QUAID-E-AWAM UNIVERSITY OF ENGINEERING, SCIENCE & TECHNOLOGY NAWABSHAH, SHAHEED BENAZIRABAD

PROSPECTUS-2021

For Undergraduate Degree Programs in Engineering, Science & Technology

BATCH-21

Note

This prospectus has been approved by the Academic Council of the University in its 35th meeting held on 28.07.2021. The information given in this prospectus is correct and up to date. However, the university reserves the right to make any required changes to it without any notice. All rules and regulations of the university mentioned in this prospectus apply to the undergraduate programs. The modified rules and regulation given in this prospectus supersede the old ones.

Enquiries concerning admissions should be addressed to:

The Registrar OR Chairman Admission Committee
Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah, District Shaheed Benazirabad, Sindh-Pakistan.
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Publisher

The Registrar
Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah, District Shaheed Benazirabad, Sindh Pakistan.

QUAID-E-AWAM UNIVERSITY OF ENGINEERING, SCIENCE & TECHNOLOGY (QUEST)

About QUEST:

- Ranked amongst top ten universities in Pakistan.
- Accredited by Pakistan Engineering Council (PEC), Islamabad.
- Recognized by Higher Education Commission (HEC), Islamabad.
- Foreign qualified, dedicated & experienced full-time faculty.
- State-of-the-art laboratories

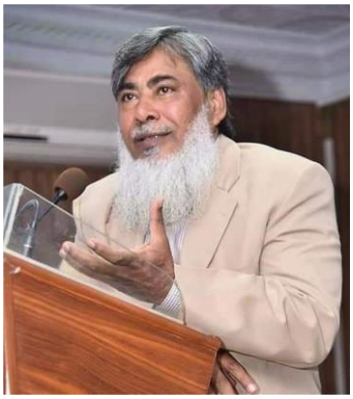
VISION

To produce the professional graduates to cater the socio-economic requirements of the national and international market for sustainable development

MISSION

To provide quality and state-of-art education to the students in the prescribed areas of Engineering, Science & Technology, in order to make them outstanding professional and better humanbeing; so that they become capable of contributing effectively and amicably towards sustainable development

Prof. Dr. Saleem Raza Samo
Vice Chancellor



Prof. Dr. Saleem Raza Samo
Vice Chancellor

It is my sheer bliss to assume the privileged position of Vice-Chancellor QUEST Nawabshah, an institution from where I graduated and then started my career. I am highly indebted to Allah Almighty for His continued blessings on me. I am always grateful to all my colleagues for supporting me in this role.

The QUEST is a recognized institution across the globe, and its graduates contribute significantly and positively to both national and international academic, social, and economic development.

The QUEST is one of the leading public sector universities of Pakistan which is committed to solve many of the diverse challenges that we face today. Our university provides a platform for promising minds to join their hands and serve the world around us. For achieving this, we provide the right balance of faculty, services, technology, and cultures to encourage both learners and teachers to develop, explore and discover new ideas. Our dream is to make our university the country's best educational institution.

The QUEST is expanding its global reach to look more opportunities and collaborate with various educational and professional institutions. In this regard, several MOUs have been signed with many renowned universities of different countries such as the USA, Turkey, Malaysia, Thailand, China, Indonesia, and Germany. Our university is equipped with state-of-the-art equipment, a modern library and other facilities in order to achieve academic excellence and meet international academic standards.

In QUEST, all stakeholders, i.e., educators, administrators, students, and employees are working as a team with an ownership attitude in the ongoing process of raising the university's academic standards. I truly appreciate and accept my team members' tremendous cooperation.

We strive for all this to take place in a free, peaceful, and balanced environment. We believe that cultivating good ideals of morality, integrity, fairness, and respect for each other is indispensable for the studies. We also believe that young people should have a role in defining their destinies. We help them to explore their abilities, plan and make a positive impact in this world. Pakistan's high youth population and energy provides us with a wonderful opportunity to play a role in inspiring the country's youth to be passionate and encourages them to provide vital services to society.

I urge all the stakeholders to play their role in the progress of the university with utmost dedication. Together, we will make it as one of the top universities in the world.

Prof. Dr. Abdullah Saand
Pro Vice Chancellor

Prof. Dr. Abdullah Saand,
Pro Vice Chancellor

Prof. Dr. Abdullah Saand earned his Ph.D. degree in Civil Engineering in March 2008 from University Technology Malaysia (UTM) under Ph.D. scholarship from SLP scheme of HEC, Pakistan and completed in the minimum period, i.e., three years. Dr. Saand has major contribution in teaching and research. He has been teaching number of courses at undergraduate and postgraduate level including PhD courses.

He has produced 03 PhDs and 22 M.E. graduates. Currently, he is supervising 03 PhD scholars and 02 Masters Research students. He has 52 research papers on his credit, published in reputed International/National Journals and International peer-reviewed conferences. As an Expert, he has evaluated International Research Projects and reviewed four PhDs and several master's Theses. He is also a reviewer of various international research journals and also a member of their editorial boards.

Dr. Saand also won NRPU research project of Rs. 7.4 (M) funded by HEC, Pakistan in 2016 and completed successfully. He has delivered national and international seminar/workshop lectures on research methods & skills, thesis writing, research writing, and short courses/trainings on CAD & Computer based project management. He has also organized International & National conferences in the country and abroad.

Dr. Saand fulfilled the assumed responsibility of Principal to establish and develop a newly established Engineering College at Larkano, academically and infrastructure wise with honesty, dedication and sincerity. He also served as Director, Postgraduate Studies for more than 05 years. Being Director, PGS, he contributed a lot to establish academic system at par with HEC criteria and developed postgraduate research activities in the University. During his tenure, hundreds of ME/MS students graduated each year and 06 PhD students got their doctoral degrees. Not only had that but more than 70 PhD scholars registered during his tenure, i.e., highest ever PhD enrollment in the University. He also remained elected member of Governing Body, PEC for period of 3 years.

He has been serving as member of Syndicate. Senate, Academic Council, Board of faculty, Board of studies, Scrutiny Committee, Selection Board, Admission Committee and several other committees in the University. He is also playing a major role for the development of newly established universities: Peoples Medical University of Medical & Health Sciences (PUMHS) and Shaheed Benazir Bhutto University (SBBU), Nawabshah, being a member of Advisory Building Committee(s).

In appreciation and recognition of achievements and dedicated services, HEC awarded him 'The Best University Teacher Award-2011' and Mehran University Alumni Association awarded him 'MUAA Excellence Achievement Award-2012' and IDEAL TMI.C.T also presented him 'Excellence Award-2014'.

Dr. Saand was also bestowed with honored status of Meritorious Professor (BPS-22) of Civil Engineering in 2019. Dr. Saand also worked in the capacity of Dean, Faculty of Engineering in addition to his professorship and currently he is working as Pro-Vice Chancellor of main campus, QUEST, Nawabshah.

Prof. Dr. Noor Ahmed Memon
Dean, Faculty of Engineering

Prof. Dr. Noor Ahmed Memon, Dean FoE

Dr. Memon earned Bachelor of Civil Engineering from NED University of Engineering and Technology, Karachi. He got his M.Phil in Structural Engineering from Mehran University of Engineering and Technology Jamshoro and Ph.D. in Structural Engineering from UTM, Malaysia. At present, Dr. Memon is Professor and Dean, Faculty of Engineering, Quaid-e-Awam University of Engineering, Science, & Technology, Nawabshah.

Dr. Memon is an active researcher. His field of interest is Plain and Reinforced Concrete, Fiber Reinforced Concrete, Lightweight Concrete, Sandwich Structural Panels, Advanced Structural Materials, Ferrocement, Low-cost Housing and Foundation Engineering. He has about 40 research papers got published in journals of international repute. Moreover, he has presented his research work in international & national conferences. Dr. Memon received "The Best University Teachers' Award, 2008" awarded by HEC, Pakistan.

Prof. Dr. Muhammad Usman Keerio
Dean, Faculty of EL, ES, TC, & CS Engineering

Prof. Dr. M. Usman Keerio,
Dean FoEECE

Prof. Dr. Muhammad Usman Keerio was born in a little village of Muhammad Haroon Keerio District Nawabshah. A devoted and dedicated academician with proven technical and management skills gained experience by working on various academic and administrative positions. His areas of specialization include Electrical and Control Engineering, Curriculum Development and Institutional Accreditation. He completed his bachelor's degree in electrical engineering from Mehran University of Engineering and Technology, Jamshoro in 1991. He got his Masters in Control Engineering from NUST Karachi in 2002. He earned his Ph.D. in Controls and Robotics from Beijing Institute of Technology, China in 2008.

He joined QUEST in 1992 as a lecturer. Presently, Professor Dr. Keerio is working as Dean, Faculty of Electrical, Electronic and Computer Systems Engineering, QUEST Nawabshah.

He has more than 35 research publications in International/National HEC recognized Journals. He has participated as author in International Conferences in China and Malaysia as well in Pakistan. Dr. Keerio's main research is focused in the field of Controls and Robotics. His research interest also involves in Neural Networks and Optimization.

He has produced more than 25 Masters in Power and Control Engineering and 01 Ph.D under his supervision. 05 Ph.D students are presently doing their Ph.Ds under his supervision. He is member of HEC NCRC of Energy and Electronic Engineering, Member PEC Accreditation Committee & Focal person of HEC Turnitin Anti-Plagiarisms, QUEST.

Prof. Dr. Zahid Hussain Abro
Dean, Faculty of Science

Prof. Dr. Zahid Hussain Abro, Dean FoS

Prof. Dr. Zahid Hussain Abro has completed his B.Sc. (Hons.) and M.Sc. (Hons.) in Computer Science from University of Sindh, Jamshoro and his PhD in Computer Science from Technical University Graz, Austria in July 2010. His research interest includes Agile Software Development Methods, User Experience Design, Agile User Experience Design, Mobile HCI, Mobile-Learning (M-Learning), Software Engineering and Web Engineering. Presently, he is working as a full Professor and Dean Faculty of Science at Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah, Pakistan.

He has been awarded the "Certificate of Inventor" by Technical University Graz, Austria. More than 25 MS students and 4 PhD students have completed their studies under his supervision. He has organized four national conferences. Besides, he has published more than 50 research papers in national as well as international journals and conferences. He has presented his research papers at various reputed international conferences held in the USA, UK, Canada, Austria, Italy and Malaysia. Most importantly, he is also the reviewer of many international/national journals and conferences.

He is a member of many statutory bodies of the QUEST and other Universities. He has remained a member of National Curriculum Review Committee, Islamabad for Computer Science, IT and Software Engineering. He has also remained a member of the Federation of Pakistan, Chambers of Commerce & Industry's Standing Committee on Research & Development (Policy) for the years 2017 and 2018 at the national level.

Prof. Dr. Abdul Sattar Jamali
Dean, Faculty of Technology

Prof. Dr. Abdul Sattar Jamali,
Dean FoT

Dr. Jamali describes himself as a Mechanical Engineer and Management Expert with experience in various fields such Manufacturing Engineering, Industrial Engineering, Management, Supervision, Policy and Planning and Implementation of programs as well as strategies.

He was graduated in Mechanical Engineering from Mehran University, Jamshoro in December 1995. Later on, master's in industrial engineering from Asian Institute of Technology (A.I.T), Bangkok, Thailand in December 2001 sponsored by Royal Thai Government (RTG). He opted Management Science and Engineering for his higher education and was awarded PhD from Beijing Institute of Technology (B.I.T), Beijing, China in July 2007. He was honored with Best Student Award and his dissertation was nominated as the Best Dissertation at Beijing Institute of Technology.

Furthermore, Professional Career Dr. Jamali was appointed as a Lecturer in August 1996 and presently he is working as Professor in the Department of Mechanical Engineering at Quaid –e- Awam University of Engineering, Science and Technology, Nawabshah. Beside this he has served more than fifteen years on administrative charges, as Chairman Department of Mechanical Engineering (Two tenure), Dean and Director Quality Enhancement Cell (QEC), Provost (Hostels) and focal person for anti-plagiarism checking of Master and PhD thesis. Dr. Jamali is actively engaged in the management of the University and currently serving as Dean, Faculty of Technology.

Prof. Dr. Liaquat Ali Memon
Dean, Quality Enhancement Cell

Prof. Dr. Liaquat Ali Memon,
Dean QEC

The QEC at QUEST, Nawabshah has been functioning smoothly and effectively since March 2006. QEC takes full responsibility of Self-Assessment process of all the academic programs, particularly at undergraduate level, where full monitoring of the programs is being accomplished through students' evaluation and other related activities. Based on the student evaluation & feedback the better improvement in the faculty members is being observed, which resulted in enhancement of the quality of teaching and education as well.

According to the requirement of Quality Assurance Agency of the Higher Education Commission, Islamabad, QEC has been allowed non-voting membership in Senate, Academic Council, Board of Faculty, Advanced Studies Research Board and Affiliated Committees to implement the HEC/PEC guidelines of various bodies. Dean QEC being a member of Plagiarism Standing Committee ensures free, fair and transparent proceeding of the cases of plagiarism. QEC is regular member of Pakistan Network of Quality Assurance in Higher Education (PNQAHE) and Director QEC is also member of PNQAHE Executive Committee. The Directorate of Quality Enhancement Cell also ensures the implementation of HEC minimum requirement for faculty appointment, and admission in M.S/M.E/ M.Phil. & Ph.D. programs.

The Self-Assessment process at undergraduate level has been accomplished. The scope is extended to M.S/M.E/M.Phil. & Ph.D. programs. However, a sufficient number of Self-Assessment Reports has been prepared and assessed by the concerned program teams. At present, QEC is monitoring the standard of education not only a QUEST but also at Constituent Engineering College, Larkana and Affiliated colleges i.e., GCT Khairpur, Government Habib College of Technology, Nawabshah and GCT Larkana. A Series of awareness workshops/seminars has been conducted for students, faculty and staff of colleges and the main campus (QUEST) for newly admitted students as a regular feature of QEC.

MS/M.Phil/Ph.D review conducted by HEC team and QEC has also conducted Self Institutional Performance Evaluation (SIPE) report and submitted to Higher Education Commission for the year 2020-21 for the ranking purpose.

Prof. Dr. Ahsan Ali Buriro
Director, QUEST Campus Larkano

Prof. Dr. Ahsan Ali Buriro, Director

Prof. Dr. Ahsan Ali is currently serving as Professor and Director of the QUEST Larkano Campus. Dr. Ahsan earned his PhD degree from Technical University of Bergakademie of Freiberg, Germany in year 2017. His master is from National University of Sciences & Technology, Islamabad in the field of structures and B.E from Mehran University of Engineering & Technology in Civil Engineering.

Dr. Ahsan worked as a structural engineer with Architectural and Civil Engineering Consultant firm in Islamabad before joining the Larkano Campus as an Assistant Professor and soon was later awarded Overseas Scholarship for Germany by Higher Education Commission of Pakistan for Ph.D.

His field of research includes Reinforced Cement Concrete slab-column joints, Lightweight Concrete and Fiber-reinforced Concrete. Dr. Ahsan is also member of different academic and professional organizations such as ACI (American Concrete Institute), ASCE (American Society of Civil Engineers), PEC (Pakistan Engineering Council). At present he has more than 23 publications under his name.

The honorable Chief Minister Sindh upgraded the status from QUEST engineering college to QUEST Larkano Campus vide notification NO.SO(U)/U&B/QUEST/7-1/2018/2011 dated 23/11/2018 and Prof. Dr. Ahsan has assumed charge of this Campus as the Director on 08/06/2021.

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SECTION-1

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ACADEMIC CALENDAR (2021-22)

FOR

F-18 (4th Year), 19 (3rd Year), 20 (2nd Year) and 21(1st Year) BATCHES

Desc	1st Semester	2nd Semester	Winter Vacation	Summer Vacation
Start of Classes	22.11.2021	16.05.2022	20.12.2021 to 03.01.2022	04.04.2022 to 16.05.2022
Mid Semester Exams	10.01.2022	27.06.2022		
Suspension of classes	11.03.2022	30.09.2022		
Schedule of Examination	14.03.2022	03.10.2022		
Display of Sessional Marks	18.03.2022	07.10.2022		
Examination preparation up to	20.03.2022	16.10.2022		
Conduct of Final Semester Exam	21.03.2022	17.10.2022		
Result announcement (Expected)	09.05.2022	14.11.2022		
Pre-admission Test (22-Batch) on 04.10.2022				
Start of a new session (22-Batch) on 22.11.2022				

Duration of a Semester		Duration of a Year		Requirements
Teaching (including Mid Semester Exam)	16 weeks	Two Semester Duration (22x2)	44 weeks	Minimum attendance requirement to appear in the exam is 75%. Minimum number of lectures during a semester in a subject of 3 CH shall be 42. Minimum number of lectures during a semester in a subject of 2 CH shall be 28. Each lecture is of one-hour duration.
Final Exam Preparation	02 weeks	Summer Vacation	06 weeks	
Conduct of Final Examination	04 weeks	Winter Vacation	02 weeks	
Total	**22 weeks**	**Total**	**52 weeks**	

About QUEST

Brief History of the Institution

The Sindh University Engineering College Jamshoro was established in 1963 as a constituent college of the University of Sindh to provide adequate opportunity of engineering education to the people belonging to the interior of Sindh Province. According to the education policy of 1972, the government decided to upgrade the college to the level of University of Engineering & Technology after shifting it to Nawabshah. Consequently, the first-year classes were started at Nawabshah in February 1974.

In July 1976, this institution was declared as an additional campus of the University of Sindh through amendment in the Sindh University Act, 1972 and was headed by a Pro-Vice Chancellor. The additional campus was eventually upgraded to the level of university on 15th March 1977 through an ordinance. Later-on, the Provincial Assembly of Sindh also passed an Act in this regard and named the institution as “Mehran University of Engineering and Technology, Nawabshah”.

In 1980, the Government decided to shift “Mehran University of Engineering and Technology” to Jamshoro and the campus at Nawabshah was declared as a constituent college of Mehran University; renamed as Mehran University College of Engineering and Technology (MUCET), Nawabshah". On 7thAugust 1996, MUCET was upgraded to the level of a university through an ordinance and later through an act of Sindh Assembly and was renamed as "Quaid-e-Awam University of Engineering, Science and Technology (QUEST), Nawabshah". At present, QUEST is accredited with the Higher Education Commission (HEC), Pakistan Engineering Council (PEC) and is the member of Association of Commonwealth Universities.

QUEST is situated just outside the city of Nawabshah near airport and is spread over an area of 457 acres on both sides of the Main Sakrand Road. Presently, it consists of three academic sectors. Sector-A houses the departments of Electrical Engineering, Computer Systems Engineering, Information Technology and Computer Science. Sector B houses the departments of Civil Engineering, Mechanical Engineering, Basic Sciences & Related Studies, and Mathematics & Statistics. All the laboratories of Civil Engineering, Mechanical Engineering and Workshops are located at Sector-C. Whereas, the department of English is located on the first floor of the old library building, adjacent to the newly constructed and fully equipped Data Center and Examination Branch located at ground floor near Sector-B.

The Central Library is located in between the multipurpose hall and the hostels. This beautiful, capacious building is fully equipped with all the basic facilities for students and is open for 7 days a week. The departments of Electronic Engineering, Energy & Environment Engineering are located near Sector A and C, whereas the Telecommunication Engineering and Chemical Engineering departments are located near Mechanical Engineering workshops. The Administration Block is situated near Sector-C. All the stakeholders of the university, i.e., teachers, officers, employees, and students have the facility of an express electricity feeder to work with full peace of mind with zero load shedding. There is a well-planned residential colony consisting of a substantial number of bungalows for the teachers

and officers and quarters for employees. A constituent college, named Engineering College Larkano, was established at Larkano city in 2010. The Honorable Chief Minister, Sindh upgraded the college and declared it as QUEST Campus Larkano, vide a Notification No.SO(U)/UB/QUEST/7-1/2018/211, dated 23-11-2018. Further details of the university are given in various sections of the prospectus.

Fields of Study, Teaching System and Award of Degree

Degree courses in the following disciplines are offered at QUEST.

1. Civil Engineering
2. Electrical Engineering
3. Mechanical Engineering
4. Computer Systems Engineering
5. Energy Systems Engineering
6. Electronic Engineering
7. Chemical Engineering
8. Telecommunication Engineering
9. Software Engineering
10. Environmental Engineering
11. Automation & Control Engineering*
12. Architecture & Planning**
13. Information Technology
14. Computer Science
15. Mathematics
16. English (Language & Literature)
17. Artificial Engineering
18. Physics
19. Agro-Food Processing Engineering Technology

** Subjected to the permission from PEC.*
*** To be started from 2022-Batch (next year).*

From the academic session 2016-17 (Batch-17), the system of education switched from term system to semester system under the Outcome Based Education (OBE) model as per the requirements of PEC & HEC for the award of four-years bachelor's degree. An academic year is divided into two semesters and the university offers eight semesters course work to obtain bachelor's degrees in the mentioned engineering and sciences programs.

Students of all disciplines are also required to study some basic subjects in social studies, mathematics, as well as those pertaining to other branches of Engineering, which are generally taught by the concerned departments.

At the end of fourth year, after satisfactory completion of the courses in all respects and having passed all the examinations held by the University, the degree of Bachelor is awarded. The postgraduate programmes are also offered in the fields of Civil Engineering Electrical Engineering, Energy and Environment Engineering, Mechanical Engineering, Computer Systems Engineering, Electronic Engineering, Information Technology and Mathematics leading to the award of ME/MS/M.Phil and Ph.D. degrees. ME/MS are four terms (02 years) evening programmes. Whereas, M.Phil and Ph.D. are full time programmes.

Outcome Based Education (OBE) System

As per the PEC guidelines, all the engineering programs at QUEST Nawabshah and QUCEST Larkano follow the OBE system, which emphasizes measured outcomes. Several

stakeholders such as faculty, students, employers, industrial advisory board, alumni, and parents are involved in the assessment of program effectiveness. During four years of the program, Washington Accord Graduate Attributes / Program Learning Outcomes (WAs/PLOs) and Program Educational Objectives (PEOs) are imparted to the students and then attainment is assessed and analyzed through both direct and indirect assessments.

Program Learning Outcomes (PLOs)

PLOs describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills and attitude that the students acquire while progressing through the program. All the engineering programs of the university follow the below given PLOs that all engineering graduates are expected to have by the time of graduation.

1. Engineering Knowledge:

   An ability to apply knowledge of Mathematics, Science, Engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

2. Problem Analysis:

   An ability to identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of Mathematics, Natural Sciences and Engineering sciences.

3. Design/Development of Solutions:

   An ability to devise solutions for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

4. Investigation:

   An ability to investigate complex engineering problems in a methodical way including literature feedback, design and conduct of experiments, analysis and interpretation of experimental data, and synthesis of the information to derive valid conclusions.

5. Modern Tool Usage:

   An ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

6. The Engineer and Society:

   An ability to apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities

relevant to professional engineering practice and solution to complex engineering problems.

7. Environment and Sustainability:

   An ability to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge and need for sustainable development.

8. Ethics:

   Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

9. Individual and Teamwork:

   An ability to work effectively as an individual or a team in multifaceted or multidisciplinary settings.

10. Communication:

    An ability to communicate effectively, orally as well as in writing on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project Management:

    An ability to demonstrate management skills and apply engineering principles to one's own work as a member or leader in a team to manage projects in a multidisciplinary environment.

12. Lifelong Learning:

    An ability to recognize the importance of and pursue lifelong learning in the broader context of innovation and technological developments.

Program Educational Objectives (PEOs)

The PEOs are broad statements that describe what graduates are expected to achieve a few years after graduation. The PEOs for each of the engineering programs of the university, prepared by the departmental OBE committee, recommended by the concerned Board of Studies and Board of Faculty, and finally approved by the University Academic Council are given under the description of each of the departments/programs. Every graduate engineer should acquire these PEOs after 4 - 5 years of graduation.

Officers of the University

Following are the main officers of the University:

Designation	Name
Vice Chancellor	**Prof. Dr. Saleem Raza Samo** B.E (MUET), M.E. (Thailand), Ph.D. (UK)
Pro Vice Chancellor	**Prof. Dr. Abdullah Saand** B.E (MUET), ME (MUET), Ph.D. (Malaysia)
Dean Faculty of Engineering	**Prof. Dr. Noor Ahmed Memon** BE (NED), M.Phil (MUET), Ph.D. (Malaysia)
Dean Faculty of EL, ES, & CS Engineering	**Prof. Dr. Muhammad Usman Keerio** B.E (MUET), M.S (NUST), Ph.D. (China)
Dean Faculty of Science	**Prof. Dr. Zahid Hussain Abro** M.Sc. (Sindh), Ph.D. (Austria)
Dean Faculty of Technology	**Prof. Dr. Abdul Sattar Jamali** B.E (MUET), M.E (Thailand), Ph.D. (China)
Dean QEC	**Prof. Dr. Liaquat Ali Memon** B.E (MUET), M.E (Malaysia), Ph.D. (Malaysia)
Controller of Examinations	**Prof. Dr. Kishan Chand Mukwana** B.E (MUET), ME (MUET), Ph.D. (QUEST)
Director ORIC	**Prof. Dr. Pardeep Kumar** B.E (MUET), ME (MUET), Ph.D. (Germany)
Director QUEST Campus Larkano	**Prof. Dr. Ahsan Ali Buriro** B.E (MUET), M.S (NUST), Ph.D. (Germany)
Registrar	**Mr. Muharram Ali Mallah** M.A (SALU)
All Chairmen of Teaching Departments	
Director Finance	**Engr. Rameez Akbar Talani** B.E (QUEST), MBA
Director Planning & Development	**Mr. Aashique Ali Joyo** M. Phil (Economics)
Librarian	**Mr. Ghulam Farooque Channar** B.A. (SoU), M.L.IS (SoU)

SECTION-2

FACULTY OF ENGINEERING

Department of Civil Engineering
Department of Mechanical Engineering
Department of Energy Systems Engineering
Department of Chemical Engineering
Department of Environment Engineering

DEPARTMENT OF CIVIL ENGINEERING

About Chairman

Prof. Dr. Dadan Khan Bangwar, Chairman

Prof. Dr. Daddan Khan Bangwar completed his bachelor's degree in Civil Engineering from Mehran University of Engineering and Technology Jamshoro. He got his M.E in Structural Engineering from NED University of Engineering and Technology and earned PhD in Structural Engineering from Quaid-e-Awam University of Engineering, Science and Technology Nawabshah.

At present, Prof. Dr. Bangwar is working as Professor and Head of Civil Engineering Department, Quaid-e-Awam University of Engineering, Science and Technology Nawabshah.
Prof. Dr. Bangwar worked in renowned organizations of the country, and successfully handled a good number of projects. He is an active researcher and have more than 20 research publications in national /international research journals. Prof. Dr. Bangwar's research interests are Polymer Modified Concrete, Supplementary Cementing Materials and Light Weight Concrete.

Introduction

Civil Engineering is the art of directing the great sources of manpower in nature for the use and welfare of mankind. It applies the engineering practice to the planning, design, construction, management, operation and maintenance of such works as buildings, roads, bridges, railways, factories, airports, canals, docks, harbors, sea defense, river control, water supply, sewerage disposal, etc.

Being the oldest and yet the most wide-ranging discipline, the Department of Civil Engineering is one of the largest departments of the University. Apart from admissions under a regular scheme, a substantial number of students are also admitted on a Self-Finance basis.

The department provides Civil Engineering education, which is based on the requirements and needs of the engineering industry at par with the guidelines of HEC and PEC. The department facilitates students for software training and experimental training in laboratories. The faculty members having higher qualifications such as PhD, M.Phil., M.E and Postgraduate training from the reputed universities of USA, UK, Malaysia, China, Hong Kong, Sweden, Australia and other countries are engaged to impart quality education. In addition to the undergraduate program, the Department of Civil Engineering also offers three separate programs of Master's in Civil Engineering, Structural Engineering and Construction Engineering and Management in the evening. In these programs, postgraduate students are being trained to face new challenges in the field. These programs comprise three terms of course work (24 CH) followed by 8 credit hours of research work as the compulsory requirement for the award of the degree.

No matter what the engineering discipline is, there is always a need for research to meet the new challenges of the field. Thus, the prominent feature of the Civil Engineering Department is to research Structural Engineering and other areas of Civil Engineering. Several local as well as foreign students have benefitted from the research facilities and expertise. They have earned the higher degrees: PhD, M.Phil. and M.E. The experimental studies carried out in the laboratories of the department have been published in the journals of international repute and presented in their works in International and National Conferences.

Vision:

To turn out to be the department of excellence that encourages Civil Engineers with state-of-the-art technical capabilities and promotes very high-quality research to encounter the challenges in the Civil Engineering field.

Mission:

To offer degree programs in Civil Engineering and other skill development courses which are based on the requirements and needs of the engineering industry. To promote high-quality education, research and technical skills, to provide the state-of-the-art foundation to address paramount issues in a congenial learning environment and to train the students for moral and ethical values such as caring, sharing, honesty, fairness, responsibility, and respect for self and others.

Program Educational Objectives (PEOs)

Following are the program educational objectives that are expected to be exhibited by the Civil Engineers after their graduation.

Civil Engineering professionals will:

1. Demonstrate sound knowledge and skills required for planning, design and construction of Civil Engineering systems.
2. Manage and illustrate effective teamwork, interpersonal skills and professional growth.
3. Undertake professional practice considering ethical, societal and environmental implications.

Degree Program:

1. Bachelor of Engineering (Civil Engineering)
2. Master of Engineering in
    a. Civil Engineering
    b. Structural Engineering
    c. Construction Engineering & Management
3. M.Phil. (Civil Engineering)
4. PhD (Civil Engineering)

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Daddan Khan Bangwar	Professor & Chairman B.E (MUET), M.E (NED), Ph.D (QUEST)
2.	Prof. Dr. Abdullah Saand	Professor, & Pro. Vice Chancellor B.E (MUET), M.E (MUET), Ph.D (Malaysia)
3.	Prof. Dr. Bashir Ahmed Memon	Professor B.E (MUET), M.E (China), Ph.D (China)
4.	Prof. Dr. Noor Ahmed Memon	Professor, Dean Faculty of Engineering, B.E. (NED), M.Phil (MUET), Ph.D (Malaysia)
5.	Prof. Dr. Nawab Ali Lakho	Professor B.E (MUET), M.E (MUET), Ph.D (QUEST)
6.	Dr. Aftab Hameed Memon	Associate Professor B.E (QUEST), M.E (Malaysia), Ph.D (Malaysia), Post Doc (Malaysia)
7.	Dr. Mukhtiar Ali Soomro	Associate Professor B.E (QUEST), Ph.D (Hong Kong)
8.	Dr. Muhammad Auchar Zardari	Associate Professor B.E (QUEST), M.Phil (Sweden), Ph.D (Sweden)
9.	Engr. Naseem Usman Keerio	Assistant Professor B.E (MUET), M.E (QUEST)
10.	Engr. Tulsi Das	Assistant Professor B.E (MUET), M.Phil (QUEST)
11.	Engr. Ubaidullah Memon	Assistant Professor B.E (NED), M.S (NUST)
12.	Dr. Mohsin Ali Soomro	Assistant Professor B.E (QUEST), M.E (Australia), Ph.D (Hong Kong)
13.	Dr. Mahboob Oad	Assistant Professor B.E (QUEST), M.E (QUEST), PhD (QUEST)
14.	Dr. Riaz Bhanbhro	Assistant Professor B.E (QUEST), M.Phil (Sweden), Ph.D (Sweden)
15.	Engr. Nadeem ul Kareem Bhatti	Assistant Professor B.E (QUEST), M.E (MUET)
16.	Dr. Muneeb Ayoub Memeon	Assistant Professor B.E (QUEST), M.E (QUEST), PhD (QUEST)
17.	Engr. Aamir Khan Mastoi	Lecturer B.E (MUET), M.E (MUET)
18.	Engr. Israr Ahmed Dahri	Lecturer B.E (MUET), M.E (QUEST) (on Lien)
19.	Engr. Aijaz Ali Dahri	Lecturer B.E (QUEST)
20.	Engr. Arif Asghar Gopang	Lecturer B.E (QUEST), M.E (MUET, USPCAS-W)

21.	Engr. Naeem Mangi	Lecturer B.E (MUET), M.E (QUEST)
22.	Engr. Abdul Qadir Memon	Lab Engineer B.E (QUEST), M.E (QUEST)
23.	Engr. Natees Altaf Memon	Lab Engineer B.E (NED), PGD (MUET)
24.	Engr. Masroor Hassan Memon	Lab Supervisor B.E (MUET)
25.	Engr. Imran Hussain Wagan	Lab Engineer B.E (QUEST)
26.	Engr. Muhammad Ibrahim Shaikh	Lab Engineer B.E (QUEST)
27.	Engr. Ghulam Nabi Keerio	Lab Engineer B.E (QUEST)
28.	Mr. Rizwan Ahmed Memon	Lab Instructor D.A.E
29.	Engr. Shahnawaz Zardari	Jr. Lab Engineer B.E (QUEST), M.E. (QUEST)
30.	Engr. Muzamil Tunio	Jr. Lab Engineer B.E (QUEST)

Courses of Study

S N	Name of Subject	CH		Marks	S N	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Engineering Mechanics	3	1	100+50	1	Surveying-I	3	1	100+50
2	Civil Engineering Materials	2	1	50+50	2	Engineering Drawing	2	1	50+50
3	Functional English	2	0	50+00	3	Introduction to Computer Programming for Civil Engineering	2	1	50+50
4	Applied Calculus	3	0	100+00	4	Civil Engineering Geology	2	0	50+00
5	Islamic Studies / Ethics	2	0	50+00	5	Linear Algebra & Analytical Geometry	3	0	100+00
6	Pakistan Study	2	0	50+00	6	Writing & Communication Skills	2	1	50+50
	Total	14	2	400+100		Total	14	4	400+200
Second Year									
1st Semester					**2nd Semester**				

1	Surveying-II	3	1	100+50	1	Fluid Mechanics & Hydraulics-I	3	1	100+50
2	Strength of Materials-I	3	0	100+00	2	Strength of Materials-II	3	1	100+50
3	Civil Engineering Drawing	3	1	100+50	3	Transportation Engineering	3	0	100+00
4	Architecture & Town Planning	2	0	50+00	4	Theory of Structures	3	0	100+00
5	Statistics & Probability	3	0	100+00	5	Numerical Methods	3	0	100+00
	Total	14	2	450+100		Total	15	2	500+100

Third Year									
1st Semester					**2nd Semester**				
1	Fluid Mechanics & Hydraulics-II	3	1	100+50	1	Reinforced & Pre-stressed Concrete	3	1	100+50
2	Plain & Reinforced Concrete	3	1	100+50	2	Hydrology & Water Storage Structures	3	1	100+50
3	Highway & Traffic Engineering	3	1	100+50	3	Steel Structures	3	0	100+00
4	Structural Analysis	3	1	100+50	4	Soil Mechanics	3	1	100+50
5	Construction Engineering	2	0	50+00	5	Modern Methods of Structural Analysis	3	0	100+00
	Total	14	4	450+200	6	Total	15	3	500+150

Final Year									
1st Semester					**2nd Semester**				
1	Structural Design & Drawing	3	0	100+00	1	Foundation Engineering	3	0	100+00
2	Geotechnical Engineering	3	1	100+50	2	Environmental Engineering-II	3	1	100+50
3	Irrigation & Drainage Engineering	3	1	100+50	3	Quantity Surveying & Estimation for Civil Works	3	0	100+00
4	Environmental Engineering-I	2	0	50+00	4	Project Planning, Economics & Management	3	0	100+00
5	Professional Ethics for Engineers	2	0	50+00	5	Thesis/Project-II	0	3	00+100
6	Thesis/Project-I	0	3	00+100		Total	12	4	400+150
	Total	13	5	400+200					

DEPARTMENT OF MECHANICAL ENGINEERING

About Chairman

Prof. Dr. Muhammad Ramzan Luhur, Chairman

Dr. Muhammad Ramzan Luhur completed his Bachelor of Engineering in Mechanical Engineering from QUEST Nawabshah with first position. He earned his Master's degree in Sustainable Energy Engineering from Royal Institute of Technology (KTH), Stockholm, Sweden and Ph.D. in wind engineering from Carl Von Ossietzky University of Oldenburg, Germany, in 2014.

Dr. Luhur started his practical career from Chemi Group of Industries at their Chemi Visco Fibre Plant, Pakistan's 1st Plant for viscose staplefiber at Nawabshah, Pakistan. In April 2004, he left industry and joined QUEST, Nawabshah as a lecturer in Mechanical Engineering Department. Soon, after three years of his service, he left for higher studies abroad sponsored by QUEST under Faculty Development Program through Higher Education Commission (HEC) Islamabad Pakistan. Currently, Dr. Luhur is Chairman of Mechanical Engineering Department, QUEST Nawabshah. He also has served as Director Postgraduate Studies and Research, QUEST for more than 9 months.

Dr. Luhur is an energetic researcher in Mechanical Engineering, particularly in wind engineering. He has more than 25 research publications in HEC recognized journals and one book chapter published online in CompEdu. Dr. Luhur participated in several conferences and presented his work. He is supervisor of several Master's and Ph.D researchers. Dr. Luhur is lifetime member of Pakistan Engineering Council. He speaks English, Urdu, Sindhi, Balochi and understands other local languages of Pakistan.

Introduction

Mechanical Engineering involves the applications of physics for analysis, design, manufacturing, and maintenance of mechanical systems and its components. It requires basic understanding of several fields such as mechanics, thermodynamics, and energy. Mechanical engineers are capable to apply engineering concepts for the efficient, economic and environment friendly design, analysis of automobiles, aircraft, heating & cooling systems, buildings & bridges, industrial equipment and machinery.

The department was established in 1974; since then, about 2270students have been graduated and are working in major national and international organizations ranging from Pakistan Steel, PIA, Railways, WAPDA, PMTF, Heavy Mechanical Complex, OGDCL, SSGCL, OMV, ENGRO, NRL and several other organizations. A good number of our graduates are also working in the Gulf countries.

The department of Mechanical Engineering offers four-year (8 semesters) bachelor's degree programme in Mechanical Engineering. The syllabus contains a good number of practical

oriented subjects which provide a broad spectrum of technical knowledge to the students using laboratory experiments and workshop practice in learning conducive environment.

Due to advancement in robotics and automation in modern industries, department has taken full account of industrial electronics and Mechatronics courses in the syllabus. Besides, the department also offers various short courses not only on the Mechanical Engineering software's, i.e., AutoCAD, Pro-E, CNC, CAD/CAM, SOLIDWORKS, QBlade, ANSYS Fluent and PLC, but also on the professional and personal career development.

The distinguished feature of the department is the existence of 10 highly established laboratories, which are fully equipped with the latest equipment's. In addition, the jet engine test bench, supersonic wind tunnel, computer numerical controlled (CNC) turning and milling machines, advanced welding processes (TIG, MIG & SPOT) and a workshop are fully established for conducting practical and research work.

The Mechanical Engineering workshop is not only used for conducting the experiments but also used to produce various articles, class and laboratory furniture for the University at relatively very low cost than the market.

In addition, the department also offers Master's Programme by mix-mode (Course + Research) in Manufacturing Engineering and Industrial Engineering & Management disciplines. The active research areas are wind engineering, robotics, advanced manufacturing systems, mechanical system design, mechanical vibration, FEA, materials development & processing, quality management and energy & environment. The faculty members have received their specialized trainings and higher degrees mostly from developed countries including UK, Japan, Ireland, Thailand, Romania, Sweden, China, France, Germany and Malaysia.

