

**ANNUAL REPORT
OF THE UNIVERSITY
FOR THE YEAR 2019-2020**



**NATIONAL UNIVERSITY
of Computer & Emerging Sciences
FAST House, Rohtas Road, G-9/4
ISLAMABAD, PAKISTAN
URL: www.nu.edu.pk
Email: registrar@nu.edu.pk**

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Preamble

As we reflect on another year of growth and achievement, we proudly present the Annual Report for the National University of Computer and Emerging Sciences (FAST-NUCES). Founded as a Federally Chartered University in July 2000, FASTNUCES has emerged as a premier institution in Pakistan, distinguished by the quality and impact of its graduates in the local software and technology sectors. With five modern campuses strategically located in Karachi, Lahore, Islamabad, Peshawar, and Chiniot-Faisalabad, fostering an inclusive environment with a vibrant community of female scholars. Our commitment to providing a world-class educational experience is matched by our dedication to advancing research that addresses the pressing social, economic, and technological challenges facing our nation.

This report highlights the significant strides we have made towards our vision of becoming a globally recognized research University within the next decade. From groundbreaking research initiatives to innovative educational programs, we remain steadfast in our mission to empower our students and contribute meaningfully to Pakistan development. We invite you to explore our achievements, challenges, and the promising future that lies ahead as we continue to elevate standards in higher education and research.

Dr Ayub Alvi
Rector

Vision

To produce world- class professionals, who are responsible citizens and good human beings.

Mission

1. To identify and attract the most promising students from diverse communities, to shape them into visionary leaders and world- class professionals.
2. To impart quality education to students, irrespective of their financial background ethnicity, gender or religion to create an inclusive society.
3. To promote research and scholarly activities to generate knowledge.

The Foundation

The sponsoring body of the University – the Foundation for Advancement of Science and Technology (FAST) was established in 1980. It is registered with the Government of Pakistan as a charitable institution. In 1985, it selected higher education as a vehicle to pursue its objective of producing scientists and technologists of the highest caliber. FAST pioneered the development of IT industry in Pakistan by offering the country's first undergraduate program in Computer Science. Today, this University, sponsored by FAST, stands recognized as the leader and trend-setter in this field in Pakistan and abroad.

A Board of Governors, elected in accordance with its Charter, manages the affairs of the Foundation. The members of the Board are eminent personalities in their respective fields and are associated with the Foundation in an honorary capacity.

The University

Founded as a Federally Chartered University in July 2000, the National University of Computer and Emerging Sciences is a premiere University of Pakistan, renowned for quality and impact of its students in the development of local software and other industries. The university has five modern campuses at Karachi, Lahore, Islamabad, Peshawar and Chiniot-Faisalabad. These campuses provide world class educational environment and recreational facilities to about 13,000 students, around one-quarter are female.

Research wings of the university are well recognized, nationally and internationally. They are embarked upon cutting edge research having direct impact on the social, economic and technological needs of Pakistan. Our vision is to become a globally recognized research university of Pakistan within the next decade.

University Campuses

Chiniot-Faisalabad Campus

Situated at the junction of Pakistan's Textile Capital-Faisalabad and the historically rich city of Chiniot in suburbs of River Chenab, the Chiniot - Faisalabad campus is the 5th campus of the university. The campus symbolizes the desirable connection between nature and industry and between tradition and modernity. Its picturesque surroundings in the outskirts of Pakistan's Manchester, the home to the textile industry, represent human advancement from agrarian to industrial and technological society. Spanning around 30 acres along the Faisalabad Sargodha Road, approximately 9 kilometers from the M4 Motorway interchange towards Chiniot, this campus is a testament to academic excellence in both professional and personal realms. Following in the footsteps of its esteemed sister campuses in Islamabad, Lahore, Karachi, and Peshawar, graduates here are highly sought after by both national and multinational corporations, with many holding prominent positions in renowned institutions like Google, Facebook, and Microsoft.

FAST-NUCES Chiniot-Faisalabad is the first residential campus of the University offering Boys and Girls Hostel and allied facilities inside the campus. The campus is home to 1000+ boys and girls residing in campus. Offering programs in Computer Science, Software Engineering, Artificial Intelligence, Electrical Engineering, and Business Administration, the campus boasts a distinguished faculty dedicated to nurturing academic excellence. State-of-the-art facilities, including advanced computing and engineering labs, provide students with hands-on experience and a conducive learning environment.

Moreover, the campus has catalyzed Faisalabad's technological landscape, fostering a surge in technology startups. Its strategic proximity to leading industrial enterprises promises to elevate the standard of professional education across the nation.

Beyond academics, the campus fosters a vibrant student life, fostering holistic development through sports, competitions, and cultural events. From cricket to chess, students engage in a diverse array of activities that enrich their collegiate experience.

The campus has state of the art computing, engineering and other support facilities. Spacious and well-equipped computer and engineering labs impart practical orientation to the students in their respective areas of study. Audio-visually supported and well-furnished classrooms offer a favorable, conducive, and constructive learning environment to the students.

The Campus other than academics offer a very vibrant student life to contribute towards the personality development of the students. Extends sports facilities in both indoor and outdoor games like cricket, football, badminton, table tennis, volleyball, basketball, futsal, and chess. Besides sports, healthy competitions in the fields of information technology, business and arts are frequently organized by the campus.

Islamabad Campus

The Islamabad campus is situated along the Srinagar Highway, offering a breathtaking vista of the picturesque capital city renowned for its beauty and tranquility. Nestled in such an exquisite locale, the campus provides a captivating and delightful view of the city. Spanning over 15 acres of land, the campus is strategically located in the academic heart of the city. Its infrastructure, including the newly constructed eight-story academic block, reflects a futuristic approach. With a steadily expanding covered area, the campus's academic programs are continuously evolving. Our campus boasts a highly qualified, fully committed, and professionally stimulated faculty dedicated to academic excellence. Our faculty members excel in teaching competence and are adept at integrating the latest advancements in science and technology into their instruction. They are accomplished researchers, contributors, and developers in their respective fields, conducting research in areas such as Intelligent Networks, Software Testing, Software Engineering, Machine Intelligence, Image Processing, Neural Networks, Embedded Systems, RF Systems, and Control Systems. We offer undergraduate programs in Computer Science, Software Engineering, Artificial Intelligence, Data Science, Cyber Security, Electrical Engineering, Robotics, Business Administration, Analytics, and Accounting and Finance. Additionally, we provide Master of Science and Doctor of Philosophy programs in Computer Science, Software Engineering, Artificial Intelligence, Data Science, Computer Networks and Security, Electrical Engineering, and Management Sciences. Our graduates are highly sought after by both national and multinational corporations, holding prominent positions in companies such as Microsoft, Oracle, NCR, LMKR, IBM, Telenor, and Huawei. The campus is equipped with state-of-the-art facilities for both academic and extracurricular activities. Our spacious and well-equipped computer and engineering labs provide students with practical training, while audio-visually supported and well-furnished classrooms offer an optimal learning environment. To promote physical fitness and relaxation, we offer sports facilities for indoor and outdoor games, including cricket, football, badminton, table tennis, volleyball, and chess. We also organize healthy programming competitions and events, such as NASCON, a national-level competition highly regarded by both industry and educational institutions across the country. With over 24 student societies and clubs, we foster co-curricular activities to instill a sense of responsibility and leadership potential in our students. We look forward to welcoming you to our campus and witnessing the vibrant atmosphere of academic excellence and innovation.

