# **PROSPECTUS 2020**

# For Undergraduate Degree Courses in Engineering & Science for Batch 2020



# QUAID-E-AWAM UNIVERSITY

of ENGINEERING, SCIENCE & TECHNOLOGY NAWABSHAH, SHAHEED BENAZIRABAD

# NOTE

This prospectus is approved by the Academic Council of the University in its 33<sup>rd</sup> meeting (online) held on 07.07.2020 and is accurate and up to date. The information herein is subject to change and the University reserves the right to make such changes without any notice. All rules and regulations of the university apply to undergraduate courses. The modified rules supersede the old version.

# Enquiries concerning admissions should be addressed to:

### **Registrar OR Chairman Admission Committee**

Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah, District Shaheed Benazirabad, Sindh-Pakistan. Telephone No. (0244) 9370381-4 (Ext. 2102 & 2111) Fax: (0244) 9370357, 9370367 E-mail: <u>registrar@quest.edu.pk</u> / <u>admission@quest.edu.pk</u> Website: www.quest.edu.pk

# Publisher:

The Registrar

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

# QUAID-E-AWAM UNIVERSITY OF ENGINEERNIG, 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.

### VISION

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

### 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 professionals and better human beings; so that they become capable of contributing effectively and amicably towards national development

### VALUE

Creativity, proficiency, and quality, based on national as well as international standards and professional integration

# Prof. Dr. Saleem Raza Samo Vice Chancellor

I have assumed the charge of Vice Chancellor of the QUEST, which is my Alma mater. I feel highly privileged and honored to become the head of an institute where I studied as a student and worked as a faculty member.

Our University is in the center of Sindh Province and is catering the needs of the whole province, with some seats reserved for other provinces. The QUEST is offering quality education in Engineering, Science & Technology. Till date, more than 16000 students have been graduated from this esteemed institution



Prof. Dr. Saleem Raza Samo Vice Chancellor

and are excelling at the highest positions in their respective fields. QUEST's academic and research programs are recognized by the HEC and accredited by PEC. QUEST also holds the membership of the highly prestigious Association of Commonwealth Universities.

At present, QUEST has 12 departments offering B.E, BS, M.E, M.S and PhD programs in various disciplines. From this year we are starting two new programs namely Software Engineering and Environmental Engineering. Some more programs, pertaining to different fields, are also planned to commence from the next year.

After passing HSC examinations, every student aspires to get admission in a professional degree program to accomplish his/her pre-set goals and contributes to the progress of the country. Remember that merely acquiring admission in a degree program does not mark the achievement of your goal; rather it opens new challenges which every student must anticipate and be ready to cope with, in order to become a proficient engineer/scientist as well as a prudent professional.

At present, the world is facing worst pandemic i.e. Covid-19. Along with other universities, the QUEST has also taken measures to save the time and future of our students and started online classes and exams. Hopefully, very soon we will come out from this terrible situation. All students are advised to take all precautionary measures and follow the SOPs.

QUEST is widening its global reach to provide more opportunities for collaboration and to enhance its exposure. In this connection, several MOUs have been signed with many renowned universities in different countries, for instance, USA, Turkey, Malaysia, Thailand, China, and Germany. In order to achieve the academic excellence and comply with the international academic standards, our university is equipped with state-of-the-art equipment and facilities. We strive to impart quality education through modern teaching methods by highly qualified faculty members to produce skilled engineers and good human beings.

In QUEST, all the stakeholders, i.e., teachers, officers, students and employees work as a team member in the continuous process of uplifting the academic standards of the university. I truly appreciate and recognize the immense cooperation of my team members with ownership attitude in every respect and their sincere efforts for the progress of this institute. As a result, the QUEST is moving forward with good pace.

I wish all the aspirants' good luck to get admission in the university and a very successful and brilliant career ahead. I am confident that you will play an active and positive role for the name and fame of the university, your parents, and for the development of our country in general. I am sure that your 4-years stay in QUEST will leave you with indelible memories.

My best wishes to each of you for a fulfilling and rewarding experience. Wish you all the BEST.

# 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 a minimum period of 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.



Prof. Dr. Abdullah Saand Pro Vice Chancellor

He has produced 03 PhDs and 18 M.E. graduates. Currently, he is supervising 05 PhD scholars and 03 Masters Research students.

He has 46 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 PhD and a number of Masters Theses. He is also a reviewer of number of International Research Journals and member of 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.

Prof. Dr. A. Saand fulfilled the assumed responsibility of Principal to establish and develop a newly started Engineering College at Larkano, Sindh, Pakistan, 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 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.

Email: <u>abdullah@quest.edu.pk</u>

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

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 Technology and in-charge Dean, Faculty of Engineering, Quaid-e-Awam University of Engineering, Science, & Technology, Nawabshah.



Prof. Dr. Noor Ahmed Memon, Dean FoE / FoT

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 his research work presented 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. 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 working on academic and administrative positions. 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



Prof. Dr. M. Usman Keerio, Dean FoEECE

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 30 research publications in International/National Journals and International Conferences. 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 number of Masters in Power and Control Engineering under his supervision and 05 Ph.D. students are doing their Ph.D. under his supervision. He is member of HEC NCRC of Energy and Electronic Engineering, Member Engineering Accreditation Committee, PEC & Focal person of HEC Turnitin Anti-Plagiarisms, QUEST.

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

Prof. Dr. Zahid Hussain Abro has completed his BSc. and MSc. in Computer Science from University of Sindh, Jamshoro and PhD in Computer Science from Technical University Graz, Austria in July 2010. His research interest includes Software Engineering, particularly Agile Software Development Methods, HCI, Mobile HCI, User Experience, Agile User Experience, Mobile Learning, and Web Engineering.



Prof. Dr. Zahid Hussain

More than 20 MS students and 3 PhD students have completed their studies under his supervision. He has organized four national conferences.

He was also the member of Federation of Pakistan, Chambers of Commerce & Industry's Standing Committee on Research & Development (Policy) for the years 2017 and 2018 at the national level.

Abro, Dean FoS

# Prof. Dr. Abdul Sattar Jamali Dean, Quality Enhancement Cell

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), Director Quality Enhancement Cell (QEC), Provost (Hostels). He is also holding the charge as focal person for anti-plagiarism checking of Master and PhD thesis. Dr. Jamali is actively engaged in the management of the University and currently severing as Dean (Quality Enhancement Cell).

# Prof. Dr. Noor ul Hassan Zardari Director, QUEST Campus Larkano

Prof. Dr. Noor ul Hassan Zardari is currently working as a Professor and Director, QUEST Campus Larkano, He earned his PhD from School of Civil and Environmental Engineering, University of New South Wales (UNSW), Sydney Australia in 2009. His fields of research include Hydrology, Water Resources Management, Irrigation and Multi-criteria Decision Making in water allocation decisions. He also served as Senior Lecturer at UTM Malaysia and Principal Scientific Officer at Pakistan Agriculture Research Council (PARC) Islamabad. He did his M.E from Institute of Irrigation and Drainage Engineering, Mehran



University of Engineering & Technology, Jamshoro. He is a member of many international and national organizations such as American Society of Civil Engineers', International Water Association, American Geophysical Union, Pakistan Engineering Council. He is author of two books which were published by reputed international publishers. He has written many book chapters and more than 60 research articles and reports. He has won many research grants during his research and academic career.

He has been assigned the charge of Director of Quaid-e-Awam University Engineering Science and Technology, QUEST Campus Larkano. The Honorable Chief Minister, Sindh upgraded the college and declared it as QUEST Campus Larkano, vide a Notification No.SO(U)/U&B/QUEST/7-1/2018/211 dated 23-11-2018.

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Section 1

# INTRODUCTION

1. Academic Calendar 2020-21

# 2. About QUEST

# ACADEMIC CALENDAR 2020-21

Batch & Semester	20 - Batch 1 <sup>st</sup> Sem, 1 <sup>st</sup> Year	19 – Batch 1 <sup>st</sup> Sem, 2 <sup>nd</sup> Year	FALL 18 – Batch 1 <sup>st</sup> Sem, 3 <sup>rd</sup> Year	18 – Batch 1 <sup>st</sup> Sem, 4 <sup>th</sup> Year
Start of Classes	05.10.2020	05.10.2020	05.10.2020	05.10.2020
Mid Semester Exams	23.11.2020	23.11.2020	23.11.2020	23.11.2020
Suspension of classes	29.01.2021	29.01.2021	29.01.2021	29.01.2021
Schedule of Examination	29.01.2021	29.01.2021	29.01.2021	29.01.2021
Display of Sessional Marks	29.01.2021	29.01.2021	29.01.2021	29.01.2021
Examination preparation up to	07.02.2021	07.02.2021	07.02.2021	07.02.2021
Conduct of Final Semester Exam	08.02.2021	08.02.2021	08.02.2021	08.02.2021
Announcement of results (Expected)	08.03.2021	08.03.2021	08.03.2021	08.03.2021

## ACADEMIC AND EXAMINATION SCHEDULE FOR 18, FALL-18, 19 and 20-BATCHES

Winter vacation from 24.12.2020 to 03.01.2021

Datah 8 Compation	20 - Batch	19 – Batch	FALL 18 – Batch	18 – Batch
Batch & Semester	2 <sup>nd</sup> Sem, 1 <sup>st</sup> Year	2 <sup>nd</sup> Sem, 2 <sup>nd</sup> Year	2 <sup>nd</sup> Sem, 3 <sup>rd</sup> Year	2 <sup>nd</sup> Sem, 4 <sup>th</sup> Year
Start of Classes	01.03.2021	01.03.2021	01.03.2021	01.03.2021
Mid Semester Exams	12.04.2021	12.04.2021	12.04.2021	12.04.2021
Suspension of classes	28.05.2021	28.05.2021	28.05.2021	28.05.2021
Schedule of Examination	23.07.2021	23.07.2021	23.07.2021	23.07.2021
Display of Sessional Marks	24.07.2021	24.07.2021	24.07.2021	24.07.2021
Examination preparation up to	01.08.2021	01.08.2021	01.08.2021	01.08.2021
Conduct of Final Semester Exam	02.08.2021	02.08.2021	02.08.2021	02.08.2021
Announcement of results (Expected)	01.09.2021	01.09.2021	01.09.2021	01.09.2021

Continued on the next page

### Summer vacation from 07.06.2021 to 25.07.2021

Pre-admission Test (21-Batch) on 07.08.2021	
Start of new session (21-Batch) on 27.09.2021	

Duration of Se	emester	Duration of Two	Semesters	Requirements		
Teaching (including Mid Semester Exam)	16 weeks	Two Semester Duration (22x2)	44 weeks	<ol> <li>Minimum attendance requirement to appear in the exam is 75%.</li> </ol>		
Final Exam. Preparation	02 weeks	Summer Vacation	06 weeks	<ol> <li>Minimum number of lectures during a semester in a subject of 3 CH shall be 42</li> </ol>		
Conduct of Final Examination	04 weeks	Winter Vacation	02 weeks	<ol> <li>Minimum number of lectures during a semester in a subject of 2 CH shall be 28</li> </ol>		
Total	22 weeks	Total	52 weeks	4. Each lecture is of one-hour duration.		

# 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 7<sup>th</sup> August 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, Mechanical Engineering, Mechanical Engineering, Mechanical Engineering, Mechanical 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.

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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 & Environment Engineering (to be replaced with Energy Systems Engineering\*)
- 6. Electronic Engineering
- 7. Chemical Engineering
- 8. Telecommunication Engineering
- 9. Software Engineering
- 10. Environmental Engineering
- 11. Architecture & Planning\*\*
- 12. Information Technology

- 13. Computer Science
- 14. Mathematics
- 15. English (Language & Literature)

From the academic session 2016-17 (Batch-17), the system of education is switched from term system to semester system under the OBE system 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.

<sup>\*</sup> Subjected to the permission from PEC.

<sup>\*\*</sup> To be started from 2021-Batch (next year).

Officers of the University Following are the main officers of the University:

Vice Chancellor	Prof. Dr. Saleem Raza Samo B.E (MUET), M.E. (Thailand), Ph.D. (UK)
Pro Vice Chancellor	<b>Prof. Dr. Abdullalh Saand</b> B.E (MUET), ME (MUET), Ph.D (Malaysia)
Dean Faculty of Engineering / Dean Faculty of Technology	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	<b>Prof. Dr. Zahid Hussain Abro</b> M.Sc. (Sindh), Ph.D. (Austria)
Dean, QEC	Prof. Dr. Abdul Sattar Jamali B.E (MUET), M.E (Thailand), Ph.D (China)
Registrar	<b>Mr. Muharram Ali Mallah</b> M.A (SALU)
Director Finance	<b>Mr. Fazal Ali Shaikh</b> M.A, MBA
Controller of Examinations	<b>Prof. Dr. Kishan Chand Mukwana</b> B.E (MUET), ME (MUET), Ph.D. (QUEST)
Director ORIC	<b>Prof. Dr. Pardeep Kumar</b> B.E (MUET), ME (MUET), Ph.D. (Germany)
Director QUEST Campus Larkano	<b>Prof. Dr. Noor ul Hassan Zardari</b> B.E (MUET), M.E (MUET), Ph.D (Australia)
Director Planning & Development	<b>Prof. Dr. M Sulleman Memon</b> B.E (MUET), M. E (MUET), Ph.D (QUEST)
All Chairmen of Teaching Departments	
Librarian	<b>Mr. Ghulam Farooque Channar</b> B.A (S.U), M.L.IS (S.U)
Resident Auditor	Mr. Muhammad Azam Baloch M.A, M.Com

Section 2

# FACULTY OF ENGINEERING

- 1. Department of Civil Engineering
- 2. Department of Mechanical Engineering
- 3. Department of Energy & Environment Engineering / Energy Systems Engineering
- 4. Department of Chemical Engineering
- 5. Department of Environmental Engineering

# Department of Civil Engineering

### About 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. Daddan Khan Bangwar, Chairman

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 a 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 and 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 regular scheme, a substantial number of students are also admitted on Self-Finance basis.

The department provides Civil Engineering education, which is based on the requirements and needs of engineering industry at par with guidelines of HEC and PEC. The department facilitates students for software trainings and experimental training in laboratories. The faculty members having higher qualification such as Ph.D, M.Phil. M.E and Postgraduate training from the reputed

universities of USA, UK, Malaysia, China, Hongkong, Sweden, Australia and other countries are engaged to impart quality education. In addition to undergraduate program, Department of Civil Engineering also offers three separate programs of Master's in Civil Engineering, Structural Engineering & Construction Engineering and Management in the evening. In these programs, postgraduate students are being trained to face new challenges of the field. These programs comprise of three terms of course work (24 CH) followed by 8 credit hours research work as the compulsory requirement for the award of the degree.

No matter what engineering discipline is, there is always a need of the research to meet the new challenges of the field. Thus, the prominent feature of Civil Engineering Department is to conduct research in the 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 degrees of Ph.D, 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 International and National Conferences.

### Vision:

To turn out to be 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 Civil Engineering field.

### Mission:

To offer Degree programmes in Civil Engineering and other skill development courses which are based on the requirements and needs of engineering industry. To promote high quality education, research and technical skills, to provide 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.