Vision:

To produce professional engineers in Mechanical Engineering for sustainable socio-economic development of the society.

Mission:

The mission of Mechanical Engineering Department is to impart updated knowledge and expertise in the field of design, manufacturing, production, fabrication, installation and maintenance to enable our graduating students to meet the needs/challenges of industry, academia and society.

Program Educational Objectives (PEOs)

PEO 1: To produce the professional engineers capable to meet the requirements of market for socio-economic development of country.

PEO 2: To produce the Mechanical Engineers with expertise in design, manufacturing, production control and energy to acquire problem-solving abilities.

PEO 3: To produce the Mechanical Engineers with ethical values and effective communication skills to face the challenges of industry and capable to work as an individual and in team.

Degree Programme:

1. Bachelor of Engineering (Mechanical Engineering)
2. Master of Engineering
    a. Manufacturing Engineering
    b. Industrial Engineering & Management
3. Ph.D. (Mechanical Engineering)

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Muhammad Ramzan Luhur	Professor/Chairman B.E (QUEST), M.E (Sweden), Ph.D (Germany)
2.	Prof. Dr. Abdul Sattar Jamali	Professor B.E (MUET), M.E (Thailand), Ph.D (China)
3.	Prof. Dr. Altaf Hussain Rajpar	Professor B.E (MUET), M.E (Thailand), Ph.D (China)
4.	Prof. Dr. Liaquat Ali Memon	Professor BE (MUET), M.E (Malaysia), Ph.D (Malaysia)
5.	Prof. Dr. Abdul Latif Manganhar	Professor B.E (MUET), M.E (MUET), Ph.D (QUEST)
6.	Prof. Dr. Zulfiqar Ali Soomro	Professor B.E (MUET), M.E (NUST), Ph.D (MUET)
7.	Prof. Dr. Ali Bux Soomro	Professor Emeritus B.E (Sindh), PSP (Romania), Ph.D (UK)
8.	Dr. Qadir Bakhsh Jamali	Associate Professor B.E (MUET), M.E (Malaysia), Ph.D (Malaysia)
9.	Dr. Gordhan Das Valasai	Associate Professor B.E (MUET), M.Phil (MUET), Ph.D (MUET)
10.	Dr. Imdad Ali Memon	Assistant Professor B.E (QUEST), M.E (QUEST), Ph.D (China)
11.	Dr. Aijaz Ahmed Abbasi	Assistant Professor B.E (QUEST), M.E (MUET), Ph.D (Malaysia)
12.	Dr. Pir Bux alias Waqas Mughal	Assistant Professor B.E (QUEST), M.E (QUEST), Ph.D (China)
13.	Engr. Muhammad Anwar Akhund	Assistant Professor B.E (MUET)
14.	Engr. Umair Ahmed Rajput	Assistant Professor B.E (QUEST), M.E (QUEST)(on study leave abroad)
15.	Engr. Rameez Raja Siddique	Assistant Professor B.E (QUEST), M.E (QUEST)(on study leave abroad)

16.	Engr. Qamar Abbas Kazi	Assistant Professor B.E (QUEST), M.E (QUEST)
17.	Engr. Muhammad Kashif Abbasi	Assistant Professor B.E (QUEST), M.E (QUEST)
18.	Engr. Sher Muhammad Ghoto	Assistant Professor B.E (MUET), M.E (QUEST)
19.	Engr. Faheem Ahmed Solangi	Assistant Professor B.E (QUEST), M.E (MUET)
20.	Dr. Khalid Hussain Solangi	Lecturer B.E (QUEST), Ph.D (Malaysia)
21.	Engr. Sikandar Ali Channa	Lecturer B.E (QUEST), M.E (France)(on study leave abroad)
22.	Engr. Sajjad Bhangwar	Lecturer B.E (QUEST), M.E (QUEST)
23.	Engr. Azhar Hussain Shah	Lecturer B.E (QUEST), M.E (QUEST)
24.	Engr. Mushtaque Ahmed Lakho	Lecturer B.E (QUEST), M.E (QUEST)
25.	Engr. Abid Ali Khaskheli	Lab. Engineer B.E (QUEST), M.E (QUEST)(on study leave abroad)
26.	Engr. Saddam Hussain Rajput	Lab. Engineer B.E (QUEST)
27.	Engr. Nisar Ahmed Jamali	Lab. Engineer B.E (QUEST), M.E (QUEST)
28.	Engr. Aisha Rajput	Lab. Engineer B.E (QUEST)

Teaching Staff (Mechanical Engineering Workshop)

SN	Name	Designation / Qualification
1.	Dr. Qadir Bux Jamali	Workshop Superintendent B.E (MUET), M.E (Malaysia), Ph.D (Malaysia)
2.	Engr. Sarmad Soomro	Senior Workshop Instructor BE (QUEST), M.E. (QUEST)(on study leave)
3.	Mr. Khuda Bux Saand	Senior Workshop Instructor BE (QUEST), M.E. (QUEST)
4.	Mr. Abdul Qadir Gopang	Workshop Instructor DAE (Mechanical)
5.	Mr. Bilawal Lakho	Workshop Instructor DAE (Electrical)

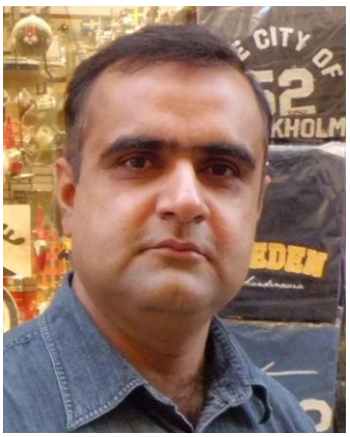
Courses of Study

SN	Name of Subject	CH	Marks	SN	Name of Subject	CH	Marks

		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Pakistan Studies	2	0	50+00	1	Communication Skills	2	1	50+50
2	Engineering Materials	3	0	100+00	2	Differential Equations	3	0	100+00
3	Functional English	3	0	100+00	3	Electrical Engineering	2	1	50+50
4	Applied Calculus& Linear Algebra	3	0	100+00	4	Engineering Dynamics	2	0	50+00
5	Engineering Statics	2	1	50+50	5	Engineering Drawing & Graphics	2	1	50+50
6	Workshop Practice	0	2	00+50	6	Islamic Studies	2	0	50+00
	Total	13	3	400+150		Total	13	3	350+150
Second Year									
1st Semester					**2nd Semester**				
1	Complex Variables & Transforms	3	0	100+00	1	Numerical Analysis	3	0	100+00
2	Computer Systems & Programming	2	1	50+50	2	Mechanics of Machines	3	1	100+50
3	Electronics Engineering	2	1	50+50	3	Fluid Mechanics-I	2	1	50+50
4	Mechanics of Materials-I	3	1	100+50	4	Mechanics of Materials-II	3	0	100+00
5	Thermodynamics-I	2	0	50+00	5	Thermodynamics-II	3	1	100+50
	Total	12	3	400+150		Total	14	3	450+150
Third Year									
1st Semester					**2nd Semester**				
1	Statistics & Probability	3	0	100+00	1	Automobile Engineering	2	1	50+50
2	Instrumentation & Control	2	1	50+50	2	Machine Design & CAD-II	3	1	100+50
3	Fluid Mechanics-II	3	1	100+50	3	Heat & Mass Transfer	3	1	100+50
4	Engineering Management & Economics	2	0	50+00	4	Power Plants	3	1	100+50
5	Renewable & Emerging Energy Technologies	2	0	50+00	5	Total Quality Management	2	0	50+50
6	Machine Design & CAD-I	2	1	50+50					
	Total	14	3	400+150		Total	13	4	400+200
Final Year									
1st Semester					**2nd Semester**				
1	Aerodynamics	3	1	100+50	1	Manufacturing Processes-II	3	1	100+50
2	Safety, Health& Environment	2	0	50+00	2	Heating Ventilation& Air-Conditioning Systems (HVAC)	3	1	100+50
3	Manufacturing Processes-I	2	1	50+50	3	Mechatronics	2	1	50+50
4	Mechanical Vibration	3	1	100+50	4	Maintenance Engineering	2	0	50+00
5	Project / Thesis-I	0	3	00+100	5	Project / Thesis-II	0	3	00+100
	Total	10	6	300+250		Total	10	6	300+250

DEPARTMENT OF ENERGY SYSTEMS ENGINEERING

About Chairman



Prof. Dr. Shahid H. Siyal, Chairman

Dr. Shahid Hussain Siyal is working as a Professor and Chairman of Energy Systems Engineering Department. Dr. Shahid is an active researcher, and his research interest is Application of GIS (Geographic Information System) to assess renewable energies resource potentials on local, national and regional levels. During his PhD studies he assessed wind-to-hydrogen energy potential by using GIS-based methodology for Sweden to meet future renewable targets in the country. He published more than 17 research publications in well reputed international & national journals recognized by Higher Education Commission (HEC) Pakistan. Furthermore, he presented research work in various conferences. Dr. Shahid has supervised five Master Students at Royal Institute of Technology (KTH), Stockholm, Sweden.

In 2003, Dr. Shahid completed Bachelor of Mechanical Engineering from Quaid-e-Awam University of Engineering, Sciences and Technology, Nawabshah (QUEST). In 2012 and 2019, he completed Master's degree in Sustainable Energy Engineering and PhD degree in Energy Technology respectively from Royal Institute of Technology (KTH), Stockholm, Sweden.

During 2004-2005, Dr. Shahid worked as Trainee Assistant Manager at Thatta Cement Factory. During 2005-2006, he worked as Assistant Manager at Pakistan Steel Mills, Karachi. Later, he left the Steel Mills in September 2006 and joined the QUEST, Nawabshah as a lecturer at the Department of Energy and Environment Engineering. After three years of service at QUEST, he went to Sweden for MS and PhD studies under Faculty Development Program (FDP)sponsored by HEC.

Introduction

The Department of Energy Systems Engineering* (previously known as Department of Energy and Environment Engineering) focuses on the design and operation of energy intensive processes in a more efficient and economic manner through mathematical optimization. The field of Energy Systems Engineering deals with energy efficiency, energy services, facility management, plant engineering, environmental compliance, sustainable

*The Department of Energy and Environment was established in 2005, it was first study programme of its kind in Pakistan. In order to cater the new and emerging challenges in the fields of both, Energy and Environment, it was decided to change the scope of Bachelor of Engineering in "Energy and Environment Engineering" into "Energy System Engineering" and a new Department of Environment Engineering was established. Later, Board of Studies (BoS) meeting was held on 8th June 2020, where all members unanimously endorsed the mentioned change in the scope from the intake of 2020 batch and onward. Furthermore, this item was initially placed in the Board of Faculty of Engineering (BoFE) and later in Academic Council. Finally, in Academic Council, the Program of "Energy Systems Engineering" was approved on 7th July 2020. Pakistan Engineering Council (PEC) also allowed the change of scope.

energy and renewable energy technologies. This program offers a broad range of theoretical and applications-based electives to provide comprehensive knowledge across the field.

The department offers a four-year bachelor degree course in Energy and Environment Engineering (up to 19-Batch) and a four-year bachelor degree program in Energy Systems Engineering w.e.f. (20-Batch and onward). The department also offers post-graduate degree programs i.e., Master of Engineering (M.E.) in Energy Systems Engineering and PhD in Energy & Environment Engineering.

The courses offered by the department are mainly focused on major energy resources like Oil, Gas, Coal, Nuclear, Wind, Biomass and Solar. Because it is important for stakeholders to exploit all energy resources and thereby improve energy security in order to reduce environmental pollution and economic burden caused by heavy imports of energy related products. Consequently, the emphasis has been given to cover the following important areas in the syllabus of the course:

- Exploration/Exploitation and processing of various energy resources (both conventional as well as renewable)
- Environmental impacts of energy production and utilization - Solution/ Mitigation measures for reducing environmental pollution Conservation of energy and natural resources.
- Conservation of Biodiversity & Ecosystems
- Framing energy policy and management
- Health and safety in industries

Public concern about processes which affect the environment will continue to influence almost all industrial operations over the next decade and beyond. Waste disposal, energy production and the minimization of pollution are the key problems to be addressed for the sustainable cities of the future. In world of finite resources and witnessing a population explosion, much effort is being made to change the way in which developed societies consume energy and materials and dispose-off waste.

Thus, bachelor's degree courses are designed to provide broader technical knowledge through theory classes supported by tutorials, laboratory experiments and field visits. In this department an "Energy-Park" is also established to exhibit various equipment and appliances used for power generation from various renewable energy resources and to measure their environmental impacts. Zero Energy house is the new addition in this energy park, in which the energy used is only from solar and wind energy sources. This facility is under an MOU between QUEST and UNIMAS, Malaysia.

The engineers graduating from this discipline are being employed by: Water and Power Development Authority (WAPDA), Gas companies, Oil Refineries, Oil and Gas Development Corporation (OGDC), Environmental Protection Agency (EPA), Ministry of Climate Change and Alternate Energy Board, Pakistan International Airlines (PIA), Fauji Fertilizer Company (FFC), Pakistan Railways, Heavy Mechanical Complex (HMC), Pakistan Ordinance Factories (POFs), Heavy Industries Taxila (HIT).

Faculty members having higher qualifications from developed countries, such as UK, Germany, Austria, Sweden, Malaysia, France and Thailand, are imparting knowledge to students of this department with best possible pedagogical methods and help of latest technologies. The proactive faculty of this department keeps improving their training and education by attending course, national and international conferences, and getting higher degrees inland and abroad.

Vision

The programs offered by the department produce the graduate's professional in the targeted field to meet the job market for socio-economic & sustainable development of country with the help of dedicated efforts of highly qualified faculty members.

Mission

The Department is committed to provide quality education, training, and outreach services through teaching, research, innovation, and extension for sustainable global development. The department takes care of an intellectual culture that integrates theory with practice and produce graduates with knowledge, skills, and responsible citizenry.

Programme Educational Objectives (PEOs)

The Programme Educational Objectives (PEOs)of the Department of the Energy and Environment Engineering are given below. After graduation, the students are expected to attain the given objectives. However, new PEOs for Energy Systems Engineering Program and list of all courses are still subjected to the approval of next Board of Studies (BoS) meeting and will be available as soon as possible.

PEO 1: Having strong knowledge and skills in Energy and Environment Engineering discipline.

PEO 2: Pursuing research and innovation and be able to provide industrial solutions for mitigation of energy crises, environmental issues and health and safety challenges.

PEO 3: Participating in efforts to address the societal, environmental, and energy challenges to achieve sustainable development.

Degree Programme

At present, the department offers the following degree programs:

1. Bachelor of Engineering
    a. Energy & Environment Engineering (2005-2019)
    b. Energy Systems Engineering (2020 and onwards)
2. Master of Engineering (ME) in Energy Systems Engineering (2015 and onwards)
3. PhD in Energy and Environment Engineering (2011 and onwards)

Facilities available at the Department

Computer Laboratories

Two fully equipped computer labs are established for students of this department. In these labs, more than 50 latest PCs connected with Internet and Digital Library to access latest literature and scientific findings are available.

Seminar Library

The department has its own individual seminar library with all necessary books, journals, research articles, newsletters, etc. for the use of students and faculty members of this department.

Energy Laboratory

This lab is equipped with latest equipment in order to provide practical knowledge of all energy generation processing units to students. In this lab Miniature- Hydel and -Wind power plant, Photovoltaic cells, solar power plant and other demonstrating units are available for the students.

Environment Laboratory

The Environmental Engineering lab is also available in the department. In this lab, environmental pollution measuring equipment relating to air, noise & water such as, BOD, COD. DO, Turbidity, Spectrophotometer, and Conductivity / TDS meters. Particulate matter. Gas Analyzer, Weather Station are also available. Besides this Water quality testing equipment are also available in this lab. This lab will provide practical knowledge about the environmental pollution to the students.

Engineering Materials & Fluid Mechanics Laboratory

This lab provides practical knowledge regarding Engineering Materials & Fluid Mechanics to the students. Much equipment is lying such as Universal Testing Machines (UTMs) for testing all kinds of material (Metals &Non-Metals) including rubber are also available in this lab. Other equipment related to fluid mechanics are also available to provide practical knowledge to students.

Thermodynamic Laboratory

In this laboratory numerous experiments are being conducted related to Thermodynamics, Heat & Mass Transfer, Power Plant and Fuel & Combustions. Various important equipment such as Internal Combustion Engines (Diesel & Petrol), miniature Steam Power Plant, Vapor jet Refrigeration Unit, Heat Transfer Unit (Conduction, Radiation, Convection) Flue gas analyzer, Fuel combustion unit, Impulse turbine, and Cross flow heat exchanger etc., are also available in the laboratory.

Biofuel Laboratory

This is newly established lab in the department to conduct practical related to chemical titration, treatment of crude oils, and investigation of oil quality parameters. The practical work is also carried out in order to determine Free Fatty Acids (FFA), Saponification values total acid Number etc. After analysis of crude oil biodiesel is produced through single esterification or transesterification. In addition, a processor model no Fuelpod2 with 50 L capacity is available to produce biodiesel at mass production from waste cooking oil and non-edible oils which is very cheap from diesel oil. This laboratory is the most useful for Energy & Environment and Chemical Engineering Departments.

MoUs with world-class universities abroad

The highly trained and skilled faculty of this department realizes the need for cooperative ties with high-class research and education institutions abroad. Therefore, the department has established number of Memorandum of Understanding (MoUs) with various research and education institutions abroad (incl. US, Turkey, Malaysia and China) and is in continuous progress to establish many more. The students and faculty of this department may benefit from these MoUs by (e.g.) spending short and long stays for research and attending courses in these countries that enrich their skills, expertise and knowledge even further.

ISO 9001: 2008 certification

The Department Energy and Environment Engineering (now known as Department of Energy Systems Engineering) is ISO 9001:2008 certified under the scope of “Provision of education, training, research and consultancy service in the field of Energy and Environment Engineering”. The faculty of the department strongly believes that sustainable national and global development can be achieved through nurturing culture that integrates theory with practice to produce graduates with relevant knowledge, skills, and responsible citizenry. It is also believed that education and training lead to social cohesion, and human & economic development. This can be realized through passion for excellence, devotion to duty, accountability, and prudent utilization of resources, and sharing of knowledge for effective leadership in education, training and research. The ultimate goal of Department is to be Premier Department for the provision of quality education, training and research in the field. Department has taken tremendous efforts to get certification as per international standards.

Quality Policy

The department is committed to impart Quality Education for building and strengthening student's skills to uplift the career so as to enable them to bring brilliant academic achievements and industrial leadership.

Teaching faculty

SN	Name	Designation / Qualification
1.	Prof. Dr. Shahid Hussain Siyal	Professor & Chairman B.E (QUEST), M.E (Sweden), PhD (Sweden)

2.	Prof. Dr. Saleem Raza Samo	Meritorious Professor & Vice Chancellor B.E (MUET), M.E. (Thailand), Ph.D. (UK)
3.	Prof. Dr. Asif Ali Memon	Professor B.E (QUEST), ME (France), Ph.D (France)
4.	Dr. Zafar Ali Siyal	Assistant Professor B.E (QUEST), M.E.(QUEST), PhD (QUEST)
5.	Engr. M. Junaid Ahsan Arain	Assistant Professor B.E (QUEST), M.E.(QUEST)
6.	Dr. Zaki Hassan Memon	Assistant Professor B.E (QUEST), M.E (MUET), PhD (China)
7.	Engr. Mahdi Hassan Mallah	Lecturer B.E. (QUEST), M.E. (QUEST), PhD (China)
8.	Engr. Yasir Ali Memon	Lecturer B.E (QUEST), PGD (QUEST)
9.	Engr. Hammad Hashmi	Lecturer B.E (QUEST), M.E (QUEST)
10.	Engr. Urooj Gul	Jr. Lab Engineer B.E (QUEST), M.E (QUEST)

List of courses for Energy & Environment Engineering Program

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Functional English	3	0	100+00	1	Workshop Technology	2	2	50+00
2	Atmospheric Chemistry	3	0	100+50	2	Islamic Studies / Ethics	2	0	50+00
3	Calculus and Analytical Geometry	3	0	100+00	3	Engineering Mechanics	3	0	100+00
4	Electrical Technology-I	3	1	100+50	4	Differential Equation and Applications	3	0	100+00
5	Engineering Drawing & Graphics	2	2	50+100	5	Technical Report Writing & Communication Skills	3	0	100+00
					6	Pakistan Studies	2	0	50+00
	Total	14	3	450+150		Total	15	2	450+100
Second Year									
1st Semester					**2nd Semester**				
1	Energy Resources & Environment	3	0	100+00	1	Power Plant Technology	3	0	100+00
2	Engineering Thermodynamics	3	1	100+50	2	Thermal System Engineering	3	1	100+50

3	Fluid Mechanics	3	0	100+00	3	Engineering Materials	3	0	100+00
4	Laplace Transform and Fourier Series	3	0	100+00	4	Energy Storage Technologies	3	1	100+50
5	Computer Systems & Programming	3	1	100+50	5	Basic Electronics	3	1	100+50
	Total	15	2	500+100		Total	15	3	500+150
Third Year									
1st Semester					**2nd Semester**				
1	Heat & Mass Transfer	3	1	100+50	1	Health Safety &Environment	3	0	100+00
2	Bio-Energy Engineering	3	0	100+00	2	Petroleum & Gas Exploration	3	1	100+50
3	Fuels & Combustion	3	1	100+50	3	Nuclear & Energy	3	0	100+00
4	Probability &Statistics	3	0	100+00	4	Pollution & Control	3	1	100+50
5	Electrical Technology-II	3	0	100+00	5	Instrumentation & Control	3	1	100+50
	Total	15	2	500+100		Total	15	3	500+150
Final Year									
1st Semester					**2nd Semester**				
1	Refinery Engineering	3	0	100+00	1	Thesis / Project	0	3	00+200
2	Solar Energy Engineering	3	1	100+50	2	Environmental Impact Assessment	3	0	100+00
3	Hydro Power Engineering	3	1	100+50	3	Wind Energy Engineering	3	1	100+50
4	Energy Conservation	3	0	100+00	4	Advanced Clean Coal Technologies	3	1	100+50
5	Solid Waste Management	3	1	100+50	5	Energy Policy & Management	3	0	100+00
	Total	15	3	500+150		Total	12	5	400+300

List of courses for Energy Systems Engineering Program

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Functional English	3	0	100+00	1	Engineering Thermodynamics	3	1	100+50
2	Introduction to Energy Systems Engineering	2	0	50+00	2	Basic Electronics	3	1	100+50
3	Calculus and Analytical Geometry	3	0	100+00	3	Workshop Technology	0	2	00+100

4	Basic Electrical Circuits and Network Analysis	3	1	100+50	4	Differential Equations	3	0	100+00
5	Engineering Drawing & Graphics	2	1	50+100	5	Communication & Presentation Skills	3	0	100+00
6	Islamic Studies / Ethics	2	0	50+00	6	Pakistan Studies	2	0	50+00
	Total	15	2	450+150		Total	14	4	450+200
Second Year									
1st Semester					**2nd Semester**				
1	Fuels and Combustion	3	1	100+50	1	Thermal System Engineering	3	1	100+50
2	Fluid Mechanics	3	0	100+00	2	Hydro Power Engineering	3	1	100+50
3	Engineering Materials	2	0	50+00	3	Bio-fuels	3	1	100+50
4	Numerical Analysis	3	1	100+50	4	Computer Programming Fundamentals	2	1	50+50
5	Instrumentation and measurement	3	1	100+50	5	Statistics and Probability	3	0	100+00
	Total	14	3	450+150		Total	14	4	450+200

DEPARTMENT OF CHEMICAL ENGINEERING

About Chairman

Prof. Dr. Liaquat Ali Memon, Chairman

Prof. Dr. Liaquat Ali Memon received his master and PhD degrees from the University of Malaya, Kuala Lumpur, Malaysia in 2007 and 2013 respectively. Presently, he is working as Chairman of Chemical Engineering Department at QUEST, Nawabshah, Sindh, Pakistan. He has more than 25 years' experience in teaching and research. He has published more than 50 research papers in several international and national journals and conferences. His main research areas include alternative fuels and their applications in diesel engines, energy conservation, engine tribology, etc.

Introduction

The Department of Chemical Engineering at Quaid-e-Awam University of Engineering Science & Technology, Nawabshah was established in 2013. Its main purpose is to address the problem of acute shortage of chemical engineers in the country and to impart quality instructions in a research-oriented atmosphere with excellent opportunities for personal and professional growth.

The department has highly qualified and experienced faculty members to teach fundamental courses in a friendly and conducive environment. Students have access to state-of-art laboratories to apply fundamental chemical engineering principles. The departmental laboratories impart practical knowledge in the field and carry out the most recent research and development in the area of chemical engineering.

Presently, the department offers a four-year undergraduate program in Chemical Engineering. The focus of the undergraduate program is to teach students about the basic skills of problem-solving, critical analysis, participating in teamwork and resourcefulness particularly in areas of design, manufacturing, operations, management, and maintenance of an industrial plant and a laboratory involving chemical and biochemical processes. It also deals with biochemical, environmental and materials problems. In developing the program, it has been ensured that our students are at par with students from other world-class universities.

Facilities available in department

Computer Laboratories

The department provides students with fully equipped computer labs. In these labs, more than 30 latest PCs connected with the internet and digital library are available to access the latest literature and scientific findings. Efforts are being made to arrange more PCs with

enhanced specification and video conferencing in this department for faculty members and students as well.

Seminar Library

The seminar library is established with all necessary books, research journals, articles, magazines, newsletters, etc. They are available for the use of students and faculty members of the chemical engineering department.

Thermodynamics and Heat Transfer

In this laboratory, practical of Thermodynamics-I & II are being conducted. This lab is also equipped with heat transfer equipment for conducting several experiments. This lab is also equipped with an internal combustion engine (diesel and petrol), steam power plant.

Environmental Engineering

Environmental engineering lab is also available to conduct experiments related to wastewater such as BOD, COD, DO, turbidity and experiments of Air pollution control. This lab is also equipped with a spectrophotometer, conductivity/TDS meters, particulate matter, flue gas analyzer and noise intensity analyzer.

Simultaneous Heat & Mass Transfer

In this lab practical of Mass Transfer and Heat Transfer are performed. The lab is equipped with equipment such as a Gas Absorption Column, Diffusion apparatus for gas and liquid, Liquid-Liquid Extraction, Steam power plan, Distillation and Tray Dryer.

Unit Operation

In this lab, practical such as Plate and Frame Filtration Unit, Sedimentation, Crushing, Grinding Cooling tower, Drying, Gas Absorption, Distillation and other unit operation practical are performed.

Simultaneous Heat & Mass Transfer Laboratory

In this lab, practical of Mass Transfer and Heat Transfer are performed. The lab is equipped with equipment such as a Gas Absorption Column, Diffusion apparatus for gas and liquid, Liquid-Liquid Extraction, Steam power plan, Distillation and Tray Dryer.

Particulate Laboratory

In this lab, practical such as Plate and Frame Filtration Unit, Sedimentation, Crushing, Grinding and other unit operation practical are performed.

Vision

To produce professional graduates to cater for the requirements of the market for socio-economic development at the national and international levels.

Mission

To provide the state of art education and to develop the skills through effective teaching, industrial exposure and research innovation with modern trends.

Program Educational Objectives (PEOs)

The program educational objectives (PEOs) are formed based on the vision and mission of the Department of Chemical Engineering as well as QUEST. These PEOs are designed for the implementation of OBE system through the faculty meeting of the Department of Chemical Engineering and approved by Board of studies, Board of faculty and Academic council. The students with Bachelor of Engineering in Chemical are expected to accomplish the following PEOs.

PEO 1: To produce Chemical Engineers capable of meeting the challenges of industries, academia and society.

PEO 2: To impart knowledge of core chemical engineering subjects and to enable students to solve complex engineering problems.

PEO 3: To produce Chemical Engineers having engineering ethics, effective communication and the capability to work as an individual and in a team.

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Liaquat Ali Memon	Professor & Chairman PhD (Malaysia), M.E (Malaysia), B.E (MUET)
2.	Dr. Rizwan Khan Soomro	Co-Chairman/ Assistant Professor PhD (S Korea), ME (MUET), BE (MUET)
3.	Dr. Babar Ali Qureshi	Assistant Professor PhD (China), M.E (MUET), B.E (MUET)
4.	Engr. Kashif Hussain Mangi	Assistant Professor M.E (MUET), B.E (MUET) (on study leave)
5.	Engr. Zubair Ahmed Chandio	Assistant Professor M.E (Malaysia), B.E (MUET)
6.	Engr. Nabi Bux Jalbani	Assistant Professor M.E (MUET), B.E (MUET)
7.	Engr. Hira Lal Soni	Assistant Professor M.E (NED-UET), B.E (NED-UET)
8.	Dr. Abdul Sami Channa	Lecturer PhD (China), M.E. (QUEST), B.E (MUET)

9.	Engr. Mukhtiar Ali Mallah	Lecturer B.E (MUET)
10.	Engr. Shafeeque Ahmed Wahocho	Lecturer M.E (NED-UET), B.E (MUET)
11.	Engr. Faheem Akhtar Shaikh	Lab Engineer M.E (MUET), B.E (MUET) (Study Leave)
12.	Engr. Hafiz Anees ur Rehman	Lab Engineer PhD (In Progress), M.E (MUET), B.E (MUET)
13.	Engr. Mahmood Nabi Abbasi	Lab Engineer M.E (MUET), B.E (MUET)
14.	Engr. Ahsan Atta Rao	Lab Engineer M.E (MUET), B.E (MUET)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Basic Chemical Engineering	2	0	50+00	1	Applied Calculus	3	0	100+00
2	Engineering Drawing & Computer Graphics	2	2	50+100	2	Basic Electrical Technology	3	1	100+50
3	Functional English	2	0	50+00	3	Engineering Mechanics	2	0	50+00
4	Islamic Studies/ Ethics	2	0	50+00	4	Chemical Process Technology	3	0	100+00
5	Pakistan Studies	2	0	50+00	5	Inorganic & Organic Chemistry	2	0	50+00
6	Linear Algebra & Analytical Geometry	3	0	100+00	6	Communication Skills	0	1	00+50
7	Workshop Practice	0	2	00+100					
	Total	13	4	350+200		Total	13	2	400+100
Second Year									
1st Semester					**2nd Semester**				
1	Chemical Engineering Thermodynamics-I	3	1	100+50	1	Chemical Engineering Fluid Mechanics-I	3	0	100+00
2	Chemical Process Calculations-I	2	0	50+00	2	Chemical Engineering Thermodynamics-II	3	0	100+00
3	Chemical Engineering Economics	2	0	50+00	3	Chemical Process Calculations- II	3	0	100+00

4	Engineering Materials	2	0	50+00	4	Heat Transfer Operations	3	1	100+50
5	Physical & Analytical Chemistry	3	0	100+00	5	Complex Variable and Laplace Transform	3	0	100+00
6	Differential Equations and Fourier Series	3	0	100+00					
	Total	15	1	450+50		Total	15	1	500+50
Third Year									
1st Semester					**2nd Semester**				
1	Chemical Engineering Fluid Mechanics-II	3	1	100+50	1	Chemical Engineering Kinetics	3	0	100+00
2	Mass Transfer	3	1	100+50	2	Chemical Engineering Plant Design	3	0	100+00
3	Health Safety and Environment	2	0	50+00	3	Fuel & Energy	3	1	100+50
4	Particulate Technology	3	1	100+50	4	Simultaneous Heat & Mass Transfer	3	1	100+50
5	Introduction to Computers and Programming Concepts	3	1	100+50	5	Numerical Analysis and Computer Applications	3	1	100+50
	Total	14	4	450+200		Total	15	3	500+150
Final Year									
1st Semester					**2nd Semester**				
1	Entrepreneurship & Innovation	2	0	50+00	1	Chemical Process Design & Simulation	2	1	50+50
2	Instrumentation & Process Control	3	1	100+50	2	Industrial Management	2	0	50+00
3	Petroleum Refinery Engineering	3	0	100+00	3	Pollution Control Engineering	3	1	100+50
4	Statistics & Probability	3	0	100+00	4	Biochemical Engineering	3	1	100+50
5	Transport Phenomena	3	0	100+00	5	Final Year Project-II	0	3	00+100
6	Final Year Project-I	0	3	00+100					
	Total	14	4	450+150		Total	10	6	300+250

Department of Environment Engineering

About Chairman

Prof. Dr. Kishan Chand Mukwana, Chairman

Dr. Kishan Chand Mukwana is Head of Environment Engineering Department of QUEST, Nawabshah. Dr. Kishan graduated in year 1992 from Mehran University of Engineering & Technology (MUET), Jamshoro. He did master's in Environmental Engineering in 1996 from Institute of Environmental Engineering & Management (IEEM) of Mehran University of Engineering & Technology, Jamshoro. Initially he started his career as Lecturer in year 1997 in IEEM, MUET Jamshoro but after passing the Sindh Public Service Commission Examination he joined as Assistant Director (Technical) in Environmental Protection Agency (EPA), Government of Sindh. He served in that capacity from year 1998 to year 2002. Afterwards he was promoted to work as Administrative Incharge of EPA's Regional Office Hyderabad and later on as Deputy Director (EIA), Head Office Karachi from year 2003 to 2006.

In year 2006 he left Government of Sindh job and joined as Assistant Professor in Energy & Environment Department, Quaid e Awam University of Engineering, Science & Technology (QUEST), Nawabshah. He served as Incharge Chairman of Energy & Environment Engineering Department from year 2011 to 2013. Later on Dr. Kishan completed his Ph.D in year 2016 in the field of Energy & Environment Engineering from QUEST, Nawabshah and the research work was on Ambient Air Quality of cities of Sindh Province which was later extended under Split PhD Program through HEC funded Scholarship in Middle East Technical University (METU), Ankara, Turkey. Dr. Kishan served as Assistant Professor from year 2006 to year 2018. In year 2018 on his selection he was appointed as Professor in Energy & Environment Engineering Department and currently holding the charge as Chairman of Environment Engineering Department.

Dr. Kishan engaged in key assignments and executed responsibilities for implementation of Pakistan Environmental Protection Act 1997, planning and formulation of environmental protection projects, monitoring of environment related development projects, monitoring of oil & gas exploration activities in the region, review of IEE/ EIA's, monitoring of liquid and gaseous emissions from industrial sources etc. The additional responsibilities included; acting as Drawing & Disbursing Officer (DDO) of ROH's overall Budget and administrative matters of the EPA's regional office. He contributed as a key technical member for five years in NDP program funded by the Asian Development Bank & the World Bank. He worked on SOFWMP Project funded by the World Bank as M & E Specialist for three years as an additional responsibility. He worked as Project Coordinator in a mega project related to monitoring of drinking water quality in the vast area of districts of Hyderabad and Mirpurkhas divisions.

Introduction

Pakistan is a developing country and is gifted by Almighty Allah with immense natural resources. In the past agriculture was the main sector contributing to the country's economic development. However, in the past decades there is considerable expansion and development in urbanization, industrialization and transportation sectors. The growth in these sectors has caused abrupt change in the natural environment. When there is change in the natural environment it results in environmental pollution. In the result environment pollution causes effects on all valuable environmental components like water, air, soil, fauna and flora. The effects caused by this environmental deterioration are not limited to local area rather may cause impacts on regional or international level.

In order to address the matters of environmental deterioration caused by the transportation, urbanization, industrialization sectors, the new department "Environment Engineering" is introduced in Quaid e Awam University of Engineering, Science & Technology, Nawabshah. The graduate environment engineers will be able to understand, investigate, plan, design and mitigate the factors causing deterioration in the natural environment.

The department has highly qualified and experienced faculty members to teach environment engineering courses with the objective of imparting in-depth knowledge in the discipline. The students will be provided with on-hand knowledge about the natural environment and engaged in state-of-the-art laboratories to learn and apply the same in professional career.

Facilities Available in the Department

Since the Environment Engineering is a new department and is being spilt from presently existing Energy & Environment Engineering Department therefore majority of laboratory facilities will be utilized from those laboratories already existing in Energy and Environment Engineering Department. The details of these are given as under:

Computer Laboratories

Two fully equipped computer labs are existing for fulfilling the computational requirements of the new department. In these labs more than 50 latest personal computers are available and are connected to internet and digital library. The students can access internet free of charges. At the same time the students can access to e-books free of charges to thousands of books through HEC extended facility.

Seminar Library

The department has its individual Seminar Library with books on engineering subjects in general and Environmental Engineering in particular. The Library has also enough stock of latest Journals, research articles, newsletters etc. the interested students and faculty members can have copy of the same for education and knowledge.

Environment Laboratory

Fully equipped Environment Engineering Lab is available in the department. In this lab majority of pollution measuring latest equipment relating to air, water and wastewater quality parameters are available. The availability of latest equipment trains studying students state of the art knowledge about monitoring of natural environment scientifically. Experienced and trained lab staff is fully engaged for the students for gaining practical base techniques and methodologies for monitoring the valuable environmental parameters.

Engineering Materials & Fluid Mechanics Laboratory

This lab is available to provide practical knowledge regarding engineering materials and fluid mechanics characteristics. Many equipment like Universal Testing Machines (UTM) for testing all kinds of martials (Metals and Non-Metals) including rubber are also available in this lab.

Thermodynamic Laboratory

In this lab variety of equipment are available for carrying out practical experiments. Various important equipment like Internal Combustion Engine (Diesel & Petrol), Vapor Jet Refrigeration Unit, Heat Transfer Unit (Conduction, Radiation and Convection), Flue Gas Analyzer, Fuel Combustion Unit, etc. are available.

Biofuel Laboratory

This is newly established lab in the department to conduct practical related to biofuels, chemical titrations, treatment of crude oil and oil related quality parameters.

Quality Policy

The Environment Engineering Department is committed to impart Quality Education through theoretical deliberations, laboratory base practical experiments, technical filed visits and internship activities so that the students can seek enhanced skills and thorough knowledge.

Vision:

To produce professional graduates to cater the requirements of the market for socio-economic development of the country.

Mission:

The department of Environment Engineering is committed to impart state of the art quality education to enrolled students through theoretical deliberations, laboratory base practical experiments; technical field visits and internship activities so that the students can seek enhanced skills and thorough knowledge.

