humanities, computer science, and communication are required in order to equip students with social and psychological views on their training, resulting in a well-rounded personality.



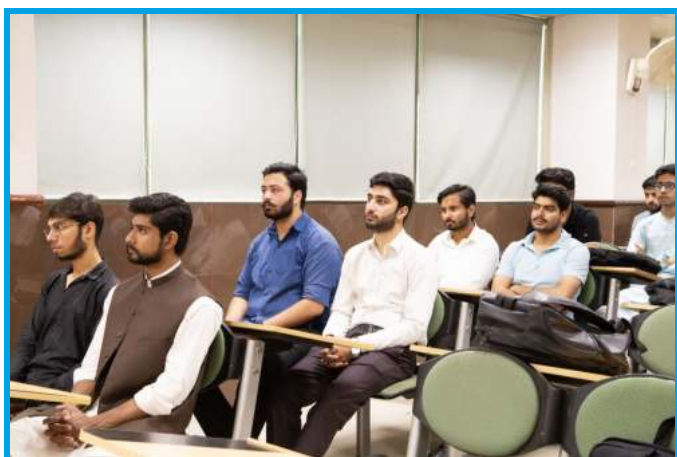
Programs Offered in FoP

S.No.	Undergraduate Level	Postgraduate Level	Research Degree Level
1	Pharm-D	MPhil Pharmacy	

1.7. Faculty of Associate Degree Programs (FADP)

Capital University of Science and Technology (CUST) has launched a program to offer Associate Degree Programs in a variety of fields. This 2-year Associate Degree Program will replace the traditional 2-year Annual Programs with a market-

driven content and superior teaching methods. FADP now offers associate degree programs in business administration, accounting and finance, computer science, and commerce.



Programs Offered in FADP

Bussiness Administration	Accounting & Finance	Commerce	Computer Science
ADP Business Administration	ADP Accounting & Finance	ADP Commerce	ADP Computer Science

1.8. Student's Intake in 2023-24

The following table presents the significant information regarding student's intake in 2023-24 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)	751	54
2	Faculty of Engineering (FoE)	170	43
3	Faculty of Health & Life Sciences (FHLS)	95	38
4	Faculty of Management & Social Sciences (FMSS)	320	137
5	Faculty of Pharmacy (FoP)	159	34
6	Faculty of Associate Degree Programs (FADP)	132	

Students expressed interest not just at the undergraduate level in numerous subjects, but also at the master and PhD levels. The large number of students enrolled in research degree programs (MS/Phil and PhD) demonstrates the munificent availability of faculty, research labs and other associated facilities in the campus.

1.9. Faculty wise Students Admittance in 2023-2024

The following table depicts the significant information regarding student's intake in 2023-24 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)	805
2	Faculty of Engineering (FoE)	213
3	Faculty of Health & Lifesciences (FHLS)	133
4	Faculty of Management & Social Sciences (FMSS)	457
5	Faculty of Pharmacy (FoP)	193
6	Faculty of Associate Degree programs (FADP)	132

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	5398
2	Postgraduate	549
3	PhD	104

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. Faculty 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)	2088	118	21	2227
2	Faculty of Engineering (FoE)	583	82	29	694
3	Faculty of Health & Lifesciences (FHLS)	396	74	19	489
4	Faculty of Management & Social Sciences (FMSS)	1471	244	35	1750
5	Faculty of Pharmacy (FoP)	530	31		561
6	Faculty of Associate Degree programs (FADP)	330			330

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 2023-2024

The following table presents the statistical detail about the students' graduation in 2023-2024 in different departments. The students were graduated in 15 diverse fields of study at undergraduate, post graduate and PhD levels.

S.No.	Disciplines	Students Graduated
1	Electrical & Computer Engineering	30
2	Mechanical Engineering	55
3	Civil Engineering	100
4	Engineering Management	15
5	Computer Science	204
6	Software Engineering	168
7	Mathematics	27
8	Management Sciences	240
9	Project Management	45
10	Bioinformatics & Biosciences	127
11	Pharmacy	84
12	Psychology	122
13	Accounting & Finance	49

A total of 1271 students graduated in 2023-2024 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 21th Convocation-2023

The following table depicts the statistical data about the total students graduated from Capital University and Science & Technology till 21th Convocation held in December 2023. The students were graduated in 35 diverse degree programs at undergraduate, post graduate and PhD levels under five faculties. A total of 12952 students have been 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.	Disciplines	Students Graduated
1	Electrical & Computer Engineering	1495
2	Mechanical Engineering	677
3	Civil Engineering	497
4	Engineering Management	126
5	Computer Science	2380
6	Software Engineering	561
7	Mathematics	285
8	Management Sciences	1313
9	Project Management	396
10	Bioinformatics & Biosciences	629
11	Accounting & Finance	113
12	Business Administration	4375
13	Psychology	95

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.	Disciplines	Faculty Strength
1	Electrical & Computer Engineering	25
2	Mechanical Engineering	18
3	Civil Engineering	16
4	Mathematics	13
5	Computer Science	39
6	Software Engineering	43
7	Accounting & Finance	7
8	Management Sciences	23
9	Psychology	16
10	English	17
11	Pharmacy	35
12	Bioinformatics & Biosciences	15
13	Law	6
14	Pak Studies & Islamic Studies	4
15	Associate Degree Program	1



In addition to their teaching responsibilities, many faculty members are involved in mentoring students, guiding them through both academic and professional challenges. This supportive environment fosters a culture of innovation and critical thinking, preparing students for future careers. Furthermore, the faculty's diverse expertise spans multiple fields, ensuring a comprehensive educational experience tailored to meet the evolving demands of the job market.

The university also emphasizes the importance of research, encouraging faculty to publish their findings and contribute to global knowledge. This commitment to academic excellence is reflected in the university's growing reputation as a center for scholarly activity and professional development. Overall, CUST's faculty plays a crucial role in shaping the educational landscape, empowering students to achieve their full potential. The faculty members not only provide the most recent insights in line with contemporary requirements but also engage actively in academic research and development activities.

S.No.	Designation	Faculty Strength
1	Professors	27
2	Associate Professors	22
3	Assistant Professors	50
4	Lecturers	135
5	Lab Engineers/Instructors	40
6	Research Associates	1

Capital University of Science & Technology (CUST) prides itself on its highly qualified faculty and teaching staff, who are dedicated to delivering up-to-date knowledge across various disciplines. The faculty members not only provide the most recent insights in line with contemporary requirements but also engage actively in academic research and development activities.



1.15. 21th Convocation of Capital University of Science & Technology



A convocation of Capital University of Science and Technology (CUST) was held at Convention Centre Islamabad, wherein, 1075 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. The CUST Chancellor Mian Amer Mehmood presided over the event.



In the convocation, 35 graduates were awarded PhD degrees, including twelve in the Engineering, ten each in Management Sciences & Computing, one in Biosciences, and two in the field of Mathematics. Moreover, 31 gold, 16 silver, and 16 bronze medals were awarded to the graduates who stood 1st, 2nd, and 3rd in their respective degree programs. The 'Jinnah Gold Medal' was also awarded to an overall best graduate of the convocation, Laiba Hashmi of BS Biotechnology, on his overall distinguished performance in curricular and extracurricular activities.



1.16. Detail of Medals Awarded in Convocation-2023

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	Awais Qamar	Management Sciences	BBA	Gold
2	Kainat Qamar	Management Sciences	BBA	Silver
3	Lubna Riaz	Management Sciences	BBA	Bronze
4	Maliha Fazil	Management Sciences	BBA	Gold
5	Hayaba Khan	Management Sciences	BBA	Silver
6	Rida Irshad	Management Sciences	BBA	Bronze
7	Kinza Umer	Accounting & Finance	BS	Gold
8	Rimsha Shaukat	Accounting & Finance	BS	Silver
9	Tayyaba Farooq	Accounting & Finance	BS	Gold
10	Ayesha Farooq	Accounting & Finance	BS	Silver
11	Sumaiya Shafique	Accounting & Finance	BS	Bronze
12	Firdos Naseem	Psychology	BS	Gold
13	Abdul Hadi	Psychology	BS	Silver
14	Esha Fatima	Psychology	BS	Bronze
15	Sania Afzal	Psychology	BS	Bronze
16	Arooba Arshad	Psychology	BS	Gold
17	Syeda Arooj Zahra Naqvi	Psychology	BS	Silver
18	Syeda Fatima Sohail	Psychology	BS	Bronze
19	Shahrukh Shakeel	Management Sciences	MBA	Gold
20	Nida Afzal	Management Sciences	MBA	Gold
21	Rimsha Riaz	Business Administration	MS)	Gold
22	Muhammad Bilal Rashid	Project Management	MS	Gold

Faculty of Computing (FoC)				
1	Muhammad Arsalan	Computer Science	BS	Gold
2	Ansa Azka Akram	Computer Science	BS	Gold
3	Mahnoor	Computer Science	BS	Silver
4	Muhammad Hanan Asif	Computer Science	BS	Bronze
5	Imran Khan	Computer Science	BS	Gold
6	Muhammad Ali Irtaza	Computer Science	BS	Silver
7	Syed Faisal Haider	Computer Science	BS	Bronze
8	Mehak Mushtaq	Software Engineering	BS	Gold
9	Muhammad Reebal Raza	Software Engineering	BS	Silver
10	Bilal Khan	Software Engineering	BS	Bronze
11	Palwasha Zahid	Software Engineering	BS	Gold
12	Faria Islam	Software Engineering	BS	Gold
13	Irtiza Atiq Ur Rehman	Software Engineering	BS	Silver
14	Iqra Shahzadi	Software Engineering	BS	Gold
15	Sehar Iftikhar	Computer Science	MS	Gold
16	Aqib Zaryab Khan	Mathematics	MPhil	Gold
17	Tooba Muhammad	Mathematics	MPhil	Gold
Faculty of Engineering (FoE)				
1	Suleman Nadeem Lehrasab	Electrical Engineering	BS	Gold
2	Imran Akram	Electrical Engineering	BS	Silver
3	Muhammad Haider Ali	Mechanical Engineering	BS	Gold
4	Muhammad Haseeb	Mechanical Engineering	BS	Silver
5	Rafae Bin Nauman	Mechanical Engineering	BS	Bronze
6	Jibran Jameel Anjum	Mechanical Engineering	BS	Bronze
7	Shafqat Hussain	Civil Engineering	BS	Gold
8	Muneem Mujeeb Lashari	Civil Engineering	BS	Silver
9	Abdul Moiz	Civil Engineering	BS	Bronze
10	Abdullah Farooq Abbasi	Electrical Engineering	MS	Gold
11	Muhammad Haseeb Awan	Engineering Management	MS	Gold
12	Minhas Shah	Civil Engineering	MS	Gold
Faculty of Health & Lifesciences (FHLS)				
1	Mehwish Akram	Biosciences	BS	Gold
2	Jawaria Aamir	Biosciences	BS	Gold
3	Aqsa Noor	Biosciences	BS	Silver
4	Muqaddas Zafar	Biosciences	BS	Bronze
5	Laiba Hashmi	Biotechnology	BS	Gold
6	Syeda Wardah Noor	Biotechnology	BS	Silver
7	Sawaira Asim	Biotechnology	BS	Bronze
8	Aqsa Batool	Biotechnology	BS	Bronze
9	Fatima Hassan	Biotechnology	BS	Gold
10	Rafia Shakeel	Biotechnology	BS	Silver
11	Muhammad Abuzar Khan	Biotechnology	BS	Bronze
12	Arooj Fatima	Microbiology	BS	Gold
13	Huma Aziz	Microbiology	BS	Silver

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	25247
2	Block B	4	36407
3	Block C	3	13243
4	Block D	3	13243
5	Block E	4	36407
6	Block F	4	36407
7	Block G	4	5640
8	Block H	4	24612
9	Block I	4	7424
10	Block J	4	24381
11	Block K	4	11684
12	Block M	4	27304
13	Block L	4	1100
14	Cafeteria Pump Room	1	2285
15	Main Cafeteria	1	10823
16	Main Gate Reception	1	779
17	Food Street Shops	1	1012
18	Check Posts	1	224
19	Electrical Panel Room	1	996
20	Electric Meter Room	1	1080
21	Driver Waiting Room	1	312
Total Covered Area			280,610 sq. ft.



2.2. Lecture Halls

There are a total of 46 state of art lecture halls with 10 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

Faculty/Departments	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	(H-Block)
	x. Instruction Lab-08	(E-Block)
	xi. Instruction Lab-09	(B-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)
	xviii. DLD Lab	(B-Block)
Bioinformatics and Biosciences	i. WET lab-I	(B-Block)
	ii. WET lab-II	(B-Block)
	iii. Tissue Culture Lab	(B-Block)
	iv. Bioinformatics and Bio sciences Research Lab	(B-Block)
Electrical / Electronic Engineering	i. Electrical Machines Lab	(B-Block)
	ii. Research Group Wireless Communications	(C-Block)
	iii. ECE Project Lab	(B-Block)
	iv. Research Group Network & Telecomm	(B-Block)
	v. ASIC Design & DSP Lab	(B-Block)
	vi. Digital Electronics Lab	(B-Block)
	vii. Control and Automation Lab	(B-Block)
	viii. Communication Systems Lab	(B-Block)
	ix. Analogue Electronics Lab – 1	(B-Block)
	x. Analogue Electronics Lab – 2	(B-Block)
	xi. Power Systems Lab – 1	(F-Block)
	xii. Physics Lab	(F-Block)
Mechanical Engineering	i. Statics Lab	(E-Block)
	ii. Dynamics Lab	(E-Block)
	iii. Mechanics of Materials Lab	(E-Block)
	iv. HPC Lab	(E-Block)
	v. CAD Lab	(E-Block)
	vi. CS Project Lab-1	(E-Block)
	vii. Heat and Mass Transfer Lab	(E-Block)
	viii. Fluid Mechanics Lab	(F-Block)
	ix. Precision Engineering & Metrology Lab	(F-Block)
	x. Mechanics of Machines Lab	(E-Block)
	xi. Thermodynamics Lab	(G-Block)
	xii. Refrigeration and Air Conditioning Lab	(G-Block)
	xiii. Mechanical Vibrations Lab	(F-Block)
	xiv. Manufacturing Processes Lab	(G-Block)
	xv. Mechanical Workshop	(F-Block)
	xvi. Internal Combustion Engines Lab	(G-Block)
	xvii. Engineering Drawings and Graphics Lab	(E-Block)
	xviii. CAD Lab	(E-Block)
Civil Engineering	i. Civil Engineering Materials Lab	(H-Block)
	ii. Fluid Mechanics Lab	(H-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. Quality Control Lab	(J-Block)
	v. Pharmacognosy Lab	(J-Block)
	vi. Post Graduate Research Lab	(J-Block)
	vii. Industrial Lab	(K-Block)
Faculty of Management & Social Sciences	i. Psychology Lab	(E-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 23,070 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
- 6 J store



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, Regulatory 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	1283
2	CCTV Cameras	614
3	Multimedia Projectors	119
4	Telephone Extensions	318
5	IT Labs	11
6	Faculty Laptops	133
7	General Purpose IT Labs	2



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

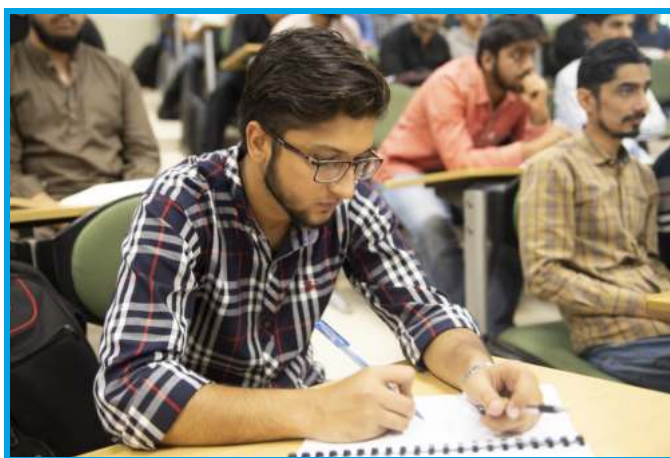


3.3. Student Portal

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.