Karachi Campus

The Karachi Campus provides state-of-the-art facilities at two campuses. The Campus offers expertise of dynamic and staunch faculty members, a secure and healthy environment, and a variety of extracurricular opportunities for students to embrace their existing potential. Adequate emphasis has been placed upon espousal of student well – being, which includes provision of quality education and availability of various extracurricular projects. Multiple inter campuses committees, student clubs and societies have been established to encourage the intellectual and social development of students, cumulatively. The Campus, while embolding the entrepreneurial aspirations existing within the students, maintains facilities of Incubation and innovation centre as well. Students are provided with adherent mentoring and support. The esteemed faculty members help the students nurture their novel research and developmental ideas, substantially. The Main Campus is located on a six-acre site in Shah Latif Town on the National Highway, ten kilometers east of Karachi airport. The Campus has spacious, fully air conditioned classrooms, laboratories, auditorium, seminar rooms, sports room and a modern library. All Engineering Labs for power systems Electronics, Electrical, Control Engineering, Signal Processing, Telecommunications, Networking, and Multimedia are fully equipped. Computing labs feature the latest technology computers and workstations that use Linux and Windows-based environments. The Campus upholds a potential network infrastructure and provides seamless connectivity throughout. The Campus maintains a vibrant Research and Development culture. Faculty members are part of research groups. Research seminars, local IEEE, ACM and IET chapters' meetings and seminars are held on a regular basis. Enhancing the capacity building the campus has formed a centre for professional training where periodically different training and seminars are arranged to embrace, improve and retain existing knowledge and skills of the employees and students, respectively. A separate student facilitation centre with a distinctive library, commodious cafeteria, an extensive auditorium, and indoor sports facilities exists within the campus. The campus also includes Gym with latest equipment playgrounds for Cricket, Hockey, Football, Basketball, Badminton, futsal court, Volleyball. An in house Mosque is also available for the students and employees. The Campus extends efficient and comfortable transport services for students and staff to commute easily from varied locations across the city. An independent Placement and student Affairs office exists at Karachi Campus for facilitates the students in job placements and internships. The office arranges various recruitment related events both on campus and externally. The department provides career and skill development counselling to students, which helps them in effective resume writing, job hunting and personality building. This office even participates in resolving general student concerns and arranging various on campus, student engagement events. The Campus maintains a unique Language Lab to teach students English and other foreign languages while preparing them via video cameras, and round table discussions, for both National and International employability. The City Campus is situated on the main Shahrah-e-Faisal (near Nursery), hosts Postgraduate Studies. The City campus retains air conditioned, contemporary classrooms; high tech computer labs, Seminar Hall and an astounding library, integrated with the Main campus Library. All the facilities and services extended at the Main Campus are equivalently accessible for the students of City Campus as well. In addition to the University sponsored financial assistance and scholarships, Karachi Campus also receives scholarships for position holders from the Boards of Sindh and Baluchistan, Sindh Endowment Board Scholarship (40% urban and 60% rural quota, every year up to 40 scholarships), Baluchistan Endowment Board Scholarship, Memon Welfare Association's HEC-JICA etc. These funding, aid the students from challenged social backgrounds to pursue quality education smoothly, throughout their academic tenure. FAST NUCES Karachi campus while extending eminence provides quality education, a conducive learning environment and a creative learning experience to its students throughout their academic tenure.

Lahore Campus

Situated in the central region of Lahore, Faisal Town, the Lahore Campus spans 12.5 acres. The four blocks that make up the campus are a noteworthy addition to Lahore's rich architectural legacy with their distinctive external brickwork and spectacular marble domes. Entire purpose-built classrooms with air conditioning and educational aids, as well as several computer and engineering labs, are the hallmarks of campus facilities. Software engineering, database, programming, and computer application laboratories are all part of the computing labs. The newest workstations, PCs, and services with environments based on Windows and Linux are easily accessible to students. The Engineering laboratories consist of the following: Digital Systems, Communications, Antenna and Microwave, Microprocessors, Embedded Controls, and Electronics. The whole campus is fully equipped with high-speed Local Area Network and the latest wireless hotspots. Moreover, there is an Auditorium, Seminar Hall, Cafeteria, Girls Common Rooms, Day-Care, Medical Center, Career and Placement Office, Student Center, and International Office. In addition, Justice Gul Muhammad Library is facilitating FAST- NUCES, Lahore campus academic and research programs with prosperous information resources. FAST – NU Library is a multi – discipline library having scholarly and research – oriented learning resources on Business Management, Computer Sciences, Civil Engineering, Electrical Engineering, Humanities, Applied Linguistics, and Mathematics. The library has more than 25000 printed books, around 400 centrally subscribed Ebscohost and Pearson e – books, a number of research Journals and Magazines, 13 HEC databases, and 10 national and international newspapers. The campus has facilities for both indoor and outdoor sports which include Football, Volleyball, Badminton, Cricket, Basketball, Lawn Tennis, Table Tennis and Jogging. In addition to the University sponsored financial assistance and scholarships, Lahore Campus also receives scholarships for meritorious students from different Boards of Intermediate and Secondary Education and Punjab Information Technology Board.

Peshawar Campus

The Peshawar campus is located in the vicinity of Hayatabad, a modern residential suburb of Peshawar. Spread over an area of 4 acres, the campus houses an academic and administrative block; constructed in the university's signature red brick architectural style, and a hostel for boys. It offers a conducive environment with green lawns, flora, plantations, and water fountains. The campus is conveniently close to multiple hospitals, markets, residential areas, sports complexes, government offices, and food streets. With multiple routes, transportation via the city's Metro BRT is quite convenient and economical and can be accessed through the university's own metro BRT bus stop. To add value to the student learning process and academic excellence, the university has state of the art infrastructure and academic resources, along with highly qualified and committed faculty. The faculty are up-to-date with both scientific and technological progresses, industry requirements, and global trends in their respective fields. With one of the best students to faculty ratios, students have more exposure to learning and working closely with them. The campus has state of the art computing, engineering, and computer assisted language/ communications labs. High speed network access to all devices is made available through campus-wide wireless access points. There is a provision of GPU and big-data enabled high performance computing facilities for its research students. There are separate labs for students of all levels who require them to work on their projects and research thesis. The campus also offers co-working spaces and a pre-incubation environment to selected students. The campus library has a collection of over 15,000 unique books, and hundreds of printed research journals. Subscriptions to research journals of IEEE, Springer, Science Direct, and ACM, are made and these can be accessed from student homes through VPN. All classrooms, labs, and halls are fully air-conditioned. For class-room learning, all rooms are equipped with audio/video facilities. The campus highly encourages its students to get affiliated with various societies of the campus. Students are offered membership of local and regional chapters of the ACM, IEEE, and Microsoft. Technical societies deal with activities related to programming and engineering competitions, whereas social societies include activities associated to travel and hiking, indoor and outdoor sports, E-gaming, religious events, debating and fine arts, music, and other philanthropic activities. Among the programs offered by the campus, the Bachelor of Science (Electrical Engineering) has the distinction of being one of the first in Khyber Pakhtunkhwa to have received Outcome Based Level II accreditation status by the Pakistan Engineering Council (PEC). Likewise, the various BS computing programs are regularly accredited with the National Computing Education and Accreditation Council (NCEAC). With the input from these accreditation councils, and Industrial Advisory Boards, the curriculum and study plans are highly customized according to the national industrial needs. As such, graduates of the campus are well received by industry and hold prominent positions in national and multi-national corporations.