Degree Programme:

1. Bachelor of Engineering (Environmental Engineering)
2. Master of Engineering (Environmental Engineering)

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Kishan Chand Mukwana	Professor & Chairman B.E (MUET), M.E (MUET), Ph.D (QUEST)
2.	Prof. Dr. Abdul Nasir Laghari	Professor B.E (MUET), M.E (Germany), MSc (NUST), PhD (Austria)
3.	Prof. Dr. Abdul Qayoom Jakhrani	Associate Professor B.E (MUET), ME (MUET), Ph.D (Malaysia)
4.	Dr. Abdul Rehman Jatoi	Associate Professor B.E (QUEST), M.E (QUEST), PhD (QUEST)
5.	Dr. Asif Saleh Qureshi	Assistant Professor B.E (QUEST), Lic. (Sweden), Ph.D (Sweden) (on Post Doc study leave abroad)
6.	Dr. Ahsanullah Soomro	Assistant Professor B.E (QUEST), M.E.(QUEST), PhD (China)
7.	Dr. Imran Ahmed Samo	Assistant Professor B.E (QUEST), M.E.(QUEST), PhD (China)
8.	Dr. Asif Ali Siyal	Assistant Professor B.E (QUEST), M.E.(QUEST), PhD (China)
9.	Engr. Haris Jawad Arain	Lab Engineer B.E (QUEST), PGD (MUET), M.E in Progress (QUEST)
10	Engr. Ameen Abdul Raqeeb	Lab Engineer B.E (QUEST), M.E (QUEST)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Introduction to Environmental Engineering	3	0	100+00	1	Surveying & Leveling	3	1	100+50
2	Introduction to Computing and Programming	2	1	50+50	2	Pakistan Studies	2	0	50+00
3	Islamic Studies/Ethics	2	0	50+00	3	Applied Calculus	3	0	100+00
4	Functional English	3	0	100+00	4	Environmental Physics	3	0	100+00
5	Environmental Chemistry	3	1	100+50	5	Introduction to Microbiology	2	1	50+50
	Total	13	2	400+100		Total	13	2	400+100
Second Year									

1st Semester					2nd Semester				
1	Electrical Technology	3	1	100+50	1	Environmental Hydrology	2	1	50+50
2	Engineering Drawing & Graphics	2	1	50+50	2	Applied Thermodynamics	3	1	100+50
3	Linear Algebra & Analytical Geometry	3	0	100+00	3	Differential Equations & Fourier Series	3	0	100+00
4	Fluid Mechanics	3	0	100+00	4	GIS & Remote Sensing	3	1	100+50
5	Water Supply & Treatment Engineering	3	1	100+50	5	Communication Skills & Report Writing	3	0	100+00
	Total	14	3	450+150		Total	14	3	450+150
Third Year									
1st Semester					2nd Semester				
1	Sustainable Development & Urban Planning	2	0	50+00	1	Green Energy Technologies	3	1	100+50
2	Numerical Analysis & Computer Applications	3	1	100+50	2	Biotechnology	2	1	50+50
3	Air & Noise Pollution Control	3	1	100+50	3	Health, Safety & Environment	3	0	100+00
4	Wastewater Engineering	3	1	100+50	4	Probability & Statistics	3	0	100+00
5	Agricultural Pollution	2	0	50+00	5	Solid Waste Management	3	1	100+50
	Total	13	3	400+150		Total	14	3	450+150
Final Year									
1st Semester					2nd Semester				
1	Environmental Economics & Entrepreneurship	3	0	100+00	1	Risk Assessment & Management	3	0	100+00
2	Modeling of Environmental Systems	2	1	50+50	2	Natural Resources Management	3	0	100+00
3	Industrial Pollution & Control	3	1	100+50	3	Environmental Impact Assessment	3	0	100+00
4	Project Planning & Management	3	0	100+00	4	Cleaner Production Techniques	2	1	50+50
5	Environmental Laws & Policies	2	0	50+00	5	Design Project/Thesis-II	0	3	00+100
6	Design Project/ Thesis-I	0	3	0+100					
	Total	13	5	400+200		Total	11	4	350+150

SECTION-3

FACULTY OF ELECTRICAL, ELECTRONIC, & COMPUTER SYSTEMS ENGINEERING

Department of Electrical Engineering
Department of Electronic Engineering
Department of Computer Systems Engineering
Department of Telecommunication Engineering
Department of Software Engineering
Department of Automation and Control Engineering

DEPARTMENT OF ELECTRICAL ENGINEERING

About Chairman

Prof. Dr. Abdul Sattar Saand, Chairman

Prof. Dr. Abdul Sattar Saand obtained his PhD degree in Electrical and Electronic Engineering from Universiti Teknologi PETRONAS (UTP), Perak, Malaysia in January 2016. He received Bachelor of Engineering in Electrical Engineering from Quaid-e-Awam University of Engineering, Sciences & Technology (QUEST), Nawabshah, Sindh Pakistan in 1999 with distinction. Afterwards, he received the Master of Engineering in communication systems and networks from Mehran University of Engineering and Technology Jamshoro (MUET), Sindh, Pakistan, in 2005.

He has been awarded many professional and academic awards. He started his career as a lecturer at NED University of Engineering and Technology Karachi, Sindh, Pakistan in March 2000. He has worked for more than eight years as a Senior Engineer Telecom (IP and multimedia broadband) at Pakistan Telecommunication Company Limited. Since December 2018, he has been working as a Professor at the Department of Electrical Engineering. Dr. Saand possesses more than 19 years of professional and academic experience at the National and International levels. He has worked with various organizations at the technical and managerial levels. Dr. Saand is the author of a book chapter titled “Beamforming for relay assisted MIMO” published by IGI Global USA-2017 and a book titled "My little book of Quotations" subtitled the sense of inspiration in Marc, 2018. He has authored more than 34 research publications in local and international journals.

At present, he is supervising five PhD students. His research interests are MIMO Technology, Relay assisted MIMO Technology, Massive MIMO, Massive MIMO underwater communications, Maritime wireless broadband networks using evaporation duct channel characteristics, and MIMO OFDM based systems and Non-Linear signal processing for MIMO networks. At the same time, he is editor of the QUEST research journal and editor in chief of Engineering Science and Technology International Research Journal, respectively. Dr. Saand is the Head of the Department of Electrical Engineering. He is from the first graduating batch (93EL) of the Quaid-e-Awam University of Engineering Science and Technology Nawabshah Sindh Pakistan.

Introduction

The Department of Electrical Engineering Quaid-e-Awam University offers highly professional undergraduate and postgraduate degree programmes and undertakes world-class research. Electrical Engineering is a field that usually deals with the study and application of electricity, power engineering, and electromagnetism and new trends in electrical engineering and its associated fields. The Department of Electrical Engineering is

a characterized cover, electrical power, power system control, power electronics, power quality and communication systems, which provides tremendous opportunities for cross-disciplinary interaction in teaching and research.

Our electrical engineering graduates have been serving society at key academic, government, and industrial positions in different parts of the world. Locally, they have made a tremendous impact on the socio-economic development of the country. The Electrical Engineering Department of Quaid-e-Awam University has designed a dynamic and focused curriculum to develop well-trained best manpower in Electrical Engineering for academic, industrial, public sector as well as research. The Department also focuses on inculcating ethical and moral values in students. Students are also motivated to participate actively in seminars, symposiums, conferences, short courses, training, workshops, and internships.

The Department of Electrical Engineering is striving hard to produce highly trained and capable graduate engineers who can take up the challenges of the real world with knowledge, skill, competency, and confidence. The academic quality is based on academic standards and practical work. The students here see their dreams come true. Furthermore, they are sent for Industrial Training and Industrial study tour to different industries and electric utilities and generation companies all over the country during their academic sessions. This, in turn, gives them the exposure and assurance to work in an industrial culture. In addition, practical aspects of various subjects are supported by well-equipped laboratories such as machine laboratory, electrical power system laboratory, power electronics laboratory, basic electrical and circuit, High voltage laboratory and communication and control laboratory.

Vision

To provide the highest quality of learning and research opportunities for the students in the field of Electrical Engineering as well as make them competent professionals with high professional ethics to compete on a global scale.

Mission

To produce quality electrical engineers with the knowledge, skills, competency and confidence with high intellect and broad vision who can meet current needs and foresee future needs of the nation in the field of electrical engineering through research and professional practice.

Program Educational Objectives (PEOs)

PEO-1. Expertise in electrical engineering knowledge and tools requisite for analysis, design, and evaluation of contemporary engineering problems.

PEO-2. Sustained learning through professional development, self-study, and research with responsibility towards environment, society, ethical values, and professional integrity.

PEO3. Leadership qualities and soft skills in an organization or entrepreneurial venture.

Degree programs

1. Bachelor of Electrical Engineering
2. Master of Engineering (Power Engineering)
3. PhD in Electrical Engineering

Teaching Faculty

#	Name	Designation
01	Prof. Dr. Abdul Sattar Saand	Professor & Chairman B.E (QUEST), M.E (MUET), PhD (Malaysia)
02	Prof. Dr. Muhammad Usman Keerio	Professor & Dean FoEECE B.E (MUET), M.E (NUST), PhD (China)
03	Prof. Dr. Sadaruddin Shaikh	Professor Emeritus B.E (Sindh), Ph.D. (UK)
04	Prof. Dr. Aslam Pervez Memon	Professor B.E (MUET) , M.Phil (MUET), Ph.D. (MUET)
05	Dr. Ghulam Mustafa Bhutto	Associate Professor B.E (QUEST), M.E (Denmark), PhD (Denmark)
06	Dr. Javed Ahmed Laghari	Associate Professor B.E (MUET), M.E (Malaysia), PhD (Malaysia)
07	Dr. Suhail Khokhar	Associate Professor B.E (QUEST), M.E(QUEST), PhD (Malaysia)
08	Dr. Ghulam Sarwar Kaloi	Associate Professor B.E (MUET), M.E(QUEST), PhD (China)
09	Engr. Muhammad Ismail Soomro	Assistant Professor B.E (MUET), M.E (MUET)
10	Engr. Rizwan Aziz Siddiqui	Assistant Professor B.E (MUET), M.E (NUST)
11	Engr. Muhammad Saleem Memon	Assistant Professor B.E (MUET), M.Phil (QUEST)
12	Engr. Abdul Sattar Memon	Assistant Professor B.E (MUET), M.E (NED)
13	Engr. Noor Hussain Mugheri	Assistant Professor B.E (QUEST), M.E (QUEST), On Study leave
14	Engr. Munwar Ayaz Memon	Assistant Professor B.E (QUEST), M.E (QUEST)
15	Engr. Rameez Akbar Talani	Assistant Professor B.E (QUEST), M.E (MUET)
16	Engr. Waqar Ahmed Adil Chohan	Assistant Professor B.E (QUEST), M.E (QUEST), On study leave abroad
17	Dr. Abdul Khalique Junejo	Assistant Professor B.E (QUEST), M.E (QUEST), PhD (China)

18	Engr. Riaz Hussain Memon	Assistant Professor B.E (MUET), M.E (QUEST)
19	Dr. Muhammad Akram Bhayo	Assistant Professor B.E (QUEST), M.E (Germany), PhD (Malaysia)
20	Engr. Saadullah Chandio	Assistant Professor B.E (QUEST), M.E (QUEST)
21	Engr. Muhammad Ali Bijarani	Assistant Professor B.E (QUEST), M.E (MUET)
22	Engr. Aushique Ali Memon	Lecturer B.E (QUEST), On study leave abroad
23	Engr. Jagdesh Kumar	Lecturer B.E (QUEST), On study leave abroad
24	Dr. Aamir Ali Bhatti	Assistant Professor B.E (QUEST), M.E (QUEST) PhD QUEST
25	Engr. Muhammad Shahzad Bajwa	Lecturer B.E (QUEST), M.E (QUEST)
26	Engr. Mohsin Ali Kundhar	Lecturer B.E (QUEST), M.E (QUEST)
27	Engr. Mansab Ali Lakho	Lecturer, B.E (QUEST), M.E (QUEST)
28	Engr. Masood Rehman Shaikh	Faculty Member B.E (QUEST), MSc. (Germany)
29	Engr. Irfan Ali Soomro	Teaching Assistant B.E (QUEST), On study leave abroad
30	Engr. Fahad Hussain Zardari	Lecturer (on contract) B.E (QUEST)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Electrical Workshop Practice	0	1	00+50	1	Linear Circuit Analysis	3	1	100+50
2	Applied Physics	3	1	100+50	2	Electronic Devices and Circuits	3	1	100+50
3	Applied Mechanics	3	0	100+00	3	Linear Algebra and Analytical Geometry	3	0	100+00
4	Computing Fundamentals	2	1	50+50	4	Communication Skills	2	0	50+00
5	Applied Calculus	3	0	100+00	5	Islamic Studies / Ethics	2	0	50+00
6	Functional English	2	0	50+00	6	Pakistan Studies	2	0	50+00

	Total	13	3	400+150		Total	15	2	450+100
Second Year									
1st Semester					**2nd Semester**				
1	Electrical Network Analysis	3	0	100+00	1	Instrumentation & Measurement	3	1	100+50
2	Theory of Electromagnetic Field	3	0	100+00	2	Signals and Systems	2	1	50+50
3	Digital Logic Design	2	1	50+50	3	Electrical Machines	3	1	100+50
4	Computer Programming	2	1	50+50	4	Microprocessors and Interfacing	3	1	100+50
5	CAD-Engineering Drawing	0	1	00+50	5	Complex Variables and Transforms	3	0	100+00
6	Differential Equations and Fourier Series	3	0	100+00					
	Total	13	3	400+150		Total	14	4	450+200
Third Year									
1st Semester					**2nd Semester**				
1	Advance Electrical Machines	3	1	100+50	1	Electrical Power Transmission	3	1	100+50
2	Electrical Power Generation	3	0	100+00	2	Control Systems	3	1	100+50
3	Communication Systems	3	1	100+50	3	Power Electronics	3	1	100+50
4	Numerical Analysis with computer applications	3	1	100+50	4	Statistics and Probability	3	0	100+00
5	Technical Writing	2	0	50+00	5	Professional and social ethics	2	0	50+00
	Total	14	3	450+150		Total	14	3	450+150
Final Year									
1st Semester					**2nd Semester**				
1	Power Distribution and Utilization	3	1	100+50	1	Power System Control	3	1	100+50
2	Power System Analysis	3	1	100+50	2	Power System Protection	3	1	100+50
3	Industrial Drives	3	1	100+50	3	High Voltage Engineering	3	1	100+50
4	Power Economics and Management	3	0	100+00	4	Entrepreneurship and Leadership	2	0	50+00
5	Final Year Project I (FYP-I)	0	3	00+100	5	Final Year Project (FYP-II)	0	3	00+100
6									
	Total	12	6	400+250		Total	11	6	350+250

DEPARTMENT OF ELECTRONIC ENGINEERING

About Chairman

Dr. Ehsan Ali Buriro, Chairman

Dr. Ehsan Ali Buriro received a Bachelor's degree in Electronic Engineering from MUET, Jamshoro Pakistan in 2005.In the same year, he was appointed as Lecturer at the Department of Electronic Engineering at QUEST. He was awarded a scholarship from Faculty Development Program to pursue higher studies in Europe. He received an M.Sc. degree in Electronic Engineering from HS-Bremen, University of Applied Sciences, Bremen, Germany, in 2011 and received a PhD degree in Micro & Nano electronics from IM2NP-AMU, Marseilles, France in 2015. While pursuing his doctorate degree, he was working in collaboration with Fraunhofer Institute (ENAS), Department of Advanced System Engineering (ASE) Paderborn, Germany and AMU Marseilles-France.

Besides, Dr. Ehsan has served as Attaché Temporaired Enseignementet de Recherche (ATER) for one-year at Polytechnic Marseilles, France. He joined QUEST as Assistant Professor in 2015 and he was promoted as Associate Professor at the Department of Electronic Engineering in December 2018. He has served as Director, Continuing Education and Director Postgraduate Studies at QUEST. He was appointed as Chairman Department of Electronic Engineering from July 2020. He has produced 10 Masters of Engineering students in various disciplines and is currently supervising 04 PhD students. His research interests lie in Control System Design, Phase Locked Loop, Modeling and Simulations, Fast & Efficient Modeling and design approaches for Mixed Signal & Systems. He has authored 07 IEEE Conferences and more than 25 publications in national and international Journals including 02 in IEEE Transactions on Circuits and systems. He has been the reviewer of many IEEE conferences and journals like IEEE TCAI & TCASII and Springer.

Introduction

In the present era, electronic gadgets, devices & systems are so interwoven in the socio-economic fabric of the nation that it is difficult to survive without having adequate human resources trained in the field of Electronic Engineering. Today, even other disciplines of engineering are considered incomplete without the integration of relevant electronic systems and devices. The widespread applications of electronic systems and devices constitute the catalyst for socio-economic development. Modern high-speed computers, automation and telecommunication systems have transformed our living patterns. They have not only extended human facilities but have resulted in cultural innovation. Thus, it is a high time we needed to direct our efforts, time and resources to impart the latest knowledge, skills and practical training in the field of Electronic Engineering.

The department of Electronic Engineering offers a four-year (8-semesters) program leading to the degree of Bachelor of Electronic Engineering. This Department also offers a Master of Engineering in two disciplines "Communications Engineering" and "Industrial Automation & Control" and a PhD in Electronic Engineering. These programs have been designed considering all the needs and aspects of the latest trends and developments in the field of Electronic Engineering. These Programs include the teaching of courses adequately supplemented with the practical hands-on training in laboratories and use of other modern tools imparting professional education which is useful for career-oriented professional Engineers. Graduates of Electronic Engineering can find numerous placements in both public as well as private sector organizations and are eligible to pursue their higher studies and training as worldwide Universities/Industries.

Program Educational Objectives (PEOs)

The main objectives are to provide quality education in Electronic Engineering in order to produce skilled graduates and fulfill requirements in the field of Electronic Engineering. After graduation, students are capable:

1. Graduates would be proficient engineers in a multidisciplinary environment to meet the economic challenges and technological development.
2. Graduates will be able to reflect moral and ethical values, professional attitude along with leadership skills.
3. Graduates will be able to support the global community to produce a sustainable environment.

Degree Programs offered:

1. Bachelor of Engineering (Electronic Engineering)
2. Master of Engineering
    a. Communications Engineering
    b. Industrial Automation & Control
3. Ph.D. (Electronic Engineering)

Teaching Staff

SN	Name	Designation / Qualification
1.	Dr. Ehsan Ali Buriro	Associate Professor & Chairman B.E. (MUET), M.Sc (Germany), Ph.D (France)
2.	Prof. Dr. Abdul Fattah Chandio	Professor B.E (MUET), M.S (NUST), Ph.D (China)
3.	Prof. Dr. M. Mujtaba Shaikh	Professor B.E. (MUET), M.S (Hamdard), Ph.D (Spain)
4.	Dr. Bhagwan Das	Associate Professor B.E (MUET), ME (QUEST), Ph.D (Malaysia)
5.	Dr. Nadeem Naeem Bhatti	Associate Professor B.E. (MUET), M.E (MUET), Ph.D (Malaysia)

6.	Dr. Abdul Aleem Jamali	Associate Professor B.E. (MUET), M.Sc (Germany), Ph.D (Germany)
7.	Engr. Majid Hussain Memon **On study leave**	Assistant Professor B.E (NED), M.E (MUET), Ph.D in progress (MUET)
8.	Engr. Nasreen Nizamani	Assistant Professor B.E. (MUET), M.E (MUET), Ph.D in progress (MUET)
9.	Dr. Erum Pathan	Assistant Professor B.E (MUET), M.E (MUET), Ph.D (UTHM, Malaysia)
10.	Engr. Tarique Rafique Memon **On study leave**	Assistant Professor B.E. (MUET), ME (MUET), Ph.D in progress (MUET)
11.	Dr. Kelash Kanwar	Assistant Professor B.E. (MUET), M.Sc (Germany), Ph.D (Germany)
12.	Dr. Abdul Rafay Khatri	Assistant Professor B.E. (MUET), M.Sc (Germany), Ph.D (Germany)
13.	Engr. Tasleem Dehraj	Assistant Professor B.E. (QUEST), ME (MUET)
14.	Engr. Sara Rehman Memon	Assistant Professor B.E. (MUET), ME (QUEST)
15.	Engr. Bushra Abro	Assistant Professor B. E. (QUEST), ME (MUET)
16.	Engr. Masood Ali Koondhar	Lecturer B.E (QUEST), PGD (MUET), ME (QUEST) in progress
17.	Engr. Talha Bhatti	Lab Engineer B.E. (MUET), M.Sc (Germany)
18.	Engr. Nazia Keerio	Lab Engineer B.E (QUEST), ME (QUEST)
19.	Engr. Muhammad Saleh Memon	Lab. Supervisor B.E. (NED)
20.	Engr. Faria Durani On study leave	Jr. Lab Engineer B.E (QUEST), ME (MUET), Ph.D in progress (NUST)
21.	Engr. Noor-ul-Ain Brohi	Jr. Lab Engineer (On contract) B.E (QUEST), ME (QUEST)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Functional English	3	0	100+00	1	Linear Algebra & Analytical Geometry	3	0	100+00
2	Applied Calculus	3	0	100+00	2	Computer Programming	2	1	50+50
3	Introduction to Computers	2	1	50+50	3	Basic Electronic Engineering	3	1	100+50
4	Applied Physics	3	0	100+00	4	Circuit Analysis	3	1	100+50
5	Islamic studies /Ethics	2	0	50+00	5	Communication Skills	2	0	50+00
6	Electronic Workshop	0	1	00+50	6	Computer Aided Engineering Design	0	1	00+50
	Total	13	2	400+100		Total	13	4	400+200
Second Year									
1st Semester					**2nd Semester**				
1	Electronic Circuit Design	3	1	100+50	1	Microprocessor and microcontrollers	3	1	100+50
2	Digital logic Design	3	1	100+50	2	Electromagnetic Field Theory	3	0	100+00
3	Instrumentation and Measurements	3	1	100+50	3	Integrated Electronics	3	1	100+50
4	Differential Equations & Fourier Series	3	0	100+00	4	Electrical Machines	3	1	100+50
5	Pakistan studies	2	0	50+00	5	Complex Variables & Transforms	3	0	100+00
	Total	14	3	450+150		Total	15	3	500+150
Third Year									
1st Semester					**2nd Semester**				
1	Signal and systems	3	1	100+50	1	Analog & Digital Communication	3	1	100+50
2	Economics and Engineering Management	2	0	50+00	2	Probability, Random Signals and Stochastic Processes	3	0	100+00
3	Embedded System Design	3	1	100+50	3	Digital Signal Processing	3	1	100+50
4	Wave Propagation and antennas	3	1	100+50	4	Control Systems	3	1	100+50
5	Numerical Analysis with Computer Applications	3	1	100+50	5	Professional & Social Ethics	2	0	50+00
	Total	14	4	450+200		Total	14	3	450+150
Final Year									

1st Semester					2nd Semester				
1	Computer Communication & Networking	3	1	100+50	1	Advanced Communication Systems	3	0	100+00
2	Automation and Robotics	3	1	100+50	2	Laser and Fiber Optics	3	1	100+50
3	Power Electronics	3	1	100+50	3	Microwave Engineering	3	1	100+50
4	Entrepreneurship and Leadership	3	0	100+00	4	Thesis Project-2	0	3	00+100
5	Thesis Project-1	0	3	00+100					
	Total	12	6	400+250		Total	9	5	300+200

DEPARTMENT OF COMPUTER SYSTEMS ENGINEERING

About Chairman

Dr. Umair Ali Khan,
Chairman

Dr. Umair A. Khan received his PhD and Master's degrees from Alpen-Adria University, Klagenfurt, Austria in 2010 and 2013, respectively. He received his B.E degree in Computer Systems Engineering in 2004 from QUEST, Nawabshah. He joined QUEST in January 2005 as a lecturer and left for Austria for higher studies in 2008. After returning to Pakistan in 2013, he worked as an assistant professor till 2016. Afterwards, Dr. Umair left for postdoctoral studies in Germany. He worked in Fraunhofer Institute of Integrated Circuits, Erlangen, Germany, and Machine Perception laboratory, Hungarian Academy of Sciences, Budapest, Hungary as a research scientist in 2016-17.

Dr. Umair has worked in several international research projects and has authored and co-authored more than 30 international journal and conference papers. He is currently supervising several Master and PhD students. His research interests include context-based information retrieval from images and videos using deep learning. He is also the editor of QUEST Research Journal which is published bi-annually since 1997.

Introduction

Computer engineering is one of the fastest-growing engineering disciplines which encompasses nearly every aspect of modern life. Being an integral part of our daily life, computer technology has an increasing demand for highly skilled professionals to keep up the pace with its rampant growth and innovation.

Keeping in view the significance and impact of this field, the CSE department, as per its mission, strives to develop and maintain a high-quality, comprehensive, rigorous and accredited teaching program to prepare graduates of competence, conscience and compassion to excel in the field of computing. To achieve this goal, we combine the theoretical foundations of computing with the practical engineering knowledge vital to industry to provide a broad and integrated curriculum. CSE is equipped with modern state-of-the-art laboratories, trained technical staff, and highly qualified faculty. The department of Computer Systems Engineering offers different Bachelor, Master and Doctorate degree programs.

Vision:

To produce highly skilled computer engineers to meet the latest trends in the field of computing and to contribute effectively to the social, economic and technological progress of the country

Mission:

To provide state-of-the-art education through contemporary techniques in the computing disciplines to produce outstanding professionals and better humans who could not only contribute effectively to the national progress, but can also promulgate and conceive computing knowledge.

Program Educational Objectives (PEOs)

1. To produce adept computer professionals who have profound knowledge and proficiency in Computer Engineering and modern technological tools
2. To enable our graduates to be employed as practicing engineers in the fields of analysis, design, and application-specific computing systems for solving real-world and complex problems to contribute towards the socio-economic and technological growth of the country
3. To develop and refine the ethical, communication, management and leadership skills in the students to prepare them for assuming responsible positions within an organization.
4. To enable our graduates for a self-motivated pursuit of knowledge in individual and team environment for sustainable development and life-long learning.

Degree Programme:

1. Bachelor of Engineering (Computer Systems Engineering)
2. Master of Engineering
    a. Computer Systems Engineering
    b. Computer Communication & Networks
3. Ph.D. (Computer Systems Engineering)

Teaching Staff

SN	Name	Designation / Qualification
1.	Dr. Umair Ali Khan	Associate Professor & Chairman B.E (QUEST), MS (Austria), PhD (Austria), Postdoc (Germany, Hungary)
2.	Prof. Dr. M. Sulleman Memon	Professor B.E (MUET), M.E (MUET), PhD (QUEST)
3.	Dr. Fareed Ahmed Jokhio	Associate Professor B.E (MUET), M.E (MUET), PhD (Finland)
4.	Dr. Ubaidullah Rajput	Associate Professor B.E (QUEST), M.E (NUST), PhD (S Korea)
5.	Dr. Irfana Memon	Associate Professor B.E (QUEST), M.S (France), PhD (France)

6.	Dr. Fizza Abbas	Associate Professor B.E (MUET), M.E (MUET), PhD (S Korea)
7.	Engr. Muhammad Ali Soomro	Assistant Professor B.E (MUET), M.E (NED)
8.	Engr. Fayaz Ahmed Memon	Assistant Professor B.E (MUET), M.E (MUET)
9.	Engr. Iftikhar Ahmed Koondhar	Assistant Professor B.E (MUET), M.E (MUET)
10.	Engr. Fozia Noureen Shaikh	Assistant Professor B.E (QUEST), M.E (MUET)
11.	Engr. Zuhaib Ahmed Shaikh	Assistant Professor B.E (QUEST), M.E (QUEST) *on study leave abroad*
12.	Engr. Muhammad Aamir Bhutto	Assistant Professor B.E (QUEST), M.E (QUEST)
13.	Engr. Muhammad Awais Rajput	Assistant Professor B.E (QUEST), M.E (QUEST), PhD (Germany)
14.	Dr. Abdul Wahid Memon	Assistant Professor B.E (MUET), MS (France), PhD (France)
15.	Engr. Agha Shiraz Ahmed Khan	Assistant Professor B.E (QUEST), M. E (QUEST)
16.	Engr. Shahzana Memon	Assistant Professor B.E (QUEST), M.E (QUEST)
17.	Engr. Abdul Qadoos Memon	Faculty member B.E (QUEST) *on study leave abroad*
18.	Dr. Ali Raza Bhangwar	Lecturer B.E (QUEST), M.E (QUEST), PhD (QUEST)
19.	Engr. Beenish Qureshi	Lecturer B.E (QUEST), M.E (QUEST)
20.	Engr. Ayesha Jokhio	Lecturer B.S (COMSATS), M.E (QUEST)
21.	Engr. Haseena Rind	Lab Engineer B.E (QUEST), M.E (QUEST)
22.	Engr. Dileep Kumar	Lab Engineer B.E (MUET), M.E (MUET)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Computing Fundamentals	3	1	100+50	1	Object Oriented Programming	3	1	100+50
2	Computer Programming	3	1	100+50	2	Communication Skills& Technical Writing	3	0	100+00
3	Applied Physics	3	1	100+50	3	Electronic Engineering	3	1	100+50
4	Linear Algebra & Analytical Geometry	3	0	100+00	4	Applied Calculus	3	0	100+00
5	Functional English	2	0	50+00	5	Pakistan Studies	2	0	50+00
					6	Islam Studies / Ethics	2	0	50+00
	Total	14	3	450+150		Total	15	2	500+100
Second Year									
1st Semester					**2nd Semester**				
1	Data Structures and Algorithms	3	1	100+50	1	Computer Architecture & Design	3	0	100+00
2	Database Management Systems	3	1	100+50	2	Computer Communication & Networks	3	1	100+50
3	Digital Logic & Design	3	1	100+50	3	Operating Systems	3	1	100+50
4	Complex Variables & Transforms	3	0	100+00	4	Web Programming-I	3	1	100+50
					5	Computer Graphics	2	1	50+50
	Total	12	3	400+150		Total	14	4	450+200
Third Year									
1st Semester					**2nd Semester**				
1	Statistics & Probability	3	0	100+00	1	Artificial Intelligence	3	1	100+50
2	Engineering Economics	2	0	50+00	2	Software Engineering	3	1	100+50
3	Microprocessors and Interfacing	3	1	100+50	3	Modeling & Simulation	3	1	100+50
4	Communication Systems	3	1	100+50	4	Professional & Social Ethics	2	0	50+00
5	Web Programming-II	3	1	100+50	5	Embedded Systems	3	1	100+50
	Total	14	3	450+150		Total	14	4	450+200
Final Year									
1st Semester					**2nd Semester**				

1	Entrepreneurship & Leadership	2	0	50+00	1	System Administration	3	1	100+50
2	Data Sciences & Analytics	3	1	100+50	2	Parallel & Distributing Computing	3	1	100+50
3	Mobile Applications Development	3	1	100+50	3	Wireless Communication	3	1	100+50
4	Digital Image Processing	3	1	100+50	4	Thesis Project - II	0	3	00+100
5	Thesis Project - I	0	3	00+100					
	Total	11	6	350+250		Total	9	6	300+250

DEPARTMENT OF TELECOMMUNICATION ENGINEERING

About Chairman

Prof. Dr. M Mujtaba Shaikh, Chairman

Dr. M. Mujtaba Shaikh is currently working as a Professor and Head of Telecommunication Engineering Department, Quaid-e-Awan University of Engineering, Science, & Technology (QUEST), Nawabshah. He holds Ph.D in Telecommunication Engineering from the University of Malaga, Spain. Additionally, he has also served as a researcher there in the Department of Communications Engineering. He completed his M.S in Telecommunication from Usman Institute, Hamdard University, Karachi, Pakistan, and his graduation in Electronic Engineering from Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan. He worked in K-Electric as an Assistant Manager at Communication and SCADA Department for five years. He has more than 20 years' experience in teaching, research and industry.

Dr. Mujtaba has also served on different key administrative posts of the QUEST such as Director, Postgraduate Studies and Director Finance. Currently, he is serving as Chairman, Testing Service, QUEST. He is also a member of several statutory bodies of the university such as Syndicate, academic council, HCC, etc.

Dr. Shaikh has produced many Master students and he is supervising several Master and five PhD students. His research interests include Wireless Communications in general and especially in 4G, 5G and 6G Networks and Technologies, Heterogeneous Cellular Networks, NOMA, mmWave Communication, MIMO Technology, and Joint Communication and Radio sensing in Mobile Networks. He has presented his research work in different national as well as international conferences. Besides, he has authored various publications in national and international journals with several R & D Projects on his credit.

Introduction

Telecommunication Engineering stands among the fields with continuous growth throughout the times. The pace has exponentially increased since the start of the second decade of the 20th century. Communication is an essential facility. With the inception of the internet as the platform of every other service, it has infiltrated every aspect of 21st-century life. Telecommunication has synchronized and overlapped multiple areas, be it wired communication paving the ground of communication over copper growing to optical fiber such as broadcast wired networks, complex digitalized switching systems, etc. or wireless communication with vast communication networks and services such as RADAR communication, Satellite communication, Mobile Communication evolved up to 5G/6G. Telecommunication has been the field with specialization in all these areas and even more.

The Department of Telecommunication Engineering offers four years (8-semesters) programme leading to a degree of Bachelor of Engineering (B.E) in Telecommunication. This programme includes the teaching of courses adequately supplemented with practical hands-on training in laboratories and the use of other modern ways in imparting professional education to prepare students to take leading positions over a wide range of expert organizations and research projects in information technology and communication industries. Moreover, courses are refined, upgraded as per the latest trends and cutting-edge technologies. The courses are aimed at equipping students with the state-of-art skill set and enabling young graduates to achieve numerous job opportunities in both public as well as private sector organizations.

Vision

To provide affordable high-quality education and to produce engineers with high knowledge and skills in the field of telecommunication engineering to solve complex engineering problems individually and as a team player for accelerated socio-economic development.

Mission

To serve the engineering profession by offering high-quality education to create professionals and contribute towards the local and global society by providing innovative solutions with a focus on research and development through industry-academia linkages in telecommunication and related studies.

Program Educational Objectives (PEOs)

1. To acquire strong technical knowledge in telecommunication engineering that leads to capability of designing efficient communication systems and participate in professional practice, testing and troubleshooting of telecommunication engineering systems.
2. To produce scholars with strong independent critical thinking as well as with sound leadership capabilities in communication and network engineering projects to attain success in technical careers.
3. To become responsible citizens with high ethical and professional standards to develop professional skills through life-long learning.

Degree Programme:

1. Bachelor of Engineering (Telecommunication Engineering)

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. M. Mujtaba Shaikh	Professor/ Chairman B.E (MUET), M.S (Hamdard), PhD (Spain)
2.	Prof. Dr. Intesab Hussain Sadhayo	Professor

		B.E (QUEST), M.S (France), PhD (France)
3.	Dr. Adnan Ahmed Arain	Associate Professor B.E (QUEST), M.S (Malaysia), PhD (Malaysia)
4.	Dr. Kamran Ali Memon	Assistant Professor B.E (MUET), M.E (QUEST), PhD (China)
5.	Engr. Nawaz Ali Zardari	Assistant Professor B.E (MUET), M.Sc (U.K)(on study leave abroad)
6.	Engr. Ghulam Fizza Shah	Assistant Professor B.E (MUET), M.E (MUET)(on study leave abroad)
7.	Engr. Atta Muhammad Panhyar	Assistant Professor B.E (IBA Sukkur), M.S (IBA Sukkur)
8.	Engr. Safia Amir Dahri	Assistant Professor B.E (QUEST), M.E (QUEST) (on study leave)
9.	Engr. Sarfraz Ahmed Soomro	Assistant Professor B.E (QUEST), M.E (QUEST)
10.	Engr. Sundas Metlo	Assistant Professor B.E (MUET), M.E (MUET)
11.	Engr. Asadullah Laghari	Lecturer B.Sc Eng. (COMSAT), M.S (IBA Sukkur) (on study leave)
12.	Engr. Nuzhat Madina	Lecturer B.E (MUET)
13.	Engr. Sarang Karim	Lecturer B.E (MUET), M.E (MUET)
14.	Engr. Mujeeb-ur-Rehman	Lecturer B.Sc Eng. (COMSAT), M.E (QUEST)
15.	Engr. Leela Wanti Lohano	Lecturer B.E (MUET), M.E (MUET)
16.	Engr. Barkat Ali Khoso	Lecturer B.E (MUET), M.E (MUET)
17.	Engr. Fatima Qureshi	Lecturer, B.E (QUEST), M.E (QUEST) (on study leave)
18.	Engr. Fozia Panhwar	Lecturer, B.E (MUET), M.E (QUEST)
19.	Engr. Imdad Hussain Kalhoro	Jr. Lab Engineer, B.E (QUEST)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Introduction to Computers	2	1	50+50	1	Object Oriented Programming	3	1	100+50
2	Introduction to Telecommunication	3	0	100+00	2	Basic Electronics	3	1	100+50
3	Applied Physics	3	1	100+50	3	Communication Skills	2	1	50+50

4	Applied Calculus	3	0	100+00	4	Linear Algebra and Analytical Geometry	3	0	100+00
5	Functional English	3	0	100+00	5	Pakistan Studies	2	0	50+00
6	Islamic Studies/Ethics	2	0	50+00					
	Total	16	2	500+100		Total	13	3	400+150
Second Year									
1st Semester					**2nd Semester**				
1	Technical Report Writing and Presentation Skills	2	0	50+00	1	Engineering Economics and Management	3	0	100+00
2	Circuit Analysis	3	1	100+50	2	Linear Integrated Circuits	3	1	100+50
3	Amplifiers and Oscillators	3	1	100+50	3	Electromagnetic Field Theory	3	0	100+00
4	Digital Logic Design	3	1	100+50	4	Signals and Systems	3	1	100+50
5	Differential Equations and Fourier Series	3	0	100+00	5	Complex Variables and Transforms	3	0	100+00
	Total	14	3	450+150		Total	15	2	500+100
Third Year									
1st Semester					**2nd Semester**				
1	Organizational Behavior	3	0	100+00	1	Microprocessors and Microcontrollers	3	1	100+50
2	Digital Signal Processing	3	1	100+50	2	Numerical Methods	3	0	100+00
3	Wave Propagation and Antennas	3	1	100+50	3	Computer Communication & Networks	3	1	100+50
4	Communication Systems	3	1	100+50	4	Digital Communication and Information Theory	3	1	100+50
5	Probability and Stochastic Processes	3	0	100+00	5	Entrepreneurship and Leadership	3	0	100+00
	Total	15	3	500+150		Total	15	3	500+150
Final Year									
1st Semester					**2nd Semester**				
1	RF and Microwave Engineering	3	1	100+50	1	Next Generation Networks	3	0	100+00
2	Control Systems	3	1	100+50	2	Satellite Communication	3	0	100+00
3	Mobile and Wireless Communications	3	1	100+50	3	Laser and Fiber Optics	3	1	100+50
4	Transmission and Switching Systems	3	0	100+00	4	Professional and Social Ethics	3	0	100+00
5	Final Year Design Project-I	0	3	00+100	5	Final year Design Project-II	0	3	00+100
	Total	12	6	400+250		Total	12	4	400+150

DEPARTMENT OF SOFTWARE ENGINEERING

About Chairman

Prof. Dr. Pardeep Kumar, Chairman

Dr. Pardeep Kumar is currently working as Professor and Head of the Software Engineering Department, Quaid-e-Awam University of Engineering, Science & Technology (QUEST) Nawabshah, Pakistan. Additionally, he is also working as Director for the Office of Research, Innovation & Commercialization (ORIC) QUEST. Previously, he has worked as Chairman, Computer Systems Engineering Department, Director Continuing Education, and Coordinator Students Attendance Cell, QUEST Nawabshah. He is also a member of Higher Education Commission (HEC) Pakistan's National Curriculum and Review Committee (NCRC), Technology Development Fund (TDF), and Quality Assurance Agency (QAA), and Pakistan Engineering Council's accreditation teams to design curriculum of Computer/Software Engineering, to evaluate research/industrial projects, to monitor postgraduate programs and to accredit engineering programs at different universities.

Dr. Kumar completed his Ph.D. from Berlin, Germany in 2012. Earlier he did his Bachelor of Computer Systems Engineering and Master of Communication Systems and Networks Engineering from Mehran University of Engineering and Technology Jamshoro, Pakistan in 2001 and 2004 respectively. Dr. Kumar joined QUEST in January 2004 and was granted a Ph.D. scholarship from HEC Pakistan and DAAD Germany in 2007. During his Ph.D. research, he designed and developed a novel MAC protocol for wireless sensor networks and has worked under several European Union projects. His research interests are in the fields of Wireless Sensor Networks, IEEE 802.15.4/ZigBee, Internet of Things, Next-Generation Networks, Artificial Intelligence, Big Data, Cyber-Physical Systems, etc.