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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 Programme:

- 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. Ph.D. (Civil Engineering)

### Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Daddan Khan Bangwar	Professor & Chairman
1.	FIOL DL. Daudali Kilali Baligwal	B.E (MUET), M.E (NED), Ph.D (QUEST)
2.	Prof. Dr. Abdullah Saand	Professor, & Pro. Vice Chancellor
۷.	FIOL DL. ADUUIIALI Saaliu	B.E (MUET), M.E (MUET), Ph.D (Malysia)
3.	Prof. Dr. Bashir Ahmed Memon	Professor
э.	FIGI. DI. Basili Alimed Memori	B.E (MUET), M.E (China), Ph.D (China)
		Professor, Dean Faculty of Engineering, Dean
4.	Prof. Dr. Noor Ahmed Memon	Faculty of Technology
		B.E (NED), M.Phil (MUET), Ph.D (Malysia)
5.	Prof. Dr. Nawab Ali Lakho	Professor
5.	FIOL DL. NAWAD AII LAKIO	B.E (MUET), M.E (MUET), Ph.D (QUEST)
		Associate Professor
6.	Dr. Aftab Hameed Memon	B.E (QUEST), M.E (UTM Malaysia),
0.	DI. Altab Hameed Memori	Ph.D (UTHM Malysia), Post Doc (UTHM
		Malaysia)
7.	Dr. Mukhtiar Ali Soomro	Associate Professor
7.		B.E (QUEST), Ph.D (Hong Kong)
8.	Dr. Muhammad Auchar Zardari	Associate Professor

		B.E (QUEST), M.Phil (Sweeden), Ph.D
_		(Sweeden)
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) Assistant Professor
12.	Dr. Mohsin Ali Soomro	B.E (QUEST), M.E (Australia), Ph.D (Hong Kong)
		Assistant Professor
13.	Engr. Ghulam Shabir Bhurgri	B.E (QUEST), M.E (QUEST) (On Study Leave)
		Assistant Professor
14.	Dr. Mahboob Oad	B.E (QUEST), M.E (QUEST), PhD (QUEST)
<u> </u>		Assistant Professor
15.	Dr. Riaz Bhanbhro	B.E (QUEST), M.Phil (Sweeden), Ph.D
		(Sweeden)
16.	Engr. Nadeem ul Kareem Bhatti	Assistant Professor
10.		B.E (QUEST), M.E (MUET)
17.	Engr. Aamir Khan Mastoi	Lecturer
17.		B.E (MUET), M.E (MUET)
18.	Engr. Muneeb Ayoub Memeon	Lecturer
		B.E (QUEST), M.E (QUEST) (on Study leave)
19.	Engr. Israr Ahmed Dahri	Lecturer
		B.E (MUET), M.E (QUEST) (on Lien)
20.	Engr. Imran Ali Jamali	Faculty Member (FDP)
		B.E (QUEST) (On study leave abroad)
21.	Engr. Aijaz Ali Dahri	Lecturer
		B.E (QUEST) Lecturer
22.	Engr. Arif Asghar Gopang	B.E (QUEST), M.E (MUET, USPCAS-W)
		Lecturer
23.	Engr. Naeem Mangi	B.E (MUET), M.E (QUEST)
		Lab Engineer
24.	Engr. Abdul Qadir Memon	B.E (QUEST), M.E (QUEST)
25		Lab Engineer
25.	Engr. Natees Altaf Memon	B.E (NED), PGD (MUET)
26	Engr. Macroor Hassan Momon	Lab Engineer
26.	Engr. Masroor Hassan Memon	B.E (MUET)
27.	Engr. Imran Hussain Wagan	Lab Engineer
		B.E (QUEST)
28.	Engr. Muhammad Ibrahim Shaikh	Lab Engineer
		B.E (QUEST)
29.	Engr. Ghulam Nabi Keerio	Lab Engineer
		B.E (QUEST)

30.	Mr. Rizwan Ahmed Memon	Lab Instructor D.A.E
31.	Engr. Shahnawaz Zardari	Jr. Lab Engineer B.E (QUEST), M.E. (QUEST)

# Courses of Study

SN	Name of Subject	C Th		Marks	SN	Name of Subject	CI Th	-	Marks
		In	Pr	First	Year		In	Pr	
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter		
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
				Secon	d Yea				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter		
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	З	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				
	1 <sup>st</sup> Semester					2 <sup>nd</sup> Semest	ter		
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				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er		
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

Dr. Muhammad Ramzan Luhur was born in a small village named Jhando Luhur near Juma Agham in Taluka Ratodero district Larkana. He received his primary education from Taluka Ratodero and Matriculation from pilot secondary high school Larkana with first position in district Larkana. Dr. Luhur got his Intermediate degree from Government Degree College Larkana. He completed his Bachelor of Engineering in Mechanical from Quaid-e-Awam University of Engineering, Science and Technology (QUEST) Nawabshah Pakistan with first position in Mechanical Engineering Department. Dr. Luhur earned his



Prof. Dr. Muhammad Ramzan Luhur, Chairman

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 Viscofibre Plant, Pakistan's 1st Plant for viscose staple fiber 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 (Computerized Educational Platform). 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 2270 students 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.

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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 to Bachelor degree, the department also offers Master's Programme by mix-mode (Course + Research) in Manufacturing Engineering and Industrial Engineering & Management disciplines. It is a 30 credit hours programme, (24 C.H. for coursework + 6 C.H. for research work).

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.

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### 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	Dref Dr. Mukerened Democra Lukur	Professor / Chairman
1.	Prof. Dr. Muhammad Ramzan Luhur	B.E (QUEST), M.E (Sweden), Ph.D (Germany)
2.	Prof. Dr. Abdul Sattar Jamali	Professor
۷.		B.E (MUET), M.E (Thailand), Ph.D (China)
3.	Prof. Dr. Altaf Hussain Rajpar	Professor
5.		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) Assistant Professor
11.	Dr. Aijaz Ahmed Abbasi	B.E (QUEST), M.E (MUET), Ph.D (Malaysia)
		Assistant Professor
12.	Dr. Pir Bux alias Waqas Mughal	B.E (QUEST), M.E (QUEST), Ph.D (China)
		Assistant Professor
13.	Engr. Muhammad Anwar Akhund	B.E (MUET)
		Assistant Professor
14.	Engr. Umair Ahmed Rajput	B.E (QUEST), M.E (QUEST) (on study leave
		abroad)
		Assistant Professor
15.	Engr. Rameez Raja Siddique	B.E (QUEST), M.E (QUEST) (on study leave
		abroad)

16.Engr. Qamar Abbas KaziAssistant Professor B.E (QUEST), M.E (QUEST)17.Engr. Muhammad Kashif AbbasiAssistant Professor B.E (QUEST), M.E (QUEST)18.Engr. Sher Muhammad GhotoAssistant Professor B.E (QUEST)19.Engr. Faheem Ahmed SolangiAssistant Professor B.E (QUEST), M.E (QUEST)20.Engr. Sikandar Ali ChannaLecturer B.E (QUEST), M.E (MUET)21.Engr. Sajjad BhangwarLecturer B.E (QUEST), M.E (QUEST)22.Engr. Azhar Hussain ShahLecturer B.E (QUEST), M.E (QUEST)23.Engr. Mushtaque Ahmed LakhoLecturer B.E (QUEST) (on study leave abroad)24.Engr. Mahtadue Ahmed LakhoLecturer B.E (QUEST) (on study leave abroad)25.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST) B.E (QUEST) (on study leave abroad)26.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST)27.Engr. Abid Ali KhashneliB.E (QUEST), M.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST)29.Engr. Aisha RajputLab. Engineer B.E (QUEST)29.Engr. Aisha RajputLab. Engineer B.E (QUEST)	-		1				
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17.Engr. Muhammad Kashif AbbasiB.E (QUEST), M.E (QUEST)18.Engr. Sher Muhammad GhotoAssistant Professor B.E (MUET), M.E (QUEST)19.Engr. Faheem Ahmed SolangiAssistant Professor B.E (QUEST), M.E (MUET)20.Engr. Sikandar Ali ChannaB.E (QUEST), M.E (France) (on study leave abroad)21.Engr. Sajjad BhangwarLecturer B.E (QUEST), M.E (QUEST)22.Engr. Azhar Hussain ShahLecturer B.E (QUEST), M.E (QUEST)23.Engr. Mushtaque Ahmed LakhoLecturer B.E (QUEST), M.E (QUEST)24.Engr. Khalid Hussain SolangiFaculty Member (FDP) B.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Fngr. Aisha BajnutLab. Engineer							
B.E (QUEST), M.E (QUEST)18.Engr. Sher Muhammad GhotoAssistant Professor B.E (MUET), M.E (QUEST)19.Engr. Faheem Ahmed SolangiAssistant Professor B.E (QUEST), M.E (MUET)20.Engr. Sikandar Ali ChannaB.E (QUEST), M.E (MUET)21.Engr. Sajjad BhangwarLecturer B.E (QUEST), M.E (QUEST)22.Engr. Azhar Hussain ShahLecturer B.E (QUEST), M.E (QUEST)23.Engr. Mushtaque Ahmed LakhoLecturer B.E (QUEST), M.E (QUEST)24.Engr. Khalid Hussain SolangiFaculty Member (FDP) B.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST) (on study leave abroad)26.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr Aisha BajputLab. Engineer B.E (QUEST)29.Engr Aisha BajputLab. Engineer	17.	Engr. Muhammad Kashif Abbasi					
18.Engr. Sher Muhammad GhotoB.E (MUET), M.E (QUEST)19.Engr. Faheem Ahmed SolangiAssistant Professor B.E (QUEST), M.E (MUET)20.Engr. Sikandar Ali ChannaLecturer B.E (QUEST), M.E (France) (on study leave abroad)21.Engr. Sajjad BhangwarLecturer B.E (QUEST), M.E (QUEST)22.Engr. Azhar Hussain ShahLecturer B.E (QUEST), M.E (QUEST)23.Engr. Mushtaque Ahmed LakhoLecturer B.E (QUEST), M.E (QUEST)24.Engr. Khalid Hussain SolangiFaculty Member (FDP) B.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST) Lab. Engineer B.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha BaiputLab. Engineer B.E (QUEST), M.E (QUEST)							
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19.Engr. Faheem Ahmed SolangiB.E (QUEST), M.E (MUET)20.Engr. Sikandar Ali ChannaLecturer B.E (QUEST), M.E (France) (on study leave abroad)21.Engr. Sajjad BhangwarLecturer B.E (QUEST), M.E (QUEST)22.Engr. Azhar Hussain ShahLecturer B.E (QUEST), M.E (QUEST)23.Engr. Mushtaque Ahmed LakhoLecturer B.E (QUEST), M.E (QUEST)24.Engr. Khalid Hussain SolangiFaculty Member (FDP) B.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha RajputLab. Engineer29.Engr. Aisha RajputLab. Engineer	10.		B.E (MUET), M.E (QUEST)				
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20.Engr. Sikandar Ali ChannaB.E. (QUEST), M.E (France) (on study leave abroad)21.Engr. Sajjad BhangwarLecturer B.E (QUEST), M.E (QUEST)22.Engr. Azhar Hussain ShahLecturer B.E (QUEST), M.E (QUEST)23.Engr. Mushtaque Ahmed LakhoLecturer B.E (QUEST), M.E (QUEST)24.Engr. Khalid Hussain SolangiFaculty Member (FDP) B.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr Aisha RajputLab. Engineer B.E (QUEST), M.E (QUEST)			B.E (QUEST), M.E (MUET)				
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22.Engr. Azhar Hussain ShahB.E (QUEST), M.E (QUEST)23.Engr. Mushtaque Ahmed LakhoLecturer B.E (QUEST), M.E (QUEST)24.Engr. Khalid Hussain SolangiFaculty Member (FDP) B.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliLab. Engineer B.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha BainutLab. Engineer			B.E (QUEST), M.E (QUEST)				
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23.Engr. Mushtaque Ahmed LakhoB.E (QUEST), M.E (QUEST)24.Engr. Khalid Hussain SolangiFaculty Member (FDP) B.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliLab. Engineer B.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha BaiputLab. Engineer	22.		B.E (QUEST), M.E (QUEST)				
24.Engr. Khalid Hussain SolangiB.E (QUEST), M.E (QUEST)24.Engr. Khalid Hussain SolangiFaculty Member (FDP) B.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliLab. Engineer B.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha RaiputLab. Engineer B.E (QUEST), M.E (QUEST)	22	Engr. Mushtaque Ahmed Lakho	Lecturer				
24.Engr. Khalid Hussain SolangiB.E (QUEST) (on study leave abroad)25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha BaiputLab. Engineer B.E (QUEST), M.E (QUEST)	25.		B.E (QUEST), M.E (QUEST)				
25.Engr. MehtabLecturer (Visiting) B.E (QUEST), M.E (QUEST)26.Engr. Abid Ali KhaskheliLab. Engineer B.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha BainutLab. Engineer B.E (QUEST), M.E (QUEST)	24	Engr. Khalid Hussain Solangi	Faculty Member (FDP)				
25. Engr. Mentab       B.E (QUEST), M.E (QUEST)         26. Engr. Abid Ali Khaskheli       Lab. Engineer         26. Engr. Abid Ali Khaskheli       B.E (QUEST), M.E (QUEST) (on study leave abroad)         27. Engr. Saddam Hussain Rajput       Lab. Engineer         28. Engr. Nisar Ahmed Jamali       Lab. Engineer         29. Engr. Aisha Bainut       Lab. Engineer	24.		B.E (QUEST) (on study leave abroad)				
26.       Engr. Abid Ali Khaskheli       Lab. Engineer         26.       Engr. Abid Ali Khaskheli       Lab. Engineer         27.       Engr. Saddam Hussain Rajput       Lab. Engineer         28.       Engr. Nisar Ahmed Jamali       Lab. Engineer         29.       Engr. Aisha Bainut       Lab. Engineer	25	Engr. Mehtab	Lecturer (Visiting)				
26.Engr. Abid Ali KhaskheliB.E (QUEST), M.E (QUEST) (on study leave abroad)27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha BainutLab. Engineer	23.		B.E (QUEST), M.E (QUEST)				
abroad)       27.     Engr. Saddam Hussain Rajput       28.     Engr. Nisar Ahmed Jamali       29.     Engr. Aisha Bainut		Engr. Abid Ali Khaskheli	Lab. Engineer				
27.Engr. Saddam Hussain RajputLab. Engineer B.E (QUEST)28.Engr. Nisar Ahmed JamaliLab. Engineer B.E (QUEST), M.E (QUEST)29.Engr. Aisha BainutLab. Engineer	26.		B.E (QUEST), M.E (QUEST) (on study leave				
27. Engr. Saddam Hussain Rajput       B.E (QUEST)         28. Engr. Nisar Ahmed Jamali       Lab. Engineer         29. Engr. Aisha Bainut       Lab. Engineer			abroad)				
28.     Engr. Nisar Ahmed Jamali       29.     Engr. Aisha Bainut	27	Engr. Saddam Hussain Painut	Lab. Engineer				
28. Engr. Nisar Ahmed Jamali       B.E (QUEST), M.E (QUEST)         29. Engr. Aisha Bainut       Lab. Engineer	۷۲.		B.E (QUEST)				
B.E (QUEST), M.E (QUEST) 29 Engr Aisha Bainut Lab. Engineer	28	Engr. Nisar Ahmed Jamali	Lab. Engineer				
I 79   Engr Alsha Rainiit	20.		B.E (QUEST), M.E (QUEST)				
B.E (QUEST)	29.	Engr Aisha Rainut	Lab. Engineer				
			B.E (QUEST)				

# Teaching Staff (Mechanical Engineering Workshop)

SN	Name	Designation / Qualification					
1.	Mr. Akhtar Hussain Mughal	Senior Workshop Superintendent					
	Instructor	DAE (Sindh)					
2	Engr. Sarmad Soomro	Senior Workshop Instructor					
2.	Engr. Sarmad Soomro	BE (QUEST), M.E. (QUEST) (on study leave)					
3.	Mr. Khuda Bux Saand	Senior Worshop Instructor					
	wir. Knuda Bux Saand	BE (QUEST), M.E. (QUEST)					
л	Mr. Abdul Opdir Conong	Workshop Instructor					
4.	Mr. Abdul Qadir Gopang	DAE (Mechanical)					
E	Mr. Bilawal Lakho	Workshop Instructor					
5.		DAE (Electrical)					

# Courses of Study

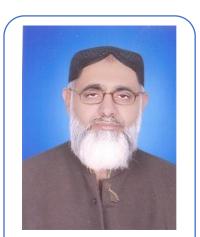
SN	Name of Subject	СН		Marks	SN	Nome of Cubicat	СН		Marks	
211		Th	Pr	- iviarks	SIN	Name of Subject	Th	Pr	IVIdI KS	
				First	Year					
1 <sup>st</sup> Semester				2 <sup>nd</sup> Semester						
1	Pakistan Studies	2	0	50+00	1	Communication Skills	2	1	50+50	
2	Engineering Materials	3	0	100+00	2	Differential 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										
	1 <sup>st</sup> Semeste	er		I	2 <sup>nd</sup> 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					
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> 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					

1 <sup>st</sup> Semester					2 <sup>nd</sup> 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 & Environment Engineering

### About Chairman

Dr. Muhammad Mureed Tunio accomplished his Ph.D. in Energy & Environment Engineering in 2016 from Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah. Dr. Tunio earned his Master's degree in Environmental Engineering & Management, in 2009, from University of Engineering and Technology, Jamshoro and did Bachelor Studies in Mechanical Engineering in 2004 from Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah. At present, Dr. Tunio is Professor and the Chairman of Energy and Environment Engineering Department in Quaid-e-Awam



Prof. Dr. Muhammad Mureed Tunio, Chairman

University of Engineering, Science and Technology, Nawabshah. Dr. Tunio is an active researcher and his research interests in the field of Bioenergy and Production biofuels (Biodiesel, Bioethanol Biogas ) Dr. Tunio has more than 30 research publications in international & national journals in Higher Education Commission recognized journals, and participated in various conferences to present his research work at national level. Presently Dr. Tunio is supervising three PhD students and many Postgraduate students in the field of renewable energy sources.