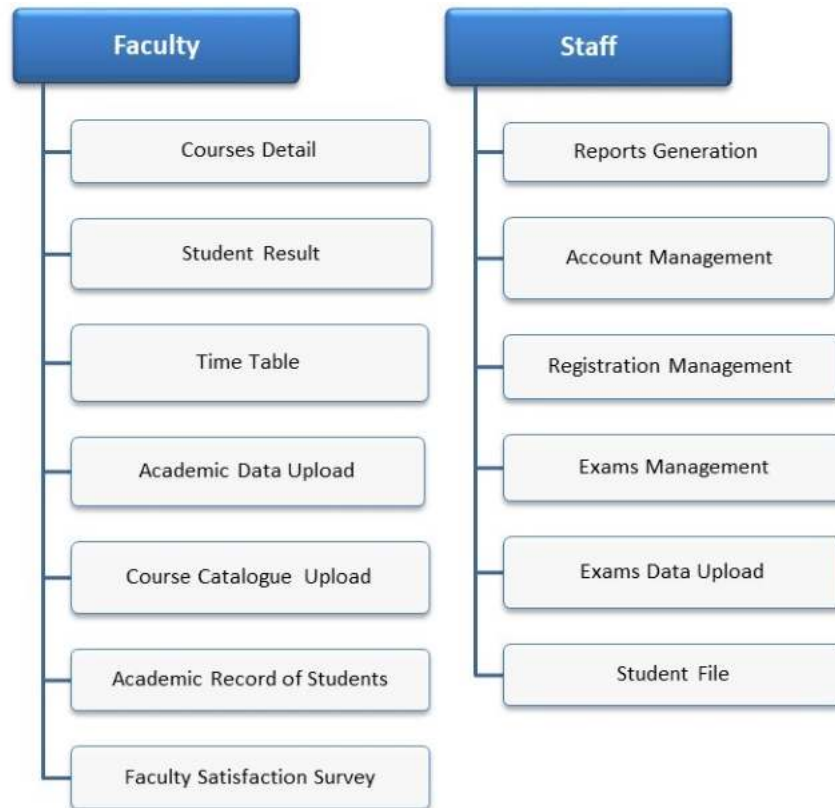
	Notice Board	
	Result Card View/Print	
	Lectures and Assignments Upload/Download	
	Academic Results	
	Leave Status	
	Transcript	
	Program Education Objectives (PEOs)	
	Program Learning Objectives (PLOs)	
	Scheme of Studies	
	Online Registration	
	Challan Generation and Print	
	Fee Summary Report	
	FYPs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

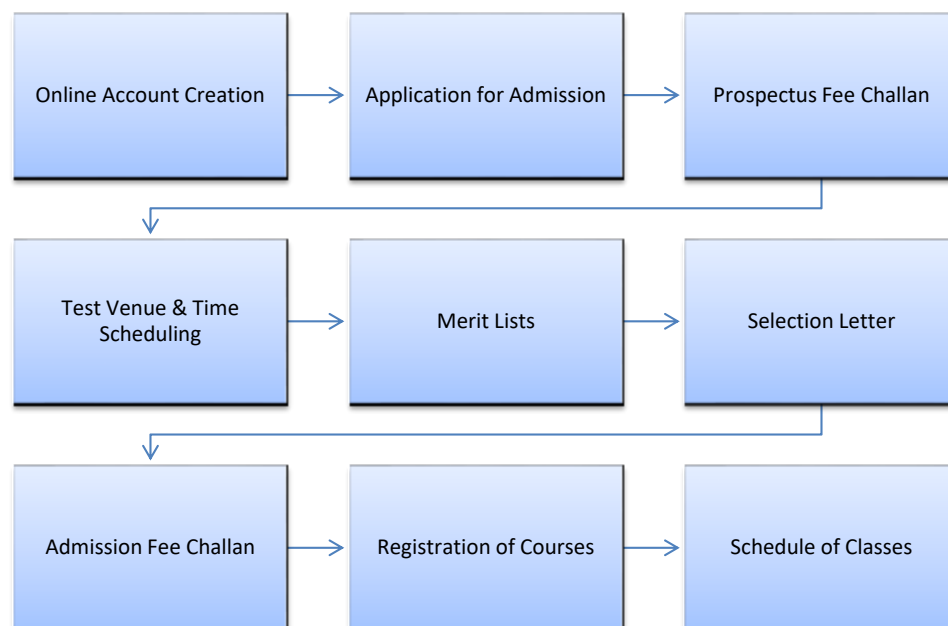
CUST owns a comprehensive University Administration System consisting of Faculty and Staff Portals to accomplish all faculty and staff related actions. The portal allows faculty members to manage their academic activities and access the updated data about the students. Similarly administrative departments 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 & Computer Engineering
2	Digital System Design	Electrical & Computer Engineering
3	Control Systems	Electrical & Computer Engineering
4	Signal and Image Processing	Electrical & Computer Engineering
5	Telecommunications and Networks	Electrical & Computer Engineering
6	Microelectronics and Microwaves	Electrical & Computer Engineering
7	Industrial and Systems Engineering	Mechanical Engineering
8	Thermo-fluids	Mechanical Engineering
9	Control and Automation	Mechanical Engineering
10	Design and Machine	Mechanical Engineering
11	Industrial and Manufacturing Research Group	Mechanical Engineering
12	Renewable Energy Research Group	Mechanical Engineering
13	Mechanics and Materials in Design Research Group	Mechanical Engineering
14	Structural Engineering	Civil Engineering
15	Water and Environment	Civil Engineering
16	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
4	Natural Products Research	Pharmacy

Faculty of Health & Life Sciences (FHLS)		
S.No.	Research Area	Department
1	Bio-remediation and Degradation	Biosciences
2	Cancer Cytogenetic	Biosciences
3	Genetic Engineering	Biosciences
4	Phytochemistry	Biosciences

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

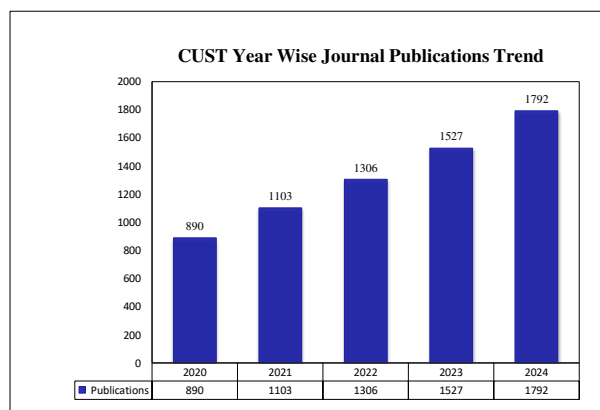
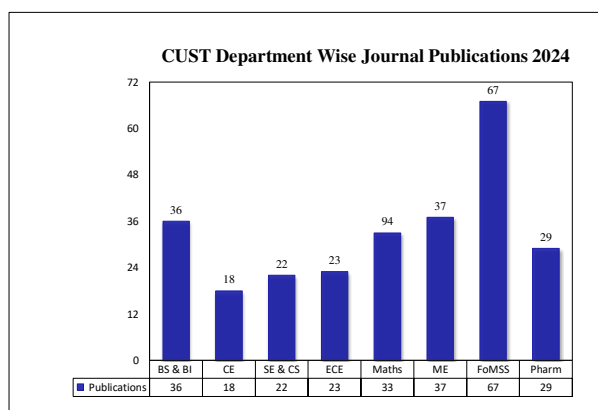
4.3. CUST Publications

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

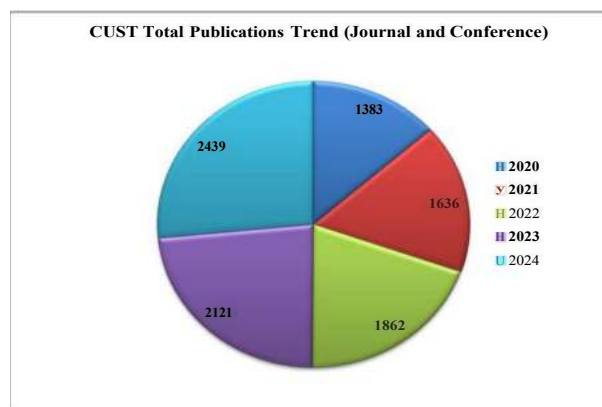
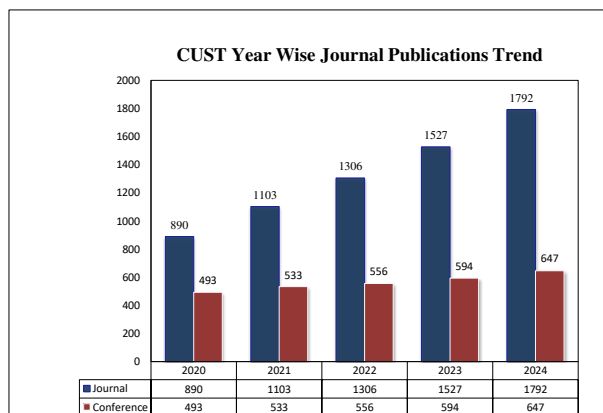
Capital University of Science and Technology has always been proactive in the field of practical research. It has been through the hard work of CUST faculty and extreme dedication of students that CUST has been successful in publishing its work in renowned Impact Factor (IF) National and International 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 2023 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	Research on Theory and Methods of Multimodal Pretraining Model Construction Based on joint Enhancement of Data and Knowledge	Dr. Nadeem Anjum	Software Engineering	National Natural Science Foundation China	
2	Developing high performance concrete containing SCMs using local materials for sustainable construction practices	Engr. Muhammad Waqas Malik	Civil Engineering	Pakistan Council	Engineering
3	Development of light weight aggregate for sustainable concrete	Dr. Nafeesa Shaheen	Civil Engineering	Pakistan Council	Engineering
4	Design and development of back support system for maintaining spinal health	Dr. Shummaila Rasheed	Mechanical Engineering	Pakistan Council	Engineering
5	Development of Weed detection and removal agriculture Robot	Dr. Salamn Sagheer Warsi	Mechanical Engineering	Pakistan Council	Engineering
6	Automation of Solar Dehydrator designed for fruits and vegetables	Dr. Muhammad Javed Hyder	Mechanical Engineering	Pakistan Council	Engineering
7	Design Fabrication and Analysis of Magnetic Regenerative Shock Absorber	Dr Muhammad Irfan	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)	

S.No.	Title	Principal Investigator/ Collaborator	Department	Submission/Funding Agency
8	Ai based Farmer Market- place	Ms. Snober Naseer	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
9	Design and Fabrication of Solar Still Seawater De- salination with Enhanced Heat Transfer through Fins and PCM for Sustainable Day and Night Operation	Dr. Mahabat Khan	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
10	Solar Tracker Window Blinds	Mr. Muhammad Haroon	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
11	Design and Fabrication of an Electric Propelled RC Target Drone	Mr. Manzar Masud	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
12	Performance analysis of pelton turbine for kW ca- pacity power generation	Mr. Tauseef Ahmed	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
13	E studio music	Dr. Nayyer Masood	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
14	Speech to knowledgebase convertor	Dr. Abdul Qadir	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
15	Wardrobix	Dr. Nayyer Masood	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
16	Epidsi - enhanced palm identification with docu- ment scanner imagery	Dr. Imtiaz Ahmad Taj	Electrical & Computer En- gineering Engineering	National Grassroots ICT Research Initiative (NGIRI)
17	Design modification of cross flow turbine to gen- erate maximum power at micro/low head water stream	Dr. Ghulam Asghar	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
18	Speed Quest	Dr. Muhammad Siraj Rathore	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
19	Automation of solar dehy- drator for fruits and veg- etables	Dr. Javed Hyder	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
20	Design and development of Back Support System for maintaining Spinal health	Dr. Shummaila Rasheed	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
21	Design & Analysis of off grid indirect solar air heater integrated with phase change material (PCM)	Mr. Saifullah Awan	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
22	Bridging Social Sentiment	Ms. Yafra Khan	Computer Science	National Grassroots ICT Research Initiative (NGIRI)

S.No.	Title	Principal Investigator/ Collaborator	Department	Submission/Funding Agency
23	Autonomous Robotic Arm for Pick and Place object using real time Image Processing	Mr. Moin Qasim	Electrical & Computer Engineering	National Grassroots ICT Research Initiative (NGIRI)
24	Design and fabrication of stair climbing mechanism to lift load over stairs	Mr. Muhammad Zulfiqar	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
25	Research Draft	Dr. Shafiq Ur Rehman Khan	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
26	ARFIT	Dr. Shafiq ur Rehman Khan	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
27	Construction of Legal Knowledge Graph	Dr. Abdul Qadir	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
28	SkyMap	Mr. Syed Awais Haider	Software Engineering	National Grassroots ICT Research Initiative (NGIRI)
29	DataWhiz An Automated Tool for Data Analysis	Dr Nadeem Anjum	Software Engineering	National Grassroots ICT Research Initiative (NGIRI)
30	FALAK	Mr. Shahzad Rafiq	Software Engineering	National Grassroots ICT Research Initiative (NGIRI)
31	AI based smart donor application	Ms. Snober Naseer	Computer Science	National Grassroots ICT Research Initiative (NGIRI)
32	Arcwind	Mr. Manzar Masud	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
33	Design and development of weed detection and removal agricultural robot	Dr.Salman Sagheer Warsi	Mechanical Engineering	National Grassroots ICT Research Initiative (NGIRI)
34	Argo-sense non-greenhouse smart hydroponics system for soilless leafy vegetable plants	Eng. Muhammad Waleed Farooq	Electrical & Computer Engineering	National Grassroots ICT Research Initiative (NGIRI)
35	Personal identification using images in the move for access control	Dr. Imtiaz Ahmad Taj	Electrical & Computer Engineering	National Grassroots ICT Research Initiative (NGIRI)

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

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 2023-24	0.98 Million PKR
External Funding & Research Grants Till Date	501.384 Million PKR
Total R & D Projects	32

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. In recent years, CUST has successfully initiated multiple collaborative R&D endeavors that address pressing societal challenges. These projects not only focus on scientific advancements but also aim to develop practical solutions that can be implemented in industry and healthcare settings.

Additionally, the university actively encourages student involvement in these projects, providing them with valuable hands-on experience and enhancing their employability. By fostering a culture of innovation and inquiry, CUST prepares its students to contribute effectively to the research landscape. Overall, the continuous pursuit of excellence in R&D reflects CUST's dedication to advancing knowledge and addressing real-world problems through collaborative efforts.

1. Project Title: Core Components of the 4th Generation Telecom Infrastructure (IMS)

Start Date	November 2007
Project Status	Completed
Project Director	Dr. Amir Qayyum
Total Budget	Rs. 14.88 Million
Funding Agency By	ICT R&D Fund

2. Project Title: End-to-End Mobility Management Framework (EMF) for Multihomed Mobile Devices

Start Date	July 2008
Project Status	Completed
Project Director	Dr. Amir Qayyum
Total Budget	Rs. 14.89 Million
Funding Agency By	ICT R&D Fund

3. Project Title: Automatic Personal Identification Biometrics System (APIBS) for Large Scale Applications

Start Date	November 2008
Project Status	Completed
Project Director	Dr. Imtiaz Ahmad Taj
Total Budget	Rs. 14.7 Million
Funding Agency By	ICT R&D Fund

4. Project Title: Real-Time Implementation of H.264 Decoder for Heterogeneous Multicore Architectures

Start Date	January 2009
Project Status	Completed
Project Director	Prof. Imtiaz Ahmed Taj
Total Budget	Rs 16.64 Million
Funding Agency By	ICT R&D Fund

5. Project Title: Modelling and Simulation of LPI Radar for System Level Design and Optimization

Start Date	July 2009
Project Status	Completed
Project Director	Dr. Aamer Iqbal Bhatti
Total Budget	Rs 1 Million
Funding Agency By	R&D Wing-ICT

6. Project Title: Information System for Early Fault Warning in Automotives

Start Date	July 2009
Project Status	Completed
Project Director	Dr. Aamer Iqbal Bhatti
Total Budget	Rs 14.34 Million
Funding Agency By	ICT R&D Fund

7. Project Title: Development of Phased Array Radar

Start Date	October 2009
Project Status	Completed
Project Director	Dr. Aamer Iqbal Bhatti
Total Budget	Rs 12.6 Million
Funding Agency By	Public Sector Organization

8. Project Title: Network-based P2P Flow Recognition

Start Date	January 2010
Project Status	Completed
Project Director	Dr. Amir Qayyum
Total Budget	Rs 0.2 Million
Funding Agency By	Nayatel Pvt. Ltd.