Dr. Kumar has been an author/editor of four books, several book chapters, and more than 50 research publications. He is currently supervising several Ph.D. and graduate research students. Dr. Kumar has visited several countries including Germany, France, the USA, Australia, Italy, Switzerland, the Czech Republic, Egypt, Slovenia, etc. to share his research work in the capacity of keynote speaker, paper presenter, and session chair. Additionally, he has served as a technical program committee member and organizer for several conferences and workshops around the world.

Introduction

The main objective of the Software Engineering Department is to offer state of the art education to undergraduates so that they can define, design, develop, debug and deliver high quality, reliable and cost-effective software systems. Software engineers often work as part of a team working for computer systems design firms, software publishers, or for computer or electronic product manufacturers. Because of the wide variety of software

applications, numerous opportunities can be pursued by software engineers. Today, the software industry makes software products to be used by most, if not all, fields, such as in e-commerce, banking, retailing, education, social networks, the defense, and gaming industries, etc. Because of this, software engineers are in high demand both in government agencies and private sectors.

Keeping in view the significance and impact of this field, QUEST has planned to start the Software Engineering program from the batch 2020. A Bachelor of Engineering (BE) degree shall be awarded to the graduating students after completion of 4 years (8 semesters) study. Currently, we are in a process of designing a high-quality, comprehensive, rigorous, and accredited (through Pakistan Engineering Council) teaching program to prepare graduates of competence, conscience, and compassion to excel in the field of software engineering and computing. To achieve this goal, theoretical foundations shall be combined with the practical engineering knowledge, which is vital to industry and job market and modern state-of-the-art laboratories, highly qualified faculty, well-trained technical staff, and conducive environment shall be provided.

Vision

To produce highly skilled Software Engineers who could play a leading role in the country's socio-economic and technological transformation.

Mission

Graduates of the program with skills in designing and developing software, understanding and applying software development processes and methodologies and leveraging software development tools throughout the development life cycle shall be well positioned for successful careers.

Program Educational Objectives (PEOs)

1. To impart fundamental knowledge of engineering, science and mathematics in the field of software engineering
2. To produce graduates with sound technical, professional and ethical background capable of working for the development of society
3. To acquaint the graduates with management and leadership skills to work independently and/or in team.
4. To train the graduates for lifelong learning

Degree Programme:

1. Bachelor of Engineering (Software Engineering)

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Pardeep Kumar	Professor and Chairman

		B.E (MUET), M.E (MUET), PhD (Germany)
2.	Dr. Rafia Naz	Associate Professor B.E (MUET), ME (MUET), PhD (Malaysia)
3.	Dr. Imtiaz Ali Halepoto	Associate Professor B.E (QUEST), M.S (Hong Kong), PhD (Hong Kong)
4.	Dr. Sajida Parveen	Associate Professor B.E (QUEST), M.E (MUET), PhD (Malaysia)
5.	Engr. Fiza Siyal	Assistant Professor B.E (MUET), ME (MUET)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Introduction to ICT	3	0	100+00	1	Object Oriented Programming	3	1	100+50
2	Programming Fundamentals	3	1	100+50	2	Communication Skills	2	0	50+00
3	Applied Physics	3	1	100+50	3	Linear Algebra & Analytical Geometry	3	0	100+00
4	Applied Calculus	3	0	100+00	4	Introduction to Software Engineering	3	0	100+00
5	Functional English	2	0	50+00	5	Pakistan Studies	2	0	50+00
					6	Islamic Studies / Ethics	2	0	50+00
	Total	14	2	450+100		Total	15	1	450+50
Second Year									
1st Semester					**2nd Semester**				
1	Data Structures and Algorithms	3	1	100+50	1	Software Design & Architecture	2	1	50+50
2	Database Management Systems	3	1	100+50	2	Computer Networks	3	1	100+50
3	Operating Systems	3	1	100+50	3	Web Engineering – I	3	1	100+50
4	Software Requirements Engineering	3	0	100+00	4	Multimedia Technologies	3	1	100+50
5	Discrete Structures	3	0	100+00	5	E-Commerce	2	0	50+00
	Total	15	3	500+150		Total	13	4	400+200
Third Year									
1st Semester					**2nd Semester**				
1	Software Construction	2	1	50+50	1	Software Project Management	3	1	100+50
2	Web Engineering – II	3	1	100+50	2	Information Security	3	0	100+00
3	Statistics & Probability	3	0	100+00	3	Artificial Intelligence	3	1	100+50
4	Human Computer Interaction	3	0	100+00	4	Mobile Applications Development	3	1	100+50
5	Embedded Systems	2	1	50+50	5	Professional & Social Ethics	2	0	50+00

6	Engineering Economics	2	0	50+00					
	Total	15	3	450+150		Total	14	3	450+150
Final Year									
1st Semester					**2nd Semester**				
1	Entrepreneurship & Leadership	2	0	50+00	1	Software Quality Engineering	3	1	100+50
2	Data Sciences	3	1	100+50	2	Cloud Computing	3	1	100+50
3	Software Re-engineering	3	0	100+00	3	Business Process Engineering	3	0	100+00
4	Formal Methods in Software Engineering	3	0	100+00	4	Thesis Project - II	0	3	00+100
5	Thesis Project - I	0	3	00+100					
	Total	11	4	350+150		Total	9	5	300+200

DEPARTMENT OF AUTOMATION AND CONTROL ENGINEERING

About Chairman

Dr. Erum Pathan,
Chairperson

Dr. Erum Pathan received her PhD degree in Electrical Engineering from University Tun Hussein on Malaysia in 2020. She received her B.E in Electronic Engineering, the M.E degree in Telecommunication & Control Engineering from Mehran university of Engineering and Technology, Jamshoro, Pakistan in 2003, and 2010 respectively.

She started progressive career with the QUEST, Nawabshah in 2005 as lecturer, and she was promoted as Assistant Professor at the Department of Electronic Engineering in November 2010. she is currently chairperson, Department of Automation and Control Engineering, Quaid-E Awam University of Engineering, Science and Technology Nawabshah, Sindh, Pakistan.

Dr. Erum Pathan has worked in several research projects has authored and co-authored more than 25 in national and international journal and conference papers. Her research interests include robust control theory in Smart Grid, Parallel Inverter, Smart Grid Control System, Microgrids & Renewable Energy, Power Electronics, Distributed Energy-Storage Systems, Hierarchical Control, IEC61850 Substation Automation System, AC/DC Microgrid Clusters and Islanded Microgrids.

Introduction

In the most general sense, control and automation engineering endeavor the problem which compels a system to the desired situation via appropriate software and hardware. Several problems that occur because of rapid increase in production with the rapidly developing technology after the industrial revolution impel people to seek new ways from which more can be obtained. The utilization of the information resulting from the research in industry and other production systems has led to emerge a new branch of engineering," Control and Automation Engineering". Control and Automation engineering is a branch of engineering which develops and implements information and technology providing electrical, electronic, mechanical, and computer-based all industrial systems to work intended and planned manner. Control Engineering Program provides training and conducts research in the subjects "automatic control theory and its applications, industrial automation, measurement and instrumentation, robotics, design and implementation of computer-based industrial information systems".

the department offers a four-year (8 Semesters) program leading to degree of Bachelor of Automation and Control Engineering. It provides formal education in Automation and Control Engineering through teaching, experimental work and industrial attachment to prepare students for careers as educators, engineers as well as scientists. The graduates can

be hired for technical and supervisory positions in private, public sector, industries of the country as well as abroad.

Vision

To provide a learning environment for quality education in the field of automatic and control to fulfill the requirement of national industrial needs

Mission

To produce skilled and professionally sound leaders in automation and control engineers, capable of addressing emerging issues for economic prosperity and development in the local and international industries in the society.

Program Educational Objectives (PEOs)

1. Graduates would be proficient automated and control engineers in an industrial environment to meet the technological and economical challenges of local and international industry.
2. Graduates would reflect professional attitude, moral and ethical values, along with leadership skills.
3. Graduates would be able to support global community to produce sustainable industries for economic and social developments.

Degree Programme:

1. Bachelor of Engineering (Automation and Control Engineering)

Teaching Staff:

#	Name	Designation / Qualification
01.	Dr. Erum Pathan	Assistant Professor & Incharge Chairperson B.E (MUET), M.E (MUET), Ph.D. (Malaysia)
02.	Dr. Bhagwan Das	Associate Professor B.E (MUET), M.E (QUEST), Ph.D. (Malaysia)
03.	Dr. Muhammad Akram Bhayo	Assistant Professor B.E (QUEST), M.E (Germany), Ph.D. (Malaysia)
04.	Engr. Tasleem Dehraj	Assistant Professor B.E. (QUEST), M.E (MUET)
05.	Engr. Bushra Abro	Assistant Professor B.E. (MUET), M.E (MUET)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				

1	Applied calculus	03	0	100+00	1	Mechanical Technology	03	01	100+50
2	Functional English	02	0	50+00	2	Pakistan Studies	02	00	50+00
3	Islamic Study/Ethics	02	0	50+00	3	Material Engineering	03	01	100+50
4	Introduction to Computing and C++ Programming	03	01	100+50	4	Circuit Analysis	03	01	100+50
5	Applied Physics	03	01	100+50	5	Linear Algebra & Analytical Geometry	03	00	100+00
6	Engineering Drawing & Graphics Lab	00	01	00+50					
	Total Credit Hours	**13**	**3**	400+150		**Total Credit Hours**	**14**	**3**	450+150
Second Year									
1st Semester					**2nd Semester**				
1	Signals and systems	03	01	100+50	1	Complex Variables & Transforms	03	00	100+00
2	Differential Equations and Transforms	03	00	100+00	2	Introduction to Embedded Systems	03	01	100+50
3	Electronic Devices & Circuits	03	01	100+50	3	Electric Machine & Drives	03	01	100+50
4	Communication Skills	02	00	50+00	4	Digital Signal Processing & Applications	03	01	100+50
5	Digital Logic Design	03	01	100+50	5	Machine Drawing & Solid Modeling	00	01	00+50
	Total Credit Hours	**14**	**03**	450+150		**Total Credit Hours**	**12**	**04**	450+200
Third Year									
1st Semester					**2nd Semester**				
1	Entrepreneurship	02	00	50+00	1	Project Management	02	00	50+00
2	IoT System Design & Applications	03	01	100+50	2	Advanced Control System	03	01	100+50
3	Industrial Instrumentation & Control	03	01	100+50	3	Industrial System Modeling & Simulation	03	01	100+50
4	Control System	03	01	100+50	4	Communication System	03	01	100+50
5	Numerical Analysis & Com. Application	03	01	100+50	5	Sensors And Signal Conditioning	03	01	100+50
	Total Credit Hours	**14**	**04**	450+200		**Total Credit Hours**	**14**	**04**	450+200
Final Year									
1st Semester					**2nd Semester**				
1	Robotics And Automation	03	01	100+50	1	Biosensors and MEMS	03	01	100+50
2	Technical Report Writing & Presentation Skills	02	00	50+00	2	Artificial Intelligent Techniques & Applications	03	01	100+50

3	Computer Integrated Manufacturing	03	01	100+50	3	Industrial Maintenance and Safety	03	00	100+00
4	Process Dynamics and Control	03	01	100+50	4	Quality and Reliability Control	03	00	100+00
5	FYP-I	00	03	00+100	5	FYP-II	00	03	00+100
	Total Credit Hours	**11**	**06**	350+250		**Total Credit Hours**	**12**	**05**	400+200

SECTION-4

FACULTY OF SCIENCE

Department of Information Technology
Department of Computer Science
Department of Mathematics & Statistics
Department of Basic Science & Related Studies
Department of English (Language & Literature)
Department of Physics
Department of Artificial Intelligence

DEPARTMENT OF INFORMATION TECHNOLOGY

About Chairman


Prof. Dr. M Ibrahim Channa, Chairman

Prof. Dr. Muhammad Ibrahim Channa completed PhD in Information and Communication Technologies (ICT) from Asian Institute of Technology (AIT) Thailand in 2012. Currently, he is Professor and Chairman, Department of Information Technology, Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah. In addition, he worked as Director, Office of the Research, Innovation and Commercialization, QUEST, Nawabshah and the Editor Quaid-e-Awam University Research Journal of Engineering, Science and Technology, Nawabshah. He teaches various courses at undergraduate and postgraduate levels and supervises research students at postgraduate level. He has produced two International PhDs as an External Co-Supervisor at University of Technology (UTM) Malaysia in2016 and 2018 respectively. He has also produced two National PhDs at Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah during 2021. Fifteen MS students also worked under his supervision and completed their degrees. He is recognized as HEC approved PhD Supervisor during 2020 for a period of three years. Currently, some MS and PhD students are working under his supervision.

Introduction

The Department of Information Technology has been established under the umbrella of the Institute of Information Technology, Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah since 2002. The Department of Information Technology has been established to provide quality education in various fields of Information Technology such as Software Engineering, Databases, Computer Graphics and Computer Communications and Networking. The Department of Information Technology offers various degree programs at undergraduate and postgraduate levels. These programs include BS in Information Technology, MS in Information Technology, MS in Software Engineering, MS in Computer Science and PhD in Information Technology.

The Department of Information Technology is well equipped with advanced computer laboratories and qualified faculty. Currently, there are five (05) computer laboratories and nine (09) PhD faculty members in the Department.

Degree Programmes:

1. Bachelor of Science (Information Technology)
2. Master of Science
    a. Computer Science

b. Software Engineering
c. Information Technology

3. Ph.D. (Information Technology)

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Muhammad Ibrahim Channa	Professor & Chairman PhD(ICT), Thailand
2.	Prof. Dr. Zahid Hussain Abro	Professor & Dean Faculty of Science PhD(CS), Austria
3.	Prof. Dr. Adnan Manzoor Rajpar	Professor PhD(CS), Netherlands
4.	Prof. Dr. Mukhtiar Ahmed Memon	Professor PhD(CS), Malaysia
5.	Dr. Akhtar Hussain Jalbani	Associate Professor PhD(CS), Thailand
6.	Dr. Shahzaman Nizamani	Associate Professor PhD(IT), Pakistan
7.	Engr. Jawed Akhtar Unar	Assistant Professor ME(IT), Pakistan
8.	Mr. Saifullah Memon	Assistant Professor MS(IT), Pakistan (On Study Leave)
9.	Mr. Baqir Ali Zardari	Assistant Professor MS(IT), Pakistan
10.	Dr. Asghar Ali Chandio	Assistant Professor PhD(CS), Australia
11.	Ms. Saima Siraj Soomro	Assistant Professor MS(IT), Pakistan (On Study Leave)
12.	Mr. Himat Ali Shah	Assistant Professor MS(IT), Pakistan (On Study Leave)
13.	Mr. Waqas Ali Sahito	Assistant Professor MS(IT), Pakistan (On Study Leave)
14.	Mr. Zeeshan Rasool Memon	Assistant Professor MS(CS), Malaysia
15.	Dr. Mehwish Laghari	Lecturer PhD (IT), Pakistan.
16.	Dr. Muniba Memon	Lecturer PhD(CS), Malaysia
17.	Ms. Jharna Devi	Faculty Member BS(CS), Pakistan (On Study Leave)
18.	Engr. Muntazir Mehdi	Faculty Member BE(CS), Pakistan (On Study Leave)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Introduction to ICT	3	1	100+50	1	Programming Fundamentals	3	1	100+50
2	Principles of Accounting	3	0	100+00	2	Communication & Presentation Skills	3	0	100+00
3	Pre-Calculus-I*	3	0	100+00	3	Digital Logic Design	3	1	100+50
4	Pre-Calculus-II*	3	0	100+00	4	Islamic Studies	2	0	50+00
5	English Composition & Comprehension	3	0	100+00	5	Linear Algebra	3	0	100+00
6	Pakistan Studies	2	0	50+00					
7	Applied Physics	3	0	100+00					
	Total	14	1	450+50		Total	14	2	450+100
Note: Pre-Calculus-I and Pre-Calculus-II are Non-Credit subjects for Pre-Medical Students only and shall not affect the overall credits of the first semester as per NCEAC requirements.									
Second Year									
1st Semester					**2nd Semester**				
1	Data Structures and Algorithms	3	1	100+50	1	Operating Systems	3	1	100+50
2	Calculus and Analytical Geometry	3	0	100+00	2	Visual Programming	2	1	50+50
3	Software Engineering	3	0	100+00	3	Compiler Construction	3	0	100+00
4	Object Oriented Programming	3	1	100+50	4	Discrete Structures	3	0	100+00
5	Computer networks	3	1	100+50	5	Database Systems	3	1	100+50
	Total	15	3	500+150		Total	14	3	450+150
Third Year									
1st Semester					**2nd Semester**				
1	Statistics and Probability	3	0	100+00	1	E-Commerce	2	0	50+00
2	Software Requirements Engineering	3	0	100+00	2	Human Computer Interaction	3	0	100+00
3	System & Network Administration	3	1	100+50	3	Information Security	3	0	100+00
4	IT Project Management	3	0	100+00	4	Artificial Intelligence	3	1	100+50
5	Web Technologies	3	1	100+50	5	Professional Practices	3	0	100+00
					6	Technical & Business Writing	3	0	100+00
	Total	15	2	500+100		Total	17	1	550+50
Final Year									
1st Semester					**2nd Semester**				
1	Virtual Systems & Services	3	1	100+50	1	Cyber Security	3	0	100+00

2	Mobile Application Development	2	1	50+50	2	Introduction to Data Science	2	1	50+50
3	Computer Vision	2	1	50+50	3	Database Administration & Management	3	1	100+50
4	Modeling & Simulation	3	0	100+00	4	Operations Research	3	0	100+00
5	Social Networks	2	0	50+00	5	Final Year Project-II	0	3	00+100
6	Final Year Project- I	0	3	00+100					
Total		12	6	350+250	Total		11	5	350+200

DEPARTMENT OF COMPUTER SCIENCE

About Chairman

Dr. Muhammad Saleem Vighio, Chairman

Dr. Muhammad Saleem Vighio obtained Master's and PhD degrees in Computer Science from Aalborg University Denmark in 2009 and 2012, respectively. Currently, he is working as Associate Professor and Chairman in the Department of Computer Science, Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah.

During his studies at Aalborg University, Dr. Vighio actively participated in research and teaching obligations. He participated in many research conferences and meetings in different countries such as Denmark, Germany, Norway, Sweden, Spain, Italy, Greece, China and Macao. Notable research groups Dr. Vighio has been a member of include Distributed and Embedded Systems (DES) (Denmark), Centre for Embedded Software Systems (CISS) (Denmark), and Novo Nordisk A/S (Denmark).

Dr. Vighio's PhD work focuses on the verification of software systems including real-time and embedded systems and Web services protocols. Since 2012, Dr. Vighio has produced several Masters and PhD students. Presently, he is also supervising and co-supervising Masters and PhD students. Dr. Vighio has been credited with several National and International conferences and journal papers. He is also a member of the editorial boards of various research journals.

Introduction

Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah offers a 4-years full-time Bachelor of Science in Computer Science. The degree program comprises of 8-Semesters as recommended by the Higher Education Commission (HEC) of Pakistan.

The key objective of the program is to deliver knowledge to the students of the region in the field of Computer Science. The courses offered in this program provide skills in the computing profession to meet the requirements of the country and to enable students to develop reliable software products meeting the needs of intended users and organizations. This is achieved by applying sound scientific, mathematical and engineering principles. The laboratory facilities at the department are equipped with Xeon / Core i7, Multimedia, Internet and Network which provide an ideal environment for learning.

Degree Programme:

1. Bachelor of Science (Computer Science)

Teaching Staff

SN	Name	Designation / Qualification
1.	Dr. Muhammad Saleem Vighio	Associate Professor & Chairman B.C.S (Sindh), M.S (AAU, Denmark), Ph.D (AAU, Denmark)
2.	Engr. Anees Ahmed Soomro	Assistant Professor B.E (MUET), M.E (QUEST)
3.	Dr. Aijaz Ahmed Arain	Assistant Professor M.E (QUEST), Ph.D (QUEST)
4.	Dr. Shafiullah Soomro	Assistant Professor B.E (QUEST), M.E (MUET), Ph.D (S.Korea)
5.	Ms. Shamshad Lakho	Lecturer BSCS (QUEST), M.S (QUEST), Ph.D (in progress) (on study leave)
6.	Mr. Zeeshan Ahmed Nizamani	Lecturer BSCS (UoK), MSCS(BIT, China)
7.	Mr. Nadeem Channa	Lecturer BSCS (QUEST), M.S (QUEST)
8.	Engr. Mir Muhammad Juno	Lecturer B.E (QUEST), M.E (QUEST), Ph.D (in progress)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Introduction to Computing	2	1	50+50	1	Digital Logic Design	3	1	100+50
2	Programming Fundamentals	3	1	100+50	2	Object Oriented Programming	3	1	100+50
3	English Composition & Comprehension	3	0	100+00	3	Communication & Presentation Skills	3	0	100+00
4	Calculus & Analytical Geometry	3	0	100+00	4	Islamic Studies/Ethics	2	0	50+00
5	Applied Physics	3	0	100+00	5	Linear Algebra	3	0	100+00
6	Pakistan Studies	2	0	50+00					
	Total	16	2	500+100		Total	14	2	450+100
Second Year									
1st Semester					**2nd Semester**				
1	Computer Organization & Assembly Language	3	1	100+50	1	Design & Analysis of Algorithms	3	0	100+00
2	Data Structures & Algorithms	3	1	100+50	2	Database Systems	3	1	100+50
3	Discrete Structures	3	0	100+00	3	Economics	3	0	100+00

4	Professional Practices	3	0	100+00	4	Visual Programming	3	1	100+50
5	Financial Accounting and Management	3	0	100+00	5	Statistics & Probability	3	0	100+00
	Total	15	2	500+100		Total	15	2	500+100
Third Year									
1st Semester					**2nd Semester**				
1	Theory of Automata	3	0	100+00	1	Compiler Construction	3	0	100+00
2	Theory of Programming Languages	3	0	100+00	2	Computer Networks	3	1	100+50
3	Operating Systems	3	1	100+50	3	Numerical Computing	3	0	100+00
4	Software Engineering	3	0	100+00	4	Web Engineering	3	1	100+50
5	Advanced Object-Oriented Programming	3	1	100+50	5	Technical & Business Writing	3	0	100+00
	Total	15	2	500+100		Total	15	2	500+100
Final Year									
1st Semester					**2nd Semester**				
1	Graph Theory	3	0	100+00	1	Artificial Intelligence	3	1	100+50
2	Information Security	3	0	100+00	2	Big Data Analytics	3	1	100+50
3	Final Year Project-I	0	3	00+100	3	Final Year Project-II	0	3	00+100
4	Entrepreneurship & Leadership	2	0	50+00	4	Human Computer Interaction	3	0	100+00
5	Parallel & Distributed Computing	3	0	100+00					
6	Mobile Application Development	3	1	100+50					
	Total	14	4	450+150		Total	9	5	300+200

DEPARTMENT OF MATHEMATICS & STATISTICS

About Chairman

Prof. Dr. KhudaBux Amur, Chairman

Dr. Khuda Bux Amur was born in village Noor Muhammad Amur, District Naushahero Feroze, Sindh, Pakistan. He received his Bachelors (Hons) and M.Sc in Mathematics from the Sindh University Jamshoro. He was awarded the scholarship from Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Swabi for master's in engineering sciences in 2003 and completed his MS in Engineering Sciences in 2005 from GIK institute of Engineering, Sciences and Technology. During his Masters, he actively participated in the research and teaching activities in the Faculty of Engineering Sciences. In 2008, he was awarded PhD scholarship from QUEST Nawabshah, and he started his PhD at Metz University, France. During and after his Ph.D., Dr. Amur presented his research work in many conferences held in France, Germany, Czech Republic, Hong Kong, Thailand and Pakistan. He traveled to some other European countries such as Netherlands, Belgium, Luxemburg, and Switzerland.

He has contributed more than eighteen research papers in local and international journals. The area of his research work is Mathematical Image Processing, Mathematical Modeling and Simulation in Science and Engineering. After completion of his PhD, he joined the Mathematics & Statistics Department at QUEST and started the Master's Program in Mathematics in the department. He has taught a variety of courses at MS and PhD level in Mathematics as well as in other Engineering disciplines. Dr. Amur has supervised nine MS (Mathematics) students. Currently, four MS and five PhD students are working under his supervision.

Introduction

Mathematics is one of the core disciplines of Applied Sciences and it has wide applicability in every discipline of Engineering, Science, Finance and Information Technology. Properly trained graduates in Mathematics and Statistics are also needed for the education and research sector of the country including the province of Sindh. To meet the needs of this region in terms of the graduates and postgraduates in the field of Mathematics, the Department of Mathematics and Statistics was established in 2006 and the first batch was inducted in the academic year, 2007. In the starting, the four years BS(Mathematics) degree program was launched. The syllabus of BS degree program was designed, considering all the needs and aspects of the latest applicability of the subject in the field of Engineering, Science and Technology. In 2013, the department started the postgraduate program, i.e. two years research-based MS (Mathematics); subsequently, the PhD program was started in 2015.

Department has a well-equipped computer lab for research students. Department has energetic and enthusiastic faculty members, qualified from the international reputable universities. They are actively engaged in teaching as well as research in various fields such as Scientific Computing, Mathematical Image processing, Mathematical physics, Computational fluid mechanics, and algebra. The Department also offers various courses in the engineering departments for their MS and PhD programs.

Degree Programs:

1. Bachelor of Science (Mathematics)
2. Master of Science (Mathematics)
3. Ph.D. (Mathematics)

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Khuda Bux Amur	Professor / Chairman M.Sc. (University of Sindh), M.S. (GIKI. TopiSwabi), Ph.D. (France)
2.	Dr. Shakeel Ahmed Kamboh	Associate Professor B.S (University of Sindh), Ph.D. (Malaysia)
3.	Dr. Abdul Hanan Sheikh	Associate Professor B.Sc (SALU), M.Sc (QAU), Ph.D. (Netherlands) On lien leave
4.	Dr. Sajad Hussain Sandilo	Associate Professor B.Sc (Sindh University),M.Sc (QAU), Ph.D (Netherlands)
5.	Dr. Rajab Ali Malookani	Associate Professor B.Sc (University of Sindh), M.Sc (University of Sindh), Ph.D. (Netherlands)
6.	Dr. Muhammad Afzal Soomro	Associate Professor B.Sc (SALU), M.Sc (QAU), Ph.D. (Netherlands)
7.	Mr. Abbas Ali Ghoto	Assistant Professor B.Sc. (University of Sindh), M.Sc. (University of Sindh), M.Phil (University of Sindh)
8.	Mr. Sanaullah Dehraj	Assistant Professor B.S. (University of Sindh), M.S (NED UET)
9.	Mr. Shujaat Ali Shah	Assistant Professor B.Sc (SALU), M.Sc (SALU), M.Phill (QAU)
10.	Dr. Kamran Nazir Memon	Assistant Professor B.S (SALU), M.S (COMSATS), Ph.D. (MUET)
11.	Dr. Asghar Ali Maitlo	Assistant Professor B.Sc (SALU), M.Sc (SALU), M.S (QUEST), Ph.D. (France)
12.	Mr. Wajid Ali Shaikh	Assistant Professor B.Sc (Sindh University), M.Sc (Sindh University), M.Phil (Sindh University) (on study leave)

13.	Mr. Iqrar Ali Pali	Assistant Professor BS (QUEST), MS (QUEST), On Study Leave
14.	Mr. Imran Ali Kanhio	Assistant Professor BS (QUEST), MS (QUEST)
15.	Mr. Muzaffar Bashir Arain	Assistant Professor BS (QUEST), MS (QUEST), On Study Leave

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Calculus-I	03	00	100+00	1	Calculus –II	03	00	100+00
2	Discrete Mathematics	03	00	100+00	2	Statistics	03	00	100+00
3	Islamic Studies/ Ethics	02	00	50+00	3	Computer Programming	02	01	50+50
4	Functional English	02	00	50+00	4	Pakistan Studies	02	00	50+00
5	Physics-I	03	01	100+50	5	Communication Skills	02	01	50+50
6	Introduction to Computers	02	01	50+50	6	Physics-II	03	01	100+50
	Total	15	02	450+100		Total	15	03	450+150
Second Year									
1st Semester					**2nd Semester**				
1	Set Topology	03	00	100+00	1	Fuzzy Logic	03	00	100+00
2	Calculus-III	03	00	100+00	2	Operations Research	03	00	100+00
3	Linear Algebra	03	00	100+00	3	Ordinary Differential Equations-I	03	00	100+00
4	Number Theory	03	00	100+00	4	Group Theory	03	00	100+00
5	Economics	03	00	100+00	5	Econometrics	03	00	100+00
	Total	15	00	500+00		Total	15	00	500+00
Third Year									
1st Semester					**2nd Semester**				
1	Ordinary Differential Equations-II	3	0	100+00	1	Classical Mechanics	03	00	100+00
2	Differential Geometry	3	0	100+00	2	Partial Differential Equations	03	00	100+00
3	Numerical Analysis-I	3	1	100+50	3	Complex Analysis	03	00	100+00
4	Real Analysis	3	0	100+00	4	Measure Theory	03	00	100+00
5	Mathematics Software	2	1	50+50	5	Numerical Analysis-II	03	01	100+50
	Total	14	02	450+100		Total	15	01	500+50
Final Year									
1st Semester					**2nd Semester**				
1	Transform Techniques	03	00	100+00	1	Probability Theory	03	00	100+00

2	Algebraic Topology	03	00	100+00	2	Integral Equations	03	00	100+00
3	Functional Analysis	03	00	100+00	3	Analytical Dynamics	03	00	100+00
4	Rings and Fields	03	00	100+00	4	Introduction to Elliptic Curves	03	00	100+00
5	Optimization Techniques	03	00	100+00	5	Fluid Mechanics	03	00	100+00
06	FYP-I	00	03	00+100	06	FYPI-II	00	03	00+100
	Total	15	03	500+100		Total	15	03	500+100

DEPARTMENT OF BASIC SCIENCE & RELATED STUDIES

About Chairman

Dr. Saifullah Bhutto, Chairman

Dr. Saifullah Bhutto is currently serving as a Chairman, department of Basic Science and Related Studies. He is Associate Professor of Islamic studies. Dr. Bhutto earned his bachelor's in pharmacy, Masters in Islamic Studies and Master of Philosophy from University of Sindh. Dr. Bhutto started his career from QUEST as a lecturer in 2006 and after serving four years to this institution, he proceeded to Turkey to pursue Doctor of Philosophy in Islamic Studies from Ankara University. After acquiring PhD degree, Dr. Bhutto joined Quaid-e-Awam University back in 2015. As a researcher, he has many publications to his credit in national and international peer reviewed journals on various subjects of Islamic studies and Humanities in English, Turkish, Arabic & Urdu.

He possesses a vast experience of teaching and researching. Besides being a researcher, he has attended many trainings organized by Higher Education Commission Pakistan concerning religious teachings and their implications in the practical life, professional development, etc. Owing to his inclination towards the religion, Dr. Bhutto has attained the privilege of leading Taraweeh prayer & delivering lectures many times in international community as well.

Furthermore, he has presented his papers in national as well international conferences, and he has emerged as a renowned researcher in the field of Islamic Studies. It is pertinent to mention here that Dr. Bhutto has been invited as a keynote speaker in many renowned national and international conferences. He has contributed significantly in his field. In this perspective, he has remained the Member of Advisory Board of the journals such as 'The Journal of Tafsir Studies, Sakarya, Turkey' and 'ALDEBAL Arabic research journal, Pakistan'. He is HEC approved supervisor, and the areas of his research are religious tolerance, inter-faith harmony, social cohesion, Islam & science, Islamic manuscripts.

Introduction

The Department of Basic Science & Related Studies covers the courses of natural sciences, physical sciences, management sciences, social sciences and humanities in various Engineering and Science disciplines of the University. It focuses to train Engineering, Science and Information Technology students to prepare them a better human capital for the workforce. Additionally, it assists and guides students ranging from Engineering & Science disciplines to be skilled in Management Skills, Soft Skills, Communication Skills and Generic Skills in order to be fit in the competitive corporate world following graduation.

The English Language Centre of the University is also part of this department. The Centre is well equipped with men and material in terms of well qualified PhD faculty and latest audio and video laboratories. The major function of the Center is to enhance the Communication Skills abilities and capabilities of Engineering and Science students. It shall not be exaggeration to add that modern industry needs well rounded Engineering Graduates equipped with Hard and Soft Skills due to increasing influence of globalization and industrialization over the corporate world. Thus, English Language Center plays paramount role to prepare our budding Engineering Students as per need of modern industry. Moreover, the Center offers various English Language and Communication Skills courses/ trainings for Engineering Graduates to earn CPD points as prescribed mandatory by Pakistan Engineering Council (PEC). Additionally, the Centre offers various short courses and Trainings for the academic and administrative staff of the University to perform their job assignments efficiently.

Teaching Staff

SN	Name	Designation / Qualification
1.	Dr. Saifullah Bhutto	Associate Professor/ Chairman M.Phil. (University of Sindh), Ph.D (Turkey)
2.	Prof. Dr. Inayatullah Kakepoto	Professor M.A (SALU), Ph.D (Malaysia)
3.	Mr. Liaquat Ali Tunio	Assistant Professor M.SC. (SALU), MPhil (QAU Islamabad), PGCOC (Islamabad)
4.	Dr. Abdul Ghafoor Shaikh	Assistant Professor M.SC. (University of Sindh), MPhil (QAU Islamabad) ,Ph.D (Quest)
5.	Mr. Syed Muhammad Saeed Ahmed	Assistant Professor M.SC. (Maths) University of Sindh PGCOC, Islamabad
6.	Mr. Ghulam Yameen Mallah	Assistant Professor B.SC. (University of Sindh), M.Sc. (QAU, Islamabad), MPhil (QAU, Islamabad)
7.	Mr. Hafiz Muhammad Memon	Assistant Professor B.S (University of Sindh), M.S (QUEST) (On Study Leave)
8.	Mr. Ravi Kumar	Assistant Professor B.S (University of Sindh), M.Phil (MUET)
9.	Mr. Mehboob Ali Jatoi	Assistant Professor B.S (QUEST), MS (QUEST)
10.	Mr. Ajeeb-ur-Rehman Junejo	Assistant Professor B.Sc. (SALU), MSc (Sweden)
11.	Mr. Tarique Hussain Keerio	Lecturer M.A. (University of Karachi)

12.	Mr. Saleemullah Bhutto	Lecturer (Contract) M.Phil (University of Sindh)
13.	Mr. Ismail Rahu	Lecturer (Contract) B.S (University of Sindh)
14.	Mr. Sunny Kumar	Teaching Assistant M.S. (Quest)
15.	Ms. Agha Kousar	Teaching Assistant M.S. (Mehran University Jamshoro)
16.	Mr. Fida Hussain Shaikh	Teaching Assistant M.S. (Quest)
17.	Ms. Aliza Sikandar Qazi	Teaching Assistant B.S SBBU Nawabshah
18.	Ms. Sanam Chandio	Teaching Assistant M.A. (University of Sindh)

DEPARTMENT OF ENGLISH (LANGUAGE AND LITERATURE)

About Chairman

Dr. Insaf Ali Siming, Chairman

Dr. Insaf Ali Siming is the founding Chairman of the Department of English belongs to Khairpur Mirs', Sindh. After having completed his MA in English Literature with distinction from Shah Abdul Latif University Khairpur Mirs', Dr. Siming joined the Department of English, Shah Abdul Latif University Khairpur. Later on, he joined QUEST Nawabshah as a lecturer (English) in 2008. Dr. Siming has earned his PhD in Applied Linguistics from UTHM Malaysia.

He has immense experience in research and teaching as he is dedicatedly contributing towards publishing quality research papers in renowned research journals and offering his expert services to various universities of Pakistan as an expert board of studies and selection boards. Dr. Siming has presented his research work in national and international conferences including Malaysia, Singapore, Thailand and Pakistan. A good number of research scholars pursuing their postgraduate programs are also co-supervised by Dr. Siming as his research interests revolve around the different areas and perspectives of Applied Linguistics and Learner Motivation.

Introduction

The Department of English has been established in view of the contemporary global trends in English language, linguistics and literature. The department has a vibrant and highly foreign qualified and motivated faculty with a significant number of PhDs. The Motivating principles of establishing the department include meeting the language needs and necessities of English in Pakistan and incorporating growing trends of English language, linguistics and literature in academic and professional spheres of life. In addition, a guiding principle is to facilitate innovation through social, cultural, political and economic processes for personal growth. In doing so, the ability to master the art of innovation and creativity through literary learning and high moral character building of students can further guide them to attain their cherished goals.

Our department, for the very first time, offered a distinguished B.S program in English Language and Literature in 2019 in line with HEC NSRC-2017-18. The study programme was designed with a harmonized approach between Language and Literature. This blend of integrated areas provides students with an in-depth understanding of curricular and creative tasks driven through language learning. This goes with learner-based and hands-on activities to be carried out during the extensive four-year period of the study programme. In order to understand the fundamental concepts of research and its practical dimensions, students are required to submit a research dissertation as a pre-requisite in their final year to earn the degree.

Besides, the department also offers a range of learners' need-based short courses to develop academic as well as professional skills of the undergraduate and graduate students of various disciplines of this prestigious University. For this purpose, the department has dedicated and well-equipped audio-visual resources and labs with sufficient accommodation. Apart from offering a regular degree program, the department is actively engaged in organizing the talks of prominent national and international scholars of English Language and Literature to provide exposure to growing trends of language teaching and learning across the globe. One of such programs was hosted by the department in the month of March 2019 in which international speaker and prominent linguist, Dr. Elizabeth M. Anthony, engaged the students on the topic "Embrace Disruption, Rethink Learning" with her valuable guidance and extensive experience. Dr. Elizabeth works as an Associate Professor at the Department of Languages and Linguistics, Center for Language Studies, UTHM, Malaysia.

The department of English has established its own seminar library that consists of the latest books ranging from communication skills, general English and the books prescribed on B.S study scheme. The Department of English envisages enhancing the students' literary sensibilities, academic integrity, and professional uplifting of values essential for lifelong learning. It is worth mentioning that with the sincere efforts of the worthy Vice-Chancellor, Professor Dr. Saleem Raza Samo, the department came into existence. The recent development at the department of English is the establishment of International English Language Testing System (IELTS) Lab under international standards. IELTS Language lab has a seating capacity of thirty students at a time with the latest computer facilities. The IELTS language lab has been donated and inaugurated by renowned educationist, social activist and leading orthopedic doctor Professor Dr. A W Bhatti who is a Pakistani-born American citizen.