### Introduction

The department of Energy and Environment Engineering offers a four-year bachelor's degree course in Energy and Environment Engineering (up to 19-Batch) and a four-year bachelor's degree course in Energy Systems Engineering w.e.f. (20-Batch and onward). The department also offers post-graduate degrees of Master of Engineering (M.E.) in Energy Systems Engineering, Environmental Engineering and Ph.D. in Energy & Environment Engineering.

As Oil, Gas, Coal, Nuclear, Wind, Biomass and Solar are the major sources of energy, it is therefore important for society to exploit all energy resources and thereby improve energy efficiency in order to reduce environmental pollution. Therefore, 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 (among others) 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.

## Facilities Available in the Department

## 1. 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.

## 2. 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.

## Laboratories Available in the Department

## 1. 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.

## 2. 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.

## 3. Engineering Materials & Fluid Mechanics Laboratory

This lab provides practical knowledge regarding Engineering Materials & Fluid Mechanics to the students. Many 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.

#### 4. Thermodynamic Laboratory

In this laboratory numerous practicals are being conducted of different subjects such as. 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 available in this laboratory.

#### 5. 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 nonedible oils which is very cheap from diesel oil. This laboratory is the most useful for Energy & Environment and Chemical Engineering Departments.

#### Memorandum of Understanding 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 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.

## Energy and Environment Engineering Department an ISO 9001: 2008 certified

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 also believes 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 of Energy & Environment Engineering is to be Premier Department for the provision of quality education, training, research, and extension in both basic and applied Energy & Environmental and related studies, Energy and Environment Engineering Department has taken tremendous efforts to have been certified as per international standards. economic & sustainable development of country dedicated efforts of highly qualified faculty.

#### **Quality Policy**

The Energy and Environment Engineering 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.

#### Vision:

To produce professional graduates in the field of Energy and Environment engineering to cater the requirement of market for socio-economic & sustainable development of country dedicated efforts of highly qualified faculty.

#### Mission:

The Department of Energy and Environment Engineering 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.

The Department Energy and Environment 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.

#### Programme Educational Objectives (PEOs)

The programme educational objectives (PEOs), as given below, form the basis of the Department of the Energy and Environment Engineering at QUEST. Within few years of graduation, the

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students with bachelors in Energy and Environment Engineering are expected to attain the following.

**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:

- 1. Bachelor of Engineering
  - a. Energy & Environment Engineering
  - b. Energy Systems Engineering \*
- 2. Master of Engineering
  - a. Energy Systems Engineering
  - b. Environmental Engineering
- 3. Ph.D. (Energy & Environment Engineering Engineering)

SN	Name	Designation / Qualification
1.	Prof. Dr. Muhammad Mureed Tunio	Professor & Chairman
1.	Prof. Dr. Multarifinad Multeeu Tullo	B.E (QUEST), M.E (MUET), PhD (QUEST)
2.	Prof. Dr. Saleem Raza Samo	Meritorious Professor & Vice Chancellor
Ζ.		BE (MUET), ME (AIT Thailand), Ph.D (UK)
3.	Prof. Dr. Kishan Chand Mukwana	Professor
э.	PTOL DL. KISHAH CHAHU MUKWAHA	B.E (MUET), M.E (MUET), Ph.D (QUEST)
		Professor
4.	Prof. Dr. Abdul Nasir Laghari	B.E (MUET), M.E (Germany), MSc (NUST)
		PhD (Austria)
5.	Prof. Dr. Asif Ali Memon	Professor
Э.	FIOL DL. ASIL AIL MELLION	B.E (QUEST), ME (France), Ph.D (France)
6.	Dr. Abdul Rehman Jatoi	Associate Professor
0.	DI. Abdul Kellman Jatol	B.E (QUEST), M.E (QUEST), PhD (QUEST)
7.	Dr. Shahid Hussain Sival	Associate Professor
7.	Dr. Shahid Hussain Siyal	B.E (QUEST), M.E (Sweden), PhD (Sweden)
0	Dr. Zafar Ali Siyal	Assistant Professor
8.	Dr. Zafar Ali Siyal	B.E (QUEST), M.E.(QUEST), PhD (QUEST)

9.	Engr. Junaid Ahsan Arain	Assistant Professor
5.		B.E (QUEST), M.E.(QUEST)
10.	Dr. Ahsanullah Soomro	Assistant Professor
10.		B.E (QUEST), M.E.(QUEST), PhD (China)
		Assistant Professor
11.	Dr. Asif Saleh Qureshi	B.E (QUEST), Lic. (Sweden), Ph.D (Sweden)
		(on Post Doc study leave abroad)
12.	Dr. Zaki Hassan Memon	Assistant Professor
12.		B.E (QUEST), M.E (MUET), PhD (China)
		Lecturer
13.	Engr. Mahdi Hassan Mallah	B.E. (QUEST), M.E. (QUEST) (On study leave
		abroad)
	Engr. Asif Ali Siyal	Lecturer
14.		B.E (QUEST), M.E.(QUEST), PhD in Progress
		(China)
15.	Engr. Yasir Ali Memon	Lecturer
15.		B.E (QUEST), M.E in Progress (QUEST)
16.	Engr. Hammad Hashmi	Lecturer
10.		B.E (QUEST), M.E (QUEST)
		Lab Engineer
17.	Engr. Haris Jawad Arain	B.E (QUEST), PGD (MUET), M.E in Progress
		(QUEST)
18.	Engr. Ameen Abdul Raqeeb	Lab Engineer
10.		B.E (QUEST), M.E in Progress (QUEST)
		Jr. Lab Engineer
19.	Engr. Imran Ahmed Samo	B.E (QUEST), M.E.(QUEST), PhD in Progress
		(China)
20.	Engr. Urooj Gul	Jr. Lab Engineer
20.		B.E (QUEST), M.E in Progress (QUEST)

SN	Name of Subject	СН		Marks	SN	Name of Subject	СН		Marks
011	Nume of Subject	Th	Pr	marks	0.11	Nume of Subject	Th	Pr	Marks
			First	Year					
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er		
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	
				Secon	d Yea	ar				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er	-		
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										
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er			
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					
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er	Γ		
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	

## Energy System Engineering \*

#### Introduction

The primary aims of energy systems engineering is the design and operation of energy intensive processes in a more efficient and economic manner through mathematical optimization Energy engineering or energy systems engineering is a broad field of engineering dealing with energy efficiency, energy services, facility management, plant engineering, environmental compliance, sustainable energy and renewable energy technologies. This program offers a broad range of theoretical and applications-based electives providing a deep, broad knowledge across several areas

#### Courses of Study

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SN	Name of Subject	C	н	Marks	SN	Name of Subject	СН		Marks
314	Name of Subject	Th	Pr	IVIAI KS	314	Name of Subject	Th	Pr	IVIDINS
				First	Year				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter		
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

\* As per desire of Competent Authority the scope of Bachelor of Engineering in "Energy and Environment Engineering" was spilt into "Energy System Engineering and Environmental Engineering". Later, BoS meeting was held on 8<sup>th</sup> June 2020 in which all honorable members endorsed unanimously the change the scope of Bachelor of Engineering in "Energy and Environment Engineering" to Bachelor of Engineering in "Energy Systems Engineering" From 2020 Batch intake and onward. Then this item was kept in BoFE where thoroughly discussion was

taken placed and resolved that the conversion of bachelor of engineering in energy and environment to bachelor of engineering in "Energy System engineering" from 20-batch and onwards be recommended to the Academic study scheme only for year dated 18<sup>th</sup> June 2020. Finally, from Academic council Energy Systems engineering was conditional approved to the subject approval of PEC dated 7<sup>th</sup> July 2020.

## Department of Chemical Engineering

#### About Chairman

Prof. Dr. Liaquat Ali Memon received his master and PhD degrees from 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 teaching/research experience. 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.



Prof. Dr. Liaquat Ali Memon, Chairman

#### Introduction

In order 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 of Chemical Engineering at Quaid-e-Awam University of Engineering Science & Technology, Nawabshah, was established in 2013. The department has highly qualified and experienced faculty members to teach fundamental courses in friendly and congenial environment. Students have access to the state-of-art laboratories apply fundamental chemical engineering principles. The departmental laboratories will impart the practical knowledge in the field and will carry out the most recent research and development in the area of chemical engineering.

Presently, department offers four-year undergraduate program in Chemical Engineering. The focus of 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 will also deal 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**

Computer labs fully equipped is available for students of this department. In this labs, more than 30 latest PCs connected with internet and digital library are available to access 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. are available for use of students and faculty members of the chemical engineering department.

## Laboratories available in the 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 internal combustion engine (diesel and petrol), steam power plant.

#### **Environmental Engineering**

Environmental engineering lab is also available to conduct the experiments related to wastewater like BOD, COD, DO, turbidity, and experiments of Air pollution control. This lab is also equipped with 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. Lab is equipped with equipment such as: 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 another unit operation practical are performed.

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## Vision

To produce professional graduates to cater the requirements of the market for the socioeconomic development at national and international level.

## 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 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 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 the chemical engineers, capable to meet the challenges of industries, academia and society.

**PEO 2:** To impart knowledge of core chemical engineering subjects, to make them able to solve complex engineering problems.

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

SN	Name	Designation / Qualification
1.	Prof. Dr. Lizquat Ali Mamon	Professor & Chairman
1.	Prof. Dr. Liaquat Ali Memon	PhD (Malaysia), M.E (Malaysia), B.E (MUET)
2.	Dr. Abdul Qayoom Jakhrani	Associate Professor
۷.	DI: Abdul Qayooni Jakilani	Ph.D (Malaysia), M.E (MUET), B.E (MUET)
3.	Dr. Babar Ali Qureshi	Assistant Professor
5.	DI. Babai Ali Quresili	PhD (China), M.E (MUET), B.E (MUET)
4.	Engr. Kashif Hussain Mangi	Assistant Professor
4.	Engr. Kashif Hussain Mangi	M.E (MUET), B.E (MUET) (On Study Leave)
E	Engr. Zubair Abmod Chandia	Assistant Professor
5.	Engr. Zubair Ahmed Chandio	M.E (Malaysia), B.E (MUET)

6.	Engr. Nabi Bux Jalbani	Assistant Professor
		M.E (MUET), B.E (MUET) Co-Chairman/ Assistant Professor
7.	Dr. Rizwan Khan Soomro	PhD (South Korea), ME (MUET), BE (MUET)
		Assistant Professor
8.	Engr. Hira Lal Soni	M.E (NED-UET), B.E (NED-UET)
0	Fran Abdul Sami Channe	Lecturer
9.	Engr. Abdul Sami Channa	M.E. (QUEST), B.E (MUET) (On Study Leave)
10	Engr. Mukhtiar Ali Mallah	Lecturer
10.	Engr. Mukhtiar Ali Mallah	B.E (MUET) (On Study Leave)
11.	Engr. Shafeeque Ahmed Wahocho	Lecturer
11.	Lingi: Shareeque Annieu Wanocho	M.E (NED-UET), B.E (MUET)
12.	Engr. Faheem Akhtar Shaikh	Lab Engineer
12.		M.E (MUET), B.E (MUET) (On Study Leave)
13.	Engr. Hafiz Anees ur Rehman	Lab Engineer
15.	Ligi: Hallz Allees ul Keliman	M.E (MUET), B.E (MUET)
14.	Engr. Mahmood Nabi Abbasi	Lab Engineer
14.		M.E (MUET), B.E (MUET)
15.	Engr. Ahsan Atta Rao	Lab Engineer
15.		M.E (MUET), B.E (MUET)

SN	Name of Subject	C	Н	Marks	SN	Name of Subject	C	Н	Marks
314	Name of Subject	Th	Pr	IVIAL KS	314	Name of Subject	Th	Pr	IVIALKS
				First	Year				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter		
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
				Secon	d Yea	ir			
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter		

	Chemical Engineering					Chemical Engineering			
1	Thermodynamics-I	3	1	100+50	1	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	Yea	r			
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter		
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				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter		
1	Entrepreneurship & Innovation	2	0	50+00	1	Chemical Process Design & Simulation	2	1	50+50
-	Instrumentation &	3	1	100+50	2	Industrial Management	2	0	50+00
2	Process Control	5	-			Wallagement			
2 3	Petroleum Refinery Engineering	3	0	100+00	3	Pollution Control Engineering	3	1	100+50
	Petroleum Refinery				3	Pollution Control	3	1	100+50 100+50
3	Petroleum Refinery Engineering Statistics & Probability Transport Phenomena	3	0	100+00		Pollution Control Engineering Biochemical			
3	Petroleum Refinery Engineering Statistics & Probability	3	0	100+00 100+00	4	Pollution Control Engineering Biochemical Engineering	3	1	100+50

## Department of Environmental Engineering

#### About Chairman

Dr. Kishan Chand Mukwana is Head of Environmental 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),



Mukwana, Chairman

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 Environmental 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 "Environmental Engineering" is being 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.

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## Facilities Available in the Department

Since the Environmental 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:

## 1. 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.

## 2. 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.

#### Scientific Laboratories

## 1. 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.

## 2. 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.

## 4. 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.

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

## **Degree Programme:**

- 1. Bachelor of Engineering (Environment Engineering)
- 2. Master of Engineering (Environment Engineering)

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				
5.	PTOL DI. ADUU Qayooni jakinani	B.E (MUET), ME (MUET), Ph.D (Malaysia)				
4.	Dr. Abdul Rehman Jatoi	Associate Professor				
4.		B.E (QUEST), M.E (QUEST), PhD (QUEST)				
		Assistant Professor				
5.	Dr. Asif Saleh Qureshi	B.E (QUEST), Lic. (Sweden), Ph.D (Sweden)				
		(on Post Doc study leave abroad)				
~	D. Alexan Hale Caravar	Assistant Professor				
6.	Dr. Ahsanullah Soomro	B.E (QUEST), M.E.(QUEST), PhD (China)				
_		Assistant Professor				
7.	Dr. Zaki Hassan Memon	B.E (QUEST), M.E (MUET), PhD (China)				
		Lecturer				
8.	Engr. Mahdi Hassan Mallah	B.E. (QUEST), M.E.(QUEST) (On study leave				
	5	abroad)				
		Lecturer				
9.	Engr. Asif Ali Siyal	B.E (QUEST), M.E.(QUEST), PhD in Progress				
	,	(China)				
		Lab Engineer				
10.	Engr. Imran Ahmed Samo	B.E (QUEST), M.E.(QUEST), PhD in Progress				
	5	(China)				
		Lab Engineer				
11.	Engr. Haris Jawad Arain	B.E (QUEST), PGD (MUET), M.E in Progress				
	5	(QUEST)				
		Lab Engineer				
12.	Engr. Ameen Abdul Raqeeb	B.E (QUEST), M.E in Progress (QUEST)				
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SN	Name of Subject	СН		Marks	SN	Name of Subject	СН		Marks
SIN	Name of Subject	Th	Pr	IVIAI KS	311		Th	Pr	IVIDI KS
				First	Year				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er		
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	
				Secon	d Yea	ar				
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> 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	l Year	r				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter			
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					
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> 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	

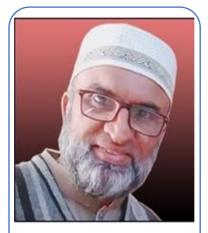
# FACULTY OF ELECTRICAL, ELECTRONIC, & COMPUTER SYSTEMS ENGINEERING

- 1. Department of Electrical Engineering
- 2. Department of Electronic Engineering
- 3. Department of Computer Systems Engineering
- 4. Department of Telecommunication Engineering
- 5. Department of Software Engineering

## Department of Electrical Engineering

#### About Chairman

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



Prof. Dr. Abdul Sattar Saand, Chairman

He is awarded with many professional and academic awards. He

started his carrier as a lecturer at NED University of Engineering and Technology Karachi, Sindh, Pakistan, March, 2000- June, 2001. He worked for more than eight years as a Senior Engineer Telecom (IP and multimedia broadband) at Pakistan Telecommunication Company limited since June, 2001 to July, 2009. Since Dec 2018 he is working as a professor at the department of electrical engineering. Dr. Saand has more than 19 years professional and academic experience of National and International level. He has worked with various organizations at technical managerial level and is well trained nationally and internationally.

Dr. Saand is the author of a book chapter titled "Beamforming for relay assisted MIMO" published by IGI Global USA-2017. Author of a book Titled "My little book of Quotations" Subtitled the Sense of inspiration March, 2018. He is author of more than 34 research publications, published 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 same time he is editor of the QUEST research journal and editor in chief of Engineering Science and Technology International Research Journal. Dr. Saand is blessed and proud on being the Head of the Department of Electrical Engineering and belongs to the first graduating batch (93 EL) 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 a highly respected 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 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 the society in key academic, government, and industry positions in different parts of the world. Locally, they have made tremendous impact to the socio-economic development of the country and serving the society in every aspect. The Electrical Engineering Department of Quaid-e-Awam University has designed 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 putting best efforts 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. The students are sent for Industrial Training and Industrial study tour to different, industries and electric utilities and generation companies all over country during their course curriculum. This gives students the exposure and assurance to work in an industrial culture. Practical aspects of various subjects are supported by well-equipped laboratories such as machine laboratory, electrical power system laboratory,

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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 knowledge, skills, competency and confident 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)

Following are Program Educational Objectives (PEOs) graduates are expected to have after 3 to 5 years of graduation.