9. Project Title: Dynamic Bandwidth Aggregation in Heterogeneous Wireless Networks for Mission Critical Applications

Start Date	May 2010
Project Status	Completed
Project Director	Dr. M. Abdul Qadir
Total Budget	Rs 14 Million
Funding Agency By	ICT R&D Fund

10. Project Title: Modelling and Control of Underground Coal Gasification

Start Date	May 2012
Project Status	Completed
Project Director	Dr. Aamer Iqbal Bhatti
Total Budget	Rs 14.3 Million
Funding Agency By	ICT R&D Fund

11. Project Title: Control of Underground Coal Gasification

Start Date	July 2012
Project Status	Completed
Project Director	Dr. Aamer Iqbal Bhatti
Total Budget	Rs 2.8 Million
Funding Agency By	Thar Energy Board

12. Project Title: Design and Development of Hybrid IPv4 and IPv6 Network for QoS Enabled Video Streaming Multicast Application

Start Date	March 2013
Project Status	Completed
Project Director	Dr. Amir Qayyum
Total Budget	Rs 14.20 Million
Funding Agency By	ICT R&D Fund

13. Project Title: High-Quality Tele-Medicine-Driven Video Encoding System Under Very-Low Bitrates

Start Date	June 2013
Project Status	Completed
Project Director	Dr. M. Abdul Qadir
Total Budget	Rs 25.54 Million
Funding Agency By	ICT R&D Fund

14. Project Title: Underwater Vehicle Dynamic Modelling and Control

Start Date	April 2016
Project Status	Completed
Project Director	Dr. Aamer Iqbal Bhatti
Total Budget	Rs 0.1 Million
Funding Agency By	Public Sector Organization

15. Project Title: 3GPP-IMS Compliant E2E Mobile IPTV Solution for 4G/LTE Networks

Start Date	june 2017
Project Status	Completed
Project Director	Dr. Amir Qayyum
Total Budget	Rs 31 Million
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan

16. Project Title: Autonomous Landing/Takeoff of UAV

Start Date	September 2017
Project Status	Completed
Project Director	Dr. Aamer Iqbal Bhatti
Total Budget	Rs 2.86 Million
Funding Agency By	ICT R&D Fund, Ministry of Information Technology, Govt. of Pakistan

17. Project Title: Development of Radar Signal Processing (RSP) Algorithms for Active Electronically Scanned Array (AESR) Radar

Start Date	September 2017
Project Status:	Completed
Project Director:	Dr. Aamer Iqbal Bhatti
Total Budget:	PKR 1.85 Million
Funding Agency:	Public Sector Organization

18. Project Title: CFD Analysis of Atomization of Liquid Fuel

Start Date	June 2020
Project Status	Completed
Project Director	Dr. M. Mahabat Khan
Total Budget	Rs 0.5 Million
Funding Agency	Public Sector Organization

19. Project Title: Computational Model for Combustion in the Wake Region of Flame Holder

Start Date	June 2020
Project Status:	Completed
Project Director:	Dr. M. Mahabat Khan
Total Budget:	PKR 0.5 Million
Funding Agency:	Public Sector Organization

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

Start Date	September 2020
Project Status	Completed
Project Director	Dr. Arshia Amin Butt
Total Budget	Rs 3.06 Millions
Funding Agency By	HEC (NRPU)

21. Project Title: Vision Based Tracking using Deep CNNs

Start Date	January 2021
Project Status	Completed
Project Director	Dr. Imtiaz Ahmad Taj
Total Budget	Rs 0.2 Millions
Funding Agency	Public Sector Organization

22. Project Title: Generative Adversarial Networks (GANs) based on Data Augmentation for Multiple Image

Start Date	January 2021
Project Status:	Completed
Project Director:	Dr. Imtiaz Ahmad Taj
Total Budget:	PKR 0.2 Million
Funding Agency:	Public Sector Organization

23. Project Title: AI Based Tool for Intelligent Analysis of Software Development Life Cycle Artifacts

Start Date	October 2021
Project Status	Completed
Project Director	Dr. Aamer Nadeem
Total Budget	Rs 0.1 Million
Funding Agency By	Public Sector Organization

24. Project Title: C to XML Converter Tool

Start Date	October 2021
Project Status	Completed
Project Director	Mr. Qamar Uz Zaman
Total Budget	Rs 0.1 Million
Funding Agency By	Public Sector Organization

25. Project Title: Plastic Recycling: Development of Plastic Tile Production Machine

Start Date	October 2021
Project Status	Completed
Project Director	Dr. Salman Sagheer Warsi
Total Budget	Rs 0.61 Millions
Funding Agency	Pakistan Science Foundation

26. Project Title: Preparation of Indigenous Manual Based Intervention for Lowering Anxiety and Depression Levels among Pakistani Youth

Start Date	January 2021
Project Status	Completed
Project Director	Dr. Sabahat Haqqani
Total Budget	Rs 12.5 Million
Funding Agency By	HEC (NRPU)

27. Project Title: Screening of Benzimidazole Derivatives as Potential Agents for Diabetic Neuropathy and Associated Pathological Mediators

Start Date	March 2022
Project Status	In-progress
Project Director	Dr. Muzaffer Abbas
Total Budget	Rs 7.16 Million
Funding Agency By	HEC (NRPU)

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

Start Date	July 2022
Project Status	Completed
Project Director	Dr. Arshia Amin Butt
Total Budget	Rs 18.15 Million
Funding Agency By	HEC (LCF)

29. Project Title: Genetic Algorithm Based Functional Testing

Start Date	January 2023
Project Status	Completed
Project Director	Dr. Aamer Nadeem
Total Budget	Rs 0.1 Million
Funding Agency By	NESCOM

30. Project Title: Software Tool for Automated Metrics Extraction to Predict Faults in Software Codes

Start Date	January 2023
Project Status	Completed
Project Director	Dr. Aamer Nadeem
Total Budget	Rs 0.1 Million
Funding Agency By	NESCOM

31. Project Title: A Multi-Biometric Access Control System (MBACS) for Highly Secured Environment

Start Date	July 2023
Project Status	In-Progress
Project Director	Dr. Imtiaz Ahmad Taj
Total Budget	Rs 6.009 Million
Funding Agency	HEC (NRPU)

32. Project Title: eHealth supported interventions for improving care for young people with substance use disorder in Pakistan

Start Date	July 2023
Project Status	In-Progress
Project Director	Dr. Ishrat Yousaf
Total Budget	Rs 7.318 Million
Funding Agency	HEC (NRPU)

33. Project Title: Development of Building Products from Recycled Plastic for Housing

Start Date	July 2023
Project Status	In-Progress
Project Director	Dr. Majid Ali
Total Budget	Rs 9.982 Million
Funding Agency	HEC (NRPU)

34. Project Title: Isolation and Identification of therapeutic agents involved in the activation of PPAR- to ameliorate Type 2 Diabetes

Start Date	October 2023
Project Status	In-Progress
Project Director	Dr. Rizwan ur Rehman
Total Budget	Rs 6.085 Million
Funding Agency	HEC (NRPU)

35. Project Title: Numerical Simulation of production of metal powder by Gas-Atomization Technique

Start Date	November 2023
Project Status	In-Progress
Project Director	Dr. M. Mahabat Khan
Total Budget	Rs 0.25 Million
Funding Agency	NESCOM

36. Project Title: Development of testing framework using explainable AI (XAI)

Start Date	May 2024
Project Status	In-Progress
Project Director	Dr. Nadeem Anjum
Total Budget	Rs 0.3 Million
Funding Agency	NESCOM

37. Project Title: Genetic Education and Networking Efforts for Testing and improved Capacity in capable counseling

Start Date	May 2024
Project Status	In-Progress
Project Director	Dr. Syeda Marriam Bakhtiar
Total Budget	Rs 1.34 Million
Funding Agency	PSF

38. Project Title: Low Crime Conviction and Capacity Challenges of police in punjab: A Mixed Method Study and Intervention

Start Date	March 2024
Project Status	In-Progress
Project Director	Dr. Sabahat Haqqani
Total Budget	Rs 3.4 Million
Funding Agency	RASTA (PIDE)

39. Machine Learning-Based Resource Utilization for Energy Harvesting Internet of Things (IoT)

Start Date	September 2024
Project Status	In-Progress
Project Director	Dr. Imtiaz Ahmad Taj
Total Budget	Rs 1.055 Million
Funding Agency	NESCOM

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.

40. Project Title: Core Components of the 4th Generation Telecom Infrastructure (IMS)

Start Date	November 2007
Project Status	Completed
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

41. Project Title: EduScope, A New Learning System

Start Date	January 2010
Project Status	Completed
Project Director	Prof. Dr. Amir Qayyum
Total Budget	Rs 1.8 Million
Funding Agency By	Internet Society (ISOC) Washington, USA

42. Project Title: Vehicle Based Road/Environment Condition Warning System using Vehicular Ad hoc Networks (VANETs)

Start Date	August 2013
Project Status:	Completed
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

43. Project Title: Framework for Control and Monitoring of Wireless Mesh Networks (WMN) using Software Defined Networking (SDN)

Start Date	May 2015
Project Status:	Completed
Project Director:	Prof. Dr. Amir Qayyum
In Collaboration:	HEC & Govt. of France
Total Budget:	PKR 2.3 Million
Funding Agency:	Govt of France
Commercialization:	Prototype Development

44. Project Title: Development of Optimization Models for the Analysis of Smart Transportation Systems between Pakistan and Turkey using One-Belt-One-Road Infrastructure

Start Date	January 2019
Project Status:	Completed
Project Director:	Dr. Tayyaba Zahid
In Collaboration:	Turkish and Pakistani higher education institutions
Total Budget:	PKR 1.22 Million
Funding Agency:	Pak-Turk Researchers Mobility Grant Program

45. Project Title: Sensing Artificial Intelligence, and Edge Networking towards Rural Health Monitoring (SAAF-RH)

Start Date	November 2020
Project Status:	Completed
Project Director:	Prof. Nayyer Masood
In Collaboration:	2 European partners and 3 Asian partners
Total Budget:	PKR 127.23 Million
Funding Agency:	European Commission

46. Project Title: Strategic Support for Accreditation of Programs and Internationalization at South Asian Higher Education Institutes (HEIs) / SSAPI

Start Date	January 2021
Project Status:	Completed
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

47. Project Title: Capacity Building for Digital Health Monitoring and Care Systems in Asia - DigiHealth-Asia

Start Date	January 2021
Project Status:	Completed
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

4.9. 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	Phase of Commercialization
1	Design and Development of Back Support System for maintaining Spinal health	Prototype Development
2	Design and Development of Weed detection and removal agriculture robot	Prototype Development
3	Design and fabrication of stair climbing mechanism to lift load over stairs	Prototype Development
4	Feedback control electromagnetic vibration Damping of a Ferromagnetic Flexible cantilever Beam	Prototype Development
5	Design and Implementation of wearable device for Tremors Suppresion	Prototype Development
6	Autonomous Robotic arm for pick and place object using real time image processing	Prototype Development
7	Enhanced palm Identification with Document Scanner Imagery	Prototype Development
8	Design and development of a compact sugar cane juice extraction machine	Prototype Development
9	Design and fabrication of gravitational water vortex turbine	Prototype Development
10	Indigenous design and development of gravitational water vortex turbine	Prototype Development
11	Fire Extinguisher Drone.	Prototype Development
12	Fast Charger for Electric Vehicles.	Prototype Development
13	Design and fabrication of electrical wheelbarrow with hydraulic system	Prototype Development
14	Design and development of instant water cooler	Prototype Development
15	Design and manufacturing of valve train mechanism of IC engine by using desmodromic valve system	Prototype Development
16	Design of cooling tower to be used to condense steam of a power plant	Prototype Development

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. These partnerships not only enrich the academic curriculum but also prepare students for diverse career paths. Furthermore, collaborations with industry organizations promote joint research and development activities that address real-world challenges, enabling faculty and students to work on innovative projects that contribute to advancements in various fields.

5.1. National Collaborations

S.No.	Organization Name	Nature of Organization	Public/Private	Date of MoU Signed
1	Chughtai Lab	Laboratory/Healthcare	Private	August 22, 2023
2	National Institutes of Health (NIH)	Research Institute	Public	September 15, 2023
3	Pakistan Freelancers Association (PAFLA)	Professional Association	Private	November 8, 2023
4	Shaigan Pharmaceuticals Private Limited	Pharmaceutical Company	Private	November 14, 2023
5	Iylus System Pvt. Ltd	Technology Solutions	Private	November 16, 2023
6	Emarat Design & Engineering	Design & Engineering Firm	Private	November 27, 2023
7	Creative Electronics & Automation (CREST)	Electronics & Automation	Private	April 18, 2024
8	Premium Diagnostic Center	Healthcare Facility	Private	May 30, 2024
9	Sustainable Development Policy Institute (SDPI)	Research Institute	Public	June 3, 2024
10	M/s Fellow Builder	Construction Firm	Private	January 12, 2024
11	M/s NASR Engineering Consultants	Engineering Consultancy	Private	June 14, 2024
12	M/s City Engineering Services	Engineering Services	Private	September 27, 2024
13	Engineering Design and Consultants	Engineering Consultancy	Private	September 27, 2024
14	ZAC Engineers	Engineering Firm	Private	September 27, 2024
15	Design and Consultant Services	Consulting Services	Private	October 2, 2024
16	M/s MKAI Climate Consultant	Environmental Consultancy	Private	October 2, 2024
17	M/s JAEC	Engineering Consultancy	Private	October 17, 2024
18	Mark Associates	Consulting Firm	Private	October 23, 2024
19	Air University, Islamabad	Educational Institution	Public	November 21, 2023
20	Read Pakistan	Educational Organization	Private	March 8, 2024
21	Artificial Intelligence Community of Pakistan	Professional Association	Private	October 11, 2024
22	Red Farms	Agricultural Firm	Private	June 9, 2023
23	Fauji Foundation Hospital	Healthcare Facility	Private	February 28, 2024

S.No.	Organization Name	Nature of Organization	Public/Private	Date of MoU Signed
24	Sabro Technologies (Pvt) Ltd.	Technology Solutions	Private	February 5, 2024
25	Aero Vision Technologies Pvt. Ltd	Technology Solutions	Private	January 9, 2024
26	Synergy-IT	IT Services	Private	December 28, 2023
27	Gubloo Tech	Technology Solutions	Private	December 28, 2023
28	Nayatel	Telecommunications	Private	December 28, 2023
29	NICAT	IT Services	Private	December 28, 2023
30	Aspire	Educational Organization	Private	December 28, 2023

5.2. International Collaborations

S.No.	Organization Name	Nature of Organization	Public/Private	Date of MoU Signed
1	ZiCON Cloud	Cloud Services	Private	December 8, 2023
2	TechValley	Technology Solutions	Private	March 19, 2024

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.



International Conference on Emerging Trends in Pharmaceutical Sciences (ICETPS 23)

Faculty of Pharmacy Held 2023 International Conference on Emerging Trends in Pharmaceutical Sciences. The International Conference on Emerging Trends in Pharmaceutical Sciences (ICETPS 23) was organized by the Faculty of Pharmacy (FoP), Capital University of Science and Technology (CUST). The conference was held on March 11th, 2023, in Islamabad, Pakistan and aimed to bring together researchers, scientists, and industry professionals to discuss the latest advancements and future prospects in the field of pharmaceutical sciences.

The conference included several technical sessions covering various aspects of pharmaceutical sciences including drug discovery and development, pharmacology, toxicology, and pharmaceutical technology. Several oral and poster presentations were also made by participants from various universities, hospitals, industry and research institutions. The presentations covered a wide range of topics and participants had the privilege of hearing from leading experts in the field. The sessions were chaired by renowned researchers and experts from various universities including Dr. Nasir Abbas, Dr. Amjad Hussain, Dr. Muhammad Iqbal Nasiri and Dr. Khalid Rauf. Three international speakers including Dr. Hidayat Hussain, Dr. Aziz Ullah and Dr. Arshad Mahmood participated from Germany, Korea and UAE. Dr. Omar Akhlaq Bhutta, Associate Director & Head

Pharmacy, participated from Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore and Dr. Salwa Ahsan, Chief of Pharmacy, participated from Shifa International Hospital Islamabad. The conference was well-attended by more than 250 participants from academia, industry, drug regulatory authority (DRAP), drug testing laboratory (DTL) and research institutions.