Degree Programme:

1. Bachelor of Science in English (Language and Literature)

Teaching Staff

SN	Name	Designation / Qualification
1.	Dr. Insaf Ali Siming	Associate Professor & Chairman B. A (SALU), M.A (SALU), Ph.D (Malaysia)
2.	Prof. Dr. Mansoor Ahmed Channa	Professor BS (SALU), M.A (SALU), MPhil (Thailand), Ph.D (Malaysia)
3.	Mr. Muhammad Arif Soomro	Assistant Professor M.A (NUML), MS (MUET)
4.	Mr. Mansoor Ahmed Koondhar	Lecturer M.A (University of Sindh), Ph.D (in progress)
5.	Mr. Abdullah Laghari	Lecturer M.A (University of Sindh), Ph.D (in progress)

6.	Mr. Mukhtiar Ali Rajper	Lecturer M.A (SALU), M.A (NUML)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Functional English	3	0	100+00	1	History of English Literature	3	0	100+00
2	Introduction to Literary Studies	3	0	100+00	2	Phonetics and Phonology	3	0	100+00
3	Introduction to Language Studies	3	0	100+00	3	Communication Skills	3	0	100+00
4	Study Skills	3	0	100+00	4	Introduction to IT Skills	2	1	50+50
5	Introduction to Psychology	3	0	100+00	5	Statistical Methods	3	0	100+00
6	Islamic Studies/Ethics	2	0	50+00	6	Pakistan Studies	2	0	50+00
	Total	17	00	550+00		Total	16	01	500+50
2nd Year									
1st Semester					**2nd Semester**				
1	English Through Technology	3	0	100+00	1	Academic Reading and Writing	3	0	100+00
2	Novel/Short Story (Fiction)	3	0	100+00	2	Prose (Non-fiction)	3	0	100+00
3	Major Literary Movements	3	0	100+00	3	Syntax	3	0	100+00
4	Introduction to Morphology	3	0	100+00	4	Sociolinguistics	3	0	100+00
5	Introduction to Philosophy	3	0	100+00	5	Poetry-I (Classical Poetry)	3	0	100+00
6	International Relations	3	0	100+00	6	Creative Writing	3	0	100+00
	Total	18	00	600+00		Total	18	00	600+00
Third Year									
1st Semester					**2nd Semester**				
1	Novel 18th to 19th Century	3	0	100+00	1	Drama-I (Classical and Renaissance)	3	0	100+00
2	Semantics	3	0	100+00	2	Poetry-II (Romantic and Victorian)	3	0	100+00
3	Literary Criticism-I	3	0	100+00	3	Literary Criticism-II	3	0	100+00
4	Psycholinguistics	3	0	100+00	4	Pragmatics	3	0	100+00
5	Women Writers	3	0	100+00	5	English for Specific Purposes (ESP)	3	0	100+00
6	Intercultural Communication	3	0	100+00	6	Research Methodology-I	3	0	100+00
	Total	18	00	600+00		Total	18	00	600+00
Final Year									
1st Semester					**2nd Semester**				
1	Drama-II (Modern)	3	0	100+00	1	Modern Novel	3	0	100+00

2	Postcolonial Literature	3	0	100+00	2	Pakistani Literature in English	3	0	100+00
3	Translation Studies	3	0	100+00	3	Stylistics	3	0	100+00
4	Critical Discourse Analysis	3	0	100+00	4	Syllabus and Materials Designing	3	0	100+00
5	Research Methodology-II	3	0	100+00	5	Research Thesis + Viva Voce	3	0	100+00
	Total	15	00	500+00		Total	15	00	500+00

DEPARTMENT OF PHYSICS

About Chairman

Dr. Rajab Ali Malookani, Chairman

Dr. Rajab Ali Malookani earned his Master of Science (MSc) in Mathematics from the University of Sindh, Jamshoro in the year 2004. In the same year, he joined as a research assistant in the department of Basic Science and Related Studies (BSRS) at Mehran University of Engineering and Technology, Jamshoro. He served this institution for about three years and joined as a Lecturer (Mathematics) in the Department of Mathematics and Statistics, Quaid-e-Awam University of Engineering, Science and Technology (QUEST), Nawabshah in 2008.

In January 2012, Dr. Malookani was awarded a scholarship under the Faculty Development Program of Higher Education Commissions (HEC) of Pakistan to pursue PhD. In the spring of 2012, he was accepted into the doctoral program in the area of "Vibrations of Conveyor Belt Systems" of Mathematical Physics group in the Department of Applied Mathematics, Delft University of Technology, Netherlands. During his PhD journey, Dr. Malookani presented his research work in local and international conferences related to the field of dynamics and vibrations in various countries such as the Netherlands, Austria, the USA and Pakistan. In addition, he also visited various countries such as Germany, Belgium, France, Hungary, Italy, Spain, Austria, Luxembourg, Slovakia, Czech Republic and the USA for historic and cultural purposes. He received his Doctor of Philosophy (PhD) in Applied Mathematics in the Department of Applied Mathematics in 2016. He has authored and co-authored more than twenty-five research papers in HEC recognized journals.

After returning to Pakistan in 2016, Dr. Malookani worked as an Associate Professor in the Department of Mathematics and Statistics, QUEST, Nawabshah. He is currently supervising several Master and PhD students. His research interests include stability analysis of dynamical systems, vibrations of mechanical and structural systems and applicability of asymptotic methods in continuous systems.

Introduction

The main goal of the physics department is to offer quality education to undergraduates and provide them with a holistic approach to the physical principles of the universe. Furthermore, it aims to enable them to think creatively and critically about scientific problems and experiments. This, in turn, can them develop quantitative reasoning skills and conduct training sessions for students' planning careers in physics. It includes those whose interests lie in college/university teaching, industrial jobs or other sectors of human society. Unprecedented developments in all the areas of science and technology are based on the understanding of the physical laws of nature. Physics plays a very important role in recent

technological advancement in industry and other social sectors. This can lead to light the intrinsic motivation in exploring the hidden mysteries in nature and find their solutions.

Keeping in view the importance of Physics, the QUEST is going to begin a Bachelor of Science (BS) program in Physics from batch 2021. The department offers a four-year (8 semesters) undergraduate program for the degree of BS (Physics). This program includes foundational courses such as Mechanics, Electricity and Magnetism, Waves and Oscillations, Modern Physics, Optics, etc. The major courses included are Classical Mechanics, Electrodynamics-I and II, Quantum Mechanics-I and II, Atomic and Molecular Physics, Solid State Physics-I and II, Nuclear Physics, Introduction to Relativity. In addition, the students will have access to laboratories where they can perform experiments as a compulsory part of their course structure. The laboratory work provides the climax experience to the core courses, gathering the knowledge acquired in different theoretical courses and bridging the gap between theoretical knowledge taught in textbooks problems and the experimental foundations of this knowledge.

Vision

The Department of Physics aspires to establish a global center of excellence in Physics research and building a knowledge society.

Mission

The mission of the B.S. program in Physics is to impart outstanding physics knowledge and prepare students for professional careers in Physics and pursuing advanced degrees in physics.

Program Educational Objectives

The main educational objectives of BS (4-year) degree program are:

- To impart students with a conceptual understanding of the fundamental principles of physics, natural laws and their interpretation as well as mathematical formulation of the physical phenomena in nature.
- To develop critical skills necessary for solving unknown problems from our physical surroundings.
- To enhance students' competence in the design and conduct of experiments and presentation of experimental data and results.
- To develop a grasp of the scientific method, i.e., understanding how observation, experiment and theory work together to achieve an understanding of the physical world.
- To introduce to students the spirit of working in interactive groups with the necessities of scientific and professional ethics
- To equip students with the necessary skill set for pursuing careers in physics education, research and industry in government or private organizations.

Teaching Staff

SN	Name	Designation / Qualification
1.	Dr. Rajab Ali Malookani	Associate Professor / Chairman B.Sc (UoS), M.Sc (UoS), Ph.D. (Netherlands)
2.	Dr. Sanaullah Dehraj	Assistant Professor B.S. (UoS), M.S (NED UET), PhD (QUEST)
3.	Mr. Imran Kanhio	Assistant Professor BS (QUEST), MS (QUEST)
4.	Ms. Jannat Soomro	Lab Instructor

Course Scheme

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	English-I	3	0	100+00	1	English II	3	0	100+00
2	Pakistan Studies	2	0	50+00	2	Islamic Studies/Ethics	2	0	50+00
3	Calculus-I	3	0	100+00	3	Calculus-II	3	0	100+00
4	Introduction to Computing	3	0	100+00	4	Electricity and Magnetism	3	1	100+50
5	Mechanics	3	1	100+50	5	Heat and Thermodynamics	3	0	100+00
6	Environmental Sciences	3	0	100+00	6	Accounting	3	0	100+00
	Total	17	01	550+50		Total	17	01	550+50

DEPARTMENT OF ARTIFICIAL INTELLIGENCE

About Chairman

Dr. Umair Ali Khan,
Chairman

Dr. Umair A. Khan received his PhD and Master's degrees from Alpen-Adria University, Klagenfurt, Austria in 2010 and 2013, respectively. He received his B.E degree in Computer Systems Engineering in 2004 from QUEST, Nawabshah. He joined QUEST in January 2005 as a lecturer and left for Austria for higher studies in 2008. After returning to Pakistan in 2013, he worked as an assistant professor till 2016. Afterwards, Dr. Umair left for postdoctoral studies in Germany. He worked in Fraunhofer Institute of Integrated Circuits, Erlangen, Germany, and Machine Perception laboratory, Hungarian Academy of Sciences, Budapest, Hungary as a research scientist in 2016-17.

Dr. Umair has worked in several international research projects and has authored and co-authored more than 30 international journal and conference papers. He is currently supervising several Master and PhD students. His research interests include context-based information retrieval from images and videos using deep learning. He is also the editor of QUEST Research Journal which is published bi-annually since 1997.

Introduction

The Department of Artificial Intelligence has been established under the umbrella of the Faculty of Science, Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah in 2021 by keeping in view the increasing demand of this field of study around the globe. The Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.

The AI technologies are nowadays used in healthcare, automobiles, finance, surveillance, social media, entertainment, education, space exploration, gaming, robotics and agriculture. The ultimate goal of artificial intelligence is to create computer programs that can solve real-world problems and achieve goals like human beings. The major areas of AI include machine learning, neural networks, computer vision, robotics, natural language processing, expert systems and speech processing.

The Department is well equipped with advanced computer laboratories and qualified faculty. Currently, there are three (06) foreign qualified PhD faculty members in the Department, who are experts in the AI domain. Some faculty members are pursuing PhD

degree in AI in well reputed international universities and are expected to join the department in near future. The PhD faculty in the department have strong academic collaborations with national/international institutions. This linkage is helpful for the exchange of students to other national/international institutions. The government of Pakistan is also encouraging and supporting the institutions offering degree in AI.

Degree Programmes:

1. Bachelor of Science (Artificial Intelligence)

Teaching Staff

SN	Name	Designation / Qualification
1	Dr. Umair Ali Khan	Associate Professor & Chairman B.E (QUEST), MS (Austria), PhD (Austria), Postdoc (Germany, Hungary)
2	Dr. Fareed Ahmed Jokhio	Associate Professor B.E (MUET), MS (Sweden), PhD (Finland)
3	Engr. Jawed Akhtar Unar	Assistant Professor B.E (MUET), ME (MUET), PhD (in progress)
4	Dr. Awais Rajput	Assistant Professor B.E (QUEST), M.E (QUEST), PhD (Germany)
5	Dr. Asghar Ali Chandio	Assistant Professor BS (UoS), MS (QUEST), PhD (Australia)
6	Dr. Mehwish Leghari	Assistant Professor BS (UoS), MS (QUEST), PhD (UoS)
7	Dr. Shafiullah Soomro	Assistant Professor B.E (QUEST), ME (MUET), PhD (South Korea)

Courses of Study

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Introduction to ICT	3	1	100+50	1	Pre-Calculus-II*	0	0	0
2	Programming Fundamentals	3	1	100+50	2	Linear Algebra	3	0	100+00
3	Pre-Calculus-I*	0	0	0	3	Object Oriented Programming	3	1	100+50
4	Calculus and Analytical Geometry	3	0	100+00	4	Digital Logic & Design	3	1	100+50
5	English Composition and Comprehension	3	0	100+00	5	Communication & Presentation Skills	3	0	100+00
6	Islamic Studies / Ethics	2	0	50+00	6	Pakistan Studies	2	0	50+00
	Total	14	2	450+100		Total	14	2	450+100
Note: Pre-Calculus-I and Pre-Calculus-II are Non-Credit subjects for Pre-Medical Students only and shall not affect the overall credits of the first semester as per NCEAC requirements.									

SECTION-5

FACULTY OF TECHNOLOGY

Government Habib College of Technology, Nawabshah.
Government College of Technology Larkano.
Department of Agro-Food Processing Engineering Technology

FACULTY OF TECHNOLOGY

Introduction

Due to rapid growth of industrialization and consequent expansion in the demand for skilled manpower in the country, it became indispensable to improve and upgrade the standard and quality of technical education. It was realized that there was extreme paucity of technical institutes to cater the growing need of technical staff for the emerging industrial sector in the country. In order to meet this challenge, the Government decided to introduce degree courses of Bachelor level in certain selected disciplines of technology at the technical colleges. The Faculty of Technology supervises the conduct of degree programs offered by the affiliated colleges.

Three government technical colleges were affiliated with Quaid-e-Awam University of Engineering, Science, & Technology Nawabshah: one of the leading universities of the country. The affiliated colleges were:

- Government Habib College of Technology, Nawabshah
- Government College of Technology Khairpur Mirs
- Government College of Technology, Larkano

In 2017, Government College of Technology Khairpur Mir's was upgraded as the independent Technology University.

The curriculum followed by the colleges is par the recommendations and guidelines of HEC and approval of the Academic Council of the university. The admission process, conduct of classes and the conduct of the examinations are implemented by the affiliated colleges in light of the decisions of the Academic Council detailed in the respective college's prospectus and supervised by the University authorities on regular basis. The colleges offered B.Tech (04 years) program in Civil, Electrical and Mechanical technologies up to 2017-2018 session. However, in pursuance of directives of HEC Pakistan, the colleges were directed to start Bachelor of Science in (Engineering Technology) instead of B.Tech. The colleges are working on the task to get accreditation with the National technology Council (NTC) Pakistan for the BS programs. The colleges shall offer admissions in Bs programs after getting the necessary approvals from HEC, NTC and QUEST.

Affiliation Process

1. An educational institution applying for affiliation to the University shall make an application to the University and shall satisfy it.
    a. that the educational institution is under the management of the Government of regularly constituted governing body;

b. that the financial resources of the educational institution are sufficient to enable it to make due provision for its continued maintenance and efficient working;
c. that the strength and qualification of the teaching and other staff, and the terms and conditions of their service, are adequate to make the provision for the courses of instruction, teaching or training to be undertaken by the educational institution;
d. that the educational institution has framed proper rules regarding the efficiency and discipline of its staff and other employees;
e. that the building in which the educational institution is to be located is suitable, and that provision will be made in conformity with the statutes and the Regulations for the residence of students, not residing with their parents or guardians, in the hostels established and maintained by the educational institution or in hostels or lodgings approved by it, and the supervision and physical and general welfare of students;
f. that provision has been made for library and adequate library services;
g. that where affiliation is sought in any branch of experimental sciences, due arrangements have been made for imparting instruction in that branch of science in a properly equipped laboratory, museum, and other places of practical work
h. that due provision based on certain circumstances may be permitted, or be made for the residence of Principal and members of the teaching staff in or near off the college or the place provided for the residence of students; and
i. that the affiliation of the educational institution regarding the provision has been made for students by another educational institution in its neighborhood, will be harmful to the interests of education or discipline.

2. The application shall further contain an undertaking that after the educational institution is affiliated any transference of, and changes in the management and in the teaching staff shall be forth with reported to the University, and that the teaching staff shall possess such qualifications as are or may be prescribed.
3. The procedure is to be followed in disposing of an application for the affiliation of an educational institution shall be or may be as prescribed.
4. The Syndicate may, on the recommendation of the Affiliation Committee, grant or refuse affiliation to an educational institution provided that affiliation shall not be refused, unless the educational institution has been given an opportunity of making a representation against the proposed decision.

Addition of courses by affiliated educational institution:

Where an educational institution desires to add to the courses of instruction in respect of which it is affiliated, the procedure prescribed under sub-section (3) of section 32 shall, so far as may be, followed. Reports from affiliated educational institution:

1. Every educational institution affiliated to the university shall furnish such reports, returns and other information as the University may require enabling it to judge the efficiency of the educational institution.
2. The University may call upon any educational institution affiliated to it to take, within a specified period, such action as may appear to the University to be necessary in respect of any of the matters referred to in sub-section (1) of section 32.

Withdrawal of affiliation

1. If an educational institution affiliated to the university fails at any time to fulfill any of the requirements mentioned in this Act, or if an institution has failed to observe any of the conditions of its affiliation, or its affairs are conducted in a manner which is prejudicial to the interests of education, the Syndicate may, on the recommendation of the Affiliation Committee, and after considering such representation as the educational institution may wish to make, withdraw, either in* whole or in part, the rights conferred on the educational institution by affiliation or modify such rights.
2. The Procedure to be followed for the withdrawal of affiliation shall be such as may be prescribed.

Appeal against refusal or withdrawal of affiliation

An appeal shall lie to the Senate against the decision of the Syndicate refusing to affiliate an institution or withdrawing in whole or in part the rights conferred on an institution by affiliation or modifying such rights. Taking over of institution or college:

1. The Chancellor may, on request of any affiliated institution or college direct that the control and management of such educational, institution or college may be taken over by the university
2. The Chancellor may, for the efficient management and control of such educational institution or college establish a Board of Governors.
3. The Board of Governors shall consist of:
    a. The Pro-Chancellor (Chairman)
    b. The Vice-Chancellor (Vice-Chairman)
    c. Such other members as may be appointed by the Chancellor.
4. Subject to special or general direction of the Chancellor the Board of Governors shall exercise general supervision and control over the affairs of such institution or college and without prejudice to the generality of these powers it shall.
    a. Formulate the policy for running the institution or college in the light of guidelines issued by the university from time to time;
    b. Control and administer the property of the institution or college;
    c. Manage and regulate the funds, finances, assets and investments of the institution or college:
    d. Maintain the accounts of the institution or college in the prescribed form and get such accounts audited in the prescribed manner;
    e. Appoint teachers and other employees of the institution or college and have the power to take disciplinary action against them.

BS Engineering Program at QUEST

The QUEST, under the Faculty of Technology allowed affiliated colleges to start BS (Engineering Technology) in Civil, Electrical and Mechanical vide Academic Council Resolution No. ACAD-34.7 dated 10.03.2021.

The QUEST main campus Nawabshah also started BS (Engineering Technology) program in the field of Agro-Food Processing Engineering Technology under the Faculty of Technology

vide Academic Council Resolution No. ACAD-35.3 dated 28.07.2021 for Batch 2021 and ONWARDS.

Fees Structure

Furthermore resolved as per BS (Engineering Technology) program as per Resolution No.ACAD-35.2 dated 28.07.2021.

Sr. #	Description	Amount of Fee (in Rupees)
1	Processing Fee for fresh application of affiliation	Rs. 50,000/-
2	Inspection Fee	Rs. 25,000/-
3	Affiliation Fee for (BS Program)	Rs. 300,000/-
4	Yearly affiliation fee per degree course	Rs. 150,000/-
	Total	**Rs. 525,000/-**

- Share of 25% from the self-finance income will also be charged every year.
- Entry test will be conducted by the University itself.
- Examination rules and regulation will be implemented as per the prescribed policy of the University along with amendments from time to time under the supervision of vigilance committee.
- HEC update version of BS (Engineering Technology) be implemented for all the Technologies.
- Vigilance Committee will be regularly monitor the conduct of classes and the examination to ensure all the facilities provided as per University affiliation policy.
- Examination (Regular and Supplementary) will be conducted according to established policy of the University.

Administration

SN	Name	Designation / Qualification
1.	Prof. Dr. Abdul Sattar Jamali	Dean, Faculty of Technology
2.	Mr. Hammadullah Abro	Principal, Govt. Habib College of Technology Nawabshah
3.	Dr. Muhammad Saleh Shah	Principal, Govt. College of Technology Larkano

DEPARTMENT OF AGRO-FOOD PROCESSING ENGINEERING TECHNOLOGY

About Chairman

Dr. Babar Ali Qureshi received his Ph.D. degree from Tsinghua University, China, in 2020. Currently, he is working as In-Chairman in the department of Agro-Food Processing Engineering Technology at QUEST, Nawabshah, Sindh, Pakistan. He has more than 8 years of teaching/research and 2-year professional experience. He has published 12 research papers in several international journals. His main research areas include Synthesis of Nanomaterial, Zeolite catalyst, Reaction Engineering, Biomass conversion, Heterogeneous catalysis, Material Characterization, Acid-Base Catalyst, Porous material, Syngas to aromatics, carbon dioxide to aromatics, Glycerol to acrolein.

Dr. Babar Ali Qureshi, Chairman

Introduction

Agro-Food Processing Engineering Technology is a multidisciplinary approach that is considered a specialized field and deals with various aspects of food. The basic structure of Agro-Food Processing Engineering Technology comprises Food Processing, Food Analysis, Research & Development, Food Laws & Regulations, Food Safety & Quality, Product Development, and other novel emerging trends of the 21st century. Agro-Food Processing Engineering Technology provides economical solutions to the technical problems of food processing industries; significantly contributes to the development of new food products and their manufacturing processes, fulfilling the social and commercial needs of industry. Agro-Food Processing Engineering Technology deals with the challenges of the rapidly growing food industry and develops cutting-edge techniques to meet the national and global challenges in food security, safety, and human nutrition. It also deals with the production processing, preservation & packaging of food, food selection, and maintain the hygienic level of all types of foods like meat, fruits, vegetables, cereals, fish, egg, milk, etc.

There is a significant increase in the establishment of the food industry in recent years and consequently, the demand for Agro-Food Processing Engineering Technology graduates has increased tremendously at the national and international levels. It is a need-based professionally-oriented field to assist the community towards improved living. It is the key subject in shaping the future course of lives by preparing useful citizens with relevant

knowledge and competencies to transform them into efficient custodians of the nation's future.

Vision

To provide high-quality professionals for the food processing and allied industries. The graduates are aimed to excel in imparting education and training to contribute local and national development of the country.

Mission

To provide quality education in Agro-Food Processing Engineering Technology, and to produce competent graduates, capable of applying knowledge and skills for solving problems of society and in the food industry.

Teaching Staff

SN	Name	Designation / Qualification
1	Dr. Babar Ali Qureshi	Associate Professor & Chairman B. E (MUET), M.E (MUET), Ph.D (China)

Course Scheme

SN	Name of Subject	CH		Marks	SN	Name of Subject	CH		Marks
		Th	Pr				Th	Pr	
First Year									
1st Semester					**2nd Semester**				
1	Applied Calculus	3	0	100+00	1	Linear Algebra & Analytical Geometry	3	0	100+00
2	Workshop practice	0	3	00+100	2	Introduction to Computing	3	1	100+50
3	Islamic Studies / Ethics	2	0	50+00	3	Pakistan Studies	2	0	50+00
4	Introduction to Food & Processing Technology	3	0	100+00	4	Basic Agriculture & Horticulture	3	0	100+00
5	Applied Physics	3	0	100+00	5	Food Chemistry	2	0	50+50
6	Functional English	3	0	100+00	6	Applied Thermodynamics	2	1	100+50
	Total	14	03	450+100			15	02	500+150

SECTION-6

FACILITIES AVAILABLE AT THE UNIVERSITY

1. Various Directors / Sections of the University
2. Facilities Available to Students

VARIOUS DIRECTORS / SECTIONS OF THE UNIVERSITY

Directorate of Quality Enhancement Cell (QEC)

The QEC at QUEST, Nawabshah has been functioning smoothly and effectively since, March,2006. QEC takes full responsibility of Self-Assessment process of all the academic programs, particularly at undergraduate level, where full monitoring of the programs is being accomplished through students' evaluation and other related activities. Based on the student evaluation & feedback the better improvement in the faculty members is being observed, which resulted in enhancement of the quality of teaching and education as well.

According to the requirement of Quality Assurance Agency of the Higher Education Commission, Islamabad, QEC has been allowed non-voting membership in Senate, Academic Council, Board of Faculty, Advanced Studies Research Board and Affiliated Committees to implement the HEC/PEC guidelines of various bodies. Dean QEC being a member of Plagiarism Standing Committee ensures free, fair and transparent proceeding of the cases of plagiarism. QEC is regular member of Pakistan Network of Quality Assurance in Higher Education (PNQAHE) and Director QEC is also member of PNQAHE Executive Committee. The Directorate of Quality Enhancement Cell also ensures the implementation of HEC minimum requirement for faculty appointment, and admission in M.S/M.E/ M.Phil. & Ph.D. programs.

The Self-Assessment process at undergraduate level has been accomplished. The scope is extended to M.S/M.E/M.Phil. & Ph.D. programs. However, a sufficient number of Self-Assessment Reports has been prepared and assessed by the concerned program teams. At present, QEC is monitoring the standard of education not only a QUEST but also at Constituent Engineering College, Larkana and Affiliated colleges i.e., GCT Khairpur, Government Habib College of Technology, Nawabshah and GCT Larkana. A Series of awareness workshops/seminars has been conducted for students, faculty and staff of colleges and the main campus (QUEST) for newly admitted students as a regular feature of QEC.

MS/M.Phil/Ph.D review conducted by HEC team and QEC has also conducted Self Institutional Performance Evaluation (SIPE) report and submitted to Higher Education Commission for the year 2020-21 for the ranking purpose.

Prof. Dr. Liaquat Ali Memon
Dean, QEC
Tel No / 0244-96370542 / 0244-9370381 Ext: 2225
Email: directorqec@quest.edu.pk

Office of the Research, Innovation and Commercialization (ORIC)

HEC aims at always motivating and facilitating the Higher Education Institutions (HEIs) to make research a top priority for a sustainable economic growth and future knowledge economy. For this purpose, a centre is being established in universities including QUEST Nawabshah to encompass all research activities under a single umbrella known as Office of Research, Innovation and Commercialization (ORIC).

The ORIC shall provide strategic and operational support to research activities/programs of a university, and it will have a central role in facilitating the outcome of the university's research. This research will focus mainly on turning invention (pure knowledge) into innovation (products and production processes) that can ultimately impact the welfare of community.

For, further information, please contact:

Prof. Dr. Pardeep Kumar
Director ORIC
Ph: 0244-9370381-5(Ext: 2640, 3244)
Email: director_oric@quest.edu.pk

Directorate of Sports

The Directorate of Sports provides an ample number of facilities to the students for participation in games and sports, both indoor & outdoor. Facilities are provided for all the major sports including Cricket, Football, Tennis, Badminton, Basketball, Tug of War, Hand ball, Volleyball, and Athletics. A series of in-house tournaments are held to provide participation to the maximum number of students.

Outstanding/selected sportsmen are encouraged to take part in the HEC inter-varsity Championships. The university has multipurpose hall, sports complex and girl's gymnasium with facilities of Football, Cricket, Basketball, Badminton and Table Tennis. A fitness club @ Sports Complex with Body Building facilities are also available for the students.

All facilities for athletes/sportsmen are also available in the Directorate of Sports. Many other facilities are being developed for the betterment of sportsmen. Recently, a Cricket grassy ground is being developed, where turf wicket has also been prepared for students/players may take advantage to play on HEC required level, so that they may participate in the HEC sports events as per its requirement.

The in-house sports competitions particularly sports Festival, Inter-department Sports Championship, Inter house competitions are held timely at the campus in which best players/best Athletes from boys & girls students are awarded 1st, 2nd and 3rdprize and LAPTOP is awarded separately to the best Girls and Boys players separately only in the

sports festival week. whereas General trophy is also awarded to the Department who secure maximum points.

The students/players are awarded certificates, shields, trophies and the color of the university for their encouragement. Sportsmen are also encouraged to take admission in the different departments on sports basis every year according to their performance.

Mr. Waqar Mujtaba Qazi
Chairman, Sports Advisory Board (SAB)
Telephone # 0244-9370388/02449370381-4
Email: waqarqazi1971@hotmail.com

Directorate of Postgraduate Studies and Research

Directorate of Postgraduate Studies & Research of the university was established soon after the up gradation of the university. Later-on Advanced Studies & Research Board was also constituted to prepare the policies and programmes for postgraduate studies.

The Directorate initially offered M.Phil and PhD programme in various disciplines of Engineering viz Civil, Mechanical, Electrical, Computer Systems and Energy & Environment Engineering. In 2008, first batch of master's in engineering (evening programme) was registered in the discipline of Construction Engineering & Management (Civil Engineering), Power Engineering (Electrical Engineering) and Manufacturing Engineering (Mechanical Engineering).

University has already awarded 25 PhD degrees up to August 2021 in the fields of Civil Engineering (09), Energy & Environment Engineering (06), Electrical Engineering (01), Information Technology (06), Computer System Engineering (01) and Mathematics (02). In addition, more than 150 candidates are expected to receive master's degree in various disciplines in next Convocation.

In addition, more than 170 candidates are expected to receive Master's degree in various disciplines in the next convocation. At present, 121 PhD students are registered in 08 programs/fields offered at QUEST Nawabshah in various departments namely, Civil Engineering, Mechanical Engineering, Electrical Engineering, Energy & Environment Engineering, Electronic Engineering, Computer Systems Engineering, Information Technology and Mathematics. Every department have highly qualified and skilled faculty members who have received PhD degree from developed countries like UK, Australia, Germany, France, Netherlands, Spain, Sweden, Finland, China, Austria, and Malaysia. Currently more than 100 faculty members are supervising and guiding the postgraduate students of the university.

Currently, the Directorate of Postgraduate Studies offers 16 ME/MS & 08 PhD programs in following fields at main campus (QUEST Nawabshah).

Master of Engineering Programs

1. Construction Engineering & Management
2. Civil Engineering
3. Structural Engineering
4. Power Engineering
5. Computer Systems Engineering
6. Computer Communication & Networks
7. Manufacturing Engineering
8. Industrial Engineering & Management
9. Environmental Engineering
10. Energy Systems Engineering
11. Communication Engineering
12. Industrial Automation& Control

Master of Science Programs

1. Information Technology
2. Software Engineering
3. Computer Science
4. Mathematics

PhD Programs

1. Civil Engineering
2. Mechanical Engineering
3. Electrical Engineering
4. Energy & Environment Engineering
5. Electronic Engineering
6. Computer Systems Engineering
7. Information Technology
8. Mathematic

Further information regarding the Postgraduate programs offered in the university can be found in the Postgraduate Programs Prospectus.

Dr. Abdul Qayoom Jakhrani
Director, Postgraduate Studies & Research
Telephone No. 0244-9370377, 9370381-5, Ext: 2683, 2546, 3123 & 2639

Directorate of Research & Publications

The Directorate of Research and Publications, Quaid-e-Awam University of Engineering, Science, and Technology, Nawabshah publishes research carried out in various domains of Engineering, Science and Technology. The Directorate publishes a bi-Annual research journal named as Quaid-e-Awam University Research Journal of Engineering, Science and Technology abbreviated as QUEST RJ. The Journal publishes high quality research papers in various domains for sharing up-to-date knowledge among National and International research community. The journal is recognized in HEC's Y-category. The Directorate also takes the responsibility of publishing books, monographs, and other relevant research material of faculty members.

For further information kindly contact the Editor QUEST RJ through email editor_rj@quest.edu.pk.

Dr. Umair Ali Khan
Director, Research& Publications
Telephone No. 0244-9370435, 9370381-5, Ext: 2130
Web: http://publications.quest.edu.pk

Directorate of Planning & Development

The Planning & Development plays a vital role for development of any organization. The basic objective of P&D is to develop/strengthen the university through preparation of development projects, proposals on PC-I form (devised by Planning Commission, Government of Pakistan) in collaboration with the Sectional Heads, Departments, and Directorates. Basically, the Directorate coordinates with different departments of the university as well as Higher Education Commission and other provincial organizations for the up-gradation, consolidation, and improvement of the university.

To develop the faculty members of university, the Directorate of P&D processes the case of scholarship, travel grants, conferences, seminars, workshop (local/ foreign) etc. The other major task of the Directorate is to monitor the progress of the development projects of the university irrespective of their source of funding and to assess the impact of completed development projects.

For more information please contact:

Mr. Ashique Ali Joyo
Director (P&D)
Telephone No. 0244-9370376
02244937081-14 Ext: 2202. 2205

Directorate of Industrial Liaison

Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah being located in the deep interior of Sindh, with several industrial concerns of great importance like cotton, sugar and small industries in the surroundings, QUEST, offers radically new programmes at both undergraduate as well postgraduate science and engineering levels to reflect the needs of 21st century. In addition, it imparts engineering science and technical education and produce young skilled engineers in various disciplines, who play pivotal role in the development of the country. To enhance the academia-industry relationship and skillness among the fresh graduates, the directorate of industrial is striving hard to arrange as well as manage industrial trainings (Internship) for young graduates to gain practical knowledge as well field experience. As the fresh graduates face many difficulties while acquiring jobs particularly in private sector due to lack of practical experience.

This directorate also manages study trips of various locations and Industries to develop knowledge of graduates for proper planning, construction and management of various projects. DIL has recently increased number of internships and trainings with the help of industries of Pakistan & abroad.

Further information about the activities of this Directorate can be obtained from the office of Director Industrial Liaison, QUEST, Nawabshah.

Prof. Dr. Intesab Hussain Sadhayo
Director, Industrial Liaison, QUEST, Nawabshah.
Telephone No. 0244-9370361.

Directorate of Students Affairs

The Directorate of Students Affairs plays a significant role to facilitate the students and is working enthusiastically for the welfare of local and the foreign students. The Directorate organizes extra-curricular activities to cherish the inventive, as well as, intellectual potential of the students. The capabilities that usually remain untouched in a conventional classroom ambiance; it facilitates organization and societies who conduct multifaceted activities to attract the interest of students. This Directorate works by organizing said awareness activities to promote discipline of behavior among students so that they become responsible members of society.

Mr. Muhammad Hassan Bhatti
Assistant Director Students Affairs,
Telephone No.0244-9370381-4 (Ext-2106)

Directorate of Continuing Education

The Directorate of Continuing Education (DCE) is established in the University to facilitate the skill development and to update the knowledge of in the different fields of Engineering Science and Technology for prospective Engineers, scientists, Teachers and administrative staff through spreading the knowledge through different professional development program by conducting seminars, workshops and lectures, debates and talks.

The DCE is established in view of long demand for continuous professional development to meet the standard skilled manpower. The DCE is continuously revising and devising the skill related trainings programs in collaboration with other departments of the university.

Following activities are the core objectives of the DCE:

- To arrange short courses to keep professional updated with the latest developments in various professional fields

- To organize continuing professional developments (CPD) lectures/workshop /seminars / short courses by inviting speakers from within the university and experts from other universities / industries for the Engineers of the country.
- To encourage and facilitate the national and international professional organizations to arrange the talks, exhibitions, and the jobs fairs in the fields of engineering, science and technology. To create collaborative research activities among QUEST and different research, academic and industrial institutes at National and international level.

Dr. Imtiaz Ali Halepoto
Director, Continuing Education
Email: halepoto@quest.edu.pk

Directorate of Finance

The Directorate of Finance deal with all financial correspondence with supporting of the Competent Authority in developing and delivering the organization's financial strategy. This Directorate manage the financial property (movable, immovable), and investments of the University, Continuous review of financial position, control and management information systems and procedures, implementing improvements across the organization's in consultation with the other Sectional Head of Departments.

The Directorate is updating, reviewing, and documenting the organization's financial policies and procedures, ensuring accuracy of financial and related information. Producing the periodical reports as required for the Statutory Bodies of the university such as Finance Planning Commission, Syndicate and Senate.

The further information, please contact:

Engr. Rameez Ahmed Talani
Director Finance
Tel: +92-244-9370371
Email: df@quest.edu.pk

FACILITIES AVAILABLE TO STUDENTS

Central Library

The Central library started the functioning in new state of the art building near multipurpose hall since December 2018. The new building provides cool and congenial atmosphere to the students for reading. there are 69655 books and 16415 titles are in current stock. These books are related to Engineering, Science and Technology, which is being housed in various sections of Central Library. A good number of Engineering and Technology research Journals are on current subscription. Local periodicals and journals are also acquired for enhancing the knowledge of students in current affair and everyday science and technology. All the technical functions of Central Library (cataloguing, classification, circulation, accessioning, etc.) are automated and the link of OPAC (online public access catalogue) is placed on the webpage of QUEST. The OPAC can be accessed through the link http://opac.quest.edu.pk.

Book-Bank Scheme Section

There are 9810 Textbooks are available in Book Bank Scheme Section for the Students. These Books are issued to Students on nominal charges. 5% Rental fees of total price of a book has been charged. Every Student can get issue the 05 Books from this Section for entire semester.

Students/Circulation Section

The Circulation Section is fully equipped with the latest books on all the existing disciplines of Engineering and allied science. Every student can get issued 05 books for period of one month from this Section. The enrolled students need to apply online on given link of google forms and Rs.100 shall be deposit through challan in Bank to get register themselves for the library membership. The Central Library will issue the Barcode and QR Code enabled identity card to the registered students. The card is valid for all the sections and services of University Library.

Thesis Section

There are more than 5960 theses are available in this section. The student can get these thesis and study in the Reference Section only. The entire record of thesis (Title, Author, Subject) are also uploaded on OPAC, the students can also search their required thesis through QUEST Library OPAC.

Reference Section

The Reference section of Central library is very rich. A copy of each new arrival book is placed in Reference section for the Reference purpose. The big Reference halls provide the

congenial atmosphere to users with fully air-conditioning facility. The Reference books like ASTMS standards, encyclopedia of science and Technology, encyclopedia of Britannica, yearbooks, subject encyclopedias, and dictionaries are available to assist the Students in their studies and research. An Electronic magnetic security system is installed for the collection of Reference section.

HEC National Digital Library Program

The QUEST has the full text access of major resources through HEC's National digital library program. There are more than 23000 research journals and 1,44,000.00 eBooks are full text accessible in QUEST premises. The prominent resources are IEEE, ASTM, Ebray, AAPT, ASCE, AMS, Springer link , Wiley inter science, etc. These resources are full text accessible on QUEST IP (within QUEST Premises) however the VPN account has been issued to all researchers to access these resources from their homes.

eBook Repository

The Central Library established an eBook repository where 18,300 eBooks are placed in pdf format. The collection in this repository comprises on all existing disciplines of QUEST. These eBooks can be downloaded from the local network of QUEST i.e. http: ebooks.quest.edu.pk:8080

QR Code Technology

The Central Library initiated the QR Code technology for library services. Entire Reference Collection is QR Coded. Students Library Membership Cards are also QR Coded. With the help of QR Code technology the students can reach to full text online availability of their required book. QR Code Technology can be used through smart phone with QR Code Scanner app. (available free on google play store).

IT Facilities

The printing and scanning facility are also available for the users. Besides this, entire library building is covered with WIFI internet connection. The Students can easily use the internet on their laptops /smart phones anywhere in the library building.

Events

The Central library regularly organizes the training workshops/sessions for the Students on effective use of library OPAC/eBook repository/HEC digital library resources. The Central Library also organizing a book fair every year and invite the leading publishers /book/sellers from entire country to display their valuable collections. The Central library regularly purchases the latest books on the existing subjects through University Library Committee.

Mr. G. Farooque Channar
Librarian
Contact: 0244-9370387
Email: lib@quest.edu.pk

English Language Centre

The English Language Centre of the University is located at the 1st floor of Central Library Building. The major objective of establishing English Language Centre was to enhance the English Language Proficiency of students and the academic nonacademic staff of the university. The

Center offers English, Communication Skills, Research Methodology, and Academic Writing Skills courses currently. The Centre is well equipped with men and material in terms of PhD qualified faculty and state of the art audio and video Laboratories. The following academic staff is currently associated with the English Language Centre.