- Apply electrical engineering knowledge in solving complex engineering problems as either an employee or an entrepreneur and Pursue research to enhance their professional qualification and knowledge.
- 2. Have ability to perform with effective communication and management skills both individually and as a team member.
- 3. Demonstrate professional integrity and commitment to social, environmental and ethical responsibilities.

## Degree Programme:

- 1. Bachelor of Engineering (Electrical Engineering)
- 2. Master of Engineering
  - a. Electrical Engineering
  - b. Power Engineering
- 3. Ph.D. (Electrical Engineering)

SN	Name	Designation / Qualification				
4	Duef Du Aladul Cetter Ceend	Professor & Chairman				
1.	Prof. Dr. Abdul Sattar Saand	B.E (QUEST), M.E (MUET), PhD, UTP Malaysia				
2		Professor & Dean FEECE				
2.	Prof. Dr. Muhammad Usman Keerio	B.E (MUET), M.E (NUST), PhD, China				
2	Duef Du Cedenuddin Cheilth	Professor Emeritus				
3.	Prof. Dr. Sadaruddin Shaikh	B.E (Sindh), Ph.D. (UK)				
4	Prof. Dr. Aslam Pervez Memon	Professor				
4.	PTOL DL ASIAIN PERVEZ MEINON	B.E (MUET) , M.Phil (MUET), Ph.D. (MUET)				
5.	Dr. Ghulam Mustafa Bhutto	Associate Professor				
5.		B.E (QUEST), M.E/ Ph.D. (Denmark)				
6.	Dr. Javed Ahmed Laghari	Associate Professor				
0.		B.E (MUET), M.E/PhD, UM, Malaysia				
7.	Dr. Suhail Khokhar	Associate Professor				
7.		B.E (QUEST), M.E (QUEST), PhD, UTM, Malaysia				
8.	Dr. Ghulam Sarwar Kaloi	Associate Professor				
0.		B.E (MUET), M.E (QUEST), PhD, SJTU, China				
9.	Engr. Muhammad Ismail Soomro	Assistant Professor				
5.		B.E (MUET), M.E (MUET)				
10.	Engr. Naresh Kumar	Assistant Professor				
		B.E (MUET), M.E (QUEST)				
11.	Engr. Rizwan Aziz Siddiqui	Assistant Professor				
		B.E (MUET), M.E (NUST)				
12.	Engr. Muhammad Saleem Memon	Assistant Professor				
		B.E (MUET), M.Phil (QUEST)				
13.	Engr. Abdul Sattar Memon	Assistant Professor				
		B.E (MUET), M.E (NED)				
14.	Engr. Noor Hussain Mugheri	Assistant Professor				
		B.E (QUEST), M.E (QUEST) (On Study leave)				
15.	Engr. Munwar Ayaz Memon	Assistant Professor				
		B.E (QUEST), M.E (QUEST)				
16.	Engr. Rameez Akbar Talani	Assistant Professor				
		B.E (QUEST), M.E (MUET)				
17	Engr Magar Abmed Adil Chaber	Assistant Professor				
17.	Engr. Waqar Ahmed Adil Chohan	B.E (QUEST), M.E (QUEST)				
		On study leave abroad Assistant Professor				
18.	Engr. Abdul Khalique Junejo	B.E (QUEST), M.E (QUEST) (On study leave				
10.		abroad)				
		Assistant Professor				
19.	Engr. Riaz Hussain Memon	B.E (MUET), M.E (QUEST)				
		Assistant Professor				
20.	Engr. Muhammad Akram Bhayo	B.E (QUEST), M.E (Germany)				

21.	Engr. Saadullah Chandio	Assistant Professor					
		B.E (QUEST), M.E (QUEST)					
22.	Engr. Muhammad Ali Bijarani	Assistant Professor					
22.		B.E (QUEST), M.E (MUET)					
22	Engr Aushigung Ali Mamon	Lecturer					
23.	Engr. Aushique Ali Memon	B.E (QUEST) (On study leave abroad)					
24	Frank landash Kuman	Lecturer					
24.	Engr. Jagdesh Kumar	B.E (QUEST) (On study leave abroad)					
25		Lecturer					
25.	Engr. Aamir Ali Bhatti	B.E (QUEST), M.E (QUEST)					
26		Lecturer					
26.	Engr. Muhammad Shahzad Bajwa	B.E (QUEST), M.E (QUEST)					
27	From Mohein Ali Kundher	Lecturer					
27.	Engr. Mohsin Ali Kundhar	B.E (QUEST), M.E (QUEST)					
20	Fran Mansih Ali Lkaha	Lecturer					
28.	Engr. Mansib Ali Lkaho	B.E (QUEST), M.E (QUEST)					
20		Teaching Assistant					
29.	Engr. Irfan Ali Soomro	B.E (QUEST) (On study leave abroad)					
20	Free Fahad II	Lecturer (on contract)					
30.	Engr. Fahad Hussain Zardari	B.E (QUEST)					

SN	Name of Subject	C	Н	Marks	SN	Name of Subject	СН		Marks	
214	Name of Subject	Th	Pr	IVIAI KS			Th	Pr	IVIAI KS	
				First	Year					
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> Semester					
1	Electrical Workshop Practice	0	1	00+50	1	Linear Circuit Analysis	3	1	100+50	
2	Applied Mechanics	2	1	50+50	2	Electronic Devices and Circuits	3	1	100+50	
3	Introduction to Computing and Programming	3	1	100+50	3	Linear Algebra and Analytical Geometry	3	0	100+00	
4	Applied Physics	3	1	100+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	3	0	100+00	6	Pakistan Studies	2	0	50+00	
	Total	14	4	450+200		Total	15	2	450+100	
				Secon	d Yea	ar				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter			
1	Electrical Network Analysis	3	0	100+00	1	Theory of Electromagnetic Field	3	0	100+00	
2	Electrical Machines	3	1	100+50	2	Instrumentation & Measurement	3	1	100+50	

3	Digital Logic Design	3	1	100+50	3	Signals and Systems	3	1	100+50
_	Microprocessor				4	Complex Variables			
4	Systems	3	1	100+50	4	and Transforms	3	0	100+00
5	Differential Equation and Fourier series	3	0	100+00	5	Engineering Economics	3	0	100+00
	Total	15	3	500+150		Total	15	2	500+100
				Third	Year	r			
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er		
1	Advance Electrical Machines	3	1	100+50	1	Linear Control Systems	3	1	100+50
2	Electrical Power Generation	3	0	100+00	2	Electrical Power Transmission	3	1	100+50
3	Communication Systems	3	1	100+50	3	Power distribution and utilization	3	1	100+50
4	Numerical Analysis with computer applications	3	1	100+50	4	Power Economics & Management	3	0	100+00
5	Statistic and Probability	3	0	100+00	5	Professional and social ethics	2	0	50+00
	Total	15	3	500+150		Total	14	3	450+150
				Final	Year				
	1 <sup>st</sup> Semeste	er		•		2 <sup>nd</sup> Semest	er		
1	Power System Analysis	3	1	100+50	1	High Voltage Engineering	3	1	100+50
2	Power Electronics	3	1	100+50	2	Power System Control	3	1	100+50
3	Power System Protection	3	1	100+50	3	Smart Grid	3	0	100+00
4	Technical Writing	2	0	50+00	4	Entrepreneurship and Leadership	2	0	50+00
5	Final Year Project I (FYP-I)	-	3	00+100	5	Final Year Project II (FYP-II)	0	3	00+100
	Total	11	6	350+250		Total	11	5	350+200

## Department of Electronic Engineering

#### About Chairman

Dr. Ehsan Ali Buriro received 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 scholarship from Faculty Development Program to pursue higher studies in Europe. He received M.Sc degree in Electronic Engineering from HS-Bremen, University of Applied Sciences, Bremen, Germany, in 2011 and received PhD degree in Micro & Nano electronics from IM2NP-AMU, Marseilles, France in 2015. He was working in collaboration with Fraunhofer Institute (ENAS), Department of



Chairman

Advanced System Engineering (ASE) Paderborn, Germany and AMU Marseilles-France.

Beside this, Dr. Ehsan has served as Attaché Temporaire d'Enseignement et 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 07 Masters of Engineering students in various Disciplines and is currently supervising 04 PhD students. His research interest are 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 20 publications in national and international Journal including 02 in IEEE Transactions on Circuits & systems. He has been reviewer of many IEEE conferences and journals like IEEE TCAI & TCASII, and Springer.

#### Introduction

In present era, electronic gadgets, devices & systems are so interwoven in socio-economic fabric of 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. The modern high-speed computers, automation and telecommunication systems have transformed our living patterns. It has not only extended human facilities but has resulted in cultural innovation. Thus, it is the imperative need of time to direct our efforts, time and resources to impart 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 degree of Bachelor of Electronic Engineering. This Department also offers Master of Engineering in two disciplines "Communications Engineering" & "Industrial Automation & Control". These programs have been designed considering all the needs and aspects of the latest trends & 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 carrier oriented professional Engineers. Graduates of Electronic Engineering can find numerous placements in both public as well as private sector organizations and eligible to pursue higher studies & training as worldwide Universities/Industries.

## Program Educational Objectives (PEOs)

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

- 1. To understand the application and performance of electronic devices in industrial sector in particular and in other sectors of utility in general.
- 2. To Design, fabricate, installation and analysis of the electronic system.
- 3. To develop skills for clear communication and responsible teamwork.
- 4. To inculcate professional attitudes and ethics, so that students should be prepared for the complex modern work environment and for the life-long learning.

## Degree Programme:

- 1. Bachelor of Engineering (Electronic Engineering)
- 2. Master of Engineering

- a. Communications Engineering
- b. Industrial Automation & Control
- 3. Ph.D. (Electronic Engineering)

SN	Name	Designation / Qualification
1	Dr. Ehsan Ali Buriro	Associate Professor & Chairman
1.	DI. EIISAII All BUIITO	B.E. (MUET), M.Sc (Germany), Ph.D (France)
2.	Prof. Dr. Abdul Fattah Chandio	Professor
۷.		B.E (MUET), M.S (NUST), Ph.D (China)
3.	Prof. Dr. M. Mujtaba Shaikh	Professor
J.		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
5.		B.E. (MUET), M.E (MUET), Ph.D (Malaysia)
6.	Dr. Abdul Aleem Jamali	Associate Professor
0.		B.E. (MUET), M.Sc (Germany), Ph.D (Germany)
		Assistant Professor
7.	Engr. Majid Hussain Memon	B.E (NED), M.E (MUET), Ph.D in progress
		(MUET)
		Assistant Professor
8.	Engr. Nasreen Nizamani	B.E. (MUET), M.E (MUET), Ph.D in progress
		(MUET)
		Assistant Professor
9.	Engr. Tarique Rafique Memon	B.E. (MUET), ME (MUET), Ph.D in progress
		(MUET)
10.	Dr. Kelash Kanwar	Assistant Professor
		B.E. (MUET), M.Sc (Germany), Ph.D (Germany)
	_	Assistant Professor
11.	Engr. Erum Pathan	B.E (MUET), M.E (MUET), Ph.D in progress
		(Malaysia)(On study leave abroad)
12.	Dr. Kamran Ali Memon	Assistant Professor
		B.E (MUET), ME (QUEST), Ph.D (China)
13.	Engr. Tasleem Dehraj	Assistant Professor
	5	B.E. (QUEST), ME (MUET)
14.	Engr. Sara Rehman Memon	Assistant Professor
	5	B.E. (MUET), ME (QUEST)
15.	Engr. Bushra Abro	Assistant Professor
	5	B. E. (QUEST), ME (MUET)
16.	Engr. Masood Ali Koondhar	Lecturer
		B.E (QUEST), PGD (MUET)

17.	Engr. Abdul Rafay Khatri	Lecturer B.E. (MUET), M.Sc (Germany), Ph.D in progress (Germany)
18.	Engr. Talha Bahtti	Lab Engineer B.E. (MUET), M.Sc (Germany)
19.	Engr. Amad Hussain	Lab Engineer B.E. (MUET), PGD (MUET), On lien (OGDCL)
20.	Engr. Nazia Keerio	Jr. Lab Engineer B.E (QUEST), ME (QUEST)
21.	Engr. Faria Durani	Jr. Lab Engineer B.E (QUEST), ME (MUET)
22.	Engr. Muhammad Saleh Memon	Lab. Supervisor B.E. (NED)

SN	Name of Subject	C	н	Marks	SN	Name of Subject	СН		Marks
311	Name of Subject	Th	Pr	IVIAI KS	211	Name of Subject	Th	Pr	IVIdI KS
				First	Year				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er		
1	Functional English	2	0	50+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	1	100+50	4	Circuit Analysis	3	1	100+50
5	Islamic studies	2	0	50+00	5	Communication Skills	2	1	50+50
6	Electronic Workshop	0	1	00+50	6	Computer Aided Engineering Design	0	1	00+50
	Total	12	3	350+150		Total	13	5	400+250
				Secon	d Yea	ar			
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> 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 Measurement.	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											
	1 <sup>st</sup> Semeste			2 <sup>nd</sup> Semester								
1	Signal and systems	3	0	100+00	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	3	450+150		Total	14	3	450+150			
				Final	Year							
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> 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 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 and later 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.



Chairman

Dr. Umair has worked in several international research projects and has authored and coauthored 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, 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. In order 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. 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 PhD degree programs:

### Vision:

To produce highly skilled computer engineers to meet the latest trends in the field of computing and to contribute effectively in 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)

- To produce adept computer professionals who have profound knowledge and proficiency in computer engineering and modern technological tools to cater the needs of ethical, societal, economic and environmental aspects.
- To enable our graduates to be employed as practicing engineers in the fields of analysis, design, synthesis, testing, manufacturing, operations and application-specific computing systems for solving real-world problems.
- 3. To develop and refine the communication, leadership and social skills among the students to prepare them for assuming responsible positions within an organization.
- 4. To invoke a sense of responsibility and critical thinking abilities among the students to build their ethical and professional character and enable them to a self-motivated pursuit of knowledge throughout their life.

## 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)

SN	Name	Designation / Qualification
1.	Dr. Umair Ali Khan	Associate Professor & Chairman B.E (QUEST), MS (Austria), PhD (Austria)
2.	Prof. Dr. Muhammad Sulleman Memon	Professor B.E (MUET), M.E (MUET), PhD (QUEST)
3.	Prof. Dr. Pardeep Kumar	Professor B.E (MUET), M.E (MUET), PhD (Germany)
4.	Dr. Fareed Ahmed Jokhio	Associate Professor B.E (MUET), M.E (MUET), PhD (Finland)
5.	Dr. Ubaidullah Rajput	Associate Professor B.E (QUEST), M.E (NUST), PhD (S Korea)
6.	Dr. Irfana Memon	Associate Professor B.E (QUEST), M.S (France), PhD (France)
7.	Dr. Fizza Abbas	Associate Professor B.E (MUET), M.E (MUET), PhD (S Korea)
8.	Dr. Imtiaz Ali Halepoto	Associate Professor B.E (QUEST), M.S (Hong Kong), PhD (Hong Kong)
9.	Dr. Sajida Parveen Soomro	Associate Professor B.E (QUEST), M.E (MUET), PhD (Malaysia)
10.	Engr. Muhammad Ali Soomro	Assistant Professor B.E (MUET), M.E (NED)
11.	Engr. Fayaz Ahmed Memon	Assistant Professor B.E (MUET), M.E (MUET)
12.	Engr. Iftikhar Ahmed Koondhar	Assistant Professor B.E (MUET), M.E (MUET) (on study leave abroad)
13.	Engr. Fozia Noureen Shaikh	Assistant Professor B.E (QUEST), M.E (MUET)
14.	Engr. Zuhaib Ahmed Shaikh	Assistant Professor B.E (QUEST), M.E (QUEST) (on study leave abroad)
15.	Engr. Muhammad Aamir Bhutto	Assistant Professor B.E (QUEST), M.E (QUEST)
16.	Engr. Muhammad Awais Rajput	Assistant Professor B.E (QUEST), M.E (QUEST) (on study leave abroad)
17.	Dr. Abdul Wahid Memon	Assistant Professor B.E (MUET), MS (France), PhD (France)
18.	Engr. Agha Shiraz Ahmed Khan	Assistant Professor B.E (QUEST), M. E (QUEST)

19.	Engr. Shahzana Memon	Assistant Professor B.E (QUEST), M.E (QUEST)
20.	Engr. Abdul Qadoos Memon	Faculty member B.E (QUEST) (on study leave abroad)
21.	Dr. Ali Raza Bhangwar	Lecturer B.E (QUEST), M.E (QUEST), PhD (QUEST)
22.	Engr. Beenish Qureshi	Lecturer B.E (QUEST), M.E (QUEST)
23.	Engr. Ayesha Jokhio	Lecturer B.S (COMSATS), M.E (QUEST)
24.	Engr. Haseena Rind	Lab Engineer B.E (QUEST), M.E (QUEST)
25.	Engr. Dileep Kumar	Lab Engineer B.E (MUET), M.E (MUET)

SN	Name of Subject	C	н	Marks	SN	Name of Subject	СН		Marks
314	Name of Subject	Th	Pr	IVIAI KS	214	Name of Subject	Th	Pr	IVIDI KS
				First	Year				
	1 <sup>st</sup> Semeste				2 <sup>nd</sup> Semest	ter			
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	2	0	50+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	450+100
				Secon	d Yea	ar			
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> 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	Visual Programming	3	1	100+50
					5	Computer Graphics	2	1	50+50
	Total	12	3	400+150		Total	14	4	450+200

Third Year									
1 <sup>st</sup> Semester					2 <sup>nd</sup> 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 Engineering	3	1	100+50	5	Embedded Systems	3	1	100+50
	Total	14	3	450+150		Total	14	4	450+200
Final Year									
1 <sup>st</sup> Semester					2 <sup>nd</sup> 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

Dr. Muhammad Mujtaba Shaikh is currently working as a Professor & Chairman Department of Telecommunication Engineering, Quaid-e-Awan University of Engineering, Science, & Technology (QUEST), Nawabshah. He also served as a researcher in the Department of Communications Engineering, University of Malaga, Spain. He holds PhD in Telecommunication Engineering from the University of Malaga, Spain. He completed his M.S in Telecommunication from Usman Institute, Hamdard University, Karachi, Pakistan and graduation in Electronic Engineering from Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan.