Chapter-1 Programs Offered and Campuses

DEGREE programs (Undergraduate, Graduate and Postgraduate programs)

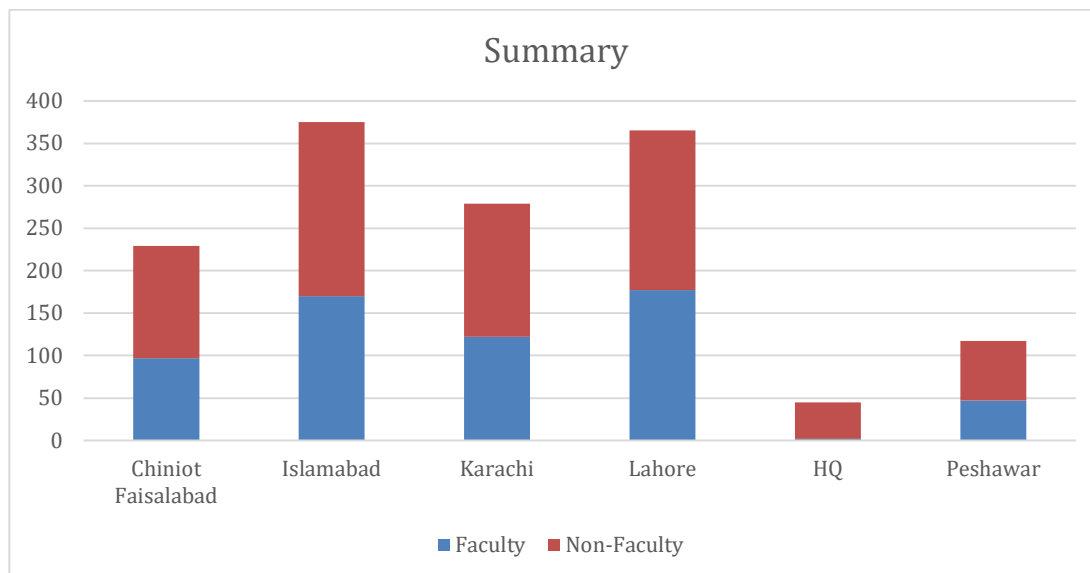
Program	Chiniot-Faisalabad	Islamabad	Karachi		Lahore	Peshawar
			Main campus	City campus		
Bachelor Degree Programs						
1. BBA	X	X	X		X	
2. BS (Accounting & Finance)		X	X		X	
3. BS (Civil Engineering)					X	
4. BS (Computer Science)	X	X	X		X	X
5. BS (Electrical Engineering)	X	X	X		X	X
6. BS (Software Engineering)	X		X			X
Master Degree Programs						
1. MBA	X	X			X	
2. MS (Accounting & Finance)					X	
3. MS (Applied Linguistics)					X	
4. MS (Computer Networks & Security)				X		
5. MS (Civil Engineering)					X	
6. MS (Computer Science)	X	X		X	X	X
7. MS (Data Science)		X		X		X
8. MS (Electrical Engineering)	X	X		X	X	X
9. MS (English Language Teaching)					X	
10. MS (Management Sciences)		X				
11. MS (Mathematics)					X	
12. MS (Software Engineering)		X				
13. MS (SPM)				X	X	

Program	Chiniot-Faisalabad	Islamabad	Karachi		Lahore	Peshawar
			Main campus	City campus		
PhD programs						
1. PhD (Civil Engineering)					X	
2. PhD (Computer Science)		X		X	X	X
3. PhD (Electrical Engineering)		X		X	X	X
4. PhD (Management Sciences)		X			X	
5. PhD (Mathematics)					X	
6. PhD (Software Engineering)		X				

'X' means program is offered

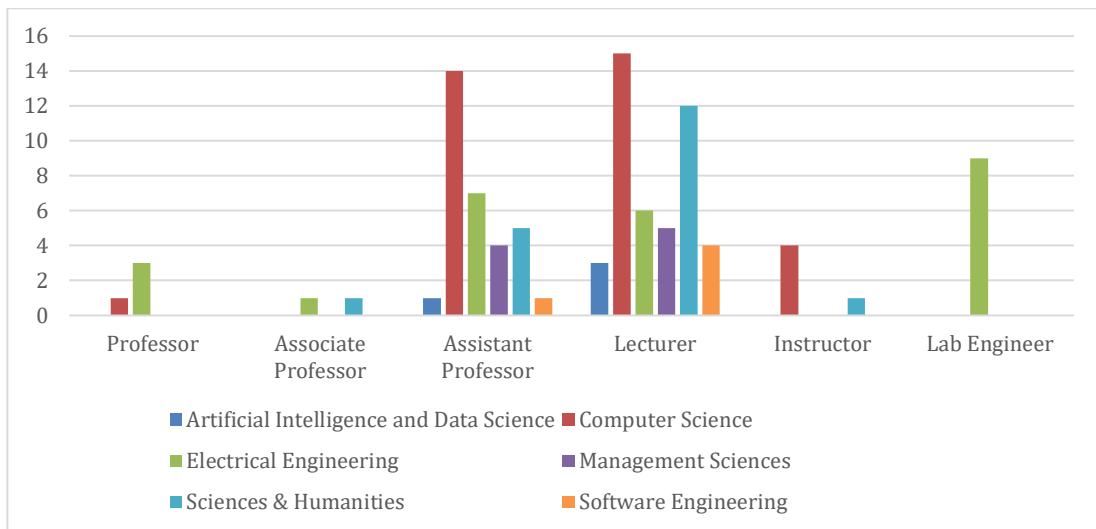
Chapter-2 Faculty and Staff Summary

Category	Chiniot Faisalabad	Islamabad	Karachi	Lahore	Peshawar	HQ	Total
Faculty	97	170	122	177	2	47	615
Non-Faculty	132	205	157	188	43	70	795
Total staff	229	375	279	365	45	117	1,410