In addition to the technical sessions, the conference featured keynote speeches that highlighted innovative research breakthroughs and emerging technologies in drug delivery systems and pharmacogenomics. Participants were also able to attend workshops focused on practical applications of pharmaceutical research in clinical settings. The organizing committee ensured that the conference provided a platform for young researchers to present their work through poster sessions, which were well-received by attendees. Feedback from participants indicated that the conference not only enhanced their knowledge but also inspired new ideas for future research endeavors. Overall, the event was a significant success in promoting collaboration between academia and industry while addressing critical issues in pharmaceutical sciences.

12th International Conference on Biological and Computational Sciences (C-BICS 2024)

The 12th International Conference on Biological and Computational Sciences was organized by Department of Bioinformatics and Biosciences, CUST on November 02, 2024. Prof. Dr. Anis Ahmad, VC, Riphah International University graced the occasion as chief guest at the inaugural session. The event marked a significant milestone, fostering innovative ideas and meaningful connections through insightful discussions on modern research in biological and computational sciences with renowned experts. The BI&BS has consistently organized this event to bring together leading experts in biological research. C-BICS 2024 aims to foster innovation in health and life sciences by providing a platform for knowledge sharing and collaboration, the conference seeks to advance our understanding of living organisms, develop novel treatments and therapies, improve food production and environmental sustainability, and ultimately enhance quality of life. A particular focus this year will be on exploring the potential of artificial intelligence, machine learning, & data sciences, to revolutionize biological research.



International Conference on Computing Research (ICCoR 24)

The International Conference on Computing Research (ICCoR 2024) was held at the Capital University of Science and Technology, Islamabad, on 26th October 2024. It aimed to become a prestigious technical conference with a scope covering new and exciting technologies and research areas, thereby inviting the interest of a large audience. The main objectives of the conference were to provide a platform for students, faculty members, and researchers from universities and research institutes to share their ideas and discuss innovations, trends, research, and experiences. The conference not only motivated students towards research but also improved the research culture, especially in the field of computing. Technical research articles describing original, previously unpublished work were solicited in the areas of AI, data science, information security, software engineering, communications & networks, IoT, cloud computing, and in relevant areas of interest.



International Conference on Advances in Mechanical Engineering (ICAME 2024)

The Departments of Mechanical Engineering organized “International Conference on Advances in Mechanical Engineering (ICAME 2024)” on August 08, 2024. The ICAME-24 was an online conference for international speakers and participants while it was physical for national speakers and participants. All the articles were individually indexed and were citable via Digital Object Identification (DOI). ICAME-2024 welcomed high-quality theoretical and empirical original research papers, case studies, and review papers from researchers, academicians, professionals, practitioners, and students from all over the world.



6th Conference on Sustainability in Civil Engineering (CSCE)

After the successful conduct of the 5th Conference on Sustainability in Civil Engineering in 2023, the Department of Civil Engineering at Capital University of Science and Technology, Islamabad, Pakistan, was pleased to announce its 6th Conference on Sustainability in Civil Engineering 2024, which took place on August 1st, 2024. The conference aimed to provide a shared platform for professionals from academia, industry, and scholars to share and discuss their current research works and future ideas to support the development of a sustainable culture in the field of Civil Engineering.

Capital University Conference on Mathematics 2024 (CUCoM 2024)

The Departments of Mechanical Engineering organized “International Conference on Advances in Mechanical Engineering (ICAME 2024)” on April 11, 2024. The Capital University Conference on Mathematics 2024 (CUCoM 2024) was a highly successful event, showcasing the latest developments and research in the field of mathematics. The conference brought together experts, researchers, and scholars to share their insights. CUCoM 2024 proved to be a platform for intellectual exchange and contributed significantly to the academic discourse in the mathematical community.

11th Applied Business Research Conference (CIBRC 24)

The Capital University of Science and Technology (CUST), Islamabad, organized the 11th Applied Business Research Conference on May 30, 2024, themed 'Shaping the Future: Management Trends and Insights for Tomorrow'. The conference offered a valuable platform for researchers from various fields to come together and share their experiences, thereby contributing to the advancement of business excellence through the incorporation of technological advancements into management practices. The insights disseminated during the conference were equally valuable to academia, research consultancy firms, and policymakers.

The conference featured seminars and invited talks involving academic experts, entrepreneurs, and corporate specialists, each offering their diverse perspectives on the conference theme. Additionally, a PhD Consortium was organized for current and prospective doctoral students, providing them with an opportunity to refine their research skills and gain a deeper understanding necessary for their dissertations.



6.3. Technical Trainings, Workshops and Seminars

Expo Corporate Summit on Careers 2023

Career Services Office at Capital University of Science & Technology organized the Next Gen Corporate Summit Career Expo on December 12, 2023. which was a great success for the university. Students showcased their projects to the corporate world, and organizations not only hired students but also signed MOUs with the university, marking a significant milestone in bridging academia and industry.



This event featured many companies from various sectors, including technology, healthcare, and engineering, providing students with a diverse array of career opportunities. The expo allowed students to engage directly with potential employers through interviews and networking sessions, enhancing their visibility in the job market. Many students reported receiving

job offers on the spot, reflecting the high demand for talent from CUST graduates. In addition to recruitment activities, the summit included workshops and panel discussions led by industry leaders. These sessions focused on essential skills such as resume building, interview techniques, and professional networking strategies. Participants had the opportunity to gain insights into industry trends and expectations, equipping them with the knowledge needed to navigate their career paths effectively.



Global Media and Information Literacy Week celebrations

Global Media and Information Literacy Week was celebrated from 23rd to 25th October, 2023 by SPELL, under the Department of English. Students of all semesters in the BS English program, from seniors to juniors, created handmade crafts and helped maintain the stalls where the profit will be raised for charity. There was also an awareness walk which emphasized the importance of critically evaluating the sources of information, fact checking the information we encounter and identifying bias in this information.

Hands-On Workshop on Food Safety Management

To Empowering Future Researchers, Department of Bioinformatics & Biosciences Hosts Hands-On Workshop on Food Safety Management. The workshop was held on March 28, 2024. Dr. Rizwan-ur-Rehman, a Renowned Speaker, Guides 30 Enthusiastic Participants, Including 19 from Leading Universities. From the 4 C's of safety to hurdle technology, the event covered SDGs 3 & 4. Insights by Dr. Syeda Marriam Bakhtiar and Dr. Sania Riaz enriched the experience. Dr. Sahar Afzal's closing remarks concluded the ceremony.



Science Olympiad at CUST

The Science Olympiad, hosted by the Department of Bioinformatics and Biosciences in the Faculty of Health and Life Sciences at CUST, featured the active involvement of students from 10 different educational institutions. It was held on December 13, 2023. They showcased more than 40 innovative models and posters, all dedicated to the theme of 'Science for the Betterment of Society.' We express our gratitude for the enthusiastic participation of schools, colleges, and universities, as we collaboratively work towards shaping a brighter and more knowledgeable future.



Seminar on Entrepreneurship for Engineers

At Capital University of Science and Technology, CUST ASHRAE Student Branch and Al-Mohandis Student Society united for a groundbreaking seminar on 'Entrepreneurship for Engineers.' Engr. Jawad Janjua, Director Operations of Al-Qawi Industries, shared dynamic insights. From talent acquisition to innovative startups and promoting 'Made in Pakistan,' attendees explored the keys to entrepreneurial success. Engr. Janjua's 'Shaaor' initiative, bridging students and industry expertise, inspired many, resulting in over 80 students securing jobs post-graduation. The seminar concluded with gratitude, students receiving rewards, and lively faculty discussions, fostering innovation and knowledge exchange at CUST. The seminar was held on November 21, 2023.



Workshop on Teaching Practical Problem Solving

Capital University of Science & Technology was honored to welcome Prof. Tobias Sprodowski from the University of Bremen, Germany. An insightful workshop on 'Teaching Practical Problem Solving (PPS) in Practice' was conducted, including a tutorial class with programming tasks. Faculty members from various departments, such as Mechanical Engineering, Electrical Engineering, Software Engineering, and ELIC, participated in a session on Project/Production Planning and Control. The Quality Enhancement Cell presented its activities during the workshop, and an additional session focused on 'Experience

Sharing in E-learning (ZMML)' saw participation from members of various departments. The Workshop was held on October 26, 2023.



Seminar on 'Ethics & Communication Skills

The Society of the Department of Accounting and Finance (SAFE) at Capital University of Science & Technology organized a seminar on 'Ethics & Communication Skills'. The session focused on the importance of ethical communication, emphasizing honesty, transparency, and respect in conveying information. Led by Ms. Snober Naseer, Associate Lecturer at CUST, the seminar provided valuable insights into soft skill management, aiming to enhance the participants' personal and professional lives. The interactive session covered various aspects, including ethics, communication skills, and their significance. The Seminar was held on October 26, 2023.

Seminar on Sustainable Development Goals (SDGs)

The Directorate of Sustainability and Environment organized a workshop on Sustainable Development Goals (SDGs) and an awareness walk to reduce the use of plastic bags. The workshop aimed to provide students with knowledge about SDGs and enhance their understanding of building a sustainable future. Through such initiatives, the university promotes environmental awareness and encourages responsible practice. The Workshop was held on November 17, 2023.



A Celebration of Red Crescent's Impact

The Directorate of Sustainability and Environment, in collaboration with the Volunteer Initiative Society (VIS), set up a Registration Desk for the esteemed Red Crescent Multinational Volunteer-Based Organization at Capital University of Science and Technology (CUST). During this registration drive, a significant number of enthusiastic CUST students willingly joined the Red Crescent, embracing the noble cause of volunteerism and humanitarian service. In recognition of their commitment,

these dedicated students were presented with certificates, marking the beginning of their journey as part of this esteemed organization. The Event was held on November 30, 2023.



Seminar on VRF Air-Conditioning: Transforming Pakistan's HVAC Landscape

Capital University of Science and Technology's ASHRAE Student Branch organized an engaging seminar on "VRF Air-Conditioning: Transforming Pakistan's HVAC Landscape". Engr. Umair Zameer Mughal, Head of Technical Department at Green Appliances (Pvt) Ltd, Pakistan, and a distinguished graduate of CUST's Mechanical Engineering department, was the keynote speaker. Engr. Umair shared his expertise in air conditioning systems and variable refrigerant flow systems, offering valuable insights and inspiring students with his journey to success in mechanical engineering. The seminar encouraged interactive participation from students, and at its conclusion, the Head of the Mechanical Engineering department presented a shield to Engr. Umair as a token of gratitude. In return, Engr. Umair expressed his thanks by presenting gifts of appreciation to the Head of the department and the Student Branch Advisor for the invitation and the enlightening seminar. The Seminar was held on November 10, 2023.



Seminar on unveiling the benefits of book reading

CUST Character Building Club hosted a session, unveiling the benefits of book reading where guest speaker Engr. Abdus Samad Farooq, Writer, Book Reviewer, delivered insightful notes, recommendations with respect to book reading and basic terms to make it apprehensive for young aspirants for said habit at Capital University of Science and Technology, Islamabad. The Seminar was held on December 12, 2023.



Seminar on The Role of Artificial Intelligence in Cyber Security

The Department of Computer Science at Capital University of Science and Technology, Islamabad, hosted a seminar on 'Friend or Foe: The Role of Artificial Intelligence in Cyber Security.' Dr. Rasheed Hussain, an ACM Distinguished Speaker from Bristol University, United Kingdom, presented valuable insights into the intersection of artificial intelligence and cybersecurity. His expertise spans machine learning, deep learning, IoT security, Digital Twins, blockchain security, Software-Defined Network (SDN) security, eXplainable Artificial Intelligence (XAI), and fairness in AI. The Seminar was held on April 23, 2024.



Seminar on The Art of CVs and Impactful Cover Letters

The Art of CVs and Impactful Cover Letters' seminar, organized by the Society of the Department of Accounting and Finance (SAFE) at Capital University of Science & Technology, provided valuable insights to students of BS Accounting and Finance. Led by Ms. Asma Naz, Lecturer at CUST, the session, held under the theme of 'soft skill management,' aimed to empower students in crafting effective CVs and cover letters. The interactive nature of the session contributed to enhancing the participants' knowledge, benefiting them both personally and professionally. The Seminar was held on April 22, 2024.

Seminar on Personal Management & Grooming

Society of Department of Accounting and Finance (SAFE) organized a One-Day Seminar on Personal Management & Grooming with the theme 'Importance of Personal Hygiene and Professional Grooming.' Conducted by Ms. Sania Rehman, Marketing Administrator at Bannu Woolen Mills, the seminar, organized by Ms. Mahwish Iram for BS Accounting and Finance students, was an interactive session providing valuable hands-on knowledge. The seminar was held on December 12, 2023.



Iqbal Day Celebrations

Reliving the spirit of Iqbal Day, the Capital Arts and Literary Club orchestrated a memorable event. The evening unfolded with the eloquence of Bait-Baazi, echoing the profound verses of Kalam-e-Iqbal, and was further elevated by a mesmerizing musical performance, all set in an ambiance adorned with the soft glow of candles and fairy lights. The event was gracefully overseen by Sir Syed Awais Haider, a luminary in the realm of Urdu literature. His insightful guidance added depth to the proceedings, culminating in a poignant conclusion. Through the intertwining of poetic brilliance and cultural celebration, the gathering not only honored the legacy of Allama Iqbal but also fostered a shared appreciation for the richness of Urdu literary arts. It was held on 9-11-2023.



Exhibition of Tools Showcasing of Psychology Department

The Office of Research, Innovation and Commercialization (ORIC) in collaboration with Department of Psychology at Capital University of Science and Technology arranged a Exhibition on Assessment Tools Display and Testing in the Psychology Laboratory. The department developed Psychology Laboratory tools from student projects under Strategic Pillar 1: "Expand and Strengthen the Academic Initiative" during the semester in the "Lab Experiments (PSYB4021)" course. To motivate and recognize the students, the department intends to showcase the tools at the event to highlight their achievements and inspire future cohorts to undertake similar projects. The Exhibition was held on October 26, 2023.

Excite Cup Software Exhibition / Showcasing Event Organized by Faculty of Computing

The faculty of Computing at Capital University of Science & Technology, Islamabad conducted an excite cup event on June 08, 2024. The administrative and managerial support for this exhibition was provided by Office of Research Innovation & Commercialization (ORIC). Dr. Nayyer Masood, Professor Computer Science led this event. The term Excite Cup refers to

the slogan “Excel in IT”. The basic aim of this event was to attract the students from all over Pakistan and challenges the participant to showcase their ideas, compete with their peers to sharpen their skills to excel in the field of IT. Every year, large number of universities participate in Excite Cup. The event had a variety of competitions which allows talented students of different universities to express their skills. The list of competitions of this exhibition included, On Spot Programming, Project Exhibition, Quiz competition, E- Gaming, Table Tennis, On Spot Poster Design and Hackathon.



Awareness Walk on Sustainability & Researching Renewable Resources

Department of Accounting and Finance, under the Society of Accounting, Finance and Economics (SAFE) at Capital University of Science and Technology, organized an “Awareness Walk on Sustainability & Researching Renewable Resources” on Wednesday, May 22, 2024. The purpose of the walk was to provide students with awareness of the SDGs and the importance of these goals in academics. The walk was organized for the students of the Department of Accounting and Finance. Using colorful posters and banners made by the students of the 3rd and 5th semesters, the messages on SDGs and awareness topics included: Save the Resources, Act Responsibly, Conserve Goods, Environmental Sustainability, Reduce, Reuse, and Recycle



World DNA Day

Department of Bioinformatics and Biosciences at CUST organized an engaging poster competition to celebrate World DNA Day! Students demonstrated their talent and knowledge, securing commendable positions in the competition. Congratulations to all participants on their remarkable achievements.



Earth Day

Capital University of Science and Technology (CUST) celebrated Earth Day with an awareness walk promoting sustainable development. Students, faculty, and staff came together to raise awareness about environmental conservation and the importance of sustainable practices. Participants marched with banners and signs, advocating for a greener, healthier planet and pledging to take action to protect the environment. Let's continue to make strides towards a more sustainable future for our planet.