From 2003 to 2008, he served as an Assistant Manager in Communication and Scada Department at K-Electric, Karachi, Pakistan. His main research interests include Wireless Communication in general and 4G / 5G technologies with special interest in Heterogeneous Cellular Networks. He has participated in different national / international conferences and is the author of various publications in national & international journals.

### Introduction

Telecommunication Engineering stands among the fields with continuous growth throughout the times and the pace has been exponentially increased since the start of the second decade of the 20th century. Communication is an essential facility and with the inception of the internet being platform of every other service, it has infiltrated every aspect of 21st-century life. Telecommunication has synchronized and overlapped multiple other 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. 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 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 the information technology and communication industries. Moreover, courses are refined, upgraded as per latest trends and cutting-edge technologies to equip students with state-of-art skill set and enable young graduates achieving numerous job opportunities in both public as well as private sector organizations.

#### Vision

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

#### Mission

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

### Program Educational Objectives (PEOs)

- 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.
- 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.
- 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					
1.		B.E (MUET), M.S (Hamdard), PhD (Spain)					
2.	Prof. Dr. Intesab Hussain Sadhayo	Professor					
۷.		B.E (QUEST), M.S (France), PhD (France)					
3.	Dr. Adnan Ahmed Arain	Associate Professor					
J.		B.E (QUEST), M.S (Malaysia), PhD (Malaysia)					
4.	Dr. Ahsin Murtaza Bughio	Assistant Professor					
		B.E (MUET), M.S (Italy), PhD (Italy)					
5.	Engr. Nawaz Ali Zardari	Assistant Professor					
5.		B. E (MUET), M.Sc (UK) (on study leave abroad)					
		Assistant Professor					
6.	Engr. Ghulam Fizza Shah	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					
0.		B.E (QUEST), M.E (QUEST)					
9.	Engr. Sarfraz Ahmed Soomro	Assistant Professor					
<u> </u>		B.E (QUEST), M.E (QUEST)					
10.	Engr. Sundas Metlo	Assistant Professor					
		B.E (MUET), M.E (MUET)					
11.	Engr. Asadullah Laghari	Lecturer (on study leave)					
		B.Sc Eng. (COMSAT), M.S (IBA Sukkur)					
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					
	5	B.E (MUET), M.E (MUET)					
16.	Engr. Barkat Ali Khoso	Lecturer					
	5	B.E (MUET), M.E (MUET)					
17.	Engr. Fatima Qureshi	Lecturer					
		B.E (QUEST), M.E (QUEST)					
18.	Engr. Fozia Panhwer	Lecturer					
	<b>5 •</b> • • •	B.E (MUET), M.E (QUEST)					

SN	Name of Subject	C	н	Marks	SN	Name of Subject	CI	4	Marks			
210	Name of Subject	Th	Pr	IVIdIKS	SIN	Name of Subject	Th	Pr	IVIALKS			
				First	Year							
	1 <sup>st</sup> Semest	er			2 <sup>nd</sup> 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 & 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												
	1 <sup>st</sup> Semest	er				2 <sup>nd</sup> Semes	ter					
1	Technical Report Writing and Presentation Skills	2	0	50+00	1	Engineering Economics & 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 & 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							
	1 <sup>st</sup> Semest	er			2 <sup>nd</sup> 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 and Networks	3	1	100+50			
4	Communication Systems	3	1	100+50	4	Digital Communication & 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											
	1 <sup>st</sup> Semest	er				2 <sup>nd</sup> Semest	ter					
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

Dr. Pardeep Kumar is currently working as Professor and Head of the Software Engineering Department. Additionally, he is also working as Director for the Office of Research, Innovation & Commercialization (ORIC) at QUEST. Previously, he had worked as Chairman Department of Computer Systems Engineering, Coordinator Students Attendance Cell and Director Continuing Education at QUEST. He is a member of several academic and administrative committees at QUEST and other universities. He is also a member of PEC accreditation team and has visited several universities for their (re)accreditation visits. Dr. Kumar is



Prof. Dr. Pardeep Kumar, Chairman

also on expert panel to evaluate HEC TDF projects and the member of the review committee of HEC QAA to evaluate different postgraduate programs at different universities in Pakistan.

He completed his PhD from Berlin, Germany in 2012. Earlier he did his Bachelor of Engineering in Computer Systems and Master of Engineering in Communication Systems and Networks from Mehran University of Engineering and Technology Jamshoro, Pakistan in 2001 and 2004 respectively. Dr. Kumar joined QUEST in January 2004 and was granted PhD scholarship from HEC Pakistan and DAAD Germany in 2006. During his PhD 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 communication, wireless sensor networks, IEEE 802.15.4/ZigBee, Internet of Things (IoT), next generation networks, communication protocols, artificial intelligence, Big Data, etc.

Dr. Kumar has authored more than 50 research publications in reputed journals and conferences around the world including three books and several book chapters. He has visited several countries including Germany, France, USA, Australia, Italy, Switzerland, 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 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. In order 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 socioeconomic 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.

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## 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:

2. Bachelor of Engineering (Software Engineering)

## Teaching Staff

SN	Name	Designation / Qualification
1.	Prof. Dr. Pardeep Kumar	Professor and Chairman
1.		B.E (MUET), M.E (MUET), PhD (Germany)
2	Dr. Rafia Naz	Associate Professor
۷.	DI. Ralla Naz	B.E (MUET), ME (MUET), PhD (Malaysia)
	Dr. Imtiaz Ali Halepoto	Associate Professor
3.		B.E (QUEST), M.S (Hong Kong), PhD (Hong
		Kong)
4	Dr. Soiide Dervoor	Associate Professor
4.	Dr. Sajida Parveen	B.E (QUEST), M.E (MUET), PhD (Malaysia)
E	Engr. Fizz Sivel	Assistant Professor
5.	Engr. Fiza Siyal	B.E (MUET), ME (MUET)

SN	Name of Subject	С	н	Marks	SN	Name of Subject	Cl	CH Marks	Marke			
214	Name of Subject	Th	Pr	IVIALKS	214	Name of Subject	Th	Pr	IVIDI KS			
	First Year											
	1 <sup>st</sup> Semest	er			2 <sup>nd</sup> 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		
				Secon	d Yea	r					
	1 <sup>st</sup> Semest			2 <sup>nd</sup> Semest	ter						
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											
	1 <sup>st</sup> Semest		2 <sup>nd</sup> 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						
	1 <sup>st</sup> Semest	er				2 <sup>nd</sup> Semest	ter				
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		

Section 4

# FACULTY OF SCIENCE

- 1. Department of Information Technology
- 2. Department of Computer Science
- 3. Department of Mathematics & Statistics
- 4. Department of Basic Science & Related Studies
- 5. Department of English (Language & Literature)

## **Department of Information Technology**

### About Chairman

Prof. Dr. Muhammad Ibrahim Channa earned his 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 to that, he worked as Director, Office of the Research, Innovation and Commercialization, QUEST, Nawabshah. He also worked as Editor Quaid-e-Awam University Research Journal of Engineering, Science and Technology, Nawabshah. He teaches



various courses at undergraduate and postgraduate level and supervises research students at postgraduate level. He has produced two Ph.Ds as an external co-supervisor at University of Technology (UTM) Malaysia in 2016 and 2017 respectively. Currently, some MS and Ph.D students are 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 Ph.D in Information Technology.

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The Department of Information Technology is well equipped with advanced computer laboratories and qualified faculty. Currently, there are seven (07) computer laboratories and nine (09) PhD faculty members in the Department.

## **Degree Programmes:**

- 4. Bachelor of Science (Information Technology)
- 5. Master of Science
  - a. Computer Science
  - b. Software Engineering
  - c. Information Technology
- 6. Ph.D. (Information Technology)

## Teaching Staff

SN	Name	Designation / Qualification				
1	Prof. Dr. Muhammad Ibrahim	Professor/Chairman				
1.	Channa	PhD(ICT), Thailand				
2.	Prof. Dr. Zahid Hussain Abro	Professor & Dean Faculty of Science				
۷.		PhD(CS), Austria				
3.	Prof. Dr. Adnan Manzoor Rajpar	Professor				
э.		PhD(CS), Netherlands				
4.	Prof. Dr. Mukhtiar Ahmed Memon	Professor				
4.	FIOL DI. MURILIAI AIIIIed Memori	PhD(CS), Malaysia				
5.	Dr. Akhtar Hussain Jalbani	Associate Professor				
Э.	DI. Akitai Hussain Jaibain	PhD(CS), Thailand				
6.	Dr. Rafia Naz Memon	Associate Professor				
0.		PhD(SE), Malaysia				
7.	Dr. Shahzaman Nizamani	Associate Professor				
/.		PhD(IT), Pakistan				
8.	Engr. Jawed Akhtar Unar	Assistant Professor				
0.		ME(IT), Pakistan				
9.	Engr. Fiza Siyal	Assistant Professor				
9.		ME(SE), Pakistan				
10.	Mr. Saifullah Memon	Assistant Professor				
10.		MS(IT), Pakistan (On Study Leave)				
11.	Mr. Baqir Ali Zardari	Assistant Professor				
11.		MS(IT), Pakistan				
12.	Dr. Asghar Ali Chandio	Assistant Professor				
12.		PhD(CS), Australia				
13.	Ms. Saima Siraj Soomro	Assistant Professor				
13.		MS(IT), Pakistan (On Study Leave)				

14.	Mr. Himat Ali Shah	Assistant Professor					
		MS(IT), Pakistan (On Study Leave) Assistant Professor					
15.	Mr. Waqas Ali Sahito	MS(IT), Pakistan (On Study Leave)					
16.	Mr. Zeeshan Rasool Memon	Assistant Professor					
		MS(CS), Malaysia					
17.	Ms. Mehwish Laghari	Lecturer					
17.		MS(IT), Pakistan (On Study Leave)					
10	Dr. Muniba Shoukat Memon	Lecturer					
10.	Dr. Mulliba Shoukat Mellion	PhD(CS), Sweden					
10	Ms. Jharna Devi	Faculty Member					
19.		BS(CS), Pakistan (On Study Leave)					
20.	Engr. Muntazir Mehdi	Faculty Member					
20.		BE(CS), Pakistan (On Study Leave)					

SN	Name of Subject	C	н	Marks	SN	Name of Subject	CI	4	Marks	
314	Name of Subject	Th	Pr	IVIAI K3	314	Name of Subject	Th	Pr	IVIAI KS	
				First	Year					
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter			
1	Introduction to ICT	2	1	50+50	1	Object Oriented Programming	3	1	100+50	
2	Programming Fundamentals	3	1	100+50	2	Communication & Presentation Skills	3	0	100+00	
3	English Composition & Comprehension	3	0	100+00	3	Pakistan Studies	2	0	50+00	
4	Discrete Structures	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	Economics	3	0	100+00	
	Total	14	2	450+100		Total	16	1	500+50	
				Secon	d Yea	ar				
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> 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	Information Security	3	0	100+00	
3	Professional Practices	3	0	100+00	3	Computer Networks	3	1	100+50	
4	Visual Programming	3	1	100+50	4	Statistics & Probability	3	0	100+00	
5	Principles of Accounting	3	0	100+00	5	Software Engineering	3	0	100+00	
	Total	15	2	500+100		Total	15	2	500+100	
				Third	Year					

	1 <sup>st</sup> Semeste		2 <sup>nd</sup> Semester							
1	Database Systems	3	1	100+50	1	Web Technologies	2	1	50+50	
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	Digital Logic Design	3	0	100+00	
4	IT Project Management	3	0	100+00	4	IT Infrastructure	3	0	100+00	
5	Advanced Object- Oriented Programming	2	1	50+50	5	Compiler Construction	3	0	100+00	
					6	Technical & Business Writing	3	0	100+00	
	Total	450+150		Total	17	1	550+50			
				Final	Year					
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> Semester					
1	Virtual Systems & Services	3	1	100+50	1	Cyber Security	3	0	100+00	
2	Operation Research	3	0	100+00	2	Artificial Intelligence	3	1	100+50	
3	Digital Image Processing	2	1	50+50	3	Database Administration & Management	3	1	100+50	
4	Modeling & Simulation	3	0	100+00	4	Mobile Application Development	2	1	50+50	
5	Final Year Project-I	0	3	00+100	5	Final Year Project-II	0	3	00+100	
6	Cyber Crime	2	0	50+00						
	Total	400+200		Total	11	6	350+250			

## **Department of Computer Science**

#### About Chairman

Dr. Muhammad Saleem Vighio obtained master's and PhD degrees in Computer Science from Aalborg University Denmark from 2009 to 2012. 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



Dr. Muhammad Saleem Vighio, Chairman

different countries like Denmark, Germany, Norway, Sweden, Spain, Italy, Greece, China and Macao. Notable research units 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 conference 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 4-years fulltime Bachelor of Science in Computer Science. The degree programme comprises of 8-Semesters as recommended by the Higher Education Commission (HEC) of Pakistan. The key objective of this programme is to deliver knowledge in the field of Computer Science to the students of the region. Further, the courses offered in this programme provide skills in computing profession in order to meet the requirements of the country and to enable students to develop reliable software products meeting the needs of intended users. 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 Networks 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
1.		B.C.S (Sindh), M.S (Denmark), Ph.D (Denmark)
2.	Engr. Anees Ahmed Soomro	Assistant Professor
۷.	Engl. Anees Annee Soom o	B.E (MUET), M.E (QUEST)
3.	Dr. Aijaz Ahmed Arain	Assistant Professor
5.		M.E (QUEST), Ph.D (QUEST)
4.	Dr. Shafiullah Soomro	Assistant Professor
4.		B.E (QUEST), M.E (MUET), Ph.D (S.Korea)
5.	Ms. Shamshad Lakho	Lecturer
Э.		BSCS (QUEST), M.S (QUEST), Ph.D (in progress)
6.	Mr. Zeeshan Ahmed Nizamani	Lecturer
0.	Mil. Zeeshan Anneu Nizamani	BSCS (QUEST), M.S (China)
7.	Mr. Nadeem Channa	Lecturer
7.		BSCS (QUEST), M.S (QUEST)
8.	Mr. Mir Muhammad Juno	Lecturer
0.		B.E (QUEST), M.E (QUEST), Ph.D (in progress)

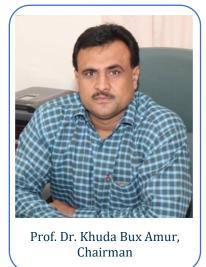
SN	Name of Subject	C	Н	Marks	SN	Name of Subject	C	4	Marks
314	Name of Subject	Th	Pr	IVIAI KS	514	Name of Subject	Th	Pr	
				First	Year				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	ter		
1	Introduction to Computing	2	1	50+50	1	Digital Logic Design	3	1	100+50
2	Programming Fundamentals	3	1	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									
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> 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									
1 <sup>st</sup> Semester						2 <sup>nd</sup> Semest	er			
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	ſ				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semest	er	1		
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

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 University of Sindh 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 Ph.D. scholarship from QUEST Nawabshah and he started his PhD in Metz University, France. During and after his Ph.D, Dr. Amur participated in many conferences in France, Germany, Czech Republic, Hong Kong, Thailand, Pakistan and presented his research work. He traveled to some other European countries Like Netherlands, Belgium, Luxemburg, and Switzerland.