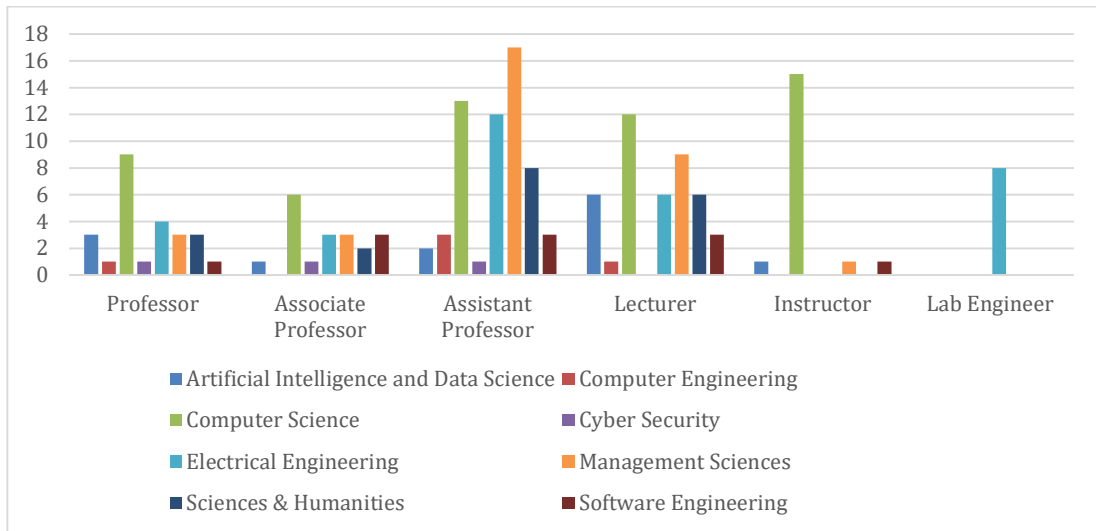
Chiniot-Faisalabad Campus

Department	Professor	Associate Professor	Assistant Professor	Lecturer	Instructor	Lab Engineer	Total
Artificial Intelligence and Data Science			2	3			5
Computer Science	1	2	9	22	8		42
Electrical Engineering	2	1	3	2		2	10
Management Sciences			3	4			7
Sciences & Humanities		1	5	11	2		19
Software Engineering			4	7	3		14
Total	3	4	26	49	13	2	97



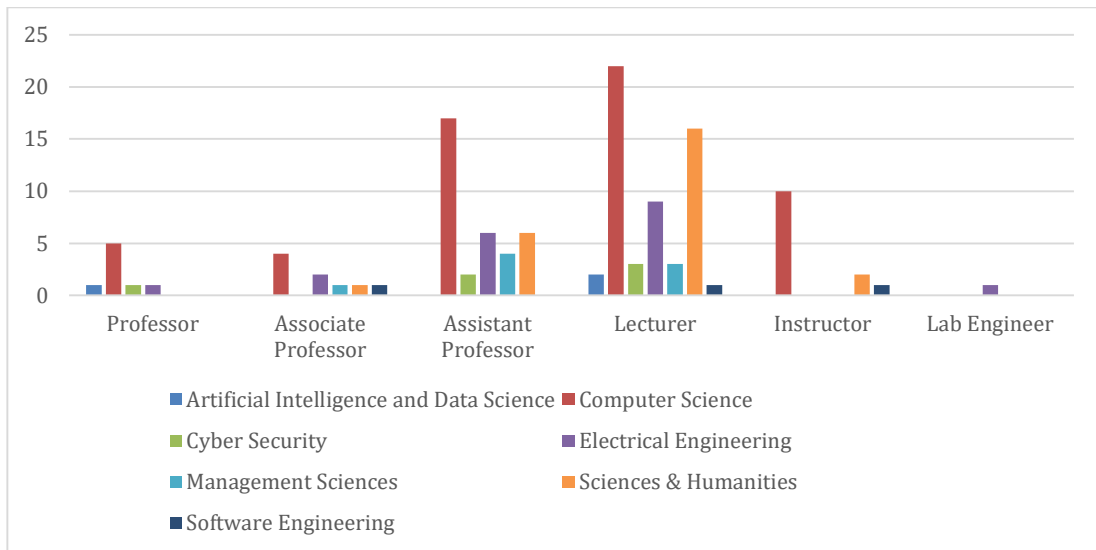
Islamabad Campus

Department	Professor	Associate Professor	Assistant Professor	Lecturer	Instructor	Lab Engineer	Total
Artificial Intelligence and Data Science	3	1	2	6	1		13
Computer Engineering	1		3	1			5
Computer Science	9	6	13	12	15		55
Cyber Security	1	1	1				3
Electrical Engineering	4	3	12	6		8	33
Management Sciences	3	3	17	9	1		33
Sciences & Humanities	3	2	8	6			19
Software Engineering	1	3	3	3	1		11
Total	25	19	59	43	18	8	172



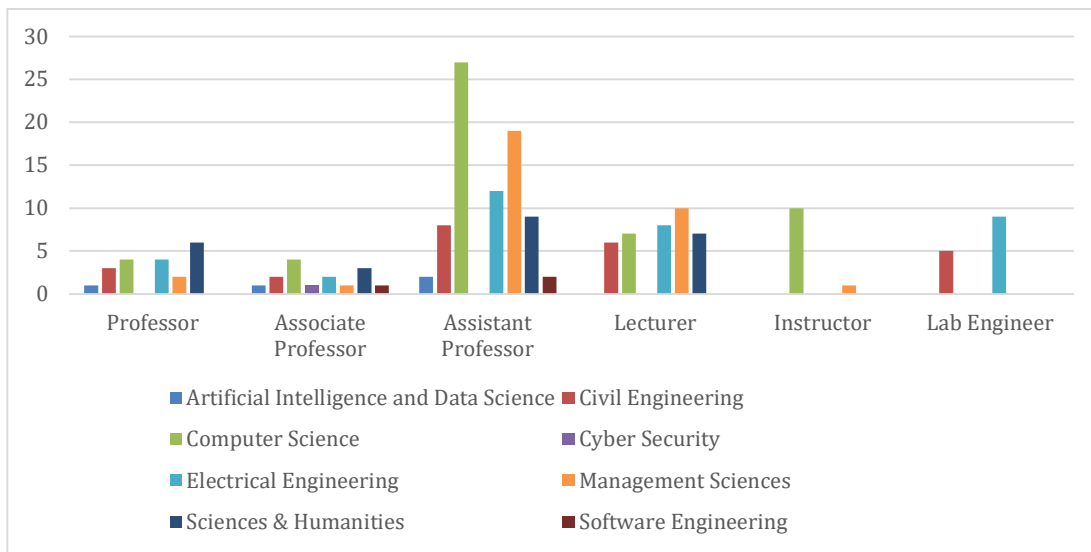
Karachi Campus

Department	Professor	Associate Professor	Assistant Professor	Lecturer	Instructor	Lab Engineer	Total
Artificial Intelligence and Data Science	1			2			3
Computer Science	5	4	17	22	10		58
Cyber Security	1		2	3			6
Electrical Engineering	1	2	6	9		1	19
Management Sciences		1	4	3			8
Sciences & Humanities		1	6	16	2		25
Software Engineering		1		1	1		3
Total	8	9	35	56	13	1	122