Visit of Dr. Qasim Ahmed, University of Huddersfield

Dr. Qasim Ahmed, Department of Engineering and Technology, University of Huddersfield, UK visited CUST on Monday 11th March 2024 to conduct a seminar in collaboration with ELIC office at Workshop Room, B-Block. Faculty members and research students from engineering and computing departments were invited to attend this informative session. In this session, Dr. Qasim Ahmed gave valuable insight about the various types of computing, IT and electrical engineering related projects where research is currently being done in collaboration with various universities. He also explained how to apply for these research projects and the conditions which need to be fulfilled in order to be selected. The faculty members and research students from engineering and computing departments attended this meeting and in the Q/A session, they asked questions ranging from the steps to apply for both funded and non-funded research projects and the research collaboration opportunities for the faculty members and research students of CUST.



Huawei Cloud Services Community Visit to CUST

A team from Huawei Cloud Services Community, Pakistan, visited Capital University of Science & Technology, Islamabad on Thursday, 15th February, 2024 to discuss the potential collaboration avenues with ORIC. The delegation included Mr. Ishfaq Hussain (Head, Huawei Cloud Community, Pakistan) and Mr. Lee Wenbo (Director, Ecosystem Development Cloud Business Group, Pakistan).

The participants from CUST included Prof. Nayyer Masood, Dean ORIC and Mr. M. Raheel Anjum (Manager RM). The meeting started with the brief overview of CUST presented by Prof. Nayyer Masood. The meeting participants deliberated over the probable collaboration areas like Workshops/Training, Seminars, Students Placements, Pre-Seed Funding etc. Dean ORIC asked about the possibility of Boot camps/Training/Courses for CUST faculty/students, and inclusion of Courses on Huawei Cloud Services in syllabus. Huawei Community offered Free/Subsidized Certifications for CUST students. They also responded positively on the possibilities of Students' Placements and Pre-Seed Funding. Mr. Lee also found keen interest in signing MOU with CUST. It was agreed to start with the Kick Off Sessions for students at CUST, starting from March, 2024. These sessions would be held separately for various departments. The meet up ended on high note and proved to be great source of collaboration in the areas of mutual.



NESCOM Officials Visit to CUST

A delegation from National Engineering and Science Commission (NESCOM), Islamabad visited Capital University of Science & Technology on Thursday, 15 February, 2024 for Final/Interim Progress Review of RAC Collaborative Research Projects. The projects were thoroughly evaluated by reviewers, and after a detailed examination the reviewers gave satisfactory remarks about the projects. The reviewers also suggested few recommendations for ongoing project to complete it on time, and assured the relevant guidance from the respective NESCOM Co-PL



RoboCUST and Science Fair 2024

Capital University of Science & Technology hosted RoboCUST and Science Fair 2024, attracting students from various schools and colleges who showcased their remarkable models and innovations. Attracting students from various schools and colleges who showcased their remarkable models and innovations. Congratulations to the winners for their outstanding contributions.



CUST Business Idea Competition 2024

CUST thanks our distinguished guests, Ms. Farhat Bashir, CEO of Seerab Technologies, Mr. Hassan Nisar, Director of Worthwhile Builders, and Engr. Sohail Afzal, Professional Civil Engineer. We are so grateful for their presence and time, and for sharing their invaluable contributions to the CUST Business Idea Competition 2024. We are pleased to share highlights from CUSTBIC-24, organized by the Department of Management Sciences. This event brought together some of the brightest minds at CUST, showcasing innovative business concepts and entrepreneurial talent. Our participants impressed us with their creativity, collaboration, and professionalism. Congratulations to all the winners and a heartfelt thank you to everyone who contributed to making this event a resounding success.



World Food Safety Day Celebration

The Department of Psychology at Capital University of Science and Technology Islamabad has celebrated World food safety day on June 12, 2024, to provide awareness about food safety and food wastage. The main organizer of the event was Ma'am Uzma Mushtaq. Students Decorated boards to provide awareness and also planned various activities to engage the students and faculty members present in the cafeteria. This event raised awareness about the importance of food safety and its impact on health. The activities focused on promoting a safer, healthier world through mindful food practices.

Workshop on AI for Industrial Optimization

The CUST ASHRAE Student Branch recently organized an enlightening workshop titled "Artificial Intelligence for Optimization of Industrial Processes: Towards Social Transformation Through Education." Presented by Dr. Rasikh Tariq, a distinguished alumnus and Research Professor at Tecnológico de Monterrey, Mexico, the event was held on June 21, 2024. Dr. Tariq shared his extensive knowledge on the transformative power of AI in industrial settings with faculty members and research students from the Mechanical Engineering Department. The workshop highlighted advanced AI integration, sustainable development, and collaborative innovation, offering participants valuable insights and practical skills. The event concluded with Dr. Mahabat Khan, HoD of Mechanical Engineering, presenting a university shield to Dr. Tariq in appreciation of his exceptional contribution.

Seminar on "What Comes After Degree"

The Department of Accounting and Finance under the Society of Accounting, Finance & Economics (SAFE) organized a seminar on "What Comes After Degree: How Can You Be Truly Valuable?" on Thursday, June 6, 2024. The session, focused on "soft skill management," was conducted by Ms. Saddaf Adalat for 7th and 8th semester BS Accounting and Finance students. Ms. Snober Naseer, Associate Lecturer at CUST, led the interactive session, providing valuable insights for students' personal and professional lives. The seminar concluded with Dr. Jaleel Ahmed Malik presenting a souvenir to the guest speaker.



Session on “Avoiding under-theorization Through Critical Review of Literature”

Professional Development Planning team, Department of English, organized its 2nd seminar on January 18th, 2024. 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 Conflict Management

The Department of Accounting and Finance under the Society of Accounting, Finance & Economics (SAFE) organized a seminar on conflict management on June 3, 2024, for 3rd-semester students, supervised by Ms. Saddaf Adalat. Dr. Sundas Azeem from SZABIST University, Islamabad, was the resource person. The seminar covered a 3-step approach: Self-Assessment, Understanding Others’ Styles, and Effective Communication. The aim was to enhance students’ conflict resolution skills for personal and organizational effectiveness. The event concluded with a Q&A session and an assessment test, followed by Dr. Jaleel Ahmed presenting a souvenir to Dr. Sundas Azeem.



Training on Empowering the future leaders

Empowering the future leaders! Career Services launches Spring 2024 Capacity Building Training Sessions at CUST. Guided by industry and academic experts. The session talk Delivered by Dr. Maria Mashkoor to graduating students dive on LinkedIn Networking, Interview Skills, Resume Writing, and Work Ethics. CSO aims for smooth transition of students from Campus to corporate.



Training on LinkedIn Networking

Empowering the future leaders! Career Services launches Spring 2024 Capacity Building Training Sessions at CUST. Guided by industry and academic experts, the session was delivered by Mr. Ikrama Ahmad Virk, Head of HR at Synergy IT, to graduating computer science students. The training covered LinkedIn Networking, Interview Skills, Resume Writing, and Work Ethics. CSO aims for a smooth transition of students from campus to corporate life.



Training on Work Ethics

Empowering the future leaders! Career Services launches Spring 2024 Capacity Building Training Sessions at CUST. Guided by industry and academic experts, the session was delivered by Mr. Malik Muhammad Ali, Manager HR Nayatel, to graduating students of Pharmacy. The training covered LinkedIn Networking, Interview Skills, Resume Writing, and Work Ethics. CSO aims for a smooth transition of students from campus to corporate life.



Training on Interview Skills and Resume Writing

Career Services launches the Spring 2024 Capacity Building Training Sessions at CUST, guided by industry and academic experts. Mr. Arshad Mahmood Akif, CEO of ASK Development, conducted a training session under the program "Apne Bal Pa." With a vast portfolio of clientele in Pakistan and extensive global exposure, Mr. Akif has developed into an excellent trainer and problem solver, sharing his knowledge with over 8000+ professionals across various sectors, including banks, NGOs, public, and national & multinational organizations. Mr. Akif delivered an insightful session to graduating students, covering essential topics such as LinkedIn Networking, Interview Skills, Resume Writing, and Work Ethics. The Career Services Office (CSO) aims for a smooth transition of students from campus to corporate life, empowering them to become future leaders.



Seminar on Role of Ethics in Organizations

A seminar on "Role of Ethics in Organizations" was organized by students of Professional Ethics and Personal Management & Grooming, under the supervision of Mahwish Iram. Mr. Junaid Elahi was the distinguished guest speaker. He is a professional with vast experience in establishing and running education establishments in London, United Kingdom. He is an expert in conducting need analysis, developing and approving new programs, attaining partnerships with universities and higher education colleges, policy development, and branding and rebranding.



Seminar on Crafting a Winning Resume for Career Success

The Department of Accounting and Finance organized an insightful session themed “Mastering Your CV: Crafting a Winning Resume for Career Success” on May 22, 2024, for 7th and 8th semester students. The resource person, Ms. Javeria Khalid, Lecturer at CUST, led the session, aiming to provide crucial awareness on CV and resume building—the first step towards securing your first job. Ms. Javeria Khalid emphasized that a resume is a brief, concise document presenting an individual to prospective employers. It serves to market your skills, accomplishments, and experiences for employment, admission to graduate school, and consideration for scholarships or fellowships. The session was designed to equip students with the tools and knowledge needed to craft an effective resume, highlighting the importance of presenting oneself effectively to stand out in a competitive job market.

Seminar on healthcare professionals

Mr. Ajmal Khan began the seminar with an introduction to entrepreneurship, sharing personal anecdotes and emphasizing the challenges faced by healthcare professionals entering the entrepreneurial sphere. He highlighted the importance of hard work and perseverance, discussed key components of digital health, and shared data statistics about technology users in the UK, USA, and Pakistan, shedding light on emerging trends and opportunities. He emphasized the significance of mentorship and advised young pharmacists to gain practical experience before venturing into entrepreneurship. Mr. Khan stressed the importance of self-assessment, team structuring, and innovative idea development. He also discussed the purpose of entrepreneurship, focusing on fulfillment and job creation, and explored opportunities in telepharmacy services, medication management, and data analysis.



Training on transition of students from campus to corporate

Career Services launches Spring 2024 Capacity Building Training Sessions at CUST, guided by industry and academic experts. Ikrama Ahmad Virk, Head HR at Synergy IT, delivered a session to graduating students on LinkedIn Networking, Interview Skills, Resume Writing, and Work Ethics. CSO aims for a smooth transition of students from campus to corporate.



Seminar on Youth as Catalysts of Community Service

On May 15th, 2024, a transformative seminar on "Youth as Catalysts of Community Service" was organised by Cust Helping Hand Society featuring Mr. Tanveer Aslam (MPA-RWP), as the distinguished guest speaker. Mr. Tanveer Aslam, is a renowned politician for youth empowerment and community engagement. He delivered an inspiring keynote address emphasizing the crucial role of young people in shaping and uplifting their communities. His talk highlighted the innovative approaches and fresh perspectives that youth bring to community service, making them invaluable agents of change



Seminar on Enhancing Graduate Employability

Under the esteemed guidance of Prof. Dr. Shaukat Iqbal (BI & BS), the Department of Bioinformatics and Biosciences orchestrated an insightful seminar on Enhancing Graduate Employability. With Mr. Talha Aazar as the esteemed guest speaker, students received invaluable advice and strategies for navigating the competitive job market. A commendable effort by the department to empower students for their future endeavors.

Seminar on From Ordinary to Extraordinary

A seminar on "From Ordinary to Extraordinary: Elevating Your Personal Management and Grooming Skills" was organized by students of Personal Management & Grooming in collaboration with CUST Helping Hand Society. Mr. Muhammad Billal

Kazmi was the distinguished guest speaker. He is a dynamic & result-oriented HR Business Partner at Telenor Microfinance Bank, with over 14 years of experience. He is proficient in developing HR policies, executing recruitment strategies, managing payroll, and enhancing employee engagement. He is also skilled in HR analytics, compliance, and fostering diversity and inclusion. Last but not the least, Mr. Billal has been part of numerous profile development programs, including facilitation in personal growth, professional grooming, body language training and career starter kits for fresh graduates. The Seminar covered various personal management and grooming skills and involved multiple fun activities that engaged the audience in a manner that broadened their mindsets and critical thinking.



6.4. Entrepreneurship Marketing Gala-2023

Entrepreneurial Marketing Gala 2023 was organized, by the Department of Management & Social Sciences in December, 2023 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.



1 CUST Open House-2024

Faculty of Engineering at Capital University of Science and Technology (CUST) in collaboration with ORIC organized the Industrial Open House on July 2024. 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 48 projects were on display at the Industrial Open House from three departments. There were 10 projects from the Department of Electrical Engineering, 19 from Department of Mechanical Engineering and 19 from Department of Civil Engineering. Job interviews were also conducted by some of the organizations including TereSol and Creative Electronics. 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 from each department. The best project from each department was awarded with a cash prize of 10,000 rupees and 5,000 rupees were awarded to the runner ups. Certificates were also distributed among the participating groups. 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.



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

S.No.	Workshop Title	Duration	Dates
1	Revit Architecture Fundamentals	2 Days	August 9th & August 10th 2023

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

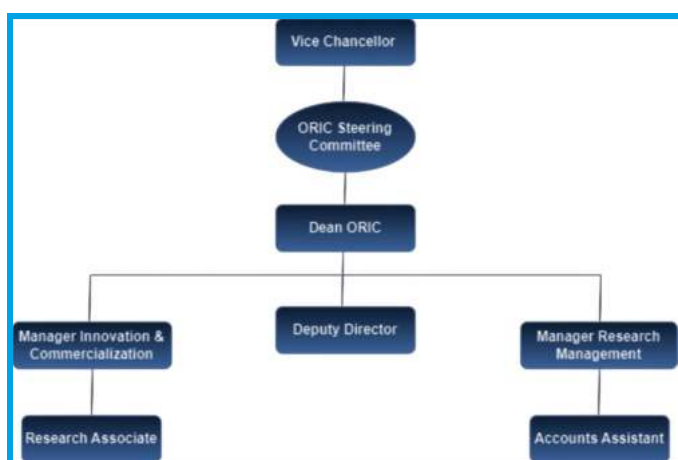
In pursuit of academia-industry linkage MOUs and joint agreements on spheres of mutual interest are signed with various national/international organizations. A number of ventures are done with industry through mutual collaborations and joint projects. ORIC has a central role in facilitating university's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

S.No.	Name	Designation	Status
1	Prof. Dr. M. Mansoor Ahmed	Vice Chancellor	Chairperson
2.	Mr. Mian Mudassir Farooq	Head, Tower Tech.	Member
3	Prof. Dr. Nayyer Masood Dar	Dean, ORIC	Member
4	Dr. Amir Qayyum	Professor, CUST	Member
5	Dr. Majid Ali	Professor, CUST	Member
6	Dr. Muzaffar Abbas	Professor, CUST	Member
7	Dr. Nadeem Anjum	Professor, CUST	Member
8	Mr. Abdul Qadeer	Director, Barkeley	Member
9	Mr. M. Furrukh Mahmood	CEO 11 Values	Member
10	Mr. Jafar Safdar	CEO, AQL Tech Solutions	Member
11	Mr. Tahir Mahmood Chaudhry	CEO, Falcon Engineering	Member
12	Mr. Raise Naqvi	CEO, Grand Solutions	Member
13	Mr. Mehmood Ahmed Warraich	Director, Pre-Cast Products	Member
14	Mr. Bilal Farooq	Founder, Consulting 360	Member
15	Mr. Haris Bilal Malik	Deputy Director ORIC	Secretary

7.3. 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 Meeting with NESCOM Officials on Funded R&D Projects

A delegation from National Engineering and Science Commission (NESCOM), Islamabad visited Capital University of Science & Technology on Thursday, 15 February, 2024 for Final/Interim Progress Review of RAC Collaborative Research Projects. The projects were thoroughly evaluated by reviewers, and after a detailed examination the reviewers gave satisfactory remarks about the projects. The reviewers also suggested few recommendations for ongoing project to complete it on time, and assured the relevant guidance from the respective NESCOM Co-PL



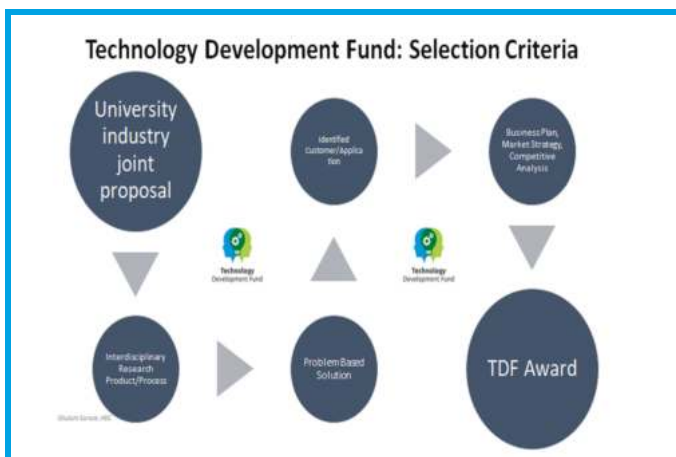
2 Eighth (8th) ORIC Research Committee Meeting

The 8th ORIC Research Committee Meeting chaired by Dean Research & Innovation was held on 1th October, 2024. 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 Pak-France PERIDOT Research Program (HEC)

The advertisement of Call for Proposals of Pak-France PERIDOT Research Program (HEC) 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 Pakistan Science Foundation (PSF)

The Call for Proposals for Pakistan Science Foundation (PSF) and Scientific & Technological Research Institution of Turkey (TUBITAK) Competitive Research Program (CRP) has announced the call for proposal. The aim of the call is to intensify cooperation between Turkish and Pakistani scientists/researchers in science and industry by means of Academia-Industry Cooperation projects. A faculty members (mentor) was involved with the project to support the students in their research activities.