He has contributed more than fifteen research papers in local and international journals. Area of his research work is Mathematical Image Processing, Mathematical modeling and simulation in science & engineering. After completion of his Ph.D, he joined the Mathematics & Statistics department at QUEST and started the Masters 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 seven MS (Mathematics) students and currently two 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 IT. Properly trained graduates in Mathematics and Statistics are also needed for the educational 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 1<sup>st</sup> 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 Ph.D. Program has also been started since 2015.

Department has a well-equipped computer lab for research students. Department have energetic and enthusiastic faculty members, qualified from international reputed universities. They are actively engaged in teaching as well as in research in various fields like Scientific Computing, 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 Programme:

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

## **Teaching Staff**

SN	Name	Designation / Qualification
		Professor / Chairman
1.	Prof. Dr. Khuda Bux Amur	M.Sc. (University of Sindh), M.S. (GIKI. Topi
		Swabi), Ph.D. (France)
	Dr. Shakeel Ahmed Kamboh	Associate Professor
2. Dr. Shakeel Ahmed Kamboh		B.S (University of Sindh), Ph.D. (Malaysia)
3. Dr. Abdul Hanan Sheikh		Associate Professor
5.	DI: Abdul Hallall Sheikh	B.Sc (SALU), M.Sc (QAU), Ph.D. (Netherlands)
		Associate Professor
4.	Dr. Sajad Hussain Sandilo	B.Sc (Sindh University), M.Sc (QAU), Ph.D
		(Netherlands)
		Associate Professor
5.	Dr. Rajab Ali Malookani	B.Sc (University of Sindh), M.Sc (University of
		Sindh), Ph.D. (Netherlands)
6	Dr. Muhammad Afzal Soomro	Associate Professor
6.		B.Sc (SALU), M.Sc (QAU), Ph.D. (Netherlands)

7.Mr. Abbas Ali GhotoAssistant Professor B.Sc. (University of Sindh), M.Sc. (University Sindh), M.Phil (University of Sindh)8.Mr. Sanaullah DehrajAssistant Professor B.S. (University of Sindh), M.S (NED UET study leave)9.Mr. Shujaat Ali ShahAssistant Professor B.Sc (SALU), M.Sc (SALU), M.Phill (QAU) study leave)10.Dr. Kamran Nazir MemonAssistant Professor B.S (SALU), M.S (COMSATS), PhD (MUET)11.Mr. Asghar Ali MaitloB.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on s leave abroad)	(on
Sindh), M.Phil (University of Sindh)8.Mr. Sanaullah Dehraj9.Mr. Shujaat Ali Shah9.Mr. Shujaat Ali Shah10.Dr. Kamran Nazir Memon11.Mr. Asghar Ali Maitlo11.Mr. Asghar Ali Maitlo12.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on sleave abroad)	(on
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8.       Mr. Sanaullah Dehraj       B.S. (University of Sindh), M.S (NED UET study leave)         9.       Mr. Shujaat Ali Shah       Assistant Professor         9.       Mr. Shujaat Ali Shah       B.Sc (SALU), M.Sc (SALU), M.Phill (QAU) study leave)         10.       Dr. Kamran Nazir Memon       Assistant Professor         11.       Mr. Asghar Ali Maitlo       B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on steam)         11.       Mr. Asghar Ali Maitlo       B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on steam)	
study leave)9.Mr. Shujaat Ali ShahAssistant Professor9.Mr. Shujaat Ali ShahB.Sc (SALU), M.Sc (SALU), M.Phill (QAU) study leave)10.Dr. Kamran Nazir MemonAssistant Professor B.S (SALU), M.S (COMSATS), PhD (MUET)11.Mr. Asghar Ali MaitloAssistant Professor B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on s leave abroad)	
9.Mr. Shujaat Ali ShahAssistant Professor B.Sc (SALU), M.Sc (SALU), M.Phill (QAU) study leave)10.Dr. Kamran Nazir MemonAssistant Professor B.S (SALU), M.S (COMSATS), PhD (MUET)11.Mr. Asghar Ali MaitloAssistant Professor B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on s leave abroad)	(on
9.       Mr. Shujaat Ali Shah       B.Sc (SALU), M.Sc (SALU), M.Phill (QAU) study leave)         10.       Dr. Kamran Nazir Memon       Assistant Professor         11.       Mr. Asghar Ali Maitlo       Assistant Professor         11.       Mr. Asghar Ali Maitlo       B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on sleave abroad)	(on
10.       Dr. Kamran Nazir Memon       Assistant Professor         11.       Mr. Asghar Ali Maitlo       Assistant Professor         11.       Mr. Asghar Ali Maitlo       B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on specific text of the specific text of te	(on
10.Dr. Kamran Nazir MemonAssistant Professor B.S (SALU), M.S (COMSATS), PhD (MUET)11.Mr. Asghar Ali MaitloAssistant Professor B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on s leave abroad)	
10.       Dr. Kamran Nazir Memon       B.S (SALU), M.S (COMSATS), PhD (MUET)         11.       Mr. Asghar Ali Maitlo       Assistant Professor         11.       Mr. Asghar Ali Maitlo       B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on specific texts)	
B.S (SALU), M.S (COMSATS), PhD (MUET)         Assistant Professor         11. Mr. Asghar Ali Maitlo         B.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on specific provide the sp	
11.Mr. Asghar Ali MaitloB.Sc (SALU), M.Sc (SALU), M.S (QUEST) (on s leave abroad)	
leave abroad)	
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Assistant Professor	
, to both the record	
12. Mr. Wajid Ali Shaikh B.Sc (Sindh University), M.Sc (Sindh Univer	sity),
M.Phil (Sindh University) (on study leave)	
Assistant Professor	
13. Mr. Iqrar Ali Pali BS (QUEST), MS (QUEST)	
14. Mr. Imran Ali Kanhio Assistant Professor	
14. Mr. Imran Ali Kanhio BS (QUEST), MS (QUEST)	
Assistant Professor	
15. Mr. Muzaffar Bashir Arain BS (QUEST), MS (QUEST)	

SN	Name of Subject	C	Н	Marks	SN	Name of Subject	C	H	Marks		
514	Name of Subject	Th	Pr	IVIALKS	314	Name of Subject	Th	Pr	IVIAI KS		
				First	Year						
1 <sup>st</sup> Semester						2 <sup>nd</sup> 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										
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semes	ter				
1	Set Topology	03	00	100+00	1	Fuzzy Logic	03	00	100+00		

-		-	-		-				
2	Vector Calculus & Analytic Geometry	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	Accounting	03	00	100+00
	Total	15	00	500+00		Total	15	00	500+00
Third Year									
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semes	ter		
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-I	3	0	100+00	4	Real Analysis-II	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
				Fina	l Yea	r			
	1 <sup>st</sup> Semeste	er			2 <sup>nd</sup> Semester				
1	Transformation 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	Fluid Mechanics	03	00	100+00	3	Analytical Dynamics	03	00	100+00
4	Functional Analysis	03	00	100+00	4	Rings and Fields	03	00	100+00
5	Econometrics	03	00	100+00	5	Project/thesis	00	06	00+200
6	Optimization Techniques	03	00	100+00					
	Total	18	00	600+00		Total	12	06	400+200

## Department of Basic Science & Related Studies

#### About 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



Dr. Saifullah Bhutto, Chairman

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.

SN	Name	Designation / Qualification			
1.	Dr. Saifullah Bhutto	Associate Professor/ Chairman			
1.	DI. Saliuliali Bliutto	M.A. (University of Sindh), Ph.D (Turkey)			
2	Prof. Dr. Inavatullah Kakanata	Professor			
2.	Prof. Dr. Inayatullah Kakepoto	M.A (SALU), Ph.D (Malaysia)			
2	Prof. Dr. Mansoor Ahmed Channa	Professor			
3.	Prof. Dr. Mansoor Anned Channa	M.A (SALU), M.Phil (Thailand), Ph.D (Malaysia)			
4		Associate Professor			
4.	Dr. Insaf Ali Simming	M.A. (SALU), Ph.D (Malaysia)			
		Assistant Professor			
5.	Mr. Liaquat Ali Tunio M.SC. (SALU), MPhil (QAU Islamabad), PGG				
		(Islamabad)			

### **Teaching Staff**

		Assistant Professor				
6.	Mr. Abdul Ghafoor Shaikh	M.SC. (University of Sindh), MPhil (QAU				
0.		Islamabad) (On Study Leave)				
		Assistant Professor				
7.	Mr. Syed. Muhammad Saeed Ahmed	M.SC. (Maths) University of Sindh				
1.	With Syed. Wallariniad Saeed Annied	PGCOC, Islamabad				
		Assistant Professor				
8.	Mr. Ghulam Yameen Mallah	B.SC. (University of Sindh), M.Sc. (QAU,				
0.		Islamabad), MPhil (QAU, Islamabad)				
		Assistant Professor				
9.	Mr. Muhammad Arif Soomro					
		M.A. (NUML, Islamabad), MPhil (MUET)				
10	Mr. Hofis Mukersmand Manage	Assistant Professor				
10.	Mr. Hafiz Muhammad Memon	B.S (University of Sindh), M.S (QUEST) (On Study				
		Leave)				
11.	Mr. Ravi Kumar	Assistant Professor				
		B.S (University of Sindh), M.Phil (MUET)				
12.	Mr. Mehboob Ali Jatoi	Assistant Professor				
		B.S (QUEST), MS (QUEST)				
13.	Mr. Ajeeb-ur-Rehman Junejo	Assistant Professor				
	, ,	M.Sc. (SALU), MSc (Sweden)				
		Lecturer				
14.	Mr. Mansoor Ahmed Koondhar	M.A. (University of Sindh) (On Study Leave				
		abroad)				
15.	Mr. Tarique Hussain Keerio	Lecturer				
		M.A. (University of Karachi)				
16.	Mr. Abdullah Laghari	Lecturer				
		M.A. (University of Sindh)				
17.	Mr. Mukhtiar Ahmed Rajpar	Lecturer				
<u> </u>		M.A. (NUML, Lahore)				
18.	Mr. Saleemullah Bhutto	Lecturer				
10.		M.A. (University of Sindh)				

## Department of English (Language and Literature)

#### About Chairman

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



He has immense experience of research and teaching as he is

dedicatedly contributing towards publishing quality research papers in the 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 globally 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 paradigms revolves round the different areas and perspectives of Applied Linguistics and Learners Motivation.

### Introduction

The Department of English has been established in the view of the contemporary global trends in English language, linguistics and literature. The department has a vibrant, adept, highly foreign qualified and enthusiastically motivated faculty with the significant number of PhDs. The Motivating principles of establishing the department includes meeting the language requirements of English in Pakistan and incorporation of growing trends of English language, linguistics and literature in academia and professional spheres of life. In addition to this, a guiding principle is to facilitate innovation through social, cultural, political and economic processes for the personal growth so that the ability to master the art of innovation and creativity through literary learning, and high moral character building of students may further guide them towards attaining distinction. Our department first time offered distinguished BS program in English Language and Literature in 2019 line with HEC NSRC-2017-18. The study programme has been designed with 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 carried out during the extensive four-year period of the study programme. Understanding the research needs for future, students are required to submit research dissertation as a pre-requisite for earning the degree.

Besides this, the department also offers a range of learners need based short courses to develop, excel and maintain the most effective and updated skills to the undergraduate and graduate students of other departments of the university including Engineering, Science and Technology. For this purpose, the department has dedicated and well-equipped audio-visual resources and labs capable of accommodating significant number of students simultaneously. Apart from offering regular degree program, the department has actively engaged to host the talks of prominent national and international scholars of English Language and Literature to provide the exposure of growing trends of language teaching across the world. One of such programs was hosted by the department in the month of March 2019 in which international speaker and prominent linguist Associate Professor Dr. Elizabeth M. Anthony from Department of Languages and linguistics, Center for Language Studies, UTHM, Malaysia engaged the students on the topic "Embrace Disruption, Rethink Learning" with her valuable guidance and extensive experience. The department of English has established its own seminar library that consists of latest books ranging from communication skills, general English books and long list of 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 to mention here that with the sincere efforts of the worthy vice chancellor Professor Dr. Saleem Raza Samo. The recent development at the department of English is establishment of International English Language Testing System (IELTS) Lab in accordance with international standards. IELTS Language lab has seating capacity of thirty students at time with latest computer facilities. This IELTS language lab is donated and inaugurated by renowned educationist, social activist and leading orthopedic doctor Professor Dr. A W Bhatti a Pakistani 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
1.	DI. IIIsai Ali Sililing	B. A (SALU), M.A (SALU), Ph.D (Malaysia)
2.	Prof. Dr. Inavtullah Kakapata	Professor
Ζ.	Prof. Dr. Inaytullah Kakepoto	M.A (SALU), Ph.D (Malaysia)
		Professor
3.	Prof. Dr. Mansoor Ahmed Channa	BS (SALU), M.A (SALU), MPhil (Thailand), Ph.D
		(Malaysia)
4.	Mr. Muhammad Arif Soomro	Assistant Professor
4.		M.A (NUML), MS (MUET)
5.	Mr. Ali Acabar Chandia	Assistant Professor
э.	Mr. Ali Asghar Chandio	M.A (University of Sindh), MS (Poland)
6.	Mr. Mansoor Ahmed Kondhar	Lecturer
0.		MA (University of Sindh)
7.	Mr. Abdullab Lagbari	Lecturer
/.	Mr. Abdullah Laghari	M.A (University of Sindh)
0	Mr. Mukhtiar Ali Baipar	Lecturer
8.	Mr. Mukhtiar Ali Rajper	M.A (SALU), M.A (NUML)
0	Mar Mahammad Ismail Daha	Lecturer (on contract)
9.	Mr. Mohammad Ismail Raho	M.A (University of Sindh)

SN	Name of Subject	C	Н	Marks	SN	Name of Subject	C	Н	Marks		
514	Name of Subject	Th	Pr	IVIAL K5	514	Name of Subject	Th	Pr	I I I I I I I I I I I I I I I I I I I		
				First	Year						
1 <sup>st</sup> Semester						2 <sup>nd</sup> 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		

	1 <sup>st</sup> Semester								
	1 <sup>st</sup> Semeste		2 <sup>nd</sup> 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									
1 <sup>st</sup> Semester					2 <sup>nd</sup> Semester				
1	Novel 18 <sup>th</sup> to 19 <sup>th</sup> 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
				Fina	l Yea				
	1 <sup>st</sup> Semeste	er				2 <sup>nd</sup> Semes	ter	1 1	
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

Section 5

# FACULTY OF TECHNOLOGY

- 1. Government Habib College of Technology Nawabshah
- 2. Government College of Technology Larkano

### 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 of Technical Institutions to the University Affiliation:

- 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
  - 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:

- 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.
- 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:

- 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.

### Academic Council Resolution NO. ACAD-24.6 Dated: 18/04/2012

- A minimum amount of Rupees One lac will be charged as affiliation fee per year.
- 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 revised B. Teach curriculum (2010) must be introduced forthwith for all the Technologies.
- Vigilance Committee will 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. Noor Ahmed Memon	Dean, Faculty of Technology				
2.	Prof. Pir Muhammad Akbar Principal, Govt. Habib College of Technology Nawabshah					
3.	Prof. Rasheed Ahmed	Principal, Govt. College of Technology Larkano				

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. Those teachers who are found deficient in any aspect are called for counseling and improvement is being observed. The results are encouraging, and it is expected that quality of teaching will show remarkable changes.

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 Affiliation Committee to implement the HEC/PEC guidelines of various bodies. Director 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 and postgraduate level is being done by QEC. It monitors the standard of education not only a QUEST but also at constituent campus and affiliated colleges. 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.

Recently, QEC arranged MS/MPhil and Ph.D. program review conducted by HEC team and QEC has also prepared and submitted Institutional Performance Evaluation (IPE) report for the year-2020. The same will be incorporated in the Yearly Progress Report 2020-21 for ranking purpose.

 Prof. Dr. Abdul Sattar Jamali

 Dean, QEC

 Tel No: 0244 - 9370542 | 0244-9370381

 Ext: 2526 - 3157

Email: jamali\_sattar@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 researches. These researches 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) 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 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> prize 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. Abdul Hameed Pirzada

Director Sports Telephone # 0244-9370549/02449370381-4/Ext. 2671 Email: directorsportsquest@gmail.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 18 PhD degrees up to 2019 in the fields of Civil Engineering (06), Energy & Environment Engineering (05), Information Technology & Computer System

Engineering (01). In addition, more than 150 candidates are expected to receive master's degree in various disciplines in next Convocation.