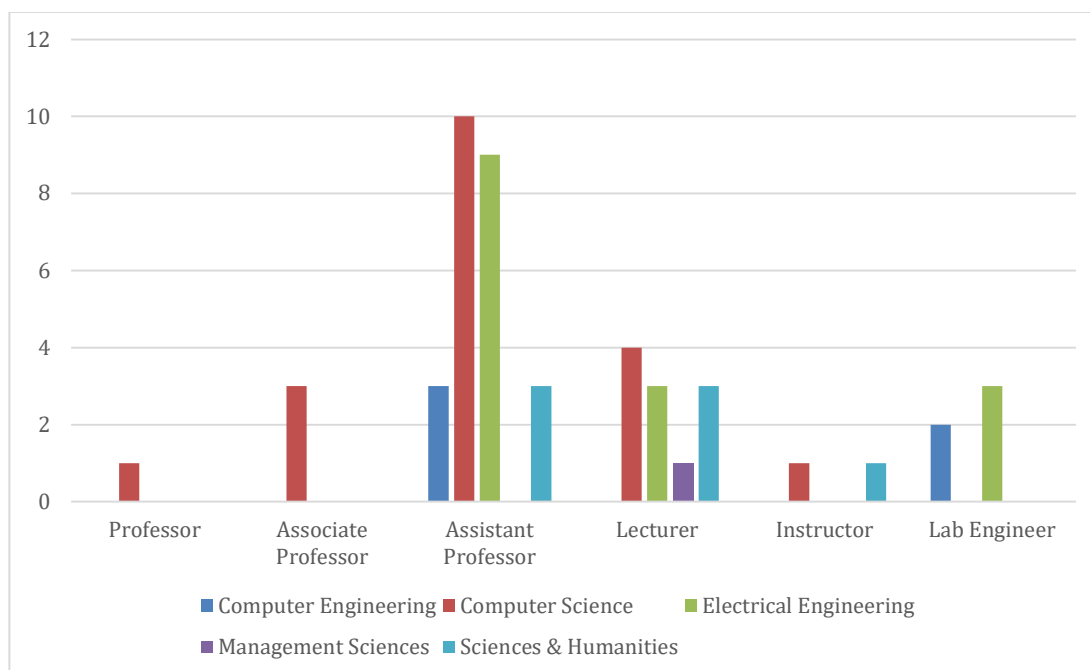
Lahore Campus

Department	Professor	Associate Professor	Assistant Professor	Lecturer	Instructor	Lab Engineer	Total
Artificial Intelligence and Data Science	1	1	2				4
Civil Engineering	3	2	8	6		5	24
Computer Science	4	4	27	7	10		52
Cyber Security		1					1
Electrical Engineering	4	2	12	8		9	35
Management Sciences & Humanities	2	1	19	10	1		33
Software Engineering	6	3	9	7			25
Software Engineering		1	2				3
Total	20	15	79	38	11	14	177



Peshawar Campus

Department	Professor	Associate Professor	Assistant Professor	Lecturer	Instructor	Lab Engineer	Total
Computer Engineering			3			2	5
Computer Science	1	3	10	4	1		19
Electrical Engineering			9	3		3	15
Management Sciences				1			1
Sciences & Humanities			3	3	1		7
Total	1	3	25	11	2	5	47



Chapter-3 Students' Profile

Applications Statistics (Discipline Wise)

		BBA	BS(AF)	BS(AI)	BS(CS)	BS(CSDF)	BS(CV)	BS(DS)	BS(EE)	BS(SE)	Total
CFD	Applicants	97	-	-	409	-	-	-	140	47	693
	Offers	91	-	-	304	-	-	-	151	102	648
ISB	Applicants	701	205	187	2910	158	-	46	986	-	5193
	Offers	395	169	169	854	170	-	54	679	-	2490
KHI	Applicants	88	19	-	2058	-	-	-	248	520	2933
	Offers	96	-	-	774	-	-	-	362	204	1436
LHR	Applicants	501	123	-	4127	-	738	-	882	-	6371
	Offers	345	208	-	1059	-	328	-	489	-	2429
PWR	Applicants	-	-	-	72	-	-	-	90	84	246
	Offers	-	-	-	53	-	-	-	74	78	205
Total Applicants		1387	347	187	9576	158	738	46	2346	651	15436
Total Offers		927	377	169	3044	170	328	54	1755	384	7208

Graduation Summary

	BBA	BS (AF)	BS (AI)	BS (BA)	BS (CS)	BS (CV)	BS (CY)	BS (DS)	BS (EE)	BS (FT)	BS (SE)	G. Total
2019-20 Karachi	33	-	-	-	304	-	-	-	78	-	-	415
Lahore	132	54	-	-	312	74	-	-	100	-	-	672
Islamabad	108	58	-	-	207	-	-	-	78	-	-	451
Peshawar	-	-	-	-	46	-	-	-	52	-	-	98
Faisalabad	33	20	-	-	179	-	-	-	28	-	-	260
G. Total	306	132	-	-	1048	74	-	-	336	-	-	1896

	MBA	MBA(1.5)	MS(AF)	MS(CNS)	MS(CS)	MS(CV)	MS(DS)	MS(EE)	MS(Ling)	MS(MG)	MS(Math)	G. Total
2019-20 Karachi	-	-	-	-	6	33	-	19	5	-	-	63
Lahore	-	-	62	11	-	34	24	11	20	23	11	196
Islamabad	-	-	23	-	-	33	-	14	11	-	-	81
Peshawar	-	-	-	-	-	2	-	-	4	-	-	6
Faisalabad	-	-	6	-	-	17	-	-	21	-	-	44
G. Total	-	-	91	11	6	119	24	44	61	23	11	390

	MS(SE)	MS(SPM)	MS(AI)	MS(BA)	PhD(CS)	PhD(EE)	PhD(Math)	PhD(MG)	PhD(MS)	PhD(SE)	PhD(CV)	G. Total
2019-20 Karachi	-	-	33	-	-	1	1	-	-	-	-	35
Lahore	-	-	42	-	-	1	-	3	-	1	-	47
Islamabad	9	27	-	-	-	2	1	-	-	-	-	39
Peshawar	-	-	-	-	-	-	3	-	-	-	-	3
Faisalabad	-	-	-	-	-	-	-	-	-	-	-	-
G. Total	9	27	75	-	-	4	5	3	-	1	-	124

Chapter-4 Office of Research, Innovation and Commercialization (ORIC)

Overview

The University, true to the innovative spirit of its founders, is alive to the cause of research and development. The breadth, depth and assortment of research activities in the university have contributed to the national socio - economic stream.

ORIC has been established to channelize research led initiatives. It offers services connected to research and development, innovation, commercialization, collaboration, capacity building and facilitates researchers in the processing of project/research grants.

Vision

The vision of ORIC is to promote research and innovation in the local context.

Mission

To take Pakistan forward by continuously improving quality of research, building partnerships with the industry, and being able to capitalize on outcomes that result from research and development activities.

Functions

- To work as per directives of Higher Education Commission
- To encourage pragmatic research in the context of Pakistan's socio-economic needs
- To identify and inform the faculty members about research opportunities
- To facilitate joint research ventures and academic collaborations
- To promote publication of research work being conducted in the University
- To assist faculty in acquiring funds from international and national funding agencies
- To promote entrepreneurship, technology - transfer and commercialization activities that support both local and national economies
- To commercialize research in collaboration with industry
- To periodically arrange awareness seminars, symposia and workshops for the benefit of faculty and students