The Audio Laboratory helps the students in improving their listening skills. It has the seating capacity of 32 students. It provides a very congenial learning environment for effective listening and improving effective interpersonal skills on the other hand, the Video Laboratory has the seating capacity of 54 students. It helps the students in improving their speaking as well as presentation skills. Furthermore, the English Language Centre has its own “Seminar Library” with good stock of latest books on English Communication Skills, GRE and ILETS along with CDs for practical demonstration. It is noteworthy to mention here that besides curricular activities English Language Centre Provides a platform to the students for co-curricular activities such as debates and declamation contests. In this connection many declamation contests have been arranged in collaboration with Higher Education Commission of Pakistan.

The major events arranged for the year 2017-2018, are “18th Allama Iqbal Bilingual Declamation Contest” and “One Week Training on English Proficiency in Oral and Written Communication for Employees and Officers from Grade 07 to 17 at QUEST from 14th to 18thMay 2018”.

Dr. Insaf Ali Siming
Incharge, English Language Centre

STUDENTS ACCOMMODATION

QUEST, Nawabshah is a prestigious institution that witnesses academic excellence in the vicinity of the city Nawabshah. Students all around the world are seeking their education in various departments pertaining to the field of Engineering, Science and Technology. In this connection, hostel management has been contributing significantly in terms of providing

quality accommodation coupled with outstanding facilities to the learners and the teachers in all respects since its inception. To begin with, the university has 13 hostels in all for the students; 10 are reserved for boys, whereas three are reserved for girls. Concerning the boys' hostels, one hostel has especially been reserved for those students who are coming around the world to seek their higher education. This hostel is under construction which will be brought to use for foreigners in this academic year. As regards girls' hostels, one hostel is under construction. A detailed account of the facilities provided at the hostels is given as follows.

Common Halls

Common Halls comprise various facilities to keep the students abreast of national as well as international affairs. Besides, these common halls contain some sections of entertainment for the students. For this purpose, the availability of TV, Cable, newspapers and reading halls is ensured so as to enhance the students' intellectual, technical and socio-political levels.

Canteen Facility

Every hostel possesses satisfactory dining facilities. It is very pertinent to mention that Hostel Management has formed various committees to ensure the provision of quality food at reasonable charges. The monitoring committee is one of them which comprise hostel Wardens and the medical doctor. In this connection, the monitoring committee ensures the implementation of all guidelines at the canteens provided by Sindh Food Authority (SFA). In case any hostel fails to comply with the prescribed rules and regulations, the monitoring committee takes stern action against the canteen owners which leads to the closure of the respective canteens. For students' health stability, every hostel provides home-made-like food.

Hostel Market Area

Facilitating the students is the top priority of hostel management. For this purpose, the hostel market has been established which contains groceries, commodities, snacks et cetera. Furthermore, a special tea canteen has also been established therein which provides quality Tea and Paratha 24/7. Owing to this facility, the students need not pay visits to the city; thus, they save their time and stay focused on their objectives.

Drinking-Water Facility

Water coolers are installed in all residential hostels. Water filters are replaced as per guidelines of drinking water standards. Hostels facilitate the students with pure drinking water. Owing to annual blockage of water, there arises drinking water crisis students are

frequently faced with; but this time, by dint of the hostel administration's dedication, commitment, efficiency and advanced planning, new RO systems have been installed so as to overcome drinking water crisis.

Security System at Hostels

Keeping in view the safety and protection of the students, the university administration provides all the time regular and high alert Security System in all Boys' as well as Girls' hostels. Before the entry of the students, their particulars are strictly checked at the main entrance. In this connection, the relevant data is also recorded in the visitor's book to maintain the peaceful atmosphere at hostels. Provision of CCTV is under process also installation of Biometric Entry System is under progress.

Emergency Services

In case of any vulnerable physical health of students, there are highly trained medical officers available for both girls and boys (one for each). The dispensary has also been set up to ensure the proper treatment of the students at the time of emergency. Each dispensary contains a senior doctor, dispenser & dresser. University's ambulance is available 24/7. In addition, Edhi Welfare Ambulance Services is also in our direct contact for 24 hours to cope with an emergency situation.

Transport Facility

For students' convenience, university points are available to provide them pick and drop facilities from hostel to campus, city to campus and vice versa.

Physical Fitness

In order to keep the students fit, healthy and smart, QUEST has a gymnasium for boys and girls hostels (one for each) so that students may take exercise for their fitness and maintenance. In this regard, there is modern exercise equipment for both students and teachers. In the evening, students join the gymnasium in the majority to keep themselves active and energetic.

Co-curricular activities

In order to keep the students physically fit, the QUEST has established Sports Complex with indoor and outdoor sports facilities. Several games are played in the shape of mega-events and tournaments such as cricket, football, racket ball, table tennis, volley ball et cetera. In this regard, there are special grounds for cricket and hockey where these games take place. These huge grounds produce very good players who bring a good name and fame to the institution. Currently, the Sports section is actively polishing students' talent by ensuring

their participation in various competitions at the national level. In this way, the students play indoor as well as outdoor games and bring many awards to their names.

QUEST Hostel Management System

Recently a milestone has been achieved by setting up QUEST Hostel Management System (http://www.questhms.com) by the efforts of the Hostel Administration. It is an online software application in which the entire record regarding hostels is available. Besides, transparency of students' residential and payment records have also been ensured. The application can help the students know about their allotted residential rooms and their current liability status. For wardens, it is sufficiently beneficial in terms of keeping the record of students' residence, shifting them to the residence of their choice through proper channel and imposing the penalty against them in case of any violation.

Teachers' Hostel

There is a newly-constructed hostel for teachers' residence near the main road. The hostel provides accommodation to the bachelor teachers and officers of the university. The hostel contains a quality mess. The teachers' rooms are facilitated with ACs in the hot summer weather.

Visiting Faculty Hostel

This is a special hostel available for the accommodation of visiting faculty. The hostel contains modern facilities for dignitaries, visitors, scientists, scholars and other pertinent scholars of national and international levels.

Hostel Discipline

Conduct and Discipline Rules of the hostel are strictly abided by the students which are revised from time to time. In case of any violation of the set code of conduct, Hostel Regulation takes disciplinary action against those who are involved in any misconduct. In order to maintain conduct and discipline, penalties are imposed on the students. Wardens, Hostel Discipline Committee & Hostel Provost are responsible for maintaining the discipline of hostel with coordination of security department.

Eligibility for Hostel Accommodation

A special desk use to be setup for hostel allotment during interviews, where students are provided Hostel Application Form on payment of hostel fees. For the students' convenience, Hostel allotment forms are also made available in the office of the Provost (Hostels). As per requirement, those students are considered eligible for hostel accommodation who submit

applications on the prescribed forms. Keeping in view the availability of seats, the allotment of eligible students is taken into consideration as per hostel rules and regulations.

Engr. Muhammad Aamir Bhutto
Provost (Hostels), QUEST
9370381-5 (5-lines) Ext.3250
provost@quest.edu.pk

IT SERVICES

IT Services section was established to provide voice, data, web, videoconference, hardware & software support, network related services and to facilitate inter departmental communication. It also connects QUEST Intranet to the outside world through a bandwidth of 235 Mbps on fiber link.

The state-of-the-art Tier2 ICT Data Centre equipped with 40-Giga Core Network and 10 Giga Uplink Access Switches, Blade Servers and SAN Storage System for high-end processing and data storage and same has been established with Giga backbone (optical fiber) to provide high availability (24x7) and uninterrupted Internet connectivity (wired and wireless).

Voice and Data Services

This section facilitates each section (academic and administrative sections) with voice and data services, with 400 voice and with 1000 data points of 1 giga port connectivity in campus, the voice and data services are accessible at all the locations of Campus. The Cisco IP Telephony (Call Manager) 300 node points along with Alcatel Exchange 300 Analog lines has also been deployed to provide voice connectivity.

Web Services

The QUEST website provides the information about the academic and administrative departments, announcements about undergraduate and postgraduate admissions, examination results, pre-admission test results, vacancy announcements and other essential information to the students and for public in general. The support for various department and section is being provided for creating their sub-domains and updating their information.

Hardware and Software Support Services

The technical staff is engaged to provide hardware and software support for all academic and administrative departments including hostels (students, teachers', visiting faculty hostel, and staff colony). The Application Servers for various departments/sections through

Hardware Virtualization (VM) are being provided so that the users could access uninterrupted services 24x7.

Wireless Internet Services

The QUEST Smart University (Wi-Fi Services) with 215 Access Points provides seamless and uninterrupted wireless (Wi-Fi) Internet services across the campus (32 buildings) to faculty, officers, and students of QUEST. The users can use QUEST Smart Wi-Fi services using their authenticated login credentials. The Wireless Internet connectivity with 50 Access Points has also been deployed under Sindh Government Project through NTC, and in testing phase.

Videoconference Facility

The Video-conferencing facility at QUEST is connected through HEC Giga Intranet Network which provides a platform to the students, faculty members and officers to conduct as well participate in online trainings and courses organized by HEC and other Universities.

Security Surveillance Services

The QUEST Campus is being monitored through the surveillance system 24x7, the cameras are installed at the main locations/buildings of the University.

Engr. Atta Muhammad Chandio
Director IT Services
Ph: 0244-9370364, Email: director.its@quest.edu.pk

MEDICAL FACILITIES

A dispensary has been established at the hostel premises for the resident students; sufficient quantity of essential medicines is available in the dispensary for minor ailments. A qualified senior doctor has been appointed for the dispensary at Boys Residence Hostel and a qualified senior female doctor also has been appointed for Girls Residence Hostel. However, serious cases are referred to proper hospitals. An ambulance is also available for the students at the time of an emergency. However, if a serious illness inflicts a student, it is the responsibility of the parent/guardian to arrange and pay for the treatment at present.

Dr. Akbar Ali Khaskheli
Medical Officer

TRANSPORT FACILITIES

The university provides transport facility to the students as well as staff through its own buses to commute from different localities of the city and the hostels in campus in notified timings and vice versa. In addition to this, the buses also ply from the hostels to the city center in evening time. Separate transport facilities are provided to the boy and girl

students. The university has also an ambulance service for emergency transportation of pupils to hospitals/clinics.

The university has fixed-route system for buses, so it does not entertain any request for change in bus route to suit on individual's convenience. A transport is being looked after by a senior teacher as a chairman transport. At present, the chairman transport is:

Dr. Rajab Ali Malookani
Chairman Transport
Tel.# 02449370381-4 Ext:2201 or 2133

SPORTS FACILITIES

Quaid-e-Awam University provides excellent sports facilities to its students because it is believed that a healthy mind requires a healthy body. There is a common room annexed in each hostel which facilitate for indoor games like Table tennis, Carom and Chess. Additionally, there is an ample space between two joint hostels where students can play tape tennis cricket, volleyball and outdoor badminton.

A sports complex is also located near the boys hostel where facilities for all the sports like Athletics, Gymnastics, Football, Volley ball, Basketball, Badminton, Cricket, Table tennis, Fitness and Body building are available.

A gymnasium exclusively for girls has newly been established which is located near the girls hostel where facilities for all the sports like Badminton, Table tennis, Basketball, Hand ball, Volley ball, Throw ball, Cricket and Fitness are available. The students as well as teachers take advantage to play games where trained coach gives training on daily basis.

In addition to all of this, the University has newly established a multipurpose hall where all the sporting facilities are available for serious sportsmen who desire to represent the university in Regional, National, International as well as HEC Sports events. Directorate of Sports also organizes All Pakistan HEC sports events every year in collaboration with HEC Islamabad.

Besides National, International events, there is conferences, seminars, exhibitions, convocation, musical events and pre-entry test is also conducted in the Multipurpose hall, every year, where thousands of students can appear for pre –entry test examination.

The University supplies the equipment and consumable to the extent that budget funds are available. The officers, faculty members and lower staff also play games in the evening time. The qualified coaches give training and Directorate of Sports issue sports material on daily basis to the keen sportsmen for playing games and return the same after play.

Mr. Waqar Mujtaba Qazi
Chairman, Sports Advisory Board (SAB)
Telephone # 0244-9370388/02449370381-4
Email: waqarqazi1971@hotmail.com

STUDENTS ATTENDANCE MONITORING CELL (SAMC)

SAMC QUEST collects the attendance record of all undergraduate and graduate students of the university on a daily basis. It then prepares the eligibility report of each student at the end of each academic session and directs whether he/she may appear in the exam, as per the university policy. SAMC is working on a fully state-of-the-art online attendance system and offers a very transparent and robust method to submit and monitor the students' attendance record to faculty members and administration respectively. This online system is easily accessible through the Internet from anywhere anytime. All the students of the university shall soon be able to view their attendance record through this system.

Prof. Dr. Adnan Manzoor Rajper
Coordinator SAMC
Tel. No. 9370381 – 5 (Ext. 2631), Email: samc@quest.edu.pk

STUDENTS FINANCIAL AID OFFICE (SFAO)

This office has carried out all the activities of Students relating to Financial Assistance / Scholarship matters as well as dealing with the Philanthropist and Donor Agencies. Furthermore, this office has also awarded the Prime Minister's Laptops amongst the Ph.D, M.Phil, MS, ME, Bachelor & B.Tech. Students of QUEST as per approved criteria set by the Higher Education Commission Islamabad, on the directions of Prime Minister Republic of Pakistan. The total number of 2548 Laptops awarded amongst the eligible students in Phase-i-ii-iii-IV & V from fiscal year 2015 to 2019. There are many other donor agencies from government side and private organizations, including University, which is providing financial help/assistance to the meritorious and needy students in the shape of loans and scholarships on the recommendations of university concerned students Financial Aid office. The details of donor agencies are as under.

1. University Merit Scholarship:

Merit scholarship is providing from university to the students who are securing the top positions in their respective departments. The total number of scholarships awarded to top (05) five students of every batch in each discipline, of every year.

2. Fata Balouchistan Merit Scholarship:

This financial assistance is providing by Higher Education Commission Islamabad for the students who are belonging to Fata-Baluchistan Provinces admitted on the provincial quota of reserved seats for encouraging the poor and needy students.

3. HEC Need Based Scholarship Programe:

This financial assistance is providing by Higher Education Commission Islamabad to the needy and deserving students for all batches to continue their studies of Bachelor programme.

4. Punjab Education Endowment Fund:

This financial assistance is providing by Provincial Government of Punjab for needy and meritorious students. This scholarship is awarded to the students belonging to all provinces on poverty cum merit basis.

5. Foreign students scholarship:

This financial assistance is providing by the Economic Affairs Division Islamabad for the students, who are admitted in foreign reserved seats for bachelor's degree program.

6. IEP–SAC Saudi Arabia Scholarship:

This financial assistance is providing by the institute Engineers Pakistan, Saudi Arabian Centre to the needy and deserving students on the Poverty Cum Merit basis for bachelor programme.

7. Late Imdad Muhammad Shah Merit scholarship

This Financial assistance is providing by Sayed Late Imdad Muhammad Shah family only for the fresh batch students bachelor degree program on the Poverty Cum Merit basis.

8. Sindh Education Endowment Fund:

This financial assistance is providing by Education & Literacy Department Government of Sindh on Poverty-cum-Merit basis to the students for bachelor degree programme.

9. Meezan Educational Trust:

This Financial assistance is providing by Meezan Educational Trust to the needy and deserving students for all batches to continue their studies in befitting manners.

10. Minority Scholarship:

This financial assistance is providing by the Ministry of Minority Affairs for the Non-Muslim students on the poverty cum merit basis. This financial assistance is only for bachelor degree program.

11. Need-Cum-Merit Scholarship (Usher & Zakat) District Merit:

This financial assistance is providing by Ministry of Usher and Zakat Govt: of Sindh to the deserving and needy students on Poverty Cum Merit basis for bachelor degree programme

12. National Bank Loan Scheme:

This loan is known as karz-e- hasna Loan. The National Bank provides students loan on certain conditions, which are to be met by the recipient.

13. Pay It Forward:

This financial assistance is based on purely merit-basis on the recommendation of private donor. The donor is always supporting to the meritorious students.

14. Poverty-Cum Merit Scholarship District Khairpur:

This financial assistance is providing by the District government of Khairpur for students who are belonging to Khairpur Mirs on poverty cum merit basis for bachelor degree program.

15. United Memon Jamait:

This financial assistance is based on poverty cum merit basis for the students who are belonging to Memon community. This Financial assistance is providing for bachelor degree program.

16. Pakistan Army Scholarship:

This financial assistance is providing by Pakistan Army institution to the sons and daughters of the army employees for all batches to continue their studies in befitting manners.

17. Late Sayed Mohbullah Shah Merit Scholarship:

This financial assistance is providing by late Sayed Mohbullah Shah family only for meritorious students for Bachelor degree programme.

18. Diya Pakistan Scholarship:

This financial assistance is provided by Diya Pakistan trust for needy and deserving students to continue their studies in befitting manners for the period of four year.

19. Late ATTA MUHAMMAD Soomro Merit Scholarship:

This financial assistance is providing by the late Atta Muhammad Soomro family to help and support the meritorious students to complete their bachelor degree programme.

20. Fouji Fertilizer Company Scholarship:

This financial assistance is providing by the Fouji Fertilizer Company Limited for the needy and deserving students and selected from operational districts concerned for bachelor degree program on Poverty Cum Merit basis.

21. PPL Welfare Trust:

This Financial assistance is providing for students, who are belonging to operational districts i.e Kashmore, Shahdadkot and Sanghar on the Poverty Cum Merit basis.

22. OGDCL Scholarship Programme:

this financial assistance is providing by OGDCL company through Higher Education Commission Islamabad on the Poverty-Cum Merit basis to the needy and deserving students belonging to operational districts for motivating and encouraging in the academic fields for bachelor degree programme and for further higher studied..

23. Schedule Caste Scholarship programme Distt: Tharparkar:

this financial assistance is providing by District Tharparkar to schedule caste students on the Poverty-Cum Merit basis to the needy and deserving students for bachelor degree programme.

24. Indian Occupied Kashmir Scholarship Programme:

this financial assistance is providing by Ministry of Inter provincial coordination Islamabad Govt: of Pakistan to the students, who are belonging to Indian Occupied Kashmir on the Poverty-Cum Merit basis to the needy and deserving students for motivating and encouraging in the academic performance for the period of (04) years bachelor degree programme.

25. Pakistan Bait-ul-mal Scholarship:

this financial assistance is providing of Sindh Bait-Ul-Mal for needy & deserving students of all batches for bachelor degree program.

26. Dr A. W. Bhatti merit scholarship programme.

This scholarship is providing by Alert Citizen Welfare Organization, workshop road Sukkur Sindh, with the support and help of Dr A.W Bhatti, well known Orthopedic Surgeon settled in USA and philanthropist always believe to supporting the needy and deserving students to complete their education in befitting manners and encourage them to aim further higher education at international universities. Further that with the support and help of Honorable Dr. A.W Bhatti donated the no 25 laptops with all accessories for establishment of TOEFL/GRE/IELTS Preparation & examination center at English department QUEST.

27. Ehsas Undergraduate Scholarship Programme.

This scholarship is providing by Higher Education Commission Islamabad for needy and deserving students are unable to pursue University education due to limited financial resources. This scholarship gives covers tuition fee and stipend throughout bachelor programme. This scholarship project aims to support female education, therefore 50% of scholarship are reserved for females.

Mr. Waqar Mujtaba Qazi
Director SFAO
Off: # 0244 – 9370388
E-mail: waqarqazi1971@hotmail.com

SECTION-7

QUEST CAMPUS
LARKANO

1. ***Department of Civil Engineering***
2. ***Department of Mechanical Engineering***
3. ***Department of Electrical Engineering***
4. ***Department of Electronic Engineering***
5. ***Department of Basic Sciences and Related Studies***

QUAID-E-AWAM UNIVERISTY CAMPUS LARKANO

Introduction

To provide Engineering and Technology Education facility at the doorsteps of the people of Sindh, a scheme entitled establishment of Engineering College, Larkano was approved during the PDWP meeting of Government of Sindh held on 25.05.2009. To cater the needs of the upper region of Sindh, accordingly, a constituent College of Quaid-e-Awam University of Engineering, Science and Technology was established named Quaid-e-Awam University College of Engineering, Science and Technology (QUCEST), Larkano, in the year 2009 with first in-take starting from January, 2010. These buildings provide adequate space to establish administrative infrastructure, classrooms and the required Laboratories to conduct the classes. About 350 Acres of land was acquired from Govt. of Sindh in Larkano at Moen-jo-Daro road near Areeja to establish spacious infrastructure of the college and that will be initiated as soon as all required resources are made available. All the graduated batches have been recognized Pakistan Engineering Council (PEC). The Honorable Chief Minister, Sindh upgraded the college and declared it as QUEST Campus Larkano vide a NotificationNo.SO(U)/U&B/QUEST/7-1/2018/211 dated 23-11-2018.

Programs Offered

The QUEST Campus Larkano offers the Bachelor of Engineering Program in the following four disciplines.

1. Civil Engineering
2. Mechanical Engineering
3. Electrical Engineering
4. Electronic Engineering

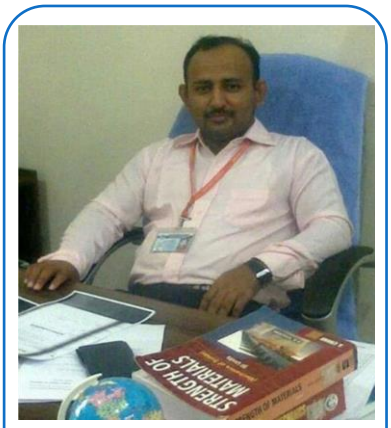
Administration

SN	Name	Designation / Qualification
1.	Prof. Dr. Ahsan Ali Buriro	Professor & Director B.E (MUET), M.S (NUST), Ph.D (Germnay)
2.	Mr. Rafique Ahmed Khoso	Additional Registrar MBA (UoS), M.Sc (SALU), L.L.B (SALU)
3.	Mr. Mumtaz Ali Lashari	Additional Director Finance MBA (IBA Karachi)
4.	Dr. Toufique Akbar Soomro	Deputy Controller of Examination PhD (Australia), M.Sc (Malaysia), B.E (MUET)
5.	Engr. Sajjad Hussain Solangi	Deputy Director Industrial Liaison ME (QUEST), BE (MUET)
6.	Mr. Wajahat Hussain Makani	Estate cum Security Officer M.Sc (Geology), B.P Ed (SALU)
7.	Mr. Muhammad Qabil Mugheri	Assistant Librarian MLIS (University of Sindh)
8.	Mr. Abdul Hameed Rajput	Workshop Superintendent D.A.E (SBTE), B.Sc (QUEST)
9.	Mr. Ameer Ahmed Shar	Transport Officer D.A.E (SBTE) , B.Tech (MUET), M.A (SALU)

10.	Mrs. Afroz Begum Sohu	Assistant Director (QEC) M.A (SALU)
11.	Mr. Sajjad Hussain Khoso	Assistant Director Sports B.P Ed (SALU), M.A (SALU)
12.	Mr. Zeeshan Abbasi	Student Welfare Officer M.A. (Sociology)
13.	Mr. Musawar Hussain Bhutto	Student Welfare Officer M.A (English), B.Ed

DEPARTMENT OF CIVIL ENGINEERING

Introduction



Prof. Dr. Manthar Ali Keerio
Chairman

Civil Engineering is one of the oldest fields of engineering. It is an art of designing the infrastructure of the society such as homes, roads, airports, bridges, river control, canals, railways and other infrastructures.

Civil Engineering can be found in all areas from small private organizations to multinational companies, which lead Civil Engineering to wide-ranging and ever-demanding disciplines.

A developing country like Pakistan has higher demands for infrastructure than the developed countries. Public sector universities in Sindh Province have always strived hard to cater for the needs of the industry of the region, but still there is a dearth of Civil Engineers.

In view of the increasing demand for civil engineers, the Government of Pakistan in 2009, decided to establish an Engineering college at Larkano to cater for the demand for higher education to the people of the region. The college is recently upgraded to QUEST Campus Larkano. The establishment of this institute comprises four departments including Civil Engineering department. The department provides Civil Engineering education based on the needs of the engineering industry where the graduates work as professional engineers.

The department has four classrooms each with the capacity of at least 60 students. Each classroom is equipped with all facilities for lecture delivery. The department has six laboratories where students perform their practical. Each laboratory is equipped with modern tools.

Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Manthar Ali Keerio	Professor & Chairman B.E (QUEST), M.E (MUET), Ph.D (QUEST)
2.	Prof. Dr. Ahsan Ali Buriro	Professor & Director B.E (MUET), M.S (NUST), Ph.D (Germany)
3.	Dr. Samiullah Sohu	Associate Professor B.E (QUEST), M.E (MUET), Ph.D (UTHM, Malaysia)
4.	Dr. Jam Shahzaib Khan Sahito	Assistant Professor B.E (MUET), M.E (U.K), Ph.D (UTM, Malaysia)
5.	Engr. Salim Khoso	Assistant Professor B.E (QUEST), M.Sc (Italy), PhD (USA) (On Study Leave abroad)
6.	Engr. Zuhairuddin Soomro	Assistant Professor B.E (NED), M.E (NED)
7.	Dr. Abdul Salam Buller	Assistant Professor B.E (QUEST), M.E (QUEST), Ph.D (South Korea)
8.	Engr. Zahid Hussain Khaskheli	Assistant Professor B.E (QUEST), M.E (UTHM, Malaysia) (On Study Leave abroad)
9.	Engr. Ahmed Faraz Abro	Lecturer B.E (MUET)
10.	Engr. Suhail Ahmed Abbasi	Lecturer B.E (QUEST), M.E (MUET)
11.	Engr.Mir Zafarullah Jamali	Lecturer B.E (QUEST), M.E (MUET)
12.	Engr. Syed Ghulam Mustafa	Junior Lab. Engineer B.E (QUEST), M.E (QUEST)
13.	Engr. Nadir Ali	Junior Lab. Engineer B.E (NED),
14.	Engr. Amjad Ali	Junior Lab. Engineer B.E (QUEST)
15.	Engr. Azher Ali	Junior Lab. Engineer B.E (QUEST)

DEPARTMENT OF MECHANICAL ENGINEERING

Introduction

Engr. Syed Nihal Abbas Shah, Chairman

Mechanical Engineering is one of the prime disciplines of Engineering. It plays a vital role in the industrial development of a country. Its application is found in most of the small, medium, and large-scale industries and the most sophisticated industrial sector. Mechanical Engineering discipline covers design, fabrication, operation, and maintenance of all types of machinery and equipment found in the industries. It provides a system for mechanical power and material processing. Four years' course offered covers all aspects of the discipline to meet the requirements of present and latest technological developments. Theory classes are supported by tutorials, laboratory experiments and workshop practice. The graduates of this department would be able to grab slots in most national and international Industrial organizations such as PAF, WAPDA PMTF, Steel Mills, Railways, PIA and OGDC.

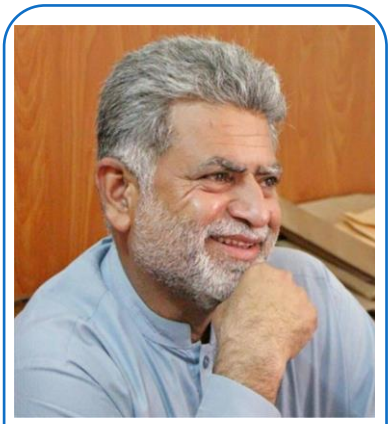
Teaching Staff

SN	Name	Designation / Qualification
1.	Engr. Syed Nihal Abbas Shah	Asst. Professor / In-charge Chairman B.E (QUEST), MBA (SALU), M.E (QUEST)
2.	Engr: Sajjad Hussain Solangi	Assistant Professor B.E (MUET), M.E (QUEST)
3.	Engr: Ahmed Ali Sohu	Assistant Professor B.E (MUET), M.E (QUEST)
4.	Engr: Temoor Abbass Larik	Assistant Professor B.E (QUEST), M.E (QUEST)
5.	Engr: Ghulam Mujtaba Bhanger	Assistant Professor B.E (NED),M.Sc (Sweden)
6.	Engr. Zeeshan Qadir Memon	Asstt. Professor B.E (MUET), M.E (Malaysia)
7.	Engr. Ishfaque Ali Qazi	Asstt. Professor B.E (QUEST), M.E(MUET)
8.	Engr. Tarique Ahmed Memon	Lecturer B.E (QUEST), M.E(MUET), Ph.D (In progress)
9.	Engr. Mukhtiar Ali Shar	Lecturer B.E (QUEST), M.E (QUEST)
10.	Engr: Manthar Ali Khoso	Lab-Engineer B.E (QUEST), ME (QUEST)

11.	Engr: Athar Ali Gorar	Lab-Engineer B.E (MUET), ME (NED)
12.	Engr: Asif Ali Laghari	Lab-Engineer (QUEST), M.E (NUST)
13.	Engr: Zohaib Khan Pathan	Lab-Engineer B.E (QUEST), M.E(Malaysia)
14.	Mr. Abdul Hameed Rajput	Workshop Superintendent D.A.E (S.B.T.E), B.Sc (QUEST)
15.	Engr: Jameel Ahmed Mahessar	Senior Workshop Instructor B.E (QUEST)
16.	Mr. Fayaz Ahmed Rajpur	Workshop Instructor D.A.E (S.B.T.E)

DEPARTMENT OF ELECTRICAL ENGINEERING

Introduction



Engr. Saeed Ahmed Shaikh,
Chairman

The department offers a four-year (8-Sem:) undergraduate program of studies leading to the Bachelor's degree B.E (Electrical Engineering).The designed courses for the degree are aimed at facilitating the young engineers to be able to work in the field confidently or undertake advanced studies and research in the related field. The graduates of the department will not only be able to serve in Pakistan but they will also be capable of representing the country in various industries and academic institutions abroad.

The courses offered are supplemented through laboratory work, demonstration at the related sites of work and group discussions. The Experiments of the Power Measurement Techniques, Circuit Theory, Electronics and Digital Systems are implemented in the laboratory. The laboratories are equipped with analog and digital oscilloscopes, signal generators, power supplies, multimeters, experiment sets, circuit elements, etc.

Teaching Staff

SN	Name	Designation / Qualification
1.	Engr. Saeed Ahmed Shaikh	Asst. Professor /In-charge Chairman B.E (MUET), M.E (MUET)
2.	Dr. Syed Abid Ali Shah	Assistant Professor B.E (QUEST), M.E (MUET), PhD (UK)
3.	Dr. Kamran Ahmed Samo	Assistant Professor B.E (QUEST), M.E (QUEST), PhD (Malaysia)

4.	Engr. Shahid Hussain Shaikh	Assistant Professor B.E (QUEST), M.E (NED)
5.	Engr. Abdul Hameed Soomro	Assistant Professor B.E (MUET), M.E (NED)
6.	Engr. Asadullah Khuhawar	Assistant Professor B.E (QUEST), M.E (MUET)
7.	Engr. Farhan Abbasi	Assistant Professor B.E (MUET), M.E (MUET)
8.	Engr. Fayyaz Ali Jandan	Assistant Professor B.E (QUEST), M.E (MUET)
9.	Engr. Syed Qurban Ali Shah	Assistant Professor B.E (MUET), M.E (South Korea)
10.	Engr. Imtiaz Ali Laghari	Assistant Professor B.E (QUEST), M.E (NED)(On Study Leave Abroad)
11.	Engr. Hashim Ali Meerbahar	Lecturer B.E (MUET)
12.	Engr. Yasir Bhutto	Lecturer B.E (QUEST), M.E (MUET)
13.	Engr. Muhammad Asif Solangi	Lecturer B.E (MUET), M.E (NED)
14.	Engr. Waqar Ahmed Soomro	Lab: Engineer B.E (MUET)

DEPARTMENT OF ELECTRONIC ENGINEERING

Introduction


Dr. Muhammad Adil Ansari,
Chairman

The department of Electronic Engineering stands as one of the four pillars of Quaid-e-Awam University of Engineering, Science and Technology, Campus, Larkano. Besides, the department has been providing quality education to the students of interior Sindh at their doorsteps since 2009. The objective of the department is to serve as a center of excellence in teaching and research in the fields of Electronic Engineering. For this purpose, it is aimed at providing trained manpower for national development and helping to improve the quality of life of the people by creating public awareness of the use of appropriate scientific and technological development.

The department offers a four-year (8 Semesters) program leading to the degree of Bachelor of Electronic Engineering. It provides formal education in Electronic Engineering through teaching, experimental work and industrial attachment to prepare students for careers as scientists, educators and engineers.

The graduates of Electronic Engineering can find numerous placements in public as well as private sector / organization of the country as well as abroad.

Teaching Staff

SN	Name	Designation / Qualification
1.	Dr. Muhammad Adil Ansari	Associate Professor / Chairman B.E. (MUET), M.E (South Korea), PhD. (South Korea)
2.	Dr. Khalil Muhammad Zuhaib	Assistant Professor B.E. (QUEST), PhD. (South Korea)
3.	Dr. Toufique Ahmed Soomro	Assistant Professor B.E. (MUET), M.Sc (Malaysia), PhD (CSU, Australia)
4.	Dr. Ghulam Hussain Chandio	Assistant Professor B.E. (QUEST), PhD. (South Korea)
5.	Dr. Aneela Pathan	Assistant Professor B.E. (MUET), M.E. (NED), PhD (MUET, Pakistan)
6.	Dr. Saleem Raza Memon	Assistant Professor B.E. (MUET), M.S. (MUET & Denmark), PhD (Germany)
7.	Dr. Irfan Ali Tunio	Assistant Professor B.E. (MUET), M.S. (France), PhD (France)
8.	Engr. Abdul Sattar Noonari	Assistant Professor B.E. (MUET) M.E. (MUET) (on study leave abroad)
9.	Engr. Ayaz Ahmed Soomro	Assistant Professor B.E. (MUET), M.E. (MUET) (on study leave abroad)
10.	Engr. Umair Saeed Solangi	Assistant Professor B.E. (MUET), M.E. (MUET) (on study leave abroad)
11.	Engr. Ali Anwar Panhwar	Lecturer B.S. (GIKI), M.S. (Australia)
12.	Engr. Syed Sultan Shah	Lecturer B.E. (MUET), M.S. (Turkey) (on study leave abroad)
13.	Engr. Muhammad Hanif Lashari	Lecturer B.E. (QUEST), M.E. (QUEST)
14.	Engr. Fareesa Khan Sohu	Lecturer B.E. (QUEST), M.E. (MUET)
15.	Engr. Shahzaib Ansari	Lab-Engineer B.E. (MUET), M.E. (NED) (on study leave abroad)
16.	Engr. Noman Gh Rathore	Lab-Engineer B.E. (MUET), M.E. (MUET)
17.	Engr. Arsalan Ahmed Sohu	Lab-Engineer B.E. (QUEST), M.E. (QUEST)
18.	Engr. Ali Raza	Lab-Engineer B.E. (MUET)
19.	Engr. Tayyaba Abbasi	Junior Lab-Engineer B.E. (QUEST)

DEPARTMENT OF BASIC SCIENCES AND RELATED STUDIES

Introduction

The department offers the courses of Mathematics and Statistics with focus on engineering applications. It also offers courses in English, Islamic Studies and Pakistan Studies with reference to engineering applications.

Dr. Mohsin Shaikh,
Chairman

Teaching Staff

SN	Name	Designation / Qualification
1.	Dr. Mohsin Shaikh	Assistant Professor/In- charge Chairman B.E (MUET), M.Sc (Korea), PhD (Korea)
2.	Dr. Feroz Ahmed Soomro	Assistant Professor B.S. (University of Sindh), Ph.D (China)
3.	Mr. Saeed Ahmed Rajput	Assistant Professor M.Phill (QAU, Islamabad)
4.	Mr. Khalil Jibran Abbasi	Assistant Professor M.Phil (SALU)
5.	Mr. Akhtar Hussain Hullio	Assistant Professor M.Phil (SALU)
6.	Mr. Musawir Sikandar	Assistant Professor M.A (University of Sindh)
7.	Mr. Nabi Bux Kalhoro	Assistant Professor M.Sc (University of Sindh)
8.	Mr. Ali Bakhsh Mugheri	Assistant Professor B.Sc (SALU), M.Sc (SALU)
9.	Mr. Aafaq Ali Bhutto	Assistant Professor M.Sc(NED)
10.	Engr: Sajjad Ahmed Bhatti	Assistant Professor B.E (QUEST), M.E (MUET)(on study leave abroad)
11.	Mr. Sanaullah Mastoi	Lecturer B.S (QUEST),M.Phil (QUEST)(on study leave abroad)

SECTION-8

RULES, REGULATIONS & PROCEDURES

- Rules & Procedure for Admission
- General Rules & Regulations
- Pre-admission Test Sample Paper

RULES AND PROCEDURE FOR ADMISSION

Bachelor Programmes

Admissions to the first-year class for all the degree courses are made according to the policies laid down and rules framed by the authorities of the University from time to time. The number of seats is fixed for the urban and rural areas of each district in Sindh including Karachi division. There are other categories of candidates who are eligible for admission, which are described in detail in the subsequent clauses.

The university reserves the right to make any changes in the admission rules if deemed necessary after printing of this prospectus without notice. The whole process of admissions is conducted and processed by Admission Committee appointed for this purpose by the Vice-Chancellor which takes decisions and announces all results, with due approval of the Vice-Chancellor.

Eligibility for Admission

Candidates who fulfill the following conditions are eligible for admission at QUEST.

General (applicable for all disciplines and categories)

i. They have passed the Higher Secondary Certificate (HSC-II) examination and have secured at least 60 percent marks from any recognized Board of Intermediate & Secondary Education in Pakistan or equivalent.

ii. They possess domicile, and PRC (form C) of relevant category except under foreigners and nominees of other provinces.

iii. Candidates who were admitted previously in any batch/year in the University in any discipline or category are not eligible to apply for admission again and their application shall be rejected without any notice. However, if any admitted student wants to seek admission after first year only in any discipline under Self Finance Scheme, he/she may apply for the same and submit an undertaking on the stamp paper to the effect that he/she will not claim admission under regular scheme.

iv. Candidates who apply for admission on the basis of fake certificates (detected before or after their admission), or make other false statements, shall be prosecuted under criminal law and their admissions shall be cancelled. In some cases, they may also be debarred for a period of three years from future admissions.

v. Those candidates, who were admitted to any other institute / university before applying for admission in Quaid-e-Awam University and were rusticated, debarred or their admission was cancelled, shall not be considered for admission in the University. Additionally, if candidate(s) conceals information regarding such disciplinary action and were given/offered admission; their admission would be cancelled immediately after ascertaining such facts. Those candidates who have been convicted involving moral turpitude shall also not be considered for admission in the University.

vi. The relevant provisions of other clauses described hereafter shall also apply.

Specific Eligibility

In addition to the general eligibility mentioned above the following eligibility conditions also apply in specific cases:

i. Only those candidates who have passed HSC Examination (or equivalent) in pre-engineering group are eligible to apply or the engineering disciplines. However, they are also eligible to apply for science disciplines as well.
ii. Candidates who have passed their HSC-II or equivalent examination with computer science as a subject are eligible to apply for BS(IT), BS(AI), BS(CS), BS(Math) and BS(English).
iii. Candidates who have passed HSC-II examination or equivalent in pre-medical group are eligible to apply for admission in BS(IT), BS(AI), BS(Physics) and BS(English). However, they shall have to undertake a condensed, Mathematics course before the start of first term.
iv. Candidates who have secured at least 40 percent marks in pre-admission test for all categories except nominees from other agencies and foreigners. Shall be considered for admission in respective district merit quota.
v. Candidates who have passed Diploma of Associate Engineer (in the respective technology) with 60 percent marks from a recognized Board of Technical Education are eligible to apply only for admission under category-F (Table-1).