At present 111 PhD students are registered in 08 PhD programs offered at QUEST in various Departments, Civil Engineering, Mechanical Engineering, Energy & Environment Engineering, Electronic Engineering, Electrical Engineering, Computer System Engineering, Information Technology and Mathematics. Every Department have highly qualified and skilled faculty members who have received PhD degree from Developed countries like Germany, France, Netherlands, Spain, Sweden & Finland, China and Malaysia. Currently, more than one hundred PhD faculty members are engaged in Postgraduate Programs.

Now, the directorate of postgraduate studies offers 16 ME/MS & 08 PhD programs in the following fields at main Campus.

## Master of Engineering Programs

**Construction Engineering & Management** 

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

Four existing Masters programs in Engineering at main campus are also being started at QUCEST Larkana after completing formalities from 20th Batch.

- 1. Industrial Automation & Control
- 2. Industrial Engineering & Management
- 3. Civil Engineering
- 4. Power Engineering

The more details of all Postgraduate Programs offered at QUEST can be found in Postgraduate Programs Prospectus published by Directorate of Postgraduate Studies at QUEST.

**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 upto-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: <u>http://publications.quest.edu.pk</u>

### 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:

**Prof. Dr. Muhammad Sulleman Memon** Director (P&D) Telephone No. 0244-9370376

### 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 Chemi Visco 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. It is hoped that the Industrial Liaison at its developing stage would help in exchange of expertise for the transfer of required technical knowledge with the industries in the region and Pakistan as whole.

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

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enthusiastically for the welfare of local and the foreign students. The Directorate organizes extracurricular 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. Atta Muhammad Chandio

Deputy 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:

#### Mr. Fazal Ali Shaikh

Director Finance / Chief Financial Officer 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 <u>http://opac.quest.edu.pk</u>.

### **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 Ditital 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 interscience, 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.guest.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 "18<sup>th</sup> 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 14<sup>th</sup> to 18<sup>th</sup> May 2018".

### Dr. Insaf Ali Siming

Incharge English Language Centre

### Students Accommodation

QUEST, Nawabshah is a prestigious institution which 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. 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. To begin with, the university has 13 hostels in all for the students; 10 are reserved for boys, whereas three are reserved for girls. When it comes to boys' hostels, one hostel has specially been reserved for those students who are coming around the world to seek their higher education from prestigious university. This hostel is under construction which will be brought to use for foreigners very soon. As regards girls' hostels, one hostel is under construction. A detailed account of the facilities is provided with is mentioned below:

### **Reading Rooms**

Since QUEST believes in quality education; hence it provides conductive learning atmosphere to the learners. Every student has his/her own separate study table and chair. Apart from this, there is a reading room in every hostel where the students can read various newspapers and magazines of their interest.

### **Dining Facility**

Every hostel possesses satisfactory dining facilities. The mess provided to the students is of quality with reasonable rates. However, the students ranging from 20 to 60 can run their Mess with prior approval of the warden concerned. Dining facility is provided round the clock. Dining rooms contain TV launch for the students' entertainment and updated information. It is worth mentioning, that Hostel Administration has food monitoring committee comprising of hostel

wardens and medical doctor, which ensures implementation of all guidelines provided by SFA (Sindh Food Authority) at mess facilities.

### Drinking Water Facility

Water coolers are installed in all residential hostels. Hostels facilitate the students with pure drinking water as per health standards. Owing to annual blockage of water, there arise drinking water crisis students are frequently faced with in past; but by the dedication and advanced planning of hostel administration; new Professional RO systems have been installed so as to overcome annual drinking water shortage in the month of December.

#### 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' / Girls' hostels. Before the entry of the students, their particulars are strictly checked. In this connection, the relevant data is also recorded in the visitor's book in order to maintain the tranquil atmosphere at hostels. Most recently, hostel administration has started work on biometric entry system connected with its already implemented QHMS.

#### Medical & Emergency Services

In case of any uncertain physical health of students, there are medical officers available for both girls and boys (one for each). Dispensary equipped with necessary medical facilities has also been set up to ensure the proper treatment of the students at the time of emergency, where free medicines are also provided to the students. University's own ambulance is available 24/7. In addition, Edhi Welfare Ambulance Services is also in our direct contact for 24 hours to cope with emergency situation.

#### **Transport Facility**

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

#### **Physical Fitness**

order keep the students fit, healthy QUEST In to and smart, has а gymnasium for and girls hostels, one for each, so that students may boys

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exercise for their fitness. this regard, there is take In modern exercise equipment for both students and teachers. evening, In the students join gymnasium in majority to keep themselves active and energetic.

#### **Co-curricular** activities

keep In order to the students physical fit, QUEST has established Sport Complex with indoor/outdoor sports facilities, number of games а are cricket, football, racket ball, played such as table tennis, vollev ball. etc. this regards, there are special grounds for cricket and hockey where in these games takes place. These huge grounds produce verv good indoor well outdoor players. Our players play as as games and bring many awards to their names. Sitting Parks for the students' recreation, there are parks within each hostel where they can have a good time together and utilize their time in academic discussions among one another.

#### QUEST hostel management system

Recently milestone achieved а has been by setting QUEST Hostel up (http://www.questhms.com) the efforts of Management System bv Hostels Administration. It is an online app in which the entire record regarding hostels is available. Besides, the transparency regarding students' residential and payment record has also been ensured. The app is helping students know about their allotted residential rooms and their current payment status. For wardens, it is also very helpful in terms of the managing students living in their respective hostels. 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 quality mess, prayer hall and AC rooms.

#### 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 level.

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### **Conduct and Discipline**

Rules of conduct are strictly abided by the students which are revised time to time. In case of any violation and indiscipline of set code of conduct, Hostel Regulation issues a disciplinary action against those who are involved in disciplinary misconduct. In order to maintain conduct and discipline, penalties are also imposed on the students who are found involved in any misconduct.

### Eligibility for Hostel Accommodation

For the students' convenience, Hostel allotment forms are made available in the office of Provost (Hostels). As per requirement, those students are considered eligible for hostel accommodation who submit applications on the prescribe forms. Keeping in view the availability of seats, allotment of eligible students is considered as per hostel rules and regulations.

### Engr. Muhammad Aamir Bhutto Provost Hostels, QUEST provost@quest.edu.pk Tel: 9370381-5 Ext: 2646, 3250

### **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: <u>director.its@quest.edu.pk</u>

## **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.

#### Abdul Hameed Pirzada

Director Sports Telephone # 0244 9370549/0244 9370381-4 Ext. 2671 Email: directorsportsquest@gmail.com

## 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 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. Poor Boys "University Endowment Fund"

Every year some financial assistance/support in the form of Poverty-cum Merit basis is providing by University to the poor students. For this purpose, a committee of all Chairmen academic departments has been constituted to scrutinize the cases, aft;er that the committee interviews the applicants and finalize the names of the deserving candidates for the award of financial assistance.

### 2. 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.

### 3. Prime Minister Tuition Fees Reimbursement Scheme:

This financial assistance is providing by the Higher Education Commission Islamabad for the students of ME, MS, M.Phil & Phd programmes to complete their education in befitting manners.

### 4. 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.

### 5. 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.

### 6. 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.

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### 7. 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.

### 8. Sui Southern Gas Scholarship:

this financial assistance is providing by Sui Southern Gas Company on Poverty-Cum Merit basis to the needy and deserving students for motivating and encouraging in their academic performance. This financial assistance is for only bachelor's degree programme of Sindh and Balochistan provinces students.

### 9. 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.

### 10. 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.

### 11. 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.

### 12. 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.

### 13. Abdul Majeed Brohi Merit Scholarship:

This Financial assistance is providing to needy and deserving students on the poverty cum merit basis for bachelor degree program.

### 14. Minority Schoalrship:

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.

### 15. 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

### 15. 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.

### 16. Pay It Forawrad:

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

### 17. 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.

### 18. 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.

### 19. 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.

### 20. 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.

### 21. Diya Pakistan Scholarship:

This finacial 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.

### 22. Late ATTA MUHAMMAD Somroo Merit Scholarship:

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

### 23. 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.

### 24. 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.

### 25. 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..

### 26. Schedule Caste Scholarshipprogramme 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.

### 27. 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.

### 28. National Endowment Scholarships For Talent (NEST):

this financial assistance is providing by Ministry of planning, development & reforms for talented and poor students who are unable to continue their higher education because lake of financial resources.

### 29. 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.

### 30. 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.

### 31. 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

## 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

# 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

## Introduction

In order 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. Six Batches (10 to-15-Batches) have completed degree programme in the end of December-2018 and accordingly Pakistan Engineering Council (PEC) allowed the accreditation to the 04-batches (10-11-12-13). The Honorable Chief Minister, Sindh upgraded the college and declared it as QUEST Campus Larkano vide a Notification No.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. Noor ul Hassan Zardari	Professor & Director
		B.E (MUET), M.E (MUET), Ph.D (Australia)
2.	Mr. Rafique Ahmed Khoso	Deputy Registrar
		MBA (UoS), M.Sc (SALU), L.L.B (SALU)
2	Mr. Mumtaz Ali Lashari	Deputy Director Finance
5.	IVIT. IVIUITILAZ AII LASTIATI	MBA (IBA Karachi)

4.	Mr. Wajahat Hussain Makani	Estate cum Security Officer M.Sc (Geology), B.P Ed (SALU)
5.	Mr. Muhammad Qabil Mugheri	Assistant Librarian
		MLIS (University of Sindh)
6.	Mr. Abdul Hameed Rajput	Workshop Superintendent D.A.E (SBTE), B.Sc (QUEST)
7.	Mr. Ameer Ahmed Shar	Transport Officer
	wir. Ameer Annied Shar	D.A.E (SBTE) , B.Tech (MUET), M.A (SALU)
8.	Mr. Abdul Hafeez Laghari	Assistant Controller Examinations
0.	WIT. ADUUT Hateez Laghan	M.A (SALU)
0	Mrs. Afroz Begum Sohu	Assistant Director (QEC)
9.	WIS. AITOZ BEGUITI SOTIU	M.A (SALU)
10.	Mr. Colled Hussein Khose	Assistant Director Sports
	. Mr. Sajjad Hussain Khoso	B.P Ed (SALU), M.A (SALU)
11.		Student Welfare Officer
	Mr. Musawar Hussain Bhutto	M.A (English), B.Ed

## Department of Civil Engineering

### Introduction

Civil Engineering is one of the oldest fields of engineering. It is art of designing 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 organization to multi-national companies, which lead the civil engineering to wide-ranging and ever demanding disciplines. Developing country like Pakistan have higher demands for

infrastructure than the developed countries. Public sector



Prof. Dr. Noor ul Hassan Zardari, Chairman

universities in Sindh Province have always strived hard to cater the needs of the industry of the region but still there is dearth of Civil Engineers.

In view of that increasing demand of civil engineers, Government of Pakistan in 2009, decided to establish engineering college at Larkano to cater the demand of 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 will work as professional engineers.

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

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

## Department of Mechanical Engineering

### Introduction

Mechanical Engineering is one of the prime disciplines of Engineering. Mechanical Engineering plays a vital role in the industrial development of a country. Its application is found in all small, medium, and large-scale industries and in 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 system for mechanical power and material processing. Four years course offered covers all aspects of the discipline to meet the requirement of present and latest



Engr. Syed Nihal Abbas Shah, Chairman

technological developments. Theory classes are supported by tutorials, laboratory experiments, and workshop practice. The graduates of this department would be able to get places in most of national & international Industrial Organization like PAF, WAPDA PMTF, Steel Mills, Railways, PIA and OGDC etc.

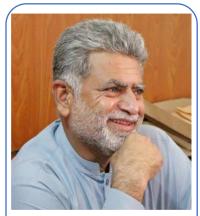
SN	Name	Designation / Qualification
		Asst. Professor / In-charge Chairman
1.	Engr. Syed Nihal Abbas Shah	B.E (QUEST), MBA (SALU), M.E
		(QUEST)
2	Dr. Muhammad Tariguo Phatti	Assistant Professor
Ζ.	2. Dr. Muhammad Tarique Bhatti	B.E (MUET), Ph.D (Dublin, Ireland)
3.	Dr. Junaid Iqbal Bhatti	Asstt. Professor
5.		B.E (QUEST), Ph.D (South Korea)
4.	Engr: Spijad Husspin Solangi	Assistant Professor
4.	Engr: Sajjad Hussain Solangi	B.E (MUET), M.E (QUEST)
5.	Engr: Abmod Ali Sobu	
J.	Engr: Ahmed Ali Sohu	B.E (MUET), M.E (QUEST)
6.	Engr: Temoor Abbass Larik	Assistant Professor
0.	Eligi. Tellioor Abbass Lairk	B.E (QUEST), M.E (QUEST)
7.	Engr: Ghulam Mujtaba Bhanger	Assistant Professor
7.		B.E (NED), M.Sc (Sweden)
8.	Engr. Zooshan Oadir Momon	Asstt. Professor
ð.	Engr. Zeeshan Qadir Memon	B.E (MUET), M.E (Malaysia)

9.	Engr. Ishfaque Ali Qazi	Asstt. Professor
-		B.E (QUEST), M.E(MUET)
		Lecturer
10.	Engr. Tarique Ahmed Memon	B.E (QUEST), M.E(MUET), Ph.D (In
		progress)
	Engr. Mukhtiar Ali Shar	Lecturer
11.		B.E (QUEST), M.E (QUEST) (On Study
		Leave Abroad)
		Lab-Engineer
12.	Engr: Manthar Ali Khoso	B.E (QUEST), ME (QUEST) (On Study
		Leave Abroad)
		Lab-Engineer
13.	Engr: Athar Ali Gorar	B.E (MUET), ME (NED) (On Study Leave
		Abroad)
		Lab-Engineer
14.	Engr: Asif Ali Laghari	B.E (QUEST), M.E (NUST) (on study
		Leave abroad)
		Lab-Engineer
15.	Engr: Zohaib Khan Pathan	B.E (QUEST), M.E(QUEST)
		(On Study Leave Abroad)
16.	Mr. Abdul Hamaad Bainut	Workshop Superintendant
16.	Mr. Abdul Hameed Rajput	D.A.E (S.B.T.E), B.Sc (QUEST)
17	Engr: Jamool Ahmod Mahassar	Senior Workshop Instructor
17.	Engr: Jameel Ahmed Mahessar	B.E (QUEST)
10	Mr. Fowar Abmod Dainur	Workshop Instructor
18.	Mr. Fayaz Ahmed Rajpur	D.A.E (S.B.T.E)

## Department of Electrical Engineering

### Introduction

The department offers four-year (8-Sem:) undergraduate programme of studies leading to the bachelor degree B.E (Electrical Engineering). The courses for the degree are framed in such a way as to facilitate young engineers to be able to work in the field confidently or undertake advance studies and research in the related field. The graduates of the department will not only be able to serve in Pakistan but will be also capable to represent the country in various industries and academic institutions abroad.



Engr. Saeed Ahmed Shaikh, Chairman 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, multi meters, experiment sets, circuit elements, etc.

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), Ph.D (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 (Hang Yang University) (On Study Leave abroad)
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

Since 2009, with the same aim of providing "quality education to the students of interior Sindh at their doorsteps", the department of Electronic Engineering is standing as one of the four pillars of Quaid-e-Awam University of Engineering, Science and Technology, Campus, Larkano.

The objective of the department is to serve as a center of excellence in teaching and research in the fields of Electronic Engineering with a view to provide trained manpower for national development and to help improving the quality of life of



Dr. Muhammad Adil Ansair, Chairman

the people by creating public awareness on the use of appropriate scientific and technological development.

The department offers a four-year (8 Semesters) program leading to 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.