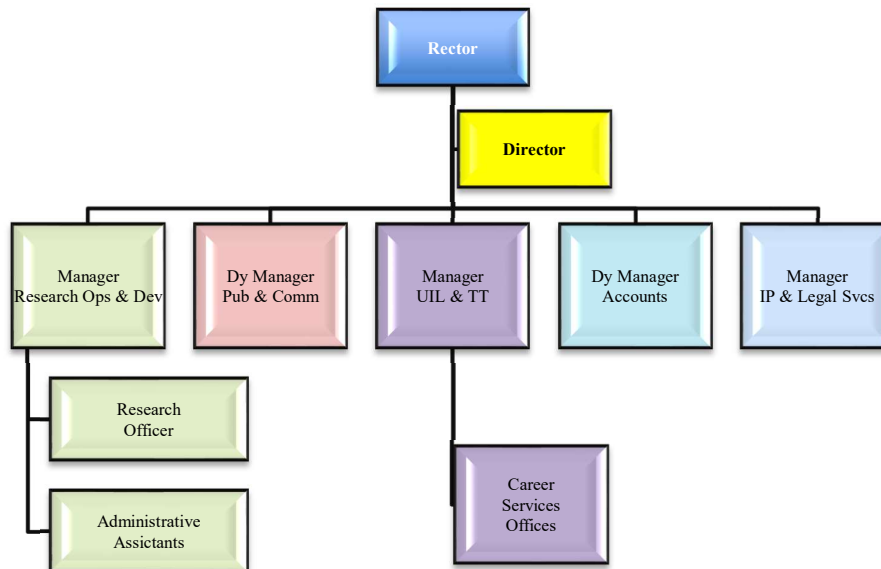
ORIC Team

Name	Designation
Dr. Ataul Aziz Ikram	Director
Mr. M. Aatif Saif Khan	Manager Research Operations & Development
Dr. Maryam Kausar	Manager UIL & TT
Mr. Ehsan ul Haque	Deputy Manager Accounts
Ms. Rabbia Nawaz	Deputy Manager Publication / Communication Specialist
Ghulam Fareed	Manager Intellectual Property / Legal Service office
Ms. Khush Bakhat Awar	Research Associate
Mr. Saleh Mahmood	Administrative Assistant
Mr. Gul Wali	Administrative Assistant
Mr. Khalid Qayyum	Administrative Assistant

Name	Designation
Ms. Aysha Shafiq	Officer (Career Services)
Ms. Amna Ali Khan	Deputy Manager (Career Services)
Mr. Muhammad Imran	Assistant Manager (Career Services)
Mr. Atiq Ur Rehman	Officer (Career Services)
Mr. Bashir Muhammad	Deputy Manager (Career Services)
Ms. Aqsa Sarfraz	Assistant Manager (Career Services)
Mr. Faisal Mahboob	Officer (Career Services)

Organogram

At FAST-NUCES, a nucleus team in the head office is reinforced by Career Services Offices (CSO) at each campus. Consultative meetings of the ORIC Management Committee (OMC) are periodically held to approve the policies being developed at the new office. The Rector chairs OMC meetings which includes Director ORIC and Dean Academics as its members.



Services

- Educate faculty about university research policy and process grant requests
- Develop, maintain, and communicate pre and post award administrative procedures for externally sponsored projects
- Support faculty regarding contracts, progress reports, and other sponsor grants actions
- Connect faculty and students with prospective industrial partners
- Assist students, faculty and alumnus in pursuit of technological or social innovations
- Mentor the promising start-ups during initial period when they are most susceptible
- Assist in patent filing and licensing
- Continually keep web and social media presence to share the latest research, scholarship, and entrepreneurial opportunities

Accomplishments

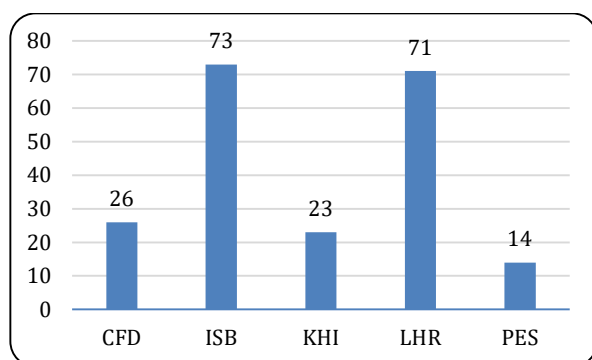
With lean team in short time, the department has made notable progress reflected as under:

- Formulated University's research policies and priorities
- Identified avenues for research fund raising, mobilized faculty, partnered with the business community and industry for research commercialization
- Streamlined administrative handling of research projects through pro-active sharing of emerging funding opportunities, scrutiny of submitted proposals and timely feedback
- Processed over 150 research proposals to external awarding bodies, out of which 60 were awarded
- Introduced revised research publications and rewards policy to encourage researchers engaged in quality research.
- Collected and showcased particulars of the University entrepreneurs on the website
- Developed Business Incubation Centre (BIC) program with a toolkit for prospective start-ups
- Business plan competition for student start-ups in the campuses
- MoUs were signed with different national / international universities and organizations to perform need based research
- Capacity building is one of the latest aspects of development work. A wide range of workshops, seminars, conferences, etc. were arranged for the faculty, students and ORIC staff
- Designed and revived the University's newsletter to promote brand, capabilities, expertise and achievements of the faculty and students
- 9 students were selected for international internship programs under AIESEC. AIESEC is the world's largest youth-run organization. It is an international non-governmental and not-for-profit organization that provides young people with leadership development, cross-cultural global internships, and volunteer exchange experiences across the globe.
- 2 students were selected for IAESTE. The International Association for the Exchange of Students for Technical Experience (IAESTE) is an international organization that offers international internships to students for technical work experience abroad. Students gain relevant technical training lasting from 4 weeks to 18 months.

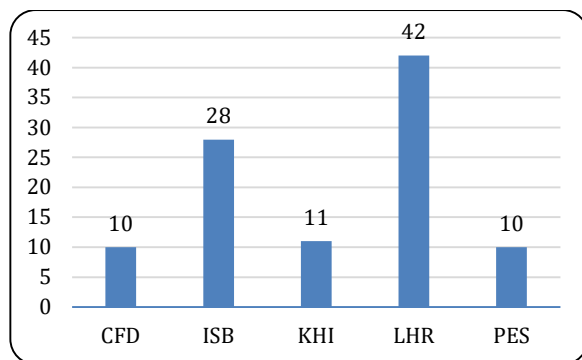
Chapter-5 Research & Development

Campus Wise information of Journal Articles and Conference Papers

Journal Articles	
Chiniot-Faisalabad	26
Islamabad	73
Karachi	23
Lahore	71
Peshawar	14
G. Total	207

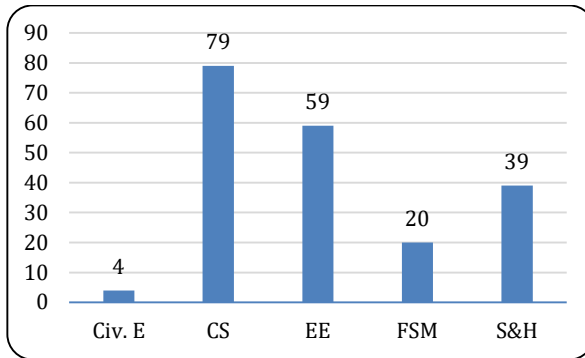


Conference Papers	
Chiniot-Faisalabad	10
Islamabad	28
Karachi	11
Lahore	42
Peshawar	10
G. Total	101

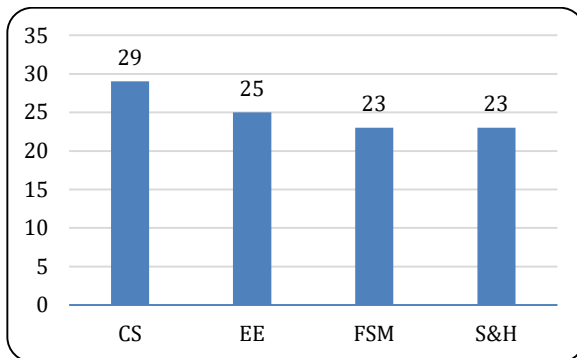


Department Wise information of Journal Articles and Conference Papers

	Journal Articles
Civil Engineering	4
Computer Science	79
Electrical Engineering	59
Management Sciences	20
Sciences & Humanities	39
G. Total	201