3 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

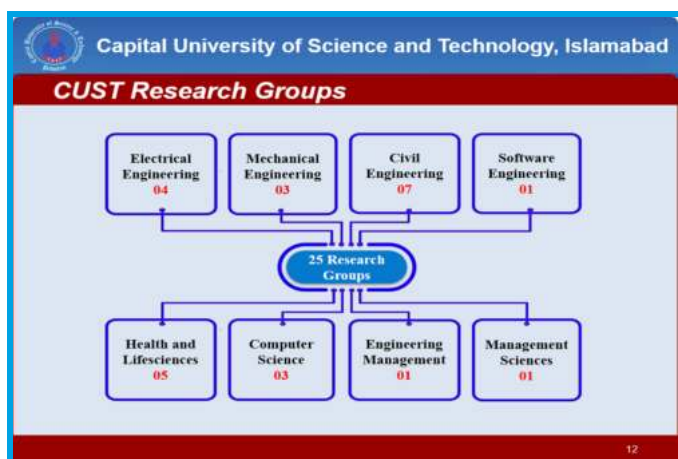
1 IGNITE Funding

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-2023 and Spring-2024. 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 Scrutiny/Verification of R&D Data for QEC YPR-2023

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.

11 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.



7.4. 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

ORIC - CUST organized a training session on " Intellectual Property(IP) focused on Patent for Faculty Members on Tuesday,October 8th, 2024 at 11:00 AM at Capital University of Science & Technology, Islamabad. Dr.Nayyer Masood , Dean ORIC Presided over the training session.The Resource Person for this training was Mr.Ghulam Mujtaba Kamal, Assistant

Controller of Patents at IPO. The IP training was a significant step towards fostering a culture of innovation and Intellectual Property awareness within the institution.



2 Hands-on Workshop on Latex

ORIC - CUST organized a training session on "Latex" for Faculty of Pharmacy on Monday, 7th Oct, 2024. The resource person for this training was Prof. Dr. Rashid Ali (Mathematics Department at CUST).

Workshop on Huawei Certified Cloud Data Administrator (HCCDA)

The ORIC Office, in collaboration with Huawei, conducted a "Workshop on Huawei Certified Cloud Data Administrator (HCCDA)" at C.U.S.T. The training workshop was a great success, with nearly 40 students participating in the two-day event. We were honored to have a guest speaker from Turkey, whose insights greatly enriched the learning experience for everyone involved.



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 of 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.

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 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 64 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.

4 IGNITE Funding (NGIRI-2023)

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-2023 to faculty and students and displayed the program on notice boards. ORIC is also the official coordinator of Ignite funding.

5 IGNITE Funding Reimbursement (NGIRI-2023)

IGNITE has shortlisted Thirteen Undergraduate Final Year Projects (FYPs) of CUST students for seed funding under NGIRI-2023. 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 0.83 M 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, 2023 and the proposals for funding were received till 31st December 2023. 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.



7.5. 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



S.No.	Organization Name	Nature of Organization	Public/Private	Date of MoU Signed
1	Chughtai Lab	Laboratory/Healthcare	Private	August 22, 2023
2	National Institutes of Health (NIH)	Research Institute	Public	September 15, 2023
3	Pakistan Freelancers Association (PAFLA)	Professional Association	Private	November 8, 2023
4	Shaigan Pharmaceuticals Private Limited	Pharmaceutical Company	Private	November 14, 2023
5	Iylus System Pvt. Ltd	Technology Solutions	Private	November 16, 2023
6	Emarat Design & Engineering	Design & Engineering Firm	Private	November 27, 2023
7	Creative Electronics & Automation (CREST)	Electronics & Automation	Private	April 18, 2024

S.No.	Organization Name	Nature of Organization	Public/Private	Date of MoU Signed
8	Premium Diagnostic Center	Healthcare Facility	Private	May 30, 2024
9	Sustainable Development Policy Institute (SDPI)	Research Institute	Public	June 3, 2024
10	M/s Fellow Builder	Construction Firm	Private	January 12, 2024
11	M/s NASR Engineering Consultants	Engineering Consultancy	Private	June 14, 2024
12	M/s City Engineering Services	Engineering Services	Private	September 27, 2024
13	Engineering Design and Consultants	Engineering Consultancy	Private	September 27, 2024
14	ZAC Engineers	Engineering Firm	Private	September 27, 2024
15	Design and Consultant Services	Consulting Services	Private	October 2, 2024
16	M/s MKAI Climate Consultant	Environmental Consultancy	Private	October 2, 2024
17	M/s JAEC	Engineering Consultancy	Private	October 17, 2024
18	Mark Associates	Consulting Firm	Private	October 23, 2024
19	Air University, Islamabad	Educational Institution	Public	November 21, 2023
20	Read Pakistan	Educational Organization	Private	March 8, 2024
21	Artificial Intelligence Community of Pakistan	Professional Association	Private	October 11, 2024
22	Red Farms	Agricultural Firm	Private	June 9, 2023
23	Fauji Foundation Hospital	Healthcare Facility	Private	February 28, 2024
24	Sabro Technologies (Pvt) Ltd.	Technology Solutions	Private	February 5, 2024
25	Aero Vision Technologies Pvt. Ltd	Technology Solutions	Private	January 9, 2024
26	Synergy-IT	IT Services	Private	December 28, 2023
27	Gubloo Tech	Technology Solutions	Private	December 28, 2023
28	Nayatel	Telecommunications	Private	December 28, 2023
29	NICAT	IT Services	Private	December 28, 2023
30	Aspire	Educational Organization	Private	December 28, 2023



7.6. International Collaborations

S.No.	Organization Name	Nature of Organization	Public/Private	Date of MoU Signed
1	ZiCON Cloud	Cloud Services	Private	December 8, 2023
2	TechValley	Technology Solutions	Private	March 19, 2024

1 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 ORIC Certification Courses-Fall-2023 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 Fall-2023 for professionals/ practitioners, who intend to develop on job skills and professional growth. The professionals from numerous corporate/defense organizations successfully completed the courses.

3 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, 2023. 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.



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 Fall-2023 and Spring-2024

The Ninth and Tenth volumes of ORIC Newsletters (Fall-2023 and Spring-2024) 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-2023 and Spring-2024. The Newsletters are projected across various universities with all university academic and administrative offices upon its publication.

2 ORIC Activity Reports Fall-2023 and Spring-2024

The ORIC Activities Book for Fall-2023 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-2023

The Directorate of Sustainability and Environment (DSE) has developed their Activities Report for 2023. 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)

QEC Introduction

The Quality Enhancement Cell (QEC) at Capital University of Sciences and Technology, CUST was established on August 28th, 2015 with a particular vision to improve the quality assurance practices of the institution. Its objective is to contribute towards the professional growth of faculty, related to teaching-learning and research competencies/ skills and improve the internal academic quality of the programs offered at CUST. QEC Cust has adopted the QA guidelines/ standards which were introduced by Quality Assurance Agency (QAA) of Pakistan to enable the HEIs to offer a conducive learning environment, to their students. It aims at facilitating students learning by equipping them with the requisite skills as per job market requirements.

Main functions of QEC involve; carrying out academic quality assurance activities, devising quality standard/parameters, based on the guidelines provided by regulators (Higher Education Commission and Professional Councils), ensuring its implementation to institutionalize a quality culture and develop a sense of commitment contributing towards continuous quality improvement, within CUST. QEC follows up the implementation plans developed by the departments and monitors the progress of proposed actions supposed to further strengthen and uplift the internal and external quality of education within institution.

The QEC believes in the vision of HEC & CUST contributing towards the improvement of the teaching-learning and research environment of the institution. These interventions help CUST to become world-class universities by producing quality graduates, suitable for the job market both at the national and international level.

8.2. Functions of QEC

The main functions of QEC are divided into two main categories, External Quality Assurance (EQA) and Internal Quality Assurance (IQA). External Quality Assurance involves, Institutional Performance Evaluation (IPE), Post Graduate Program Review (PGPR), Rankings and Accreditation whereas the Internal QA practices comprise of the Self-Assessment Reports (SAR), Feedback Surveys, Professional development Centre (PDC), Quality Assurance Committee (QAC) and Yearly Progress Report (YPR). Quality Enhancement Cell accomplished following tasks during the year 2023 effectively:

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

Institutional Performance Evaluation (IPE) and Post Graduate Program Review (PGPR) are external Quality Assurance (QA) activities which are regularly conducted every year, review report of each is submitted annually to HEC in form of a Yearly Progress Report (YPR). IPE and PGPR visits for CUST were conducted on 3rd to 5th January 2023 ,January 31st , 2024 and February 1st , 2024 respectively in the year 2023 and 2024 .The review teams provide the recommendations and suggest the corrective actions for improvement at institutional, departmental and program level which helping QEC in observing the compliance of the actions taken against the recommendations presented by Self-IPE and Self-PGPR review teams. Both the review teams showed their satisfaction regarding the previous compliance and actions taken for supporting quality culture at the CUST.

Feedback Surveys

Quality Enhancement Cell, gathers and compiles feedback through various quality assurance assessment instruments and conducts regular surveys of students, faculty, alumni, and employers. This helps to identify the areas of improvement, and where actions are required to be taken for further improvement. QEC regularly conducts Freshman Survey, Students' Course and Teacher Evaluation Survey, Exit Survey for graduating students, Alumni Survey, Employer Survey and Faculty Satisfaction Survey. Key findings and recommendations are then gathered and compiled in the form of an executive summary

for the said surveys by QEC and forwarded to the relevant quarters for their implementation. All the departments submitted the actions taken report to QEC after taking corrective actions within the stipulated timeframe.

Self-Assessment Reports (SARs)

Self-Assessment Reports (SARs), play a significant role in assessing the quality of all the academic programs at undergrad and graduate level. Therefore, self-assessment for all the programs has been carried out regularly by QEC. Program Teams prepare and submit the SAR for the respective department programs and Assessment Team reviews the SAR against the HEC QAA Standards. Assessment Team (AT) meetings for several programs were conducted, after which the AT recommendations were shared with the respective departments in form of an Executive Summary (signed by the Vice-Chancellor). QEC proposed key recommendations after AT meeting which were addressed by the departments, and a list of actions taken against recommendations was shared with QEC for onward submission. All the Action taken reports are then forwarded to the HEC as a part of Yearly progress Report.

PSG-2023

Higher Education Commission of Pakistan in collaboration with QAA UK, crafted a robust Quality Assurance Framework amalgamating internationally recognized QA standards with tailored, locally relevant solutions, with a principal mission to foster continuous improvement in the higher education sector of Pakistan. The Quality Assurance Framework titled as “Pakistan Precepts, Standards, and Guidelines for Quality Assurance in Higher Education (PSG-2023)” emphasizing on fostering independent thinking, transparency and accountability, facilitating effective collaboration with stakeholders and promoting active engagement with students, faculty, administrators and accreditation bodies. The Presets, Standards and Guidelines (PSG) has been considered focus of the revised Quality Framework interlinked with each of three proposed quality assurance processes. Precept, standards and guidelines for these QA processes has been outlines in the revised framework. These Precepts, standards and guidelines rationally align the standards with the institutional IQA and EQA both at program and institution level. The concept of Precepts under each domain of the proposed Quality Framework (REQAAB, RIPE, PREE) explains expected outcomes, Suggestive evidences and guidelines under each standard enabling its execution and implementation effectively.

CUST is committed to implement the PSG-2023 QA Framework in its letter and spirit and adopted the framework in principle. In this backdrop it established a centralized committee titled, “Institutional Quality Circle – IQC” which would serve as a highest formal institutional quality policy forum, headed by Vice Chancellor, IQAE (QEC), comprising of all statutory positions (Deans, HoDs, Registrar, Controller, Director Finance) and two Student Council Representative. Establishment of IQC as integral part of an institutional governance framework in the institution would maintain and improve EQA and IQA, facilitate and develop overall quality ecosystem within institution. The IQC will meet at-least four-times a year under the chairmanship of Vice Chancellor, to monitor the assessment of existing quality indicators and policies, ensuring the implementation of the recommended actions against IQA and EQA periodical reviews. QEC CUST will manage institutional planning, coordinate and follow-up the self -assessment activities through Institutional Quality Circle. IQC first meeting was held on 8th Oct ,2024.

Capacity Building Workshops:

Continuous professional development and capacity building of the faculty and staff are being organized regularly ensuring efficient and effective delivery of academic as well as administrative services to our students, the Professional Development Center has been established at Capital University of Science and Technology with the following objectives:



- ◇ Facilitate the faculty and staff members in improving and updating their knowledge and skills, teaching methodologies and relevant innovative techniques
- ◇ Promote research activities of the faculty members by providing conducive learning environment and maximum possible assistance
- ◇ Provide ample facilities and encouragement to faculty members for industrial collaborations
- ◇ Ensure skill development of individual faculty and staff members by analyzing their strengths and weaknesses



The Professional Development Centre conducts and arranges various workshops and consultative sessions for the faculty and staff members to achieve the above-mentioned goals. This year as well, PDC has arranged the following sessions and workshops:

- ◇ Importance of QS and THE Ranking
- ◇ On Effective Teaching Methodologies
- ◇ Role of SDGs in the development of PLOs and CLOs
- ◇ On Continuous Quality Improvement (CQI)
- ◇ Understanding the world in Qualitative Way
- ◇ Workshops for Program Teams on the preparation of Self-Assessment Report
- ◇ Workshops on Work Environment and Ethics
- ◇ Together we can get organized
- ◇ Time Management

HEC Score card

CUST has always been in the forefront for accepting and adapting best practices in the field of Education. Recognizing the role that it has to play in higher education sector, CUST established Quality Enhancement Cell in 2015. Since then this cell

has been striving to ensure that the university's quality assurance procedures are compatible with international standards and are designed to improve the quality of higher education. QEC CUST is amongst the only few QECs of the Pakistan to have achieved 98.61 highest score from HEC for the year 2023 and was rated as MMPS "Meeting Most parameters Satisfactorily - MMPS" against standards/targets set.

8.3. University Rankings

Rankings serve as effective management quality tool to effect Strategic, Organizational, Managerial and/or Academic interventions. It has become a vital source to attract students Academics, University administrators and Governments globally for identifying institutions for collaborations and partnerships. Moreover, University's Ranking are the second most-researched factor by prospective international students when choosing to study in any institution. QEC CUST also participates in various International Rankings to present CUST's achievements and has achieved remarkable positions and scores amongst top HEIs of Pakistan. CUST entered the World University Rankings (WUR), by Times Higher Education (THE), previous year for the first time and gained recognition worldwide as it was ranked first of the only six private universities across Pakistan securing score band of 401-500 for its Physical Sciences programs and 601-800 for its Engineering Programs.