Application Form for Admission

Call for admissions are advertised in the prominent provincial / national newspapers as well as on the university website. The candidates are required to obtain application forms from designated TCS courier service, on payment of prescribed fees and are asked to submit / deposit them with the same TCS center within the announced due date / closing date. The candidates are required to fill up the prescribed application form in their own handwriting carefully. These application forms are then, sent to Quaid-e-Awam University where they are scrutinized, and the ineligible applications are rejected. After scrutiny & qualifying the test all the eligible candidates of all disciplines are awarded admission strictly on merit and on the basis of available seats in urban/rural areas of each district keeping in view the choices of the students.

SINCE THE APPLICATION FORM IS A LEGAL DOCUMENT, ANY WRONG INFORMATION PROVIDED THEREIN, OVER WRITING OR TAMPERING IN ANY OTHER WAY IS ILLEGAL AND MAY RESULT IN OUTRIGHT REJECTION OF THE FORM WITHOUT ANY NOTICE.

The candidates are required to submit the attested Photostat copies of all the certificates as indicated in the application form.

Pre-Admission Test

1. All eligible candidates for Categories A, B, C, D, E, F, G, H, I, P and SF (Table-1 to 6) shall compulsorily appear in the pre-admission test to qualify for admission.
2. One-hour MCQ based test will be conducted of the following subjects:
   - Mathematics (not applicable for pre-medical group)
   - Physics
   - Chemistry
   - English

The merit list of the candidates for each district / category will be prepared by calculating the overall merit, based on the marks obtained in each of the following examinations and multiplying them with the respective weightage and adding the result to calculate the Combined Merit percentage (CMP) as described below.

Percentage of marks in	Multiplying weightage
Secondary Certificate (Matriculation, Science group)	0.10
Higher Secondary Certificate or equivalent adjusted* marks	0.40
Pre-admission test	0.50

*Adjusted marks are the marks secured in HSC-II examination plus additional marks, if any, as defined in clause 11.7 and minus marks to be deducted as defined in clause 11.8. For example, if a student has secured 70 percent marks in SSC. 65 percent adjusted marks in HSC-II and 50 percent marks in pre-admission test: his/her CMP would be given by:

CMP = 70*0.1+65*0.4+50*0.5 = 7+26+25 = 58 (percent).

Interviews & Admissions

After the receipt of the results of pre-admission test a comprehensive preliminary merit list is prepared for each district/category and candidates will be called for interview before the admission committee as per merit list. The merit list will be displayed on university notice board and website as well for general information. Any claim/observation on merit list should be submitted within 05 days from the date of display of entry test result. Please note that no claim will be entertained after that period.

The interviews are held as per schedule at Quaid-e-Awam University Campus Nawabshah as intimated on the day of entry test through pamphlets as well as on the University webpage. The candidates whose names are mentioned in the merit list are also required to bring prescribed admission fee at the time of interviews.

This may be noted that the admissions will be offered on spot at the time of interview. The candidate will be required to deposit the required admission fee on the day of interview and roll number will be allotted to the candidate on spot.

NOTE: THE CANDIDATES ARE ADVISED TO COME ALONGWITH THEIR PARENTS/GUARDIANS AT TIME OF INTERVIEW FOR THEIR CONSULTATION REGARDING SELECTION OF DISCIPLINE. THE ADMISSION FEE IS COMPULSORILY TO BE PAID ON THE DATE OF INTERVIEW.

The Submission of Documents

The production of following original certificates on already announced interview dates, as mentioned in the schedule, which will be given to the candidates on pre-admission test day, are necessary (especially marks sheet of HSC and PRC of the candidate) without which admission would not be considered and name of the candidate will be deleted from merit list without issuing any notice,

1. Marks sheet of SSC (Matriculation).
2. Marks sheet of HSC (Intermediate, Science).
3. Domicile Certificate of candidate/guardian.
4. PRC on 'C' form of candidate.
5. Matric Pass (Pacca) Certified issued by Board

The names of those candidates, who failed to appear for the interview before the Admission Committee on the scheduled date and time without any intimation and permission, shall be deleted from the merit list of the concerned district/category and they shall not be considered for admission. Schedule of Interview will be announced on the day of test in the presence of candidates. Appearance of the candidates for interview before the Admission Committee is mandatory.

In case of absence, no claim for re-interview would be entertained and the decision of the Admission Committee shall be final. In fact, the candidates who are interested in admission to keep in touch with the university authorities and their friends to get information in this regard. Thus, their absence from the interview shall account to spell of their right of admission. If a student is studying elsewhere, he/she must clearly mention this fact in the application form. If he/she still wishes to be admitted in Quaid-e-Awam University, and his/her original documents are submitted elsewhere, he/she must mention this fact during admission interviews.

The candidates will be offered admission according to his/her merit at the time of interview. If the candidate wishes to get admission in QUEST, he/she will be required to submit the original documents along with withdrawal of admission from institute where he/she is already registered as student within two days. However, he/she must pay the admission fee

on the day of interview. In case of failure, his/her admission will be cancelled without any further notice.

Distribution of Seats

Distribution of seats for admissions is made strictly according to the rules framed for the purpose by the authorities of the University on population basis among the rural and urban areas for all the districts of Sindh province and as agreed between Quaid-e-Awam University and Mehran University in accordance with the distribution of the jurisdiction. This distribution has been updated and approved by the University competent authorities from time to time. The admission to candidates from various districts/categories will be given on quota basis for the urban and rural areas. However, the award of discipline shall be given on the basis of joint merit in the districts and Karachi Division as a whole. The number of seats allocated to each district (and their Urban/Rural areas) in various disciplines and for other categories given in Table-1, while the number of seats for each district in Sindh province are shown in Table-2. In Tables-1, 3 and 4, additional information is provided.

The University also offers courses in Computer Science BS(CS) 4-year duration programme (category-H) and Information Technology BS (IT), BS (Mathematics) 4-year full time programme (Category-G and I), Physics, Artificial Intelligence and BS (English), (Category P). The allocated seats for these programmes are shown in Table-5.

Additional Marks for Hafiz-e-Quran

The candidates, who have a certificate, of Hafiz-e-Quran printed form from a registered Madrasa and clear the test of Hifz taken in the University, are also considered to have additional 20 marks to be added to the marks of HSC.

Deduction of Marks due to Gap in Education

In case of a gap or repetition of HSC Examinations, one percent of the aggregate marks will be deducted for each unaccounted gap of one academic year after appearing in SSC-II examination from the total marks of the HSSC/DAE examination of (passed) or equivalent, for the purpose of determination of merit in each District / Category. This deduction is applicable whether the SSC/HSSC/DAE examination had been repeated or the gap had occurred owing to any other reason. A maximum of unaccounted gap of three years is allowed between year of appearing in SSC-II examination for the first time and year of admission.

Procedure for Filling up Seats

Following shall be the procedure for admission based on the merit list prepared as stated in Clause 8.1.2.

a) In each District, the number of allocated seats and disciplines in rural and urban areas are filled according to their quota given in Table-1 and in the descending order of CMP of the candidates.

b) Any saving from the urban area seats of any district will be given to the rural area of the same district and vice-versa.

c)

   i. Any savings of upper districts (S.No.1-10) of Table-1 would be filled on combined merit of remaining region of districts of same region (S.No.1-10). Similarly, any savings from district quota of lower districts (S.No.11-22) of Table-1 would be filled on combined merit of remaining districts of same region (S. No. 11-22).

   ii. The same policy would be applicable for Category-B (Girls Quota).

   iii. Any savings c (i) & c (ii) from district quota (Category-A) would then be filled on all Sindh basis excluding Karachi.

d) If any candidate(s)vacates the seat(s) before closing of admission then the vacant seat(s) shall be filled from the remaining candidate(s) on merit and disciplines are re-assigned in the second list, third list and so on.

When a student is offered admission in a discipline, which is not of his choice, he/she may inform Chairman Admission Committee in writing whether he/she wants to get admission in the offered discipline or not.

Selection Procedure Against Various Categories

All the eligible candidates who have applied for admission against the seats reserved under categories A to E, will be considered first for admission against the seats reserved for their respective districts under category-A. If a candidate who has applied for more than one category, he/she will be offered the disciplines as per his/her merit in each category. He/She has to select discipline of his/her choice from any one category.

In many cases, the discipline of studies finally offered to the selected candidates may not necessarily be their first or second choice or even their last choice (in rare cases). However, since the disciplines are awarded as per CMP of the candidate against the quota of the seats, it is up to the candidate whether he/she wants to study in that discipline. If they decide to take admission and pay the fees, it will mean that they accepted the discipline allocated to them (provisions of clause 11.8 & 11.9 also apply).

Eligibility for Admission Against Seats Reserved for Sportsmen (Category-D)

Following are approved sports and games for admission under category D for which the candidates must have domicile and PRC of former Sukkur or Larkana Divisions including Shaheed Benazirabad (Nawabshah) District.

i. Sports Games (individual): Athletics, Badminton, Boxing, Bodybuilding, Judo, Swimming, Table Tennis, Tennis, Karate, Squash.

ii. Sport Games (Team): Basketball, Cricket, Hockey, Football and Volleyball.

The order of priority for selection of candidates, who claim admission against sports quota, will be shown in the application form, provided that:

a) The age of the candidate is between 16 years (minimum) and 22 years (maximum).

b) The candidate satisfies the condition of minimum qualifications laid down in clause 11.2.

c) The candidate has represented a sports organization, institution, university, board/college of Sindh province during the last three years, i.e., highest merit in any sports may not be more than three years old.

The order of priority is subject to the university's requirements of players in events organized at interuniversity level. Candidates admitted under category-D as sportsmen will be required to give an undertaking that they will represent the university in their respective games/sports whenever called upon to do so and that they would not apply as professionals or represent any other public or private institute. Also, the students admitted under this category will not be allowed migration to any other university/institute during their studies at this university.

The Vice-Chancellor is competent to reject any application without assigning any reason and has the authority to hold sports trials, competitions or judge the performance of the candidates through a committee. The Sports Committee will evaluate the eligibility of admission on sports seats, and the Admission Committee on net merit will award the technology / discipline.

d) Please note that only those candidates would be considered for sport seats who had applied and marked the sports box at the time of filling the form and appended sufficient documents evidence thereof.

NOTE: The candidates possessing experience of individual sport will be preferred over team.

Health of Students

In addition to the physical fitness checkup and certificate the candidates being considered for admission may also be required to appear before a medical board for medical examination. If any candidate is found to have a serious disease at any stage, which may affect his/her capability to study properly or may adversely affect the health of other fellow students, his/her admission would be rejected/cancelled.

Closing of Admission

The admission for the session will be closed at the end of 4th week from the date of start of classes. After this period the seats fallen vacant will not be filled at any stage

Cancellation of Admission

The student who remains absent continuously for two weeks from the date of start of classes or date of closing of admission (whichever is later) without intimation to the

Chairman of the concerned teaching department, his/her admission shall stand cancelled automatically without issuing any notice thereof.

NOC and Study Leave for Candidates already in Service

The candidates who are already in service at the time of submission of admission form should attach No Objection Certificate (NOC) from their employer for their admission purpose. After selection to first year class, they will be required to submit study leave order / NOC from their employer for full time study at this University, because Bachelor's degree programmes are regular, full time, and day programmes. No student admitted in these programmes shall be allowed to engage himself/ herself in employment.

Admission in any other Institution

Being full-time student of this University, no student will be allowed to enroll in any course of studies in other educational institution. Violation of above shall lead to cancellation of admission from the University.

Identity Card

The Chairman of the concerned department will issue ID Card to the student after obtaining admission at this university. It is necessary that student must keep the valid identity card while he/she is on the campus for any purpose.

Enrolment Card

The students are required to enroll themselves in this University after the finalization of the assignment of disciplines and closing of admission and obtain their enrolment cards during first year studies failing which the degree will not be awarded.

FEES STRUCTURE FOR ALL B.E. PROGRAMS (21-BATCH)

1st YEAR

	1st Semester		2nd Semester	
S#	**Description**	**Fees (Rs)**	**Description**	**Fees (Rs)**
1	Admission Fee (per year)	13000		
2	Tuition Fee (per semester)	12000	Tuition Fee (per semester)	12000
3	Transport Charges (per semester)	2000	Transport Charges (per semester)	2000
4	Study Tour (per semester)	1000	Study Tour (per semester)	1000
5	Games Fee (per semester)	500	Games Fee (per semester)	500
6	Pass, Transcript & Degree certificates (per semester)	1050	Pass, Transcript & Degree certificates (per semester)	1050
7	Internet fee (per semester)	2000	Internet fee (per semester)	2000
8	University Caution Money (once) (Refundable)	2500		
9	Subject society / PERN Fee (once)	1000		
10	Development Fee (once)	1000		
11	Enrollment Fee (once)	1000		
12	Marks Verification Fee (at the time of verification)	1600		
13	ID Card Fee (once)	500		
14	Medical Fitness (once)	1000		
	Total (A)	40150	Total (B)	18550
			Grand Total (A+B)	**58700**

2nd, 3rd and 4th Year

	1st Semester		2nd Semester	
S#	**Description**	**Fees (Rs)**	**Description**	**Fees (Rs)**
1	Admission Fee (per year)	13000		
2	Tuition Fee (per semester)	12000	Tuition Fee (per semester)	12000
3	Transport Charges (per semester)	2000	Transport Charges (per semester)	2000
4	Study Tour (per semester)	1000	Study Tour (per semester)	1000
5	Games Fee (per semester)	500	Games Fee (per semester)	500
6	Pass, Transcript & Degree certificates (per semester)	1050	Pass, Transcript & Degree certificates (per semester)	1050
7	Internet fee (per semester)	2000	Internet fee (per semester)	2000
	Total (A)	31550	Total (B)	18550
			Grand Total (A+B)	**50100**

FEES STRUCTURE FOR B.S(CS/IT/AI) PROGRAMS (21-BATCH)

1st YEAR

	1st Semester		2nd Semester	
S#	**Description**	**Fees (Rs)**	**Description**	**Fees (Rs)**
1	Admission Fee (per year)	12500		
2	Tuition Fee (per semester)	12000	Tuition Fee (per semester)	12000
3	Transport Charges (per semester)	2000	Transport Charges (per semester)	2000
4	Study Tour (per semester)	1000	Study Tour (per semester)	1000
5	Games Fee (per semester)	500	Games Fee (per semester)	500
6	Pass, Transcript & Degree certificates (per semester)	1050	Pass, Transcript & Degree certificates (per semester)	1050
7	Internet fee (per semester)	2000	Internet fee (per semester)	2000
8	University Caution Money (once) (Refundable)	2500		
9	Subject society / PERN Fee (once)	1000		
10	Development Fee (once)	1000		
11	Enrollment Fee (once)	1000		
12	Marks Verification Fee (at the time of verification)	1600		
13	ID Card Fee (once)	500		
14	Medical Fitness (once)	1000		
	Total (A)	39650	Total (B)	18550
			Grand Total (A+B)	**58200**

2nd, 3rd and 4th Year

	1st Semester		2nd Semester	
S#	**Description**	**Fees (Rs)**	**Description**	**Fees (Rs)**
1	Admission Fee (per year)	12500		
2	Tuition Fee (per semester)	12000	Tuition Fee (per semester)	12000
3	Transport Charges (per semester)	2000	Transport Charges (per semester)	2000
4	Study Tour (per semester)	1000	Study Tour (per semester)	1000
5	Games Fee (per semester)	500	Games Fee (per semester)	500
6	Pass, Transcript & Degree certificates (per semester)	1050	Pass, Transcript & Degree certificates (per semester)	1050
7	Internet fee (per semester)	2000	Internet fee (per semester)	2000
	Total (A)	31050	Total (B)	18550
			Grand Total (A+B)	**49600**

FEES STRUCTURE FOR B.S(Math/English/Physics) PROGRAMS (21-BATCH)

1st YEAR

	1st Semester		2nd Semester	
S#	**Description**	**Fees (Rs)**	**Description**	**Fees (Rs)**
1	Admission Fee (per year)	6500		
2	Tuition Fee (per semester)	12000	Tuition Fee (per semester)	12000
3	Transport Charges (per semester)	2000	Transport Charges (per semester)	2000
4	Study Tour (per semester)	1000	Study Tour (per semester)	1000
5	Games Fee (per semester)	500	Games Fee (per semester)	500
6	Pass, Transcript & Degree certificates (per semester)	1050	Pass, Transcript & Degree certificates (per semester)	1050
7	Internet fee (per semester)	2000	Internet fee (per semester)	2000
8	University Caution Money (once) (Refundable)	2500		
9	Subject society / PERN Fee (once)	1000		
10	Development Fee (once)	1000		
11	Enrollment Fee (once)	1000		
12	Marks Verification Fee (at the time of verification)	1600		
13	ID Card Fee (once)	500		
14	Medical Fitness (once)	1000		
	Total (A)	33650	Total (B)	18550
			Grand Total (A+B)	**52200**

2nd, 3rd and 4th Year

	1st Semester		2nd Semester	
S#	**Description**	**Fees (Rs)**	**Description**	**Fees (Rs)**
1	Admission Fee (per year)	6500		
2	Tuition Fee (per semester)	12000	Tuition Fee (per semester)	12000
3	Transport Charges (per semester)	2000	Transport Charges (per semester)	2000
4	Study Tour (per semester)	1000	Study Tour (per semester)	1000
5	Games Fee (per semester)	500	Games Fee (per semester)	500
6	Pass, Transcript & Degree certificates (per semester)	1050	Pass, Transcript & Degree certificates (per semester)	1050
7	Internet fee (per semester)	2000	Internet fee (per semester)	2000
	Total (A)	25050	Total (B)	18550
			Grand Total (A+B)	**43600**

Other Fees

Examination Fees

Semester/Examination Fee (including form fee) Rs. 2000

Migration Fees

Migration Certificate Fee Rs. 2000

Hostel Fees (Per Year)

SN	Description	Fees (Rs.)
1	Admission Fee	2000
2	Room Charges	12000
3	Room Deposit (Once) (Refundable)	1000
4	Medical charges	200
5	Sports/Newspaper	100
6	Utility charges	1500
7	Form Fee	200
8	Transport Charges	2000
9	ID Card	100
	Total	**19100**

The foreign student's Fee detail is as under.

- Admission Fee USD 650 per annum
- Hostel Fee USD 600 per annum

Admission Under Self Finance Scheme

Admissions under this scheme have been allowed in the University since 1990-1991 under relevant provisions of the Quaid-e-Awam University Act and other regulations. Rules have been framed for admission under the self-financing scheme, which are subject to the revision by the competent authorities of the University at any time and without prior notice. Only eligible candidates (Clause 11.1) are considered for admission, which have also appeared in the Preadmission test and the interview.

Admissions under self-finance scheme have been allowed at QUEST Campus Larkana. All applicants having Pakistan Nationality are eligible to apply under Self Finance Scheme. The seats under Self Finance Scheme would be filled as per seats distribution quota as mentioned in Table-6. The merit list leading to admission and award of discipline would be prepared on the basis of CMP. The candidates domiciled in Sindh applying under this scheme may also be eligible for admission under regular scheme in which case, they would be required to pay only the regular admission fees. The self-finance admission fees, already deposited, would be refunded in such cases. The saving seats in any category of self-finance

will be filled on over-all open merit of self-finance after 2ndcycle of admission on self-finance. Preference would be given to those applicants, who have deposited their Self-finance fees along with application form.

Fees (Self-Finance)

Under this scheme various disciplines have been distributed in categories and the respective fees is given as under. The number of seats for each discipline have been reserved on district basis. The Bank Demand Draft should be prepared in favor of **The Director Finance, QUEST, Nawabshah** or online deposit receipt and the same be attached with the Application Form. 1st installment shall be paid with the admission Form and 2nd Installment shall be paid at the start at the start of 2nd Semester, 1st Year. However, preference will be given on full payment without installments.

Note: No Application Form under Self Finance Scheme will be considered without original "Bank Demand Draft" as required as Self Finance Fee.

i. **Category-I:** Self-Finance Scheme for B.E degree program (Civil, Electrical & Mechanical) is Rs.11,55,000/- (Rupees Eleven Lacs Fifty-Five Thousand Only) (in two installments) including Government Tax.

ii. **Category-II:** Self-Finance Scheme for B.E degree program (Electronic, Computer Systems, Energy System, Telecommunication, Chemical Engineering, Software Engineering, Environment Engineering & Automation & Control) is Rs.7,35,000/- (Rupees Seven Lacs and Thirty-Five Thousand Only) (in two installments) including Government Tax.

    NOTE: Admission on Self Finance scheme for category-II will be made in case of availability of seats only.

iii. **Category-III:** Self-finance fees for the BS programs is as under:

    a. B.S (Information Technology) is Rs.6,00,000/- (Rupees Six Lacs Only) (in two installments) including Government Tax.

    b. B.S (Computer Science) & BS (Artificial Intelligence) is Rs.4,00,000/- (Rupees Four Lacs Only) (in two installments) including Government Tax

    c. B.S (Mathematics & Statistics), BS (Physics) & B.S (English) is Rs.3,00,000/- (Rupees Three Lacs Only) (in two installments) including Government Tax.

Self-Finance Scheme for the Foreigners

Eligible candidates from abroad (Foreigner / overseas Pakistani) can also apply for admission on Self-Finance Basis against the payment of US$ 10000/- (US Dollar Ten Thousand Only). The Bank Demand Draft should be prepared in favor of Director Finance, QUEST, Nawabshah subject to the condition the clearance is issued from the Government of Pakistan.

Other Rules

Following other rules also apply for candidates seeking admission under self-finance scheme.

a) The admission fee as mentioned above is payable once, i.e. at the time of seeking admission to the first-year class.
b) No application shall be considered that is received without the admission fee.
c) The candidates once admitted under this scheme shall not be allowed to change their discipline.
d) The following table shows refunding of admission fees to the candidates who intend to leave / withdraw their admission from this University.

% of Tuition Fee	Timeline for Semester / trimester system	Timeline for annual system
Full (100%) Fee Refund	Up to 7th day of convene of classes	Up to 15th day of convene of classes
Half (50%) Fee Refund	Up to 8th to 15th day of convene of classes	From 16th day to 30th of convene of classes
No Fee (0%) Refund	From 16th day of convene of classes	From 31st day of convene of classes

e) If a candidate withdraws his/her admission after closing date of admission as mentioned in clause 11.13 then he/she have to pay penalty of Rs.100,000/- (Rupees One Hundred Thousand) only.

Bank Account

The mode of payment by the university to the student, his/her guardian, kin on any account shall be made through crossed cheque. It is mandatory for each student to maintain the bank account facility in bilateral interest for smooth record keeping; hence, none other payment of mode shall be applicable.

Admission Under Nominated Categories J, K& N

Nominations of Pakistan Nationals by Armed forces Directorate, Government of Azad Jammu & Kashmir, Federally Administered Tribal Areas (FATA), Northern Areas and Balouchistan must be received through the respective competent agencies. Only the allocated number of nominations would be admitted, provided that nominees fulfill the requirements of minimum qualification (60% marks in EISC).

Admission of Foreign Students Category-M

Eleven seats are reserved under this category for foreign students who are otherwise eligible for admission at this University. The candidates are to be nominated by the Economic Affairs Division, Government of Pakistan, Islamabad under cultural exchange programme. The fees will be charged same as from the local students. In case any foreign student applies on Self Finance, then in addition to the fees applicable to the local students, he/she is required to pay the admission fee (Self finance) in foreign currency US$ 10,000 or equivalent to Pakistan rupees. The hostel room charges for foreign student are US$500 per year or equivalent to Pakistan rupees.

Re-admission Policy:

If a student fails to get admission and does not appear in the examination in any Semester including payment of due fees, he/she would not be considered as the student at the University. Chairman of department may restore his/her admission within one academic year (maximum) into an appropriate lower Semester. Vice-Chancellor may allow such re-admission within two academic years. After that period, the admission of the student would stand cancelled. The student shall be allowed a maximum period of seven years to complete the studies and pass all the examinations with required CGPA as per policy. Otherwise, the engineering students would not qualify for registration with Pakistan Engineering Council (PEC).

Table-1: Distribution of Seats in Engineering Disciplines (Batch-21)

#	QUEST Campus Larkano					District / Category	Cat. Code	QUEST NAWABSHAH												
	CE	EL	ME	ES	Total			CE	CS	EL	ME	ES	TC	ESE	CH	SW	EE	ACE	AFP	Total
1	2	3	2	3	**10**	Sukkur	A-1	5	4	6	6	4	4	3	3	5	4	5	4	**53**
2	5	5	5	4	**19**	Ghotki	A-2	4	4	4	4	3	3	3	3	3	3	3	3	**40**
3	2	2	2	2	**8**	Khairpur Mirs	A-3	7	6	7	8	5	4	4	4	5	5	5	5	**65**
4	2	2	1	2	**7**	SBA	A-4	9	4	8	8	6	4	4	4	5	6	6	7	**71**
5	3	3	4	3	**13**	N. Feroze	A-5	8	4	7	6	5	4	4	4	4	4	4	4	**58**
6	6	6	6	7	**25**	Larkana	A-6	2	2	2	2	1	1	3	2	1	1	1	1	**19**
7	6	6	5	6	**23**	Shahdadkot	A-7	1	3	1	2	2	2	1	2	2	2	2	2	**22**
8	6	7	5	5	**23**	Shikarpur	A-8	1	2	2	2	2	2	2	1	2	2	2	2	**22**
9	5	5	5	4	**19**	Jacobabad	A-9	1	2	2	1	1	1	2	1	1	1	1	1	**15**
10	3	4	5	5	**17**	Kashmore	A-10	1	1	1	1	1	1	2	2	1	1	1	1	**14**
11	1	1	1	0	**3**	Hyderabad	A-11	1	2	2	2	1	1	1	1	1	2	1	2	**17**
12	1	0	0	0	**1**	Matiari	A-12	1	1	1	1	1	1	0	1	2	1	2	1	**13**
13	0	0	0	1	**1**	T. Allahyar	A-13	1	1	1	1	0	1	1	1	1	1	1	1	**11**
14	0	0	1	0	**1**	T. M. Khan	A-14	1	0	1	1	1	1	1	1	1	1	1	1	**11**
15	1	0	1	0	**2**	Dadu	A-15	1	1	2	2	2	1	1	1	1	2	1	2	**17**
16	0	1	0	0	**1**	Jamshoro	A-16	1	1	1	1	0	1	1	1	1	1	1	1	**11**
17	1	0	0	1	**2**	Thatta	A-17	2	2	1	1	1	2	1	1	2	1	2	2	**19**
18	0	0	1	1	**2**	Badin	A-18	2	1	2	2	1	1	1	1	1	1	1	1	**15**
19	0	0	1	1	**2**	Mirpurkhas	A-19	2	1	1	1	1	1	2	2	2	2	2	2	**19**
20	0	0	1	0	**1**	Umerkot	A-20	1	1	1	1	1	1	0	1	1	2	1	2	**13**
21	1	1	0	0	**2**	Tharparkar	A-21	2	1	1	1	1	1	1	1	1	1	1	1	**13**
22	1	1	1	0	**3**	Sanghar	A-22	2	2	2	2	1	1	1	1	2	1	2	1	**18**
23	1	1	1	2	**5**	Karachi	A-23	4	1	4	4	0	1	1	1	1	1	1	1	**20**
	47	**48**	**48**	**47**	**190**	**Total (i)**		**60**	**47**	**60**	**60**	**41**	**40**	**40**	**40**	**46**	**46**	**47**	**48**	**576**
24	2	2	2	2	8	Upper (Girls)	B	1	0	1	1	2	1	1	1	2	1	2	1	14
25	0	0	0	0	0	Lower (Girls)		1	0	2	1	2	2	2	2	1	2	1	1	17
						QUEST Employees	C*													
26	0	0	0	1	1	Sportsmen	D	0	0	0	1	1	1	1	1	0	0	0	0	5
27	0	0	0	0	0	Affil. colleges	E	1	0	1	0	0	0	0	0	0	0	0	0	2
28	0	0	0	0	0	Dipl. holders	F	1	0	1	1	1	0	0	1	0	0	0	0	5
29	0	0	0	0	0	AJK	J	1	0	1	1	0	0	0	0	0	0	0	0	3
30	0	0	0	0	0	Ex-FATA	K	0	0	0	1	0	1	0	1	1	1	0	0	5
	0	0	0	0	0	Northern Areas		0	0	0	2	0	0	0	0	0	0	0	0	2
31	0	0	0	0	0	Armed Forces	L	3	2	1	1	0	0	0	0	0	0	0	0	7
32	0	0	0	0	0	Foreigners	M	3	0	2	2	1	1	1	1	0	0	0	0	11
	0	0	0	0	0	OIC		0	0	2	1	0	0	0	0	0	0	0	0	3
33	0	0	0	0	0	Balouchistan	N	1	0	1	0	1	0	0	0	0	0	0	0	3
34	1	0	0	0	1	HEC Nominee – Baluchistan	O	0	1	0	1	0	1	1	0	0	0	0	0	4
	0	0	0	0	0	HEC Nominee – Ex-FATA		1	0	1	0	1	0	1	0	0	0	0	0	4
	3	**2**	**2**	**3**	**10**	**Total (ii)**		**13**	**3**	**13**	**13**	**9**	**7**	**7**	**7**	**4**	**3**	**3**	**2**	**84**
	50	**50**	**50**	**50**	**200**	**Total (i+ii)**		**73**	**50**	**73**	**73**	**50**	**47**	**47**	**47**	**50**	**50**	**50**	**50**	**660**
* Maximum 33 seats are allowed with not more than 8 seats in any discipline. Only 1 (one) seat is reserved for CSE department.																				
GRAND TOTAL OF SEATS = 660 + 200 + 33* = 893																				

CE = Civil Engineering
CS = Computer Systems Engineering
EL = Electrical Engineering
ME = Mechanical Engineering
ES = Electronic Engineering
TC = Telecommunication Engineering
ESE = Energy Systems Engineering
CH = Chemical Engineering
SW = Software Engineering
EE = Environmental Engineering
ACE = Automation & Control Engineering
AFP = Agro-Food Processing Engineering Technology

Table-2: Distribution of Engineering Seats in Districts U/R (Batch-21)

SN	QUCEST LARKANO		Total	District	Cat: Code	QUEST NAWABSHAH		
	URBAN	RURAL				URBAN	RURAL	Total
01	5	5	10	Sukkur	A-1	24	29	**53**
02	3	16	19	Ghotki	A-2	8	32	**40**
03	2	6	8	Khairpur Mirs	A-3	15	50	**65**
04	2	5	7	Sh. Benazirabad	A-4	20	51	**71**
58	2	11	13	Naushahro Feroze	A-5	12	46	**58**
06	7	18	25	Larkana	A-6	6	13	**19**
07	7	16	23	Shahdadkot	A-7	6	16	**22**
08	6	17	23	Shikarpur	A-8	6	16	**22**
09	5	14	19	Jacobabad	A-9	5	10	**15**
10	4	13	17	Kashmore	A-10	5	9	**14**
11	1	2	3	Hyderabad	A-11	7	10	**17**
12	0	1	1	Matiari	A-12	5	8	**13**
13	0	1	1	Tando Allahyar	A-13	5	6	**11**
14	0	1	1	Tando M. Khan	A-14	5	6	**11**
15	0	2	2	Dadu	A-15	4	13	**17**
16	0	1	1	Jamshoro	A-16	4	7	**11**
17	0	2	2	Thatta	A-17	4	15	**19**
18	0	2	2	Badin	A-18	4	11	**15**
19	0	2	2	Mirpurkhas	A-19	7	12	**19**
20	0	1	1	Umerkot	A-20	0	13	**13**
21	0	2	2	Tharparkar	A-21	0	13	**13**
22	0	3	3	Sanghar	A-22	5	13	**18**
23	5	0	5	Karachi	A-23	20	0	**20**
	49	**141**	**190**	**Total**		**177**	**399**	**576**

Table-3: Description of Remaining Categories

Category	Description	Seats
B	Thirty seats have been reserved for eligible girl candidates domiciled in Sindh province as per the distribution given below: **1. QUEST, Nawabshah** Upper Sindh (Districts at serial nos. 1-10, Table-1) = 14 Lower Sindh (Districts at serial nos, 11-22, Table-1) = 17 **2. QUEST Campus, Larkano** Upper Sindh (Districts at serial nos. 1-10, Table-1) = 08 Lower Sindh (Districts at serial nos, 11-22, Table-1) = 00 The seats have not been divided in districts (Urban/Rural areas).	**39**
C	Real sons/daughters/sisters of Quaid-e-Awam University employees (serving or retired, deceased or working, on deputation of other institutions) shall be considered for admission to first year class against the reserved seats on the following criteria. 1. First preference will be given to real Sons/Daughters of employees who are confirmed in the University Service and have at least three years continuous University service at their credit. 2. Second preference will be given to real Sons/Daughters of employees who are confirmed in the University Service and have less than three years University service at their credit. 3. Third preference will be given to real Sons/Daughters of employees who are not confirmed in the University Service but have at least three years continuous University service at their credit. 4. Fourth preference will be given to real Brothers/Sisters of employees who are confirmed in the University Service and have at least three years continuous University service at their credit. 5. Fifth preference will be given to real Brothers/Sisters of employees who are confirmed in the University Service and have less than three years continuous University service at their credit. 6. Sixth preference will be given to real Brothers/Sisters of employees who are not confirmed in the University Service but have at least three years continuous University service at their credit. 7. Seventh preference will be given to real Sons/Daughters of employees who are not confirmed in the University service and have less than three years continuous University service at their credit. 8. Eighth preference will be given to real Brothers/Sisters of employees who are not confirmed in the University service and have less than three years continuous University service at their credit. **NOTE**: The merit regarding the category C will be determined as per policy of the University. A copy of the appointment order and confirmation order of the employee must be attached with admission form. Distribution of seats will be as per following: • Maximum 08 admissions in any discipline shall be allowed but total admissions shall not exceed 33 seats. For Computer Systems Engineering only 01 (One) seat is reserved under “C” Category.	**33**
D	Eligible candidates with proven sportsmen skills and domicile of Sukkur and Larkana Divisions only. 1. QUEST, Nawabshah = 05 Seats 2. QUEST Campus, Larkano = 01 Seat	**06**

E	Real Sons and daughters of regular employees of **Government Habib College of Technology, Nawabshah** and **Govt. College of Technology, Khairpur** recommended by the Principal along with CNIC, form "B" and service certificate of employer.	**02**
F	Candidates who have passed Diploma Examination in Civil, Mechanical, Electrical, Electronic and Chemical/Glass & Fibre Ceramics Technology from Government Technical College/Polytechnic and are domiciled in former Sukkur and Larkana Divisions including District Shaheed Benazirabad (Nawabshah), Diploma holders shall be considered for admission under this category only.	**05**
J	Candidates belonging to Azad Jamu Kashmir, nominated by the Ministry of Education, Government of Pakistan, Islamabad. The distribution is given below: 1. QUEST, Nawabshah = 03 Seats 2. QUEST Campus, Larkano = 00 Seats	**03**
K	(i) Candidates belonging to Federally Administrated Tribal Areas (FATA) 1. QUEST Nawabshah = 05 Seats 2. QUEST Campus, Larkano = 00 Seats	**05**
	(ii) Northern areas nominated by the state and frontier Region Division, Government of Pakistan, Islamabad.	**02**
L	Sons and daughters of Armed forces personnel nominated by the General Headquarters, Rawalpindi.	**07**
M	(i) Foreigner students (under Cultural Exchange Programme) nominated by the Ministry of Finance, Economic Affairs Division, Government of Pakistan, Islamabad. 1. QUEST, Nawabshah = 11 Seats 2. QUEST Campus, Larkano = 00 Seats	**11**
	(ii) Less developed countries of the organization of Islamic Countries, OIC, Nominated /communicated by Higher Education Commission, Islamabad (HEC).	**03**
N	Candidates belonging to Balouchistan Province, nominated by the Ministry of Education. Government of Balouchistan. The distribution given below: 1. QUEST, Nawabshah = 03 Seats 2. QUEST Campus Larkano = 00 Seats	**03**
O	(i) Candidates belonging to Balouchistan nominated through Higher Education Commission, Islamabad. 1. QUEST, Nawabshah = 04 Seats 2. QUEST Campus Larkano = 01 Seats	**09**
	(ii) Candidates belonging to FATA nominated through Higher Education Commission, Islamabad 1. QUEST Nawabshah = 04 Seats 2. QUEST Campus Larkano = 00 Seats	
	Total Seats	**128**

Table-4: Detail of Urban Areas of Sindh Province

SN	District	SN	District
1	**Sukkur District** a) Sukkur Municipality b) Rohri Municipality	13	**Tando Allahyar District** a) Tado Allahyar Municipality
2	**Ghotki District** a) Ghotki Municipality b) Mirpur Mathelo Municipality	14	**Tando M. Khan District** a) T.M. Khan Municipality
3	**Khairpur District** a) Khairpur Municipality b) Pir-Jo-Goth Municipality c) Gambat Municipality	15	**Dadu District** a) Dadu Municipality b) Mehar Municipality c) K.N. Shah Municipality
4	**Shaheed Benazirabad District** a) Nawabshah Municipality	16	**Jamshoro District** a) Kotri Municipality
5	**Naushahro Feroze District** a) Moro Municipality	17	**Thatta District** a) Thatta Municipality
6	**Larkano District** a) Larkano Municipality b) Ratodero Municipality c) Naudero Municipality	18	**Badin District** a) Badin Municipality b) Matli Municipality
7	**Kambar Shahdadkot District** a) Shahdadkot Municipality b) Qambar Municipality	19	**Mirpur Khas District** a) Mirpur Khas Municipality
8	**Shikarpur District** a) Shikarpur Municipality	20	**Umerkot District** No Urban Areas
9	**Jacobabad District** a) Jacobabad Municipality	21	**Tharparkar District** No Urban Areas
10	**Hyderabad District** a) Hyderabad Municipality b) Hyderabad Cantonment c) Tando Jam Municipality	22	**Sanghar District** a) Sanghar Municipality b) Shahdadpur Municipality c) Tando Adam Municipality d) Sanjhoro Municipality
11	**Kashmore District** a) Kandhkot Municipality	23	**Karachi**
12	**Matiari District** a) Hala Municipality		

Table-5: Distribution of Seats in Various Science Disciplines (Batch-21)

District/Category	BS(IT) Cat. G	BS(CS) Cat. H	BS(Math) Cat. I	BS(English) Cat. P	BS(Physics) Cat. Q	BS(AI) Cat. R
Sukkur	75	75	40	75	40	40
Ghotki						
Khairpur Mirs						
SBA						
N/Feroze						
Larkana						
Shahdadkot						
Shikarpur						
Jacobabad						
Kashmore						
Hyderabad						
Matiari						
Tando Allahyar						
Tando M. Khan						
Dadu						
Jamshoro						
Thatta						
Badin						
Mirpurkhas						
Umerkot						
Tharparkar						
Sanghar						
Karachi	05	05	05	05	05	05
Girls	05	05	05	05	05	05
QUEST Employees	05	05	05	05	05	05
Self-Finance (Regular)	10	10	10	10	10	10
Total	**100**	**100**	**65**	**100**	**65**	**65**

Table-6: Distribution of Seats for Self-Finance Scheme (Batch-21)

QUEST Campus Larkano	SN	District (i) SF (Sindh)	QUEST NAWABSHAH				
CE, EL, ME, ES			**CE**	**EL**	**ME**	**Total**	**CS, ES, TC, ESE, CH, SW, EE**
Self-finance seats in CE, EL, ME & ES at QUEST Campus Larkano shall be filled on open merit basis subject to the availability of seats.	1	Sukkur	1	2	1	**4**	Self-finance seats in CS, ES, TC, ESE, CH, SE & EE shall be filled on open merit basis subject to the availability of seats.
	2	Ghotki	1	1	1	**3**	
	3	Khairpur Mirs	1	2	1	**4**	
	4	SBA	2	2	1	**5**	
	5	N. Feroze	1	2	1	**4**	
	6	Larkana	1	1	1	**3**	
	7	Shahdadkot	1	1	1	**3**	
	8	Shikarpur	1	1	1	**3**	
	9	Jacobabad	1	1	1	**3**	
	10	Kashmore	1	1	1	**3**	
	11	Hyderabad	1	1	1	**3**	
	12	Matiari	1	1	1	**3**	
	13	T. Allahyar	1	1	1	**3**	
	14	T. M. Khan	1	1	1	**3**	
	15	Dadu	1	1	1	**3**	
	16	Jamshoro	1	1	1	**3**	
	17	Thatta	1	0	0	**1**	
	18	Badin	1	0	0	**1**	
	19	Mirpurkhas	1	0	1	**2**	
	20	Umerkot	1	0	0	**1**	
	21	Tharparkar	1	0	0	**1**	
	22	Sanghar	1	2	1	**4**	
	23	Karachi	1	0	1	**2**	
		Total (i)	**24**	**22**	**19**	**65**	
		(ii) SF (Other Province)	1	0	1	**2**	
		(iii) SF (Pass DAE) – SF (Sindh Province)	4	0	1	**5**	
		(iii) SF (Pass DAE) – SF (Other Province)	1	0	1	**2**	
		Total (ii+iii)	**6**	**0**	**3**	**9**	
		Grand Total (i+ii+iii)	**30**	**22**	**22**	**74**	

GENERAL RULES & REGULATIONS

Regulations regarding the General Scheme of Studies for the bachelor's degree programs at Quaid-e-Awam University of Engineering, Science and Technology under Section 48(1)(a) of the Act 1996.