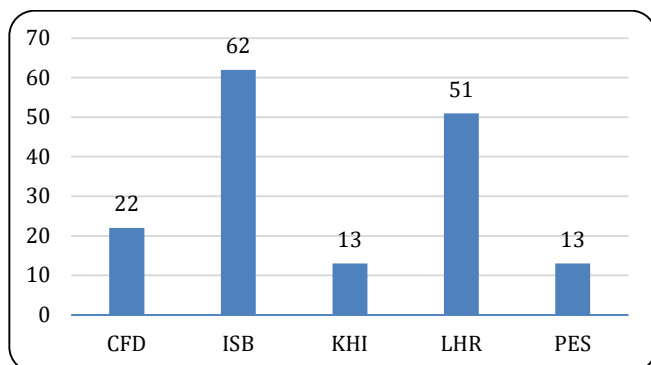


	Conference Papers
Civil Engineering	29
Computer Science	25
Electrical Engineering	23
Sciences & Humanities	23
G. Total	100



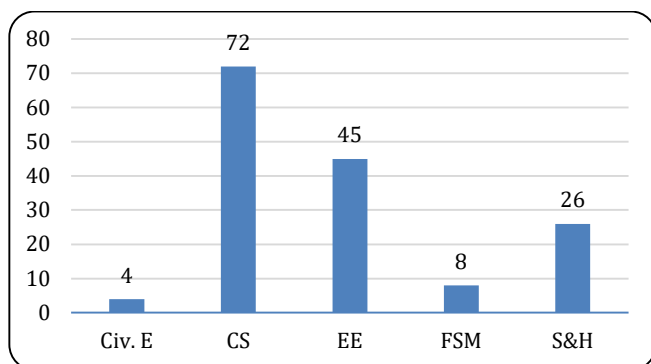
Campus wise impact factor publications

	Impact Factor Publications
Chiniot-Faisalabad	22
Islamabad	62
Karachi	13
Lahore	51
Peshawar	13
G. Total	161



Department wise impact factor publications

	Impact Factor Publications
Civil Engineering	4
Computer Science	72
Electrical Engineering	45
Management Sciences	8
Sciences & Humanities	26
G. Total	155



Chapter-6 Directorate of Quality Assurance

Overview

Directorate of Quality Assurance (DQA) implements internal quality assurance (IQA) mechanism of the University. QECs (Quality Enhancement Cells) are established in all campuses and are run as per HEC guidelines. QEC of NUACES is categorized by HEC in W Category in the most recent annual quantitative assessment which is the highest level of quality assurance. This achievement in IQA directly contributes in achieving higher accreditation status from relevant accreditation councils, working under external quality assurance (EQA) mechanism of HEC. Further, higher QEC level also contributes towards better score in HEC annual ranking of universities. The recognition at both IQA & EQA clearly demonstrates University's efforts to burgeon quality standards of education at all levels.

DQA is member of International Network for Quality Assurance Agencies in Higher Education (INQAAHE), Asia Pacific Quality Network (APQN) and Association of Quality Assurance Agencies of the Islamic World (AQAAIW). These memberships offer ample opportunities to collaborate with international members for benchmarking and standardization of best practices. Moreover, the QEC staff also participates in their international events, both as a significant contributor and participant.

Vision

Support the University's vision by adapting best practices suggested by accreditation bodies while conforming with the university policies.

Mission

Adapt existing state-of-the-art higher education quality improvement strategies, while engaging with all stakeholders.

Objectives

1. Enhancing the pedagogical skills of the instructors to achieve learning outcomes of curriculum and effectively engage with the students.
2. Provide coaching related to the processes and procedures prescribed by the accreditation bodies, to the academic staff.
3. To communicate and coordinate with all the stakeholders (students, instructors, staff, alumni, employers, subject experts, etc.) for feedback with the aim of improvement of education quality.
4. Formulate analytical reports extracted from the received feedback from the stakeholders, i.e., surveys related to infrastructure, teacher evaluation, alumni, employer etc. and provide recommendations to the statutory bodies of the university.
5. Promote automation of quality related processes to develop an effective, viable and sustainable ecosystem of quality assurance at the university.
6. Ensuring the compliance of quality assurance procedures in accordance with the guidelines provided by HEC and accreditation councils.

7. Provide assistance to academic departments to meet the expectations of accreditation bodies in terms of data gathering and reporting.
8. Tailor curricular and co-curricular activities to meet the requirements of ranking organizations.

Quality Enhancement Cell (QEC) implements internal quality assurance (IQA) mechanism of the university. QECs are established in all campuses and are run as per HEC guidelines. QEC at NUCES is constantly striving to maintain excellent scores in the annual quantitative assessment of HEC. This achievement in IQA directly contributes to achieving higher accreditation status from relevant accreditation councils, working under external quality assurance (EQA) mechanism of HEC. The recognition at both IQA and EQA clearly demonstrates NUCES-FAST efforts to burgeon quality standards of education at all levels.

Consequently, FAST-NU QEC introduced innovative strategies to manage more effectively the internal quality assurance processes of the institution by providing quality academic programs and holistic teaching-learning environment to the students at undergraduate and graduate level. At FAST-NU we regularly conduct surveys in order to collect valuable feedback from various stakeholders including students, faculty, alumni, industry and others. This feedback is used to take the required measures for an overall improvement in the quality culture. Moreover, we give prime importance to the capacity building of our faculty, wherein, training workshops/ sessions have been organized by QEC for the faculty members and Teaching Assistants, so that they are equipped with all the necessary skills for delivering quality lectures. Further, at program level it is assured that all the undergraduate programs being offered at FAST-NU are accredited by the relevant regulatory authorities and the graduate programs are self-assessed to monitor the implementation of requisite policies.

Currently NUCES QEC is a member of the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) and American Society for Quality (ASQ). These memberships offer ample opportunities to collaborate with the international members for benchmarking and standardization of best practices. Moreover, NUCES QEC also participates in their international events, as a significant contributor and participant.

DQA Staff

University Headquarters

Dr Farrukh Idrees Director

Islamabad campus

Mr Asim Azhar Shah Dy. Manager

Chiniot-Faisalabad campus

Mr Sekandar Riaz Asst. Manager

Karachi campus

Ms Shaista Maqbool Officer

Lahore campus

Ms Bushra Majeed Officer

Mr Umer Yaseen Officer

Peshawar campus

Ms Maria Ibrar Dy. Manager

Functions of DQA

DQA is headed by Director, Directorate of Quality Assurance, reporting directly to the Rector. The DQA is the correspondent with the outside bodies.