Over all it ranked 4th amongst all the universities of Pakistan. This is a big achievement for CUST and will help maintain and build its Institutional Position and Reputation more effectively. Moreover, CUST entered Young University Rankings for the first time and was ranked 5th in all Pakistan. This ranking particularly assesses the performance and quality of HEIs of 50 or less than 50 years of age in particular. It's a remarkable achievement to have received score band of 201-250.

Apart from the Times Higher Education (THE) QEC CUST has also submitted data in the QS World University Rankings and is committed to participate in more international rankings to improve and enhance its standard of quality further.

QEC CUST believes in its vision of developing a quality culture throughout the institute and voices the quality improvement practices and suggestions at all the important statutory forums like Board of Governors, Executive Committee, Board of Advanced Studies and Research, Board of Faculty, Board of Studies and Industrial Advisory Board.

All the above-mentioned QA interventions would promulgate the CUST QEC endeavors in achieving its academic targets as per its vision and mission, encompassing the provision of quality learning environment, development of faculty and staff's professional competencies, nurturing ethical and professional skills of graduates demonstrating leadership skills and qualities as per national and international market demands.

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. ELIC 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. Some examples are the Employment Expos of Jang, Dawn, The News etc. where a strong presence of the institution was apparent through well placed and equipped stalls.

9.3. Events Organized by ELIC

Criminality, Extremism & Narcotics

The office of External linkages and International Collaborations (ELIC) in collaboration with CUST Character Building Club organized a session on the topic “Criminality, Extremism & Narcotics” where DIG Shoaib Khurram, Capital Police Officer, Safe City & Traffic, Islamabad, shared valuable insights and presented the practical picture of working by Islamabad Police to students of Capital University of Science and Technology with the essential knowledge of different crimes related to extremism and narcotics along with criminality.

Moreover, he discussed the causes of criminality, extremism and narcotics along with steps taken by ICT Police to control crimes due to such factors. This informative session concluded at Q/A session followed by shield presentation by Dr. Amir Qayyum along with Dr. Noor Muhammad Khan to Guest Speaker.



Preparing Youth against the Threat of Cybercrimes

The office of External linkages and International Collaborations (ELIC) prepared a presentation and collaborated with the Mathematics department to present the presentation to students to guide them about the threat of cybercrimes, their types and the various measures to fight cybercrimes.

Information Session on Erasmus Plus CBHE Call for Proposals 2024

Information session on Erasmus Plus CBHE call for project proposals was held on 24th January 2024 at Conference Room, F-Block. ELIC Office has invited all of the faculty members of the university to attend this informative session. Dr. Amir Qayyum presented the Erasmus CBHE program and the latest call for proposals, the rules and regulations and the benefits of applying for this funding. He provided details of the program and explained the National and Regional Projects as well as the Strand 1 and Strand 2 Projects. He also talked about the new lump sum project funding and the process of proposal submission at the Erasmus portal.

The faculty members from various departments attended this meeting and in the Q/A session, they asked questions ranging from understanding the rules to the challenge of approaching foreign universities to collaborate with CUST for this project.



Collaboration with University of Huddersfield, UK

Dr. Ejaz Ahmed, Manager International Relations, University of Huddersfield, UK visited CUST on Monday 26th February 2024 to conduct a seminar in collaboration with ELIC office at Workshop Room, B-Block. Faculty members from all departments of the university were invited to attend this informative session. In this session, Dr. Ejaz Ahmed gave an introduction about the University of Huddersfield, its goals, the program opportunities and the benefits offered there for international students and researchers.

Dr. Qasim Ahmed, Department of Engineering and Technology, University of Huddersfield, UK visited CUST on Monday 11th March 2024 to conduct a seminar in collaboration with ELIC office at Workshop Room, B-Block. Faculty members and research students from engineering and computing departments were invited to attend this informative session. In this session, Dr. Qasim Ahmed gave valuable insight about the various types of computing, IT and electrical engineering related projects where research is currently being done in collaboration with various universities. He also explained how to apply for these research projects and the conditions which need to be fulfilled in order to be selected.

Faculty members from various departments attended these meetings and in the Q/A sessions, they asked questions ranging from the steps to apply for both funded and non-funded research projects and the research collaboration opportunities for the faculty members and research students of CUST.

Power of Reading Books

The office of External linkages and International Collaborations (ELIC) in collaboration with CUST Character Building Club hosted a session, unveiling the benefits of book reading where guest speaker Engr. Abdus Samad Farooq, Writer, Book Reviewer, delivered insightful notes, recommendations with respect to book reading and basic terms to make it apprehensive for young aspirants at Capital University of Science and Technology, Islamabad.

Further, the guest speaker explained the comparative terminologies utilized in book reading and discussed multiple benefits of book reading as this habit improves sleep patterns, cognitive abilities and many more.

This interactive session concluded at Q/A session followed by shield presentation by Mr. Atif Arshad along with Ms. Sundus Malik to guest speaker as a complimentary token.



10. Career Services Office

10.1. Function of CSO

Career Services Office (CSO) at Capital University of Science and Technology, Islamabad embark on another year of empowering futures, our mission remains steadfast in bridging the gap between academia and industry. We are Committed to preparing students for the dynamic market, we have curated a spectrum of initiatives, from tailored soft skills training to fostering invaluable connections with industry leaders.

This year, our achievements resonate with our dedication. In 2023, CSO successfully conducted two impactful Career Expos, facilitating invaluable interactions between students and prospective employers. Strengthening our commitment to collaboration, we proudly signed more than 10 Memorandums of Understanding (MoUs) with key industry players, fostering enduring relationships.

Additionally, we orchestrated three recruitment drives, hosted 23 Capacity Building Training Sessions, and organized seven seminars and workshops, providing students with the tools they need to thrive in the professional world. In our pursuit of comprehensive support, we took a significant step forward by developing Students Graduate Directories, serving as a valuable resource for potential employers.

As we reflect on these accomplishments, we invite you to join us in celebrating the growth, collaboration, and success achieved in the past year. Together, we continue to chart the course toward a future where our students excel in their careers, armed with knowledge, skills, and a network that extends beyond the classroom.

10.2. Recruitment Drives

Genesis Lab

Al-meezan Investment

On February 10, 2023, we once again conducted an on-campus recruitment drive, this time in collaboration with Al-Meezan Investment Limited at Capital University of Science and Technology, Islamabad. Engaging in the event were 8th-semester students from different departments, including Management Sciences, Accounting & Finance, Psychology, and Mathematics, along with recent alumni who appeared during the interview process.



Funsol Technologies

CSO hosted an on-campus recruitment drive on March 16th, 2023, partnering with Funsol Technologies Pvt. Ltd., a prominent IT company, exclusively for CUST students. While primarily targeting Fall 2023 fresh graduates and last-semester students of FOC and FOMSS, the drive extended invitations to all graduating students and recent alumni. A total of 108

candidates registered online, with 79 participating in the initial interview and screening test. Notably, three graduates received and accepted job offers, while 20 students were assigned task-based assignments for potential job opportunities upon successful completion.

10.3. Internship Expo

The Internship Expo was conducted by the Career Services Office (CSO) in collaboration with the Jinnah Management Society students on June 6, 2023, Tuesday. The event was an outstanding success, attracting a large number of students from various departments and featuring the participation of over 30 organizations from different sectors.

The primary objective of the Internship Expo was to provide students with the opportunity to explore and secure summer internships and job placements. Additionally, it aimed to connect students with potential employers and foster meaningful professional relationships. By hosting this event, our aim was to bridge the gap between academia and industry, ensuring that students have access to real-world experiences and career opportunities. The Internship Expo was not limited to graduating students or those near graduation.

A total of 30 organizations, representing diverse sectors, actively participated in the Internship Expo. The organizations included renowned companies, non-profit organizations, and a few international ones. Their presence provided a wide range of opportunities for students to explore and consider. The sectors represented included finance, technology, healthcare, engineering, marketing, education, etc.

Junior students, ranging from 1st to 4th semester, also actively participated in the event with the intention of gaining valuable learning experiences and exploring potential internship opportunities.

Students from all departments of our institution enthusiastically participated in the event. The Expo attracted a diverse group of students, including undergraduates and graduates from various disciplines. The event provided them with a platform to showcase their skills, knowledge, and passion, and to interact directly with potential employers.

Internship Expo Data Report

Students from all departments of our institution enthusiastically participated in the event. The Expo attracted a diverse group of students, including undergraduates and graduates from various disciplines. A total of 639 students participated in the internship expo. A total of 310 students appeared in Interview. 30 organizations participated in the event

10.4. Capacity Building Training

The Capacity Building Training is a cornerstone of our commitment to student success. We continually strive to provide high-quality, comprehensive training and support to ensure that our graduates are exceptionally well-prepared to meet the challenges of the ever-evolving job market.

The prime objective of these training sessions is to empower students with the necessary skills and knowledge to enhance their employability and confidence in the job market. The key areas covered in these sessions include job hunting strategies, resume writing, interview skills, tips and tricks to win international scholarships, and entrepreneurial skills. The training sessions are primarily conducted by industry experts and external trainers who bring real-world experience and expertise to the students. These external trainers provide valuable insights into industry trends, job market expectations, and global perspectives. Additionally, a select group of internal trainers, who are subject matter experts, supplement the external expertise, ensuring a well-rounded training experience. Almost 213 students received capacity-building training in Fall-2023.

10.5. Seminar & Workshop

In 2023, the CSO at CUST conducted a series of seven engaging seminars and workshops designed to enrich students' career prospects and knowledge base. The lineup commenced with an insightful seminar on "Future Paths in Civil Services of Pakistan," providing valuable insights into the opportunities and challenges within the public sector. Following this, a seminar on "Freelancing and Issues of Payments" was organized, shedding light on the burgeoning freelance economy and the intricacies of payment systems, crucial for students considering freelancing as a career option.

Additionally, the office hosted a seminar on the "Future of Computing," offering a glimpse into the rapidly evolving field of technology. Furthermore, a seminar focusing on "Drug Awareness" was conducted, aimed at educating both students and faculty about the importance of leading a drug-free life. To cater to the technical skills development of engineering students, workshops on "Primavera" and "Bolted Joints" were conducted, providing hands-on learning opportunities and industry insights essential for their future careers. These seminars and workshops collectively aimed to equip students with the knowledge and skills necessary to navigate their professional journeys successfully.

10.6. Seminar

Career in Pakistan Civil Services

The Career Services office organized an On-Campus Seminar on CSS/PMS Exams 2024 that was held on March 8, 2023, for the graduating batches of all the faculties of the Capital University of Science and Technology, Islamabad. Mr. Mureed Hussain Jasra (40th Common), currently serving in the Revenue Division, was invited to provide insights on Competitive Exams (CE) and career orientations in Pakistan Civil Services (PCS).

Drug Awareness

The Drug Awareness Session was successfully conducted on August 22, 2023, as per the scheduled time in the F-Block Workshop Room at the Capital University of Science and Technology (CUST). The seminar was organized collaboratively by the CSO, in partnership with Chughtai Lab, and featured Dr. Humera Shafi, Chief Toxicologist, as the keynote speaker.

Dr. Humera Shafi, an esteemed expert in the field of toxicology, shared her insights during the session. Her expertise and experience provided a comprehensive understanding of the topic, engaging the audience with relevant and eye-opening information.

Freelancing Payment System

The CSO organized a seminar on Freelancing Payment Systems on November 8, 2023, with the aim of enlightening students on the intricacies of freelancing, payment challenges, and career opportunities. The event took place in Auditorium A-1 and featured distinguished guest speakers from various domains related to freelancing.

The discourse covered fundamental aspects of freelancing, addressing payment-related challenges, and exploring diverse career avenues available to students. The engaging talk spanned an hour, providing valuable insights and practical advice to the audience.

Approximately 120 students and faculty members from various departments attended the event. The seminar and panel talk proved to be a resounding success, offering students a comprehensive perspective on freelancing as a viable career option. The event facilitated informed decision-making among attendees, particularly in the realm of freelancing. The diverse backgrounds of the guest speakers contributed to a well-rounded discussion that resonated with the audience.

The event concluded with the distribution of shields to the esteemed guest speakers as a token of appreciation for their valuable contributions. This marked a gesture of recognition for their efforts in enhancing the knowledge and awareness of freelancing and payment systems among the CUST community. The Freelancing Payment System Seminar and Panel Talk not only provided a platform for insightful discussions but also served as a catalyst for students in making informed career choices in the dynamic field of freelancing.

Job Fair 2023

The NextGen Corporate Summit 2023 was a resounding success, bringing together academia and industry in a dynamic exchange of ideas and opportunities. The summit comprised five major events, each contributing to the overarching goal of enhancing collaboration between students, faculty, and corporate entities.

Expo Corporate Summit on Careers 2023

Career Services Office at Capital University of Science & Technology organized the Next Gen Corporate Summit Career Expo on December 12, 2023. which was a great success for the university. Students showcased their projects to the corporate world, and organizations not only hired students but also signed MOUs with the university, marking a significant milestone in bridging academia and industry.



This event featured many companies from various sectors, including technology, healthcare, and engineering, providing students with a diverse array of career opportunities. The expo allowed students to engage directly with potential employers through interviews and networking sessions, enhancing their visibility in the job market. Many students reported receiving job offers on the spot, reflecting the high demand for talent from CUST graduates. In addition to recruitment activities, the summit included workshops and panel discussions led by industry leaders. These sessions focused on essential skills such as resume building, interview techniques, and professional networking strategies. Participants had the opportunity to gain insights into industry trends and expectations, equipping them with the knowledge needed to navigate their career paths effectively.



Interviews

A major highlight of the event was the series of interviews conducted by 60 prominent companies. These interviews targeted students from the 6th, 7th, and 8th semesters, providing them with valuable opportunities for hiring and placement. Notably, participants from all semesters and departments were encouraged to engage, fostering maximum industry interaction.

Iconic Projects Display

The summit showcased the departments' iconic projects, providing a tangible representation of CUST's academic prowess. This not only celebrated students' achievements but also facilitated networking opportunities and industry recognition.

Projects Review

Students presented their projects to experts from Python Leads Private Limited, ZiCon International, Adventures Private Limited, National Incubation Centre Aerospace and Technology, and Shaigan Pharmaceutical Pvt Ltd. This provided a platform for constructive feedback and facilitated valuable industry-academia collaboration.

Panel Talks

Three engaging panel discussions, featuring seasoned professionals, explored the theme of transitioning from campus to corporate life. These talks delved into market insights, skill demands, and adapting to change, offering students invaluable insights for a smooth transition.

10.7. Google Career Certifications

The Career Services Office introduced free-of-cost Google Career Certificates for all students and alumni of CUST. The Google Career Certificates program offers industry-recognized certifications in various fields and equips individuals with the skills necessary to pursue a successful career in the digital landscape. This initiative was a direct outcome of the Memorandum of Understanding (MoU) signed between the Career Services Office and the Institute of Rural Management (IRM), a Google Partners Company, enabling students to access the following nine courses for distance/online learning.

A total of 1,542 students and alumni registered for learning across all departments for these specialization courses.

It is important to mention that the Google Career Certificates program offers valuable opportunities for students to enhance their skills and gain industry-recognized credentials. The program's popularity and impact can be seen through the significant number of registrations from diverse departments.

Keeping this in view, the Career Services Office organized a Google Career Certificates Distribution Ceremony on November 8, 2023, to recognize the achievements of students who successfully completed various specializations offered through the partnership with IRM, a Google Partners Company.

10.8. Industrial Visits

The Career Services Office organized industrial visits for the graduating students of the departments of Computer Sciences, Software, and Mechanical Engineering to the National Incubation Centre for Aerospace and Technology (NICAT). The primary goal was to provide students with practical exposure to real-world industry settings, foster a better understanding of market dynamics, and provide them with a platform to channel their energies toward entrepreneurship.

During the visit, students had the chance to interact with entrepreneurs and startups operating within NICAT. This interaction provided them with valuable perspectives on the challenges and successes experienced by emerging companies in the aerospace and technology sector.

10.9. Strategic partnerships

In 2023, the Career Services Office achieved significant milestones in enhancing students' career prospects through strategic partnerships. We established several Memorandums of Understanding (MoUs) with various organizations, focusing on training and development, career counseling, job and internship placements, as well as skill-based certifications. These partnerships are a testament to our commitment to providing comprehensive support to students, bridging the gap between academia and industry, and preparing our graduates for successful careers.