1. Title: These Regulations shall be called "the Quaid-e-Awam University of Engineering, Science and Technology, Bachelor of Degree Courses Regulations 2016" replacing such regulations framed by the University authorities (if any).
2. These Regulations shall be subject to the Quaid-e-Awam University of Engineering, Science and Technology General Scheme of Studies for Bachelor's degree courses Statutes 2016.
3. Commencement: These Regulations shall be deemed to have come into force with effect from January 1st, 2017 (applicable to 2017 Batch and onwards)
4. Definitions: In these Regulations unless otherwise explicitly stated.
    i. "University" means the Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah.
    ii. "College" means the constituent; Affiliated College of the University
    iii. "Academic Year" means the Academic Year of the University.
    iv. "Semester" means a Period of 22 weeks out of an academic year for teaching and evaluation and/or guidance of the students of the University.
    v. "Vice Chancellor", "Dean". "Principal", "Chairman", "Director", "Teacher" and "Controller of Examinations" means the Vice Chancellor, the Dean, the Principal, the Chairman, the Director, the Teacher and the Controller of Examinations of the University.
    vi. "Credit Hour (CH)" means one credit hour for a particular course is generally considered as one hour of teaching of theory subject per week and for practical one credit hour be considered as 3 contact hours.
    vii. "Quality Point (Q.P.)" means the value obtained by multiplying grade obtained by student with the credit hours of that course.
    viii. "Grade Point Average (G.P.A.)" means a value obtained by dividing sum of quality points by sum of credit hours offered during a particular semester.
    ix. "Cumulative Grade Point Average (CGPA)" means the value obtained by dividing sum of quality points for all the courses appeared by sum of credit hours for all the courses appeared.
5. First Year, Second Year, Third Year and Fourth Year for the degree of the Bachelor of Engineering (B.E.) and Bachelor of Science will each be of one-year duration (Total 4 years) each comprising of two semesters. Total Credit hours for all 4 years shall be 130 - 136.
6. The courses of studies for the degree programs of the University shall be as approved by the Board of Studies of the concerned department and approved by board of concerned faculty and academic council of the University from time to time.

7. Each degree program shall carry a number of approved courses and each course shall be assigned a number of Credit Hours. The Credit Hours per semester for each discipline shall be in between 15-18.

8. There shall be two semesters in an academic year. The duration of teaching time in each semester shall be 16 weeks. The semester starting with the commencement of the academic year will be called the 'First Semester and the following semester will be called the 'Second Semester'.

9. Examination evaluation system as defined below is used

   i. Theory: Internal examiner.

   ii. Practical / Viva Voce: Internal and External Examiner (from outside the University)

   iii. Thesis / Project: Internal and External Examiner (from outside the University)

   NOTE: External examiner should be proposed by the board of studies of department, appointed by the dean concerned and approved by the Vice Chancellor.

10. Yearly Academic Program:

i.	Teaching duration of 1st semester (Including Mid Semester Examination)	16 Weeks
ii.	Preparation of 1st Semester Examination	02 Weeks
iii.	Conduct of 1st semester Examination	04 Weeks
iv.	Summer Break	06 Weeks
v.	Teaching duration of 2nd Semester (Including Mid Semester Examination)	16 Weeks
vi.	Preparation of 2nd Semester Examination	02 Weeks
vii.	Conduct of 2nd Semester Examination	04 Weeks
viii.	Winter Break	02 Weeks
	Total	**52 Weeks**

Note:

   i. Minimum number of contact hours for a theory subject of 3 credit hours per semester is 42 and for a theory subject of 2 credit hours is 28. One (01) credit hour of theory is equal to 1 contact hour and one (01) credit hour of practical is equal to three (03) contact hours.

   ii. Minimum number of contact hours for a practical of 1 credit hour per semester is 42.

11. The minimum requirement for each semester course:

   i. Assignments

   ii. Tests (Minimum Two)

   iii. Mid Semester Examination

iv. Final Semester Examination

The Schedule of Tests, Mid Semester and Final Semester Examination shall be as under:

	Activity	**Period**
a.	Tests	During Classes
b.	Mid Semester Examination	After Completion of 8-week classes
c.	Assignment (s)	After 16 weeks

12. Mid Semester Examination will be of one-hour duration for 3 CHs course and each question paper will contain 03 questions with choice to attempt any two questions. Similarly, Mid Semester Examination will be of 45 minutes duration for 2 CHs course and each question paper will contain 03 questions with choice to attempt any two questions.

13. Distribution of marks of each theory and practical course in a semester will be as under:

THEORY

		Max Marks 100	**Max Marks 50**
i.	Class Test	10	05
ii.	Assignments	10	05
iii.	Mid Semester Exanimation	20	10
iv.	Final Semester Examination	60	30
	Total Marks:	**100**	**50**

PRACTICAL

		Max Marks 100	**Max Marks 50**
i.	Lab Evaluation Work	40	20
ii.	Semester Lab Examination	60	30
	Total Marks:	**100**	**50**

Note: For the courses carrying other than 100 and 50 marks the distribution of marks will be accordingly.

In case of the Project/Thesis/design the distribution of marks shall be as follows:

i.	Sessional Marks	25% marks
ii.	Evaluation of Project Report	25% marks
iii.	Viva-Voce Examination	50% marks

14. Attendance Requirement:

i. A student should have at least 75% attendance to appear in the Examination

ii. In genuine cases, maximum 15% condonation in attendance shall be the discretionary powers of the Vice Chancellor on the basis of an application to be scrutinized by the Chairman concerned and routed through proper channel.

iii. The attendance of Theory/Practical for late admitted students to First Semester of First Year only shall be calculated from the date of admission.

15. Appearance in the Semester Examination: The students who fulfill the following conditions are eligible appear in the semester examination.

- His/her name has been on the roll list of the concerned Department of concerned faculty, before the start of the examination.
- (ii) He/she has fulfilled the prescribed requirements of the attendance
- (iii) He/she has submitted his / her Examination Form dully filled in completely along with the prescribed fee to the Controller of Examination, through concerned chairman.

16. The Final Semester Examination will be of 3-hours duration for 3 CH course and each question paper will contain 05 questions without any choice. Similarly, final semester examination will be of 2-hours duration for 2 CH course and each question paper will contain 03 questions without any choice. Final examination will be conducted from the whole course.

17. Conduct of Sessional Work/Mid-Semester and Final Semester Examinations and declaration of results shall be as follows:

i. 05 or 02 marks of tests for subjects carrying 100 or 50 marks shall be awarded by the teacher concerned after conducting class tests as given below:

   a. Three tests (MCQs type, assignment or presentation) for subject of 100 marks. Two best of three tests will be considered for award of 05 marks.

   b. Two tests (MCQs type, assignment or presentation) for subject of 50 marks. Best of these two tests will be considered for award of 02 marks.

   The scripts of all assignments and tests will be returned to the students.

ii. At the end of each semester, the marks of attendance, sessional work, and lab work secured by the students in Theory and Practical of the concerned subject shall be announced by the concerned subject teacher by displaying on the Notice Board.

iii. Mid semester Examination will be conducted by the Examination Department in collaboration with the concerned Department. The mid-semester examination will be conducted only for theoretical subjects

iv. The question paper (drawn from within the course of midterm) and their solutions (duly sealed) for the mid semester and final semester examinations will be submitted by the concerned teacher for the Controller of Examinations at least two days before the Examination.

v. The marks of the mid semester examination/question paper of 3 CH will be 20 and for the 2 CHs course will be 10

vi. The scripts of mid semester examination will be shown to the students after evaluation. Each blank page/gap in the scripts will be stamped or line drawn, by the factotum/ head invigilator concerned.

vii. The marks of each test and mid semester examination will be displayed and solutions will be discussed in the class room immediately after evaluation, he/she may convey this to the Chairman of the concerned department within 7 days of the result and the

matter will then be looked into by the Departmental Committee, whose decision will be final. Any such objections after the expiry of 7 days will not be accepted. A copy of the Marks of the tests and mid semester will be submitted by the teacher in the department office immediately after the announcement of the results.

viii. The teachers will prepare 3 copies of the result of each course separately at the end of each semester (class tests, mid semester examination, assignment and final semester examination) on the prescribed proforma and shall forward to the Controller of Examinations.

ix. The cumulative result (including all the marks of assignments, tests, mid semester examination and final semester examination) of each semester of a year will be announced by the Controller of Examinations.

18. Setting of Question Paper/Assessment of Scripts and Conduct of Practical Examination

(a) Setting of Question Paper

Theory:

i. Question Papers for Semester Examination shall be drawn by the teacher(s) of concerned subject as Examiners for all departments. In case of more than one subject teacher of a particular subject in the same department with assigned sections, the respective teacher will draw his own part of paper.

ii. The departmental committee with consent of Dean of the faculty may moderate the question paper if necessary.

Practical:

i. The objective type Question Paper of Practical Examination shall be set by the Internal Examiner.

ii. The following applicable guideline parameters shall be followed by the Examiners for setting of objective type Question Papers.

- Fill in the blanks, True or False, MCQs, Definition of Technical Terms, Drawing Skill Oriented Questions and Interpretation of Diagrams.

(b) Assessment of Scripts:

The scripts of the Theory Examination will be assessed by the respective Examiner. The award lists should be submitted to chairman for scrutiny in order to avoid any discrepancy in the subjects of same semester.

(c) Conduct of Practical Examination

i. The practical and Viva-Voce Examination shall be conducted jointly by the subject teacher and external examiner approved by the Vice-Chancellor. The signature sheets of examinees for conduct of Objective Type Test and Viva-Voce shall be maintained separately and the same shall be submitted to the Examinations Department for office record by the Examiners. The award lists signed by the both examiners shall be submitted in triplicate under sealed cover to the Controller of Examinations.

ii. The internal Examiner as well as External Examiner shall both submit separate report under sealed confidential cover to the Controller of Examinations of the University regarding the standard of the examination taken by them.

iii. The Chairman or his/her nominee having expertise with related subject shall act as an alternate if External Examiner is not available on the scheduled date(s), however the same alternate arrangements be made in case the concerned subject Teacher/Internal Examiner is not available in exceptional case due to some serious problem.

19. Departmental Committee:

Each Department will have a Departmental Committee consisting of three senior-most teachers of the Department including Chairman to assess the progress of the students during the semester and the results of all the examinations including the final semester examination. In case of any discrepancy in the results during scanning process, the concerned committee will seek approval through the Dean from the Vice Chancellor for rechecking the scripts by a subject expert (from within or outside the university - other than the subject teacher). The final recommendations of the Departmental Committee concerning the results will be submitted through the concerned Dean to the Vice Chancellor for consideration and approval.

20. Scanning of Results:

i. A committee comprising of the Dean of the concerned Faculty, the Chairman of the concerned Department and the concerned teacher of the subject who, if necessary, for reasons of checking the quality and consistency of assessment of scripts, would at random re-assess at least 15% of the scripts and in case gross discrepancy is detected, the Committee shall be empowered to take appropriate action with approval of the Vice Chancellor.

ii. Prior to sending ledgers of the results of Regular/Supplementary Examination to the Vice Chancellor for his signature, the overall tabulated and checked ledgers shall be pursued and rescanned by the Dean of concerned Faculty and the Chairman of concerned Department.

21. Passing Examinations:

i. A candidate having passed all the Heads of 1st and 2nd semester of First to Final Year of Bachelor of Engineering / Bachelor of Science with minimum 50% in Theory and 50% in practical shall be declared "PASS" or otherwise. The pass percentage for Project/Thesis in the Final Year shall be 50% (A Theory or Practical would be treated as separate heads).

ii. If any student is not able to get 50% aggregate marks even after having passed all the Heads, he/she shall be promoted but must improve the Heads of his/her choice to secure at least 50% aggregate marks.

iii. To improve the aggregate marks the student must apply for the permission from examination department by paying prescribed fees and filling up the prescribed form through concerned chairman and Dean of the respective Faculty.

iv. A student who has secured minimum CGPA 2.00 in all the semesters of 4 years and has passed all the subjects will be eligible for the award of degree of Bachelor of the Engineering/Science.

v. A student failing in any or all Heads of a semester examination shall be declared to have failed in the examination. He/She shall be allowed to re-appear in the failing Head(s) in the next examination, if otherwise eligible as per rules.

22. Grade Equivalent

Grade	Grade Point	Marks			
		Theory		Practical	
		Max marks 100	Max marks 50	Max marks 100	Max marks 50
A+	4.00	>=85	>=42	>=85	>=42
A	3.75	75 to 84	37 to 41	75 to 84	37 to 41
B+	3.50	66 to 74	33 to 36	66 to 74	33 to 36
B	3.00	60 to 65	30 to 32	60 to 65	30 to 32
C+	2.50	55 to 59	27 to 29	55 to 59	27 to 29
C	2.00	50 to 54	25 to 26	50 to 54	25 to 26
F	Fail	0 to 49	0 to 24	0 to 49	0 to 24

The fraction is considered as a whole number. The students taking subjects having more than 100 marks in Theory/Practical will be awarded grades accordingly. The results will be prepared on the basis of Grade Point Average (GPA).

23. Promotion Rules:

i. A student will be promoted to the 2ndsemester of the first year provided he/she has completed minimum attendance requirement and filled up examination form and appeared in at least one of the heads of the 1st semester examinations (First Semester). (A theory or practical would be treated as separate heads).

ii. A student will be promoted to the 1stsemester of the 2ndyear (3rdsemester) provided he/she has obtained C-Grade or higher in at least 50% Heads (including minimum of 02 theory papers) of 1stsemester of first year in regular examination and has completed minimum attendance requirement of 2ndsemester of the first year and has filled up examination form and appeared in at least one of the heads of examinations (2ndSemester). Benefit of the fraction will be given to the student.

iii. A student will be promoted to the 2ndsemester of the 2ndyear (4thsemester) provided he/she has completed minimum attendance requirement or the 3rd semester, filled up the examination form and appeared in at least one head of the final semester examination (Third Semester).

iv. A student will be promoted to the 1st semester of the 3rd year (5th semester) provided he/she has obtained C-Grade or higher in at least 50% Heads (including minimum of 05 theory papers) of 1st year prior to start of classes of 5th semester and has completed minimum attendance requirement of the 4th semester and has filled up the examination form and appeared in at least one of the heads of the examination (4th Semester). Benefit of the fraction will be given to the student.

v. A student will be promoted to the 2nd semester of the 3rd year (6th semester) provided he/she has completed minimum attendance requirement, filled up the examination form and appeared in at least one of the heads of the final semester examination (5th semester)

vi. A student will be promoted to the 1st semester of the 4th year (7th semester) provided he/she has cleared all heads of first year, secured minimum CGPA of 2.00, obtained C-Grade or higher in at least 50% heads of second year (including minimum of 05 theory papers) prior to the start of the classes of 7th semester, and has completed minimum attendance requirement of the 6th semester, and has filled up the examination form and appeared in at least one of the heads of the examination (6th Semester).

vii. A student will be promoted to the 2nd semester of the 4th year (8thsemester) provided he / she has completed minimum attendance requirement, filled up the examination form and appeared in at least one of the heads of the final semester examination (7th semester).

24. Award of Degree:

A student shall be awarded degree of Bachelor of Engineering/ Bachelor of Science only after he / she has passed the examination and cleared all the Heads of all the semesters within the maximum period of 07 (seven) academic years.

25. Comprehensive Viva-Voce / Jury Examination:

The comprehensive Viva-Voce examination of the project/thesis work will be held at the completion of the last semester of the degree program. Success in the Viva-Voce will be compulsory for the award of degree. The Chairman of the Department, the concerned teacher or the project supervisor together with at least one external examiner will constitute the viva-voce committee. Student who has failed in the viva-voce will be given the benefit of appearing once in the viva-voce (maximum up to two examinations).

26. Time for Checking Scripts:

The time limit for checking the answer scripts shall be 15 scripts per day plus one week, unless specified.

27. Final Award:

The final award once received by the office of the Controller of Examination shall not be liable to the subsequent change, except with the permission of the Vice-Chancellor.

28. Retotaling of Marks:

Retotaling of the marks shall be done on payment of prescribed fee per paper for a candidate who applies to the Controller of Examination, through the Chairman, or Director/Coordinator of the concerned Department/Programme within two weeks from the date of announcement of result.

29. As Per Rule (APR) Policy:

There will be no consideration of APR in any examination of semester system.

30. Medium of Instructions:

Instruction in all courses and laboratories are carried out in English language.

31. Modification of Regulations:

These Regulations are subject to modification by the competent University Authorities as may be felt appropriate in future.

32. Method of Working out GP:

a. Credit Hours (C.H)

One credit hour for a particular course is generally to be considered as one hour of teaching theory per week and for practical 1 C.H be considered as 3 contact hours.

b. Quality Points (Q.P)

For computation of the (G.P.A), the quality point (QP) is first determined by multiplying the value of the grade earned by the students with the Credit Hours of that course e.g. if a student obtained "A+" grade for a three credit hours course then his quality points will be calculated as follows:

Q.P=4x3= 12

c. Grade Point Average (G.P.A)

Grade Point Average is an expression for the average performance of a student in the course he/she has been offered during a particular semester. This is calculated by adding the quality points of all the courses taken, divided by the total number of Credit Hours offered.

G.P.A= (Sum of Quality Points) / (Sum of the Credit Hours)

d. Cumulative Grade Point Average (CGPA)

The cumulative Grade Point Average (CGPA) is the expression describing the performance of a student in all semesters is determined by the following way.

CGPA= (Sum of Quality Points for all the courses appeared) / (Sum of the CHs for all the courses appeared)

33. Migration / Transfer Policy

i. Migration Policy:

The migration will not be allowed in the first year and final year from other Universities. Migration shall be allowed in second year and third year subject to class strength may not exceed from allowed PEC intake in case migration is requested for Bachelor of Engineering programmes.

ii. Transfer Policy:

The transfer shall not be allowed in first and final year. The transfer from QUEST, Campus Larkano to QUEST Nawabshah or vice-versa shall be allowed in second year and third year subject to class strength not exceeding from allowed PEC intake in case transfer is requested for Bachelor of Engineering programmes. Other terms and conditions will remain same.

iii. The migration from or to QUEST will not be allowed to the students admitted on reciprocal basis, sports category and/or of categories other than "A".

iv. The migration will be allowed to other students when:

a. The Father/Guardian of the student as mentioned in his/her admission form dies and thus the means of support of student at this University are badly affected.

b. The Vice Chancellor desires the migration of the student in the interest of the University.

v. The University will have no objection to admit the students of other University seeking migration to this University, provided the seats are available in the relevant department.

vi. The University reserves the right to refuse any migration from or to this University without assigning any reason thereof.

vii. The migration of the foreign students will be considered by the University, provided the nominating agency and the Federal Ministry of Education, indicating genuine individual reasons of the students, recommend their applications.

viii. The student migrating from this University shall have to pay Rs.10000/- fee for processing of NOC.

ix. The migration fee of the foreigner, local students of other Universities and QUEST Campus Larkano to this University would be allowed on the payment of Migration fee equal to the Self finance fee of the University.

x. Only pass students will be allowed to apply for migration to QUEST in the same batch/technology.

34. Students Conduct & Discipline Regulations

i. Short Title

The regulations may be called the Quaid-e-Awam University of Engineering, Science and Technology, students' conduct and discipline regulations, 1996.

ii. Commencement and Applications

These regulations shall come into force with immediate effect, and shall apply to all the students of the University and Colleges affiliated to the University

iii. Definitions

In these regulations, unless explicitly stated:

a. "University" means the Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah.

b. "Campus" means all areas and building structures including Academic Block/Teaching Departments, Hostels or Halls of residence of students, Administration Block, Sports Grounds, Gymnasium and any staff residential area, Recreation areas for students and staff and any other such as, buildings, or facilities created within the specified boundary of the University and like-wise areas of affiliated colleges.

c. "Syndicate" means the Syndicate of the University.

d. "Vice-Chancellor" means the Vice-Chancellor of the University.

e. "Discipline Committee" means the Discipline Committee of the University constituted under the First Statues appended to Quaid-e-Awam University Act, 1996 and/or constituted separately for constituent colleges with the approval of the Vice-Chancellor, Quaid-e-Awam University of Engineering, Science and Technology.

f. "Dean", "Principal", "Provost", "Chairman of a Teaching Department", "Director of Physical Education", "Deputy Provost", "Superintendent of Workshop", "Warden", "Teacher Incharge", and the "Games Incharge", "Officer Incharge of students", respectively means the Dean, the Principal, the Chairman of Teaching Department the Director Physical Education, the Deputy Provost, the Superintendent of Workshop, the Warden, the Teachers Incharge, the Games Incharge, the Students Welfare Officer, Students Advisor appointed as such by the competent authority of the University.

iv. Every Student Shall Observe the Following:

He/She must be faithful in his/her religious duties and respect the convictions of others in matters of religion and customs.

a. A minimum of 42 lectures shall be held in each full subject (having 100 marks), but teachers may take extra lectures to complete the course. The attendance will be allowed on the basis of all the conducted lectures, the minimum number being 42.

b. He/She must be loyal to his/her country and refrain from doing anything, which might lower its honour and prestige.

c. He/She shall be truthful and honest in his/her dealings with all people.

d. He/She must respect the elders and be polite to all especially to the women, the children, the old people, the weak and the helpless.

e. He/She must respect his teachers and others in authority in the University.

f. He/She must keep his mind clean and be clean in speech, sports and habits.

g. He/She shall help his fellow beings especially those in distress.

h. He/She must devote himself faithfully to his studies and obey and follow the rules, instructions, and guidelines, issued by the University authorities from time to time.

i. He/She must observe austerity and protect the University property.

v. No student shall

i. Smoke in his classroom, laboratory, workshop, library, examination hall or convocation hall and during any academic functions.

ii. Consume alcoholic liquor or other intoxicating drugs within the University Campus or during the instructional, sports or cultural tours or survey campus or enter any such place or attend any study tour or camp while under the influence of such intoxicants.

iii. Organize or take part in any function within the University campus, organize any club or society of students without permission of the University authorities.

iv. Indulge into activities against the Islamic and Pakistan ideology or national solidarity.

v. Indulge into activities promoting, prompting or involving violence or hatred, or contempt.

vi. Affiliate himself with any political party or group and organize or take part in holding political gatherings and invite any politicians, expelled or rusticated or debarred students, and antisocial elements in the University campus.

vii. Use pressure tactics or political or personal influence in seeking academic concessions or financial benefits or in other matters concerning academic and administrative functions of the University authorities

viii. Copy or help others in copying in examination, or cause by any means any disturbance in examinations including harassment of any teacher or other staff member or staging of walkout by him or by forcing others to do so.

ix. Bring, keep, or use any kind or weapon or firearms within the University campus.

x. Use or occupy fully or partially any room or any building of the University campus un-authorized.

xi. Organize or take part in procession or meeting within university campus, prejudicial to the peaceful atmosphere of the University.

xii. Stage, invite, or participate in or abet any walk-out, strike, or any other form of agitation against the University or its teachers or officers.

xiii. Collect any money or receive donations or pecuniary assistance, for or on behalf of the University or any organization except with the written permission of the Vice-Chancellor or any other person authorized by him in this regard.

vi. The teachers and officers of the University or Committees formed under them for the purpose and other concerned with the students in the University are responsible for the maintenance of discipline and order among the students, while under their charge, and for dealing with any disorderly behavior promptly in the manner prescribed by these regulations.

vii. The Disciplinary Committee shall deal with serious cases of indiscipline requiring such actions as prescribed by Regulation 10.

viii. The teacher or an officer in whose presence or in relation to whom an act of indiscipline is committed or who obtains knowledge of such an act on a report or otherwise, shall deal with the case himself as he may be competent as provided under the Regulation 10 below, and in other case, he shall inform and recommend the case to the higher authorities/bodies for necessary action as prescribed.

ix. Penalties

Any one or more of the penalties mentioned in Regulation 10 may be imposed on a student who is guilty of one or more of the following acts:

a. Commits breach of any of the clauses specified in Regulations 4 or 5 above; or

b. disobeys the lawful order of a teacher or other person in authority in the University; or

c. habitually neglects his work or habitually absents himself from the class without reasonable cause; or

d. willfully damages / disfigures University property or the property of a fellow student or any teacher or any employee of the University; or

e. disrespects, or hurts any person, or does not pay the fees, fines or other dues livable under the University regulations; or

f. does not comply with the regulations relating to the residence in the hostels or halls or residence or the regulations relating to the wearing of uniform or academic dress; or

g. Uses indecent languages, wears immodest dress, makes indecent remarks or gestures or behaves in a disorderly manner; or

h. Commits any criminal, immoral or dishonorable act (whether committed within the University campus or otherwise) which brings bad name to the University.

i. The penalty or penalties imposed shall be appropriate and proportional to the nature and gravity of the above act or acts.

x. The penalties which may be imposed and the authority or authorities competent to impose each kind of penalty are specified below:

Exclusion from classroom, Workshop or field work for the duration of the period	Teacher/Incharge
Exclusion from the games or the field for the day.	Games Incharge
Exclusion from instruction sports tour or survey camp.	Teacher/Officer Incharge
Exclusion from the department a period not exceeding one-week	Chairman/Head for the Teaching department
Exclusion from all classes or any class for a period concerned/ Principal to exceeding two weeks.	Dean of Faculty of concerned / Principal
Fine not exceeding Rs. 500/-	Teacher Incharge or Superintendent of concerned Worskhop
Fine not exceeding Rs. 1000/-	Chairman of the Department or other concerned Officer/Incharge
Fine not exceeding Rs. 5000/	Dean of the Faculty concerned.
Fine not exceeding Rs. 10000/-	Vice-Chancellor
With-holding of issue of character certificate	Chairman/Head of the teaching department

Cancellation of examination of part thereof, or debarring from the appearing in any examination	Vice-Chancellor on the recommendation of the Discipline Committee
Cancellation of admission fee or University Scholarship	Vice-Chancellor on recommendation of the Faculty concerned/ Principal
Suspension or removal from University Sports	Vice-Chancellor on recommendation of the executive committee of the University Sports Board
Suspension of admission from the University for a concerned period specified or unspecified pending the final decision	Dean of the Faculty
Rustication/Expulsion from the University for a period not exceeding one year	Vice-Chancellor on recommendations of Discipline Committee
Rustication/Expulsion from the University for a period exceeding one year	Syndicate
Cancellation of admission from the University	Syndicate
With-holding of the issue of any degree	Syndicate

Provided that the higher authorities shall be equally competent to impose penalties within the competence of lower authorities as prescribed above.

xi. No student shall be rusticated or expelled from the University unless he has been allowed a reasonable chance of defending the accusation against him, provided that if the competent authority is satisfied it may take such an action under emergency to avoid any grave consequences.

xii.

a. An appeal against imposition of the penalties shall lie with the Vice-Chancellor, provided that where the penalty has been imposed by the Vice-Chancellor himself, an appeal shall lie with the Syndicate. Provided that when a penalty has been imposed by the Syndicate, an application for review can be made to the Syndicate.

b. No appeal by a student under these Regulations shall be entertained, unless it is presented within two weeks from the date on which the decision is communicated to him, provided that the Vice-Chancellor may for valid reasons condone delay in any individual case.

xiii. The Vice-Chancellor or any teacher or officer duly authorized by the Vice-Chancellor may direct a student or a group of students to pay compensation for any loss or damage to property belonging to the University or to fellow student(s) or to an employee of the University, caused by willful act or gross negligence of the students and if the student does not pay such compensation within a reasonable time, competent authority as the case may be, may take suitable action against him/them for indiscipline and impose upon him/them any of the penalties prescribed by Regulation 10 above.

ADMISSION TEST

General Instructions for Paper-based Entry Test

1. You will be required to write your name, father's name and seat number on the top of your answer sheet and rough worksheet which will be provided to you by the instructor.
2. You have to give your undivided attention to the instructor when instructions are being given.
3. The test is divided into four sections. Each section consists of 25 questions as given below:
    a. **Pre-Engineering Group** (English, Physics, Chemistry and Mathematics)
    b. **Pre-Medical Group** (English, Physics, Chemistry and Biology)
    c. **General Science Group** (English, Physics, Computer Science and Mathematics
4. In order to assure a fair chance to every candidate and to conduct the test efficiently, we need and request your cooperation in the form of carefully following the instructions given here and by the instructor during the test.
5. The instructor will tell you when to start work and when to stop.
6. In the interest of fairness, we insist that no one may continue work even for a second after the instructor has asked to stop the work.
7. During the test, do not talk, whisper or turn your eyes or head away from your own papers.
8. To answer the question in the test, you have to blacken the appropriate circle marked with A, B, C or D with a pen provided to you by the University. In case you blacken more than one circle for the same item, your answer will be treated as wrong.
9. You do not have to write anything anywhere on the answer sheet except those mentioned at serial number 1 of this section.
10. A blank sheet will be provided with the answer sheet to do your rough work. You may detach the sheet for your convenience.
11. Do not write anything anywhere on the test booklet. All answers must be given on the answer sheet.
12. Each question carries one mark. There will be no negative marking for any wrong answer.
13. You are strictly prohibited to bring a mobile phone, Calculator, Laptop, iPad, iPod, etc. with you. Failing which the University will not be responsible for loss of your goods or even you may be expelled from the test center.
14. In case of any claim regarding the correctness of any question/key of the question book, the claimant should have to provide a solution of the same verified and attested by the subject specialist. Failing which claim will not be entertained.

15. The candidate(s) will be disqualified if found any evidence of impersonation, cheating or non-compliance with instructions. Further, the candidate(s) will be expelled from the test and legal action shall be taken against him/her accordingly.
16. No candidate is allowed to leave his/her seat until permitted.

General Instructions for Computer-based Entry Test

1. Computerized Entry Test (CET) consists of 100 multiple choice questions and the time for the test is 60 minutes (one hour).
2. CET is divided into four sections where each section consists of 25 questions as given below:
    b. **Pre-Engineering Group** (English, Physics, Chemistry and Mathematics)
    c. **Pre-Medical Group** (English, Physics, Chemistry and Biology)
    d. **General Science Group** (English, Physics, Computer Science and Mathematics
3. You will be required to write your name and seat number on the rough worksheet which will be provided to you by the invigilator.
4. You must give your undivided attention when the instructions are being given.
5. The candidate must follow the instructions given by the invigilators during the test for smooth and transparent conduct of the test.
6. During the test, do not talk, whisper or turn your eyes or head away from your own screen.
7. To answer the question in the test, you must select an appropriate option marked with A, B, C or D.
8. Each question carries one mark and there will be no negative marking for any wrong answer.
9. All candidates are strictly prohibited to bring their mobile phone, Calculator, Laptop, iPad, iPod etc. with them. Failing which the University will not be responsible for loss of your devices/gadgets or even you may be expelled from the test center.
10. The credentials of CET shall be provided to the candidate.
11. The candidate must follow the instructions for login to start the test.
12. He/she will not be allowed to continue the test if any candidate terminates/closes the test deliberately or by mistake.
13. The candidate(s) will be disqualified if found any evidence of impersonation, cheating or non-compliance with instructions. Further, the candidate(s) will be expelled from the test and legal action shall be taken against him/her accordingly.
14. No candidate is allowed to leave his/her seat until permitted.

Pre-Admission Test Sample Paper

Physics Examples

1. When a metal is heated sufficiently, electrons are given off by the metal. This phenomenon is known as:

A. Thermionic emission B. Secondary emission

C. Photoelectric effect D. Canal ray emission

We know that this phenomenon is termed as 'thermionic emission'. Hence the correct answer is 'Thermionic emission'. Therefore, an appropriate option “A” will be selected.

2. When an object moves with constant speed around a circle its centripetal acceleration is always:

A. directed away from the center of the circle

B. directed towards the center of the circle

C. parallel to velocity vector

D. Parallel to the tangent of the circle

In the above question, we know that the Acceleration will be directed towards the center of the circle. Hence the correct answer will be "directed towards the center of the circle". Therefore, the choice "B" is the correct answer and the appropriate option “B” on the screen will be selected.

3. A stone is dropped from a high building. At the end of 3 seconds of free fall, the speed of the stone in (cm/sec) will be (assume g =10m/s)

A. 30 B.1000 C.500 D.3000

4. A body with a mass of 2.0 kg moves with a constant speed of 20 meters per second. The magnitude of its momentum.

A. 8.0 kg. m/sec B. 10 kg. m/sec C.40.0 kg.m/sec D. 160 kg.m/sec

5. A steel slab is 20 cm long at 273 K. What would be the change in its length if the temperature is raised to 283 K? (coeff. of thermal expansion of Steel=1.0 x 10-5/K)

A. 2x10-3m B. 2x10-3 cm C. 1.1 x10-3 cm D. 0.01 cm

4. Which one of the following instruments is considered the most accurate voltage measuring device?

A. Ammeter B. Ohm meter C. AVO meter D. Potentiometer

Chemistry Examples

1. When a solid goes directly to the gaseous state without passing through the intermediate liquid state, the process is known as:

A. Distillation B. Evaporation C. Ignition D. Sublimation

We know that sublimation is the process in which a substance is converted directly from the solid to a gas or from a gas to a solid without an intermediate liquid phase. Thus, the choice 'D' is the correct answer and the appropriate option “D” on the screen will be selected.

2. The oxidation number of chlorines in perchloric acid is

A.+9 B.8 C.+7 D.+6

We know that oxidation number is the positive or negative difference between the number of electrons associated with an atom in a chemical compound and the same atom in an element. Thus, the correct answer is "+7".

3. When a volume of H2(g) reacts with an equal volume of Cl(g) at the same temperature and pressure, what volume of the product having the formula HCl is formed?

A. The volume of HCl produced is always the same as the volume of the limiting reactant.

B. The volume of Cl produced is always the same as the initial volume of hydrogen.

C. The product is itself a liquid; hence the volume of the reactants decreases considerably.

D. The volume of HCl produced is twice the volume of Hz (or Cly) used.

4. Which one of the following is NOT a property of cathode rays?

A. Cathode rays travel in straight lines.

B. The rays can be focused by using a concave cathode.

C. Cathode rays can penetrate thin sheets of gold.

D. The nature of cathode rays depends upon the material of which the electrodes are made.

5. Ethene is the first member of the

A. Alkane Series B. Unsaturated hydrocarbons

C. Aromatic hydrocarbons D. Alkyne series

6. A dipolar, charged but overall, electrically neutral ion is called

A. double ion B. zwitter ion C. amino ion D. peptide link

Mathematics Examples

1. What is the harmonic mean of 5 and 10?

A. 35/6 B. 3/20 C. 30/3 D. 100/9

We know that for two numbers, the harmonic mean may be given by the formula H = 2ab /(a + b). Thus, the correct answer is '20/3'. Hence on the screen, answer “C” will be selected.

2. What is the nature of the roots of the quadratic equation 3x2+4x+5=0?

A. The roots are rational and unequal B. The roots are complex numbers

C. The roots are irrational and unequal D. The roots are integers

As the discriminant based on the coefficients of given equations is a complex number. Therefore, the correct answer is 'B' i.e., the roots of the given numbers will be complex numbers.

3. Let A be a subset of IR, the set of real numbers. The intersection of A with its complement A' will always be a

A. null set B. universal set C. set of integers D. set of irrational numbers

4. The general term of an arithmetical progression whose first term is 7and the common difference=-4, is

A A+11d B. 7+4n C. 11-4n D. A+(n+1)(-4)

5. Evaluate (Limx2 + x – 2) / (4X2 -1)

A.0 B. ∞ C. 1 D. 4

6. Solve the differential equation: sec2 x tan y dx + sec2 y tan x dy=0

A. ±1+x2=0 B. cosec2x+1 C. sec2 x+cosec2 x+tan2 x=0 D. tan x tan x

English Examples

Choose the answer that gives the correct meaning of the given word

1. SURROGATE:

A. Unlikely B. Wide C. Opening D. Substitute

From the given choices, the word 'substitute' most closely matches the meaning of the word 'SURROGATE. Therefore, option “D” will be selected on the screen.

Choose the correct word or phrase for the blank space.

2. He has better marks _____ student in his class.

A. than any B. than any other C. compared to other D. of any

In comparison to this type, 'than any other' would be the best fit.

Choose the sentence that represents the correct passive voice of the given sentence.

1. We know that you were in town on the night of the crime.

A. You are known to have been in town on the night of the crime

B. On the night of the crime, we know that you were in town

C. You are known by us to be in town on the night of the crime

D. On the crime night, you were in town it is known by us

Choose the sentence that represents the correct indirect of the given sentence.

2. She said, "I am delighted to be here this evening."

A. She said she was delighted to have been there in the evening.

B. She said that she was delighted to be here that evening,

C. She said that she was delighted to be here this evening.

D. She said that she was delighted to be there that evening.

Biology Examples

1. Penicillin was discovered by

A. Fleming B. Jenner C. Robert Brown D. Laveran

Computer Science Examples

1. In Bus topology, all nodes are connected to a common communication medium or central cable. This central cable is called

A. Ethernet card B. Hub C. Fiber optic D. Bus

2. LAN stands for

A. Less Area Network B. Low Area Network

C. Local Area Network D. Large Area Network

The choice “C” is the correct answer. Therefore, an appropriate option “C” on the screen will be selected.