DQA is responsible for:

- Promoting public confidence that quality and standards for award of degrees are enhanced and safeguarded.
- Reviewing quality standards and quality of teaching and learning in each subject area.
- Reviewing academic affiliations with other institutions in terms of effective management of standards and quality of programs.
- Defining clear and explicit standards as points of reference for reviews to be carried out.
- Developing qualifications framework by setting out the attributes and abilities that are expected from the holder of University qualification.
- Developing program specifications. These are standard set of information clarifying what knowledge, understanding, skills and other attributes a student will have developed on successfully completing a specific program.
- Developing quality assurance processes and methods of evaluation to affirm that the quality of provision and the standard of awards are being maintained and to foster curriculum, subject and staff development, together with research and other scholarly activities.
- Ensuring that the university's quality assurance procedures are designed to fit in with the arrangements in place nationally for maintaining and improving the quality of Higher Education.
- Developing procedures for the following:
 - Approval of new program
 - Annual Monitoring and evaluation including program monitoring, Faculty monitoring, and student perceptions
 - Departmental review
 - Student feedback
 - Employer feedback
 - Quality assurance of all degree programs
 - Subject review
 - Institutional assessment

Accomplishments of DQA

Following is some of the accomplishments of the Directorate of Quality Assurance at national and international levels:

- Conducted self-assessment of all programs against eight criteria and thirty one standards of HEC Quality Assurance Policy:
- Followed up with corrective actions on deficiencies identified by the Assessment Committees during their self-assessment visits.
- Facilitated university wide HEC Institutional performance Evaluation (IPE).
- Conducted IPE in various campuses as a part of HEC internal quality assurance mechanism.
- Facilitated MS/PhD program review visits in all campuses, as per HEC requirement's.

- Periodic training sessions for capacity building of Program Teams are arranged in all campuses.
- Continual training of Faculty on quality assurance in higher education.
- Contributed in academic literature of quality in higher education, both at national and international levels.
- Standardized quality assurance activities across all campuses through implementation of QEC Annual Activities Calendar, and rigorous periodic follow up through various channels.
- Provided facilitation in conducting of accreditations for all programs e.g. PEC, NCEAC, NBEAC, etc.
- Nominated QEC Assessment Committees comprising competent senior resources from various well reputed universities of Pakistan.
- Continuous follow up for corrective actions on deficiencies identified by Assessment Committees.
- Preparing reports on feedback from various stakeholders to enhance quality of education: Faculty satisfaction, Alumni Survey, Employers' Survey, Survey of Graduating Students, Student Feedback, Course Feedback, and Faculty Course Review Reports are prepared for management consumption on regular basis.
- Periodic training sessions for capacity building of Program Teams are arranged in all campuses.
- Launched HEC structured questionnaires for measuring feedback from various stakeholders to enhance quality of education: The stake holders included Faculty, Alumni, Employers, Graduating Students, Current Students, and Faculty.
- Won INQAAHE Scholarship four times for attending INQAAHE Biennial Conference in Quality of Higher Education in USA, Fiji, Bahrain, and Mauritius.
- Updated QEC information on NUCES website.
- Contributed in various conferences on quality in higher education; at national and international levels in Pakistan and abroad.
- Standardized quality assurance activities across all campuses through implementation of QEC Annual Activities Calendar and periodic follow up through monthly all campuses QEC meetings through video conferencing.
- Implemented quality assurance mechanism of MS/PhD programs as per HEC guidelines and requirements.
- Updating the Course Catalog covering all degree programs offered by the University.
- Registered in INQAAHE/APQN Database of approved consultants
- Obtained news coverage in INQAAHE and HEC News Bulletins on regular basis.
- Contributed in Eight HEC national workshops on quality in higher education as resource person
- Represented the University at all HEC-QAA all Pakistan phase wise meetings.
- Arranged and contributed in 7 outcome based education workshops, as per accreditation council's requirements.
- Acted as HEC resource person in several training workshops at national level to train faculty, staff, and QEC professionals of public and private sector universities.
- Acted as Tertiary Education Support Program (TESP) resource person for training faculty and staff of 45 public sector universities of Pakistan.
- Acted as technical service consultant of Asian Productivity Organization (APO-Japan) to train more than 25 quality assurance professionals of Fiji Higher Education and other academic organizations in Republic of Fiji.

Chapter-7 Financial Support to Students

A. Internal Sponsorships

1. Merit Scholarships for Bachelor Students

Merit scholarship is awarded to the **Top Three** position holders of each Examination Board.

Scholarship is also offered to the top three position holders in the NU admission merit list of each campus. Students awarded merit Scholarship, 100% tuition fee for 8 regular semesters must maintain a CGPA of ≥ 3.00 in each semester.

2. Study Loan

Realizing that fees may not be affordable for some of the students, FAST-NU arranges financial assistance in the form of interest-free study loans for bright indigent students.

Rules for Internal Sponsorships:

- i. Internal sponsorships are available for Studying in regular semesters (spring and Fall). The following is the maximum number of semesters for which it can be availed.
 - Bachelor's 8 semesters
 - Master's 4 semesters
 - PhD 6 semesters
- ii. It shall not be available for repeat or withdrawn courses. This implies that it is available for studying a course only once.
- iii. It is suspended if the student's CGPA falls below the minimum specified to avoid warning and shall be restored upon getting out of warning by improvement in CGPA.
- iv. It shall be limited to tuition fee only.

B. External Sponsorships

1. Provincial Assistance

Awarded as per provincial laws and regulations.

- Sindh Government Endowment Board Scholarships
- Punjab Educational Endowment Fund (PEEF) Scholarships
- Baluchistan Government Endowment Board Scholarship

2. HEC Scholarships for MS and PhD students

The Higher Education Commission (HEC) provides liberal scholarships to students desirous of studying for MS and PhD degrees at this university. The scholarship covers tuition fee, monthly stipend, and book allowance.

3. OSAF Scholarships

OSAF (Old Students Association of FAST) arranges financial assistance for those students who cannot afford to pay their full fee.

4. FANA Scholarship

FAST Alumni of North America provide funds for financial assistance for students who cannot afford to pay their full fee.

5. Ihsan Trust Financial Assistance

Ihsan Trust financial assistance for students who cannot afford to pay their full fee.

6. Other Scholarships

In addition to the above scholarships there are various community-based scholarships offered by various committees and foundations such as, Memon Community Scholarships, Bohra Community Scholarships, Agha Khan Foundation Scholarships, Ihsan Trust Sponsorship, General Refaat Memorial Scholarship, etc.

Transport Facility

Chiniot-Faisalabad Campus

The University has arranged buses to operate between the campus and designated points in various localities of Faisalabad. This transport facility is available on a self-finance basis.

Islamabad Campus

A few private transporters operate mini-buses between the campus and designated points in various localities of Rawalpindi and Islamabad on a self-finance basis. The university also provides a limited number of buses to pick and drop students from selected points on a self-finance basis.

Karachi Campus

The University arranges secure and safe, comfortable buses and coasters to pick students from selected points in different localities of Karachi. The transport facility is available on a subsidized self-finance basis.

Peshawar Campus

The university provides limited transport facilities to pick and drop students from selected points in Peshawar City to the campus. This facility is available on a self-finance basis.

Chapter-8 Health Care Facilities

FAST-NUCES Administration is fully conscious of facilitating its employees within its resources. Employees Health Insurance Scheme was launched to provide the best health care facilities to the employees of NUCES. The Policy has proved enormously beneficial for the university employees and their families. Health Insurance Coverage is provided to all faculty members, officers and administrative staff of FAST-NUCES for cost effectiveness and timely medical facilitation.