Through these collaborations, students have access to a wide range of opportunities to enhance their skills, gain valuable experience, and explore diverse career paths. Whether through internships that provide hands-on learning, career counseling

that offers personalized guidance, or skill-based certifications that enhance their marketability, these initiatives aim to empower students to achieve their professional goals. The Career Services Office looks forward to further strengthening these partnerships and continuing to support students in their career journey.

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 2023, 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
Fall 2023	4034	247.9 Million PKR
Spring 2024	3940	280.1 Million PKR
Total	7974	528 Million PKR

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

For Undergraduate Programs (PGC Scholarship)

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

MS/MPhil Programs Scholarship

Category	FMSS, FHLS, FOE, FOC, FOP	Scholarship	Continuation CGPA
Merit	3.75/4.00 CGPA	60%	3.90 or Higher
Merit	3.50/4.00 CGPA	50%	From 3.75 to 3.89
Merit	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 2023

Inauguration of Sports Activities held in 2023

Sports committee formulated for Fall 2023 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, 2023. 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 Foot Ball

The tournament of Football was started on October 17, 2023. 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 15 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 1, 2023, between teams from department of Computer science and department of Civil Engineering. The team from department of Civil Engineering was considered as winner with score of 1 -0.



Inter Departmental Snooker (Singles)

The tournament of Snooker was started on December 12, 2023. 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, 2023 between Department of Associate Degree Programs and Department of Civil Engineering.



Inter Departmental Basketball

The tournament of basketball was started on October 23, 2023. 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 15 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 October 31, 2023, between teams from department of Management Sciences and department of Software Engineering. The team from department of Software Engineering was considered as winner with score of 11 vs 7.



Inter Departmental Table Tennis (Singles)

The tournament of Table tennis singles was started on October 23, 2023. 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 15 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 October 27, 2023, between player from department of Accounting & Finance and department of Software Engineering. The player from Department of Software Engineering was considered as winner with score of 3 - 0 sets.



Inter-Departmental Volleyball

The tournament of Volleyball was started on November 6, 2023. 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 November 28, 2023, between teams from department of Accounting & Finance and department of Software Engineering. The team from Department of Software Engineering was considered as winner with score of 3 vs 0 sets.



Inter Departmental Table Tennis (Doubles)

The tournament of Table tennis doubles was started on December 18, 2023. 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 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 December 22, 2023, between teams from department of Software Engineering and department of Biosciences. The team from Department of Software Engineering was considered as winner with score of 3 vs 0 sets.

Inter-Departmental 100 Meters (Athletics)

The tournament of 100 meters (Athletics) was started on December 27, 2023. 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 every department participated with the 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 run-on December 28, 2023. The team from Department of Civil Engineering was considered as winner with 11.42 second's run.

12.2. Major Sports Events of Girls held in 2023

Inter Departmental Table Tennis (Singles)

The tournament of Table tennis singles (Girls) was started on October 16, 2023. 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 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 October 20, 2023, between teams from department of Psychology and department of Pharmacy. The team from Department of Psychology was considered as winner with score of 3 vs 0 sets.

Inter Departmental Table Tennis (Doubles)

The tournament of Table tennis Doubles (Girls) was started on December 18, 2023. 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 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 22, 2023, between teams from department of Psychology and department of Computer sciences. The team from Department of Psychology was considered as winner with score of 3 vs 0 sets.



Inter Departmental Ludo

The tournament of Ludo (Girls) was started on October 23, 2023. 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 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 October 27, 2023, between teams from department of English and department of Electrical Engineering. The team from Department of Electrical Engineering was considered as winner with score of 4 vs 0 sets.

Inter Departmental 100 Meters (Athletics)

The tournament of 100 meters (Athletics) was started on December 27, 2023. 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 department run 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 run-on December 28, 2023. The team from Department of English was considered as winner with 16.31 second's run.

Capital University Participated in HEC Championship

Capital University of Sciences and Technology (CUST) proudly participates in the HEC Zone E category, which comprises 18 universities. The academic session of 2023-2024 marked a vibrant and competitive year for CUST in the realm of sports. Our university showcased its talent and determination by actively participating in various Higher Education Commission (HEC) Zone E Championships, achieving commendable performances across multiple sports disciplines. Below is an overview of our university's participation and achievements:

Volleyball Championship

Our university's Volleyball team participated in the HEC Zone E Championship held at NUML University, Islamabad, on September 20, 2024. The team demonstrated remarkable skill and resilience, defeating formidable opponents such as COMSATS, HITEC University, and Air University to secure a spot in the final. Despite a strong performance, the team secured the second position, marking a significant accomplishment.



Basketball Championship

On November 1, 2023, our Basketball team competed in the HEC Zone E Championship organized by UET Taxila. The team advanced to the quarterfinals but faced a challenging match against Air University, resulting in a close defeat. The players' dedication and teamwork were commendable throughout the tournament.

Table Tennis Championship

Our university's Table Tennis team participated in the HEC Zone E Championship on November 12, 2023. The event was hosted by HITEC University, Taxila. The team performed admirably, advancing to the semifinals, where they faced NUML University. Despite their best efforts, the team concluded their journey in the semifinal stage.



Badminton Championship

On December 20, 2023, our Badminton team took part in the HEC Zone E Championship, which was held at Arid University, Rawalpindi. The team exhibited exceptional skills, making their way to the quarterfinals. Although they were unable to advance further, their performance was a testament to their commitment and hard work.

Football Championship

The Football team represented our university in the HEC Zone E Championship held on February 15, 2024. The tournament was hosted by Arid University, Rawalpindi. The team displayed excellent sportsmanship and advanced to the semifinals, where they faced a tough match against the host team, Arid University, and narrowly missed a spot in the finals.

12.3. Hockey Championship

On April 18, 2024, our Hockey team participated in the HEC Zone E Championship, hosted by NUML University, Islamabad. The team advanced to the quarterfinals, where they faced COMSATS University, Islamabad. Despite their efforts, they concluded their journey in the quarterfinal stage.

Conclusion

The session 2023-2024 was a testament to the unwavering spirit and dedication of CUST's athletes. While we celebrated remarkable achievements, including a second-place finish in volleyball, our teams' participation across various sports fostered growth, teamwork, and resilience. These accomplishments reflect the commitment of our students and the support of the university towards promoting sportsmanship and excellence.

12.4. CUST Auto Show-2023

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 2023 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.



12.5. Annual Musical Festival 2023

As per tradition, Capital University of Science and Technology, Islamabad organized Annual Musical Festival 2023 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)

Volunteers In Service (VIS) Directorate of Capital University of Science & Technology (CUST) has accomplished its MOUs with 96 well-known and well-reputed social sector organizations including some international organizations till summer 2024.

CUST-VIS Directorate started its operation from summer 2017 with the vision to foster socially responsible citizenship and the mission to instill a spirit of volunteerism in our youth so that they realize the importance of their roles in the betterment of society. The initial deployment began with a very small number of volunteers but the number increased with. Currently, the Directorate has placed more than 1200 students in Fall, Spring and Summer 2023-24 in 45 well-known social sector organizations as volunteers. Some of these organizations are Pakistan Girl Guides Association, Social Welfare & Baitul Mal, Government of Punjab, Pakistan Red Crescent Society, Islamabad Traffic Police, Al Khidmat Foundation Pakistan, Taaleem Foundation, Special Education Department, Government of Punjab Shaukat Khanum Memorial Trust, Pakistan Alliance for Girls Education, and Helping Hand for Relief and Development. It is worth mentioning here that CUST-VIS Directorate placed its volunteers all over Pakistan including AJK and Gilgit Baltistan. Some of the preferable thematic areas for placement of volunteers are Non-formal Education, Health Care, Persons with Disabilities and Environment.

CUST-VIS Directorate is the pioneer Directorate in the field of volunteerism in the capital city of Pakistan, Islamabad where more than 6000 volunteers are registered and awarded satisfactory grades successfully. Social sector organizations acknowledged CUST-VIS Directorate initiatives towards betterment of society and declared CUST-VIS Directorate as the best partner.

Summary of Achievements

- Volunteers Engaged: 6,000
- Memorandums of Understanding (MOUs) Established: 96
- Collaborations (Internal and External): 22
- Site Visits Conducted: 20
- Contract Renewals: 10
- Projects Initiated: 3
- Training Sessions Held: 2

13.2. KEY HIGHLIGHTS

Non-Formal Education

Approximately 40

Placement all over Pakistan Placement was made in 40 cities of Pakistan including AJK and Gilgit Baltistan

Success Ratio of Volunteers

Approximately 81 percent volunteers were awarded grade (S)

Green & Healthy Project

Two medical camps were initiated in the surrounding area of CUST, UC - Sihala UC - Mughal

Plantation Drives

CUST-VIS Directorate in coordination with Directorate of Sustainability & Environment (DSE) and English Department initiates plantation drives

Islamabad Traffic Police Facilitations

Islamabad Traffic Police brought their "Facilitation on Wheels" to the University in coordination with CUST-VIS Directorate. Students, faculty, and staff took advantage of convenient services including

- Issuance of Learner
- Renewal of Driving Licenses
- Issuance of Duplicate Driving Licenses

Placement all over Pakistan

Placement was made in 40 cities of Pakistan including AJK and Gilgit Baltistan

Teachers Training

In collaboration with English Department, the Directorate organized a training for teachers of IMSB Sihala

Career Counseling

CUST-VIS Directorate engaged students for career counseling sessions in following schools where 200 persons from underprivileged areas benefited

- IMSB Sihala
- IMSB Ghagri

13.3. VIS PROJECTS

As per instructions of the worthy Vice Chancellor, Prof. Dr. Muhammad Mansoor Ahmed, CUST-VIS Directorate initiated "Each One Teach One", "Re-cycling Note Books" and some other projects in Spring and Summer, 2024. More than 250 volunteers were placed in the projects and number of beneficiaries reached to 1000.

In addition to these initiatives, CUST-VIS Directorate collaborated with CUST students' societies, departments, offices and directorates and launched plantation campaigns, training sessions for schools' teachers and arrangement of blood donation camps.

Activities at Glance

The glimpses show first aid training, free medical camps in UC Sihala and UC Mughal (green & healthy), CUST Recycling Project (note books distribution in Jhuggi School), VIS orientation, plantation drive, internal and external collaborations, visits and seminars.

Department	Spring-Summer Placement	Total Report Re-ceived	Re-	Reports Rejected
Pharmacy	104	103		01
Mathematics	1	01		
Accounting & Finance	45	41		01
Computer Science	104	90		
Management Science	109	91		03
Psychology	35	29		

Department	Spring-Summer Placement	Total Report Received	Re- Reports Rejected
Software Engineering	103	79	01
Health & Life Sciences	66	47	01
English	30	21	01
Computer Engineering	22	13	01
Electrical Engineering	12	07	01
Mechanical Engineering	19	11	01
Civil Engineering	29	13	01

Renowned Partners

- ◇ REDO
- ◇ Junior Jinnah Trust
- ◇ Akhuwat Foundation
- ◇ DUA Children Foundation
- ◇ Shaukat Khanum
- ◇ Jhuggi Taleemi Project
- ◇ TNW
- ◇ Al-Hijrah
- ◇ Behbud Association
- ◇ Islamabad Traffic Police
- ◇ Pakistan Red Crescent Society
- ◇ Strive Trust

14. University Governance Structure

14.1. Board of Governors (BOG)

The Board of Governors (BOG) governs and administrates managerial, academic and financial matters of the university, and lays down policies for the Institute. The board consists of a chairperson, 17 members and a secretary. The BOG Meeting is chaired by Mian Aamer Mahmood, Chancellor, CUST. Until now a total of 17 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	Mr. Muhammad Rafique Tahir, Joint Educational Advisor (Retd.), Ministry of Federal Education and Professional Training, Islamabad	Member
9	Dr. Muhammad Mansoor Ahmed, Vice Chancellor, CUST	Member
10	Nominee of Ministry of Education	Member
11	Nominee of Higher Education Commission	Member
12	Dr. Zubair A. Shaikh, President, MAJU	Member
13	Dr. Arshad Hassan, Professor/Dean, FMSS, CUST	Member
14	Dr. Samina Karim, Executive Manager Organization Development & Talent Sourcing, Mobilink Microfinance Bank Ltd, Islamabad	Member
15	Dr. Imtiaz A. Taj, Professor/Dean FOE, CUST	Member
16	Dr. Nadeem Anjum, Professor/HoD SE department, CUST	Member
17	Dr. Majid Ali, Professor CE, department, CUST	Member
18	Director of QEC, CUST	Member
19	Registrar, CUST	Secretary



Powers and Functions of BOG

- ◇ 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 52 meetings of Executive Committee have been conducted. The committee consisting of 8 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	Chairperson
2	All Deans		Member
3	Dr. Amir Qayyum	Professor	Member
4	Dr. Muhammad Sagheer	Professor	Member
5	Dr. Muhammad Umar Farooq	Professor	Member
6	Mr. Malik Arshad Mehmood	Registrar	Member
7	Dr. Wasim Nasir	Treasurer	Member
8	Mr. Hassan Mahmood Awan	Controller of Examination	Member
9	Mr. Fida Hussain	Director QEC	Member

Powers and Duties of the Executive Committee

- ◇ 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 40 meetings of Academic Council have been conducted. The committee consisting of 16 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	Chairperson
2	All Deans		Member
3	All Head of Departments		Member
4	Dr. Nayyer Masood	Professor	Member
5	Dr. Aamer Nadeem	Professor	Member
6	Dr. Shaukat Iqbal Malik	Professor	Member
7	Dr. S. M. M. Raza Naqvi	Professor	Member
8	Dr. Rashid Ali	Professor	Member
9	Dr. Mahboob Alam	Associate Professor	Member
10	Dr. Salman Sagheer Warsi	Associate Professor	Member
11	Dr. Imran Riaz Malik	Associate Professor	Member
12	Dr. Muhammad Sabeel Khan	Associate Professor	Member
13	Dr. Nadia Shamshad Malik	Associate Professor	Member
14	Mr. Malik Arshad Mehmood	Registrar	member
15	Mr. Hassan Mahmood Awan	Controller of Examination	Member
16	Mr. Fida Hussain	Director QEC	Member
17	Mr. Alamgir khan	Librarian	Member

Powers and Duties of the Academic Council

- ◇ 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 award of research degrees. Until now a total of 42 BASR meetings have been conducted. The board consisting of 8 members is headed by the Vice Chancellor, CUST.

S.No.	Name	Designation	Status
1	Prof. Dr. M. Mansoor Ahmed	Vice Chancellor	Chairperson
2	All Deans		Member
3	Dr. Nayyer Masood	Professor	Member
4	Dr. Noor M. Khan	Professor	Member
5	Dr. Majid Ali	Professor	Member
6	Dr. Muhammad Umar Farooq	Professor	Member
7	Dr. Jaleel Ahmed	Associate Professor	Member
8	Mr. Fida Hussain	Director, QEC	Member
9	The Professors Emeritus		Member

Powers and Duties of BASR

- ◇ 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 Steering Committee
- 7 University Industrial Outreach Committee
- 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)

Conclusion

The governance structure of Capital University of Science and Technology (CUST) is comprised of several key statutory bodies that oversee various aspects of university administration. The Board of Governance is the highest authority, responsible for managing managerial, academic, and financial matters while establishing policies for the institution. Supporting this board is the Executive Committee, which supervises the university's management. The Academic Council focuses on maintaining standards in instruction, research, and examinations, thereby promoting a vibrant academic environment. Additionally, the Board of Advance Studies and Research (BASR) advises on enhancing advanced studies and research initiatives within the university.

At a lower level, CUST has several additional bodies that facilitate specific functions. These include the Admin Committee, which handles administrative tasks; Boards of Faculty and Boards of Studies for each department that guide academic programs; and Industrial Advisory Boards that connect academic departments with industry needs. Other committees such as the Quality Assurance Committee (QAC) ensure educational standards, while the Office of Research, Innovation and Commercialization (ORIC) promotes research initiatives. The University Industrial Outreach Committee (UIOC) engages with industry partners, and bodies like the Selection Board, Discipline Committee, and Finance and Planning Committee manage personnel selection, student discipline, and financial planning respectively.