SN	Name	Designation / Qualification
1.	Dr. Muhammad Adil Ansari	Associate Professor / Chairman B.E. (MUET), M.E (South Korea), Ph.D. (South Korea)
2.	Dr. Khalil Muhammad Zuhaib	Assistant Professor B.E. (QUEST), Ph.D. (South Korea)
3.	Dr. Tofique Ahmed Soomro	Assistant Professor B.E. (MUET), M.S. (Malaysia), Ph.D (Australia)
4.	Engr. Aneela Pathan	Assistant Professor

		B.E. (MUET), M.E. (NED) (on study Leave)
5.	Dr. Saleem Raza Memon	Assistant Professor B.E. (MUET), M.S. (MUET & Denmark), PhD (Germany)
6.	Engr. Abdul Sattar Noonari	Assistant Professor B.E. (MUET) M.S. (MUET) (on study leave abroad)
7.	Engr. Ayaz Ahmed Soomro	Assistant Professor B.E. (MUET), M.S. (MUET) (on study leave abroad)
8.	Engr. Umair Saeed Solangi	Assistant Professor B.E. (MUET), M.E. (MUET) (on study leave abroad)
9.	Engr. Ali Anwar Panhwar	Lecturer B.S. (GIKI), M.S. (Australia)
10.	Engr. Irfan Ali Tunio	Lecturer B.E. (MUET), M.S. (France) (on study leave abroad)
11.	Dr. Muhammad Adil Ansari	Associate Professor (Chairman) B.E. (MUET), M.E (South Korea) Ph.D. (South Korea)
12.	Dr. Khalil Muhammad Zuhaib	Assistant Professor B.E. (QUEST), Ph.D. (South Korea)
13.	Dr. Tofique Ahmed Soomro	Assistant Professor B.E. (MUET) M.S. (Malaysia), Ph.D (Australia)
14.	Engr. Aneela Pathan	Assistant Professor B.E. (MUET), M.E. (NED) (on study Leave)
15.	Engr. Syed Sultan Shah	Lecturer B.E. (MUET), M.S. (Turkey) (on study leave abroad)
16.	Engr. Muhammad Hanif Lashari	Lecturer B.E. (QUEST), M.E. (QUEST)
17.	Engr. Ghulam Hussain Chandio	Lab-Engineer B.E. (MUET)
18.	Engr. Shahzaib Ansari	Lab-Engineer B.E. (MUET), M.E. (NED) (on study leave abroad)
19.	Engr. Noman Ghulamullah Rathore	Lab-Engineer B.E. (MUET), M.E. (MUET)
20.	Engr. Arsalan Ahmed Sohu	Lab-Engineer B.E. (QUEST), M.E. (QUEST)
21.	Engr. Fareesa Khan Sohu	Junior Lab-Engineer B.E. (MUET) M.E. (MUET)

## 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

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

Section 8

# **RULES, REGULATIONS & PROCEDURES**

- 8.1 Rules and Procedure for Admission
- 8.2 General Rules and Regulations
- 8.3 Pre-admission Test Sample Paper

## 8.1 RULES AND PROCEDURE FOR ADMISSION

### 8.1.1 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.

### 8.1.2 Eligibility for Admission

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

### 8.1.2.1 General (Applicable for all disciplines and categories)

- They have passed the Higher Secondary Certificate (HSC) 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 under taking 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.

#### 8.1.2.2 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 preengineering 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 or equivalent examination with computer science as a subject are eligible to apply for BS(IT), BS(CS), BS(Math) and BS(English).
- iii. Candidates who have passed HSC examination or equivalent in pre-medical group are eligible to apply for admission in BS(IT) 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 Preadmission test for all categories except nominees from other agencies and foreigners.
- 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).

### 8.1.3 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 deposit them with the same TCS within the announced due 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 all the eligible candidates of all disciplines are awarded 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 NOTICE.

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

## 8.1.4 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
  - o Chemistry
  - o 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 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 and 50 percent marks in pre-admission test: his/her CMP would be given by:

### 8.1.5 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 HAS TO PAY THE ADMISSION FEE ON THE DAY OF INTERVIEW.

### 8.1.6 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 amount to forfeiture 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 HAS TO PAY THE ADMISSION FEE ON THE DAY OF INTERVIEW. In case of failure, his/her admission will be cancelled without any further notice.

#### 8.1.7 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), and BS (English), (Category P). The allocated seats for these programmes are shown in Table-5.

## 8.1.8 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.

## 8.1.9 Deduction of Marks due to Gap in Education

In case of a gap or repetition of HSC Examinations, the merit will be determined as described below.

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.

## 8.1.10 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 allSindh 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 reassigned 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.

## 8.1.11 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 would mean that they accepted the discipline allocated to them (provisions of clause 11.8 & 11.9 also apply).

## 8.1.12 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.

- 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.

### 8.1.13 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.

### 8.1.14 Closing of Admission

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

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

### 8.1.16 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.

### 8.1.17 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.

### 8.1.18 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.

### 8.1.19 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.

# 8.1.20 Fees Structure

S#	Description	Fees (Rs.)			
	Admission Fee (Per Year)				
1	i. B.E Programme	13000/-			
T	ii. BS(IT) & BS(CS) Programme				
	iii. BS(English) & BS(Math) Programme	6500/-			
	Tuition Fee (Per Semester)				
2	i. B.E Programme	12000/-			
Z	ii. BS(IT) & BS(CS) Programme	12000/-			
	iii. BS(English) & BS(Math) Programme	12000/-			
3	Transport Charges	2000/-			
4	University Caution Money (once) (Refundable)	2500/-			
5	Subject society / PERN Fee (once)	1000/-			
6	Study Tour				
7	Games Fee				
8	Development Fee	1000/-			
9	Enrollment Fee (once)	1000/-			
10	Marks Verification Fee (at the time of verification) per semester	1600/-			
11	ID Card Fee (once)	500/-			
12	Pass Documents (Pass, Transcript & Degree)	1013/-			
13	Subtotal (Sr. No. 02 to 12)	48,013/-			
Tota	al fees for B.E Programs (Sr#1(i) + Sr#13) (in two installments,	Rs.61013/-			
Rs.3	0507/- for each semester)	1.2.01012/-			
Tota	al fees for BS (IT & CS programs) (Sr#1(ii) + Sr#13) (in two installments,	Rs.60513/-			
Rs.3	30257/- for each semester)	1.3.00313/-			
	al fees for BS (English & Maths programs) (Sr#1(iii)+Sr#12) (in two allments, Rs.27257/- for each semester)	Rs.54513/-			

# 8.1.21 Other Fees

### **Examination Fees**

		Semester/Examination Fee	Rs. 2000.00			
		(including Form Fee)				
Internet Fees (Per Year)						
		Internet Fee	Rs. 2000.00			
Hostel Fe	ees (I	Per Year)				
	i.	Admission Fee	Rs. 2000.00			
	ii.	Room Charges	Rs. 12000.00			

	TOTAL	Rs. 19100.00
ix.	ID Card	Rs. 100.00
viii.	Transport Charges	Rs. 2000.00
vii.	Form Fee	Rs. 200.00
vi.	Utility charges	Rs. 1500.00
٧.	Sports/Newspaper	Rs. 100.00
iv.	Medical charges	Rs. 200.00
iii.	Room Deposit (Once) (Refundable)	Rs. 1000.00

The foreign students will be charged hostel fee in US\$500 per annum as room charges, while the other fees will remain same as given above.

### **Migration Certificate Fee**

The total migration certificate fee is Rs. 2000/- (Rupees Two Thousand only).

### 8.1.22 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, who 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 2<sup>nd</sup> cycle of admission on self-finance. Preference would be given to those applicants, who have deposited their Self-finance fees along with application form.

## 8.1.22.1 Fees (Self Finance)

Following fees are payable by the candidates applying for admission under Self Finance Scheme.

- 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. The Bank Demand Draft should be prepared in favor of Director Finance, QUEST, Nawabshah.
- ii. Category-II: Self-Finance Scheme for B.E degree program (Electronic, Computer Systems, Energy & Environment, Telecommunication, Chemical Engineering, Software Engineering & Environmental Engineering) is Rs.7,35,000/- (Rupees Seven Lacs and Thirty Five Thousand Only) (in two installments) including Government Tax. The Bank Demand Draft should be prepared in favor of Director Finance, QUEST, Nawabshah.
- iii. **Category-III:** Each candidate who wants to seek admission to the First year of BS programme under Self Finance Scheme will be required to pay 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) is Rs.4,00,000/- (Rupees Four Lacs Only) (in two installments) including Government Tax
  - c. B.S (Mathematics & Statistics) & B.S English (Language and literature) is Rs.3,00,000/- (Rupees Three Lacs Only) (in two installments) including Government Tax.

### 8.1.22.2 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.

%age 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 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.

## 8.1.23 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.

## 8.1.24 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).

## 8.1.25 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.

### 8.1.26 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 of 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).

	οι	JEST (	Campu	ıs Lar	kano	District /	Cat.	QUEST NAWABSHAH										
SN	CE	EL	ME	ES	Total	Category	Code	CE	CS	EL	ME	ES	тс	E&E	СН	SW	E.E	Total
1	2	3	2	3	10	Sukkur	A-1	5	4	6	6	4	4	3	3	5	4	44
2	5	5	5	4	10	Ghotki	A-1 A-2	4	4	4	4	3	3	3	3	3	3	34
3	2	2	2	2	8	Khairpur Mirs	A-2	7	6	7	8	5	4	4	4	5	5	55
4	2	2	1	2	7	SBA	A-4	9	4	, 8	8	6	4	4	4	5	6	58
5	3	3	4	3	13	N. Feroze	A-5	8	4	7	6	5	4	4	4	4	4	50
6	6	6	6	7	25	Larkana	A-6	2	2	2	2	1	1	3	2	1	1	17
7	6	6	5	6	23	Shahdadkot	A-7	1	3	1	2	2	2	1	2	2	2	18
8	6	7	5	5	23	Shikarpur	A-8	1	2	2	2	2	2	2	1	2	2	18
9	5	5	5	4	19	Jacobabad	A-9	1	2	2	1	1	1	2	1	1	1	13
10	3	4	5	5	17	Kashmore	A-10	1	1	1	1	1	1	2	2	1	1	12
11	1	1	1	0	3	Hyderabad	A-11	1	2	2	2	1	1	1	1	1	2	14
12	1	0	0	0	1	Matiari	A-12	1	1	1	1	1	1	0	1	2	1	10
13	0	0	0	1	1	T. Allahyar	A-13	1	1	1	1	0	1	1	1	1	1	9
14	0	0	1	0	1	T. M. Khan	A-14	1	0	1	1	1	1	1	1	1	1	9
15	1	0	1	0	2	Dadu	A-15	1	1	2	2	2	1	1	1	1	2	14
16	0	1	0	0	1	Jamshoro	A-16	1	1	1	1	0	1	1	1	1	1	9
17	1	0	0	1	2	Thatta	A-17	2	2	1	1	1	2	1	1	2	2	15
18	0	0	1	1	2	Badin	A-18	2	1	2	2	1	1	1	1	1	1	13
19	0	0	1	1	2	Mirpurkhas	A-19	2	1	1	1	1	1	2	2	2	2	15
20	0	0	1	0	1	Umerkot	A-20	1	1	1	1	1	1	0	1	1	2	10
21	1	1	0	0	2	Tharparkar	A-21	2	1	1	1	1	1	1	1	1	1	11
22	1	1	1	0	3	Sanghar	A-22	2	2	2	2	1	1	1	1	2	1	15
23	1	1	1	2	5	Karachi	A-23	4	1	4	4	0	1	1	1	1	1	18
	47	48	48	47	190	Total (i)		60	47	60	60	41	40	40	40	46	47	481
24	2	2	2	2	8	Upper (Girls)	В	1	0	1	1	2	1	1	1	2	1	11
25	0	0	0	0	0	Lower (Girls)	В	1	0	2	1	2	2	2	2	1	1	14
20		0	0			QUEST	C*	Ma	ximur	n 33 s	seats ar	e allo	wed w	vith not	more	than 8	seats	in any
26		0	0			Employees	C*	c	liscipl	ine. C	Only 1 (	one) s	eat is	reserve	ed for	CSE de	partm	ent.
27	0	0	0	1	1	Sportsmen	D	0	0	0	1	1	1	1	1	0	0	5
28	0	0	0	0	0	Affil. colleges	E	1	0	1	0	0	0	0	0	0	0	2
29	0	0	0	0	0	Dipl. holders	F	1	0	1	1	1	0	0	1	0	0	5
30	0	0	0	0	0	AJK	J	1	0	1	1	0	0	0	0	0	0	3
50							J											
31	0	0	0	0	0	Ex-FATA	К	0	0	0	1	0	1	0	1	1	1	5
22	_	0	0	0	0	Northern Area	,	-	0	0	2	0	0	0	0	-	0	
32	0	0	0	0	0	Armed Forces	L	3	2	1	1	0	0	0	0	0	0	7
33	0	0	0	0	0	Foreigners	М	3	0	2	2	1	1	1	1	0	0	11
	0	0	0	0	0	OIC		0	0	2	1	0	0	0	0	0	0	3
34	0	0	0	0	0	Balochistan	Ν	1	0	1	0	1	0	0	0	0	0	3
	1	0	0	0	1	HEC Balochi-		0	1	0	1	0	1	1	0	0	0	1
35	1	0	0	0	1	Nom- stan	0	0	1	0	1	0	1	1	0	0	0	4
	0	0	0	0	0	inee Ex-FATA		1	0	1	0	1	0	1	0	0	0	4
	3	2	2	3	10	Total (ii)		13	3	13	13	9	7	7	7	4	3	79
	50	50	50	50	200	Total (i+ii)		73	50	73	73	50	47	47	47	50	50	560
							L OF SE	-		-				_				
	GRAND TOTAL OF SEATS = 560 + 200 + 33* = 793																	

## Table-1: Distribution of Seats in Various Engineering Disciplines (Batch-20)

CE = Civil Engineering ES = Electronic Engineering

CS = Computer Systems Engineering

CH = Chemical Engineering

TC = Telecommunication Engineering SW = Software Engineering

EL = Electrical Engineering ME = Mechanical Engineering E&E = Energy & Environment Engineering E.E = Environmental Engineering

SN			Total	District	Cat:	QUEST	r NAWABS	бнан
SIN	URBAN	RURAL	Total	District	Code	URBAN	RURAL	Total
01	5	5	10	Sukkur	A-1	21	23	44
02	3	16	19	Ghotki	A-2	6	28	34
03	2	6	8	Khairpur Mirs	A-3	12	43	55
04	2	5	7	Sh. Benazirabad	A-4	16	42	55
58	2	11	13	Naushahro Feroze	A-5	10	40	50
06	7	18	25	Larkana	A-6	5	12	17
07	7	16	23	Shahdadkot	A-7	5	13	18
08	6	17	23	Shikarpur	A-8	5	13	18
09	5	14	19	Jacobabad	A-9	4	9	13
10	4	13	17	Kashmore	A-10	4	8	12
11	1	2	3	Hyderabad	A-11	6	8	14
12	0	1	1	Matiari	A-12	4	6	10
13	0	1	1	Tando Allahyar	A-13	4	5	9
14	0	1	1	Tando M. Khan	A-14	4	5	9
15	0	2	2	Dadu	A-15	3	11	14
16	0	1	1	Jamshoro	A-16	3	6	9
17	0	2	2	Thatta	A-17	3	12	15
18	0	2	2	Badin	A-18	3	10	13
19	0	2	2	Mirpurkhas	A-19	5	10	15
20	0	1	1	Umerkot	A-20	0	10	10
21	0	2	2	Tharparkar	A-21	0	11	11
22	0	3	3	Sanghar	A-22	4	11	15
23	5	0	5	Karachi	A-23	18	0	18
	49	141	190	Total 145 33			336	481

# Table-2: Distribution of Engineering Seats in Districts U/R (Batch-20)

# Table-3: Description of Remaining Categories of Candidates Seeking Admission

Category	Description	Seats							
<u> </u>	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) = 11								
	Upper Sindh (Districts at serial nos. 1-10, Table-1) = 11								
В	Lower Sindh (Districts at serial nos, 11-22, Table-1) = 14	33							
	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).								
	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								
с	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:								
	<ul> <li>Maximum 08 admissions in any discipline shall be allowed but total admissions shall not exceed 22 space. For Computer Systems Engineering</li> </ul>								
	admissions shall not exceed 33 seats. For Computer Systems Engineering								
	only 01 (One) seat is reserved under "C" Category.								
D	Eligible candidates with proven sportsmen skills and domicile of Sukkur and	06							
	Larkana Divisions only.								

	Total Seats	122						
	<ol> <li>QUEST Nawabshan = 04 seats</li> <li>QUEST Campus Larkano = 00 Seats</li> </ol>							
	1. QUEST Nawabshah = 04 Seats							
	(ii) Candidates belonging to FATA nominated through Higher Education Commission, Islamabad							
ο	2. QUEST Campus Larkano = 01 Seats	09						
	1. QUEST, Nawabshah = 04 Seats							
	Commission, Islamabad.							
	(i) Candidates belonging to Balouchistan nominated through Higher Education							
	2. QUEST Campus Larkano = 00 Seats							
	1. QUEST, Nawabshah = 03 Seats							
Ν	Government of Balouchistan. The distribution given below:	03						
	Education.							
	Candidates belonging to Balouchistan Province, nominated by the Ministry of							
	Nominated / communicated by Higher Education Commission, Islamabad (HEC).	03						
	(ii) Less developed countries of the organization of Islamic Countries, OIC,	03						
	2. QUEST Campus, Larkano = 00 Seats							
М	1. QUEST, Nawabshah = 11 Seats							
	Islamabad.	11						
	Ministry of Finance, Economic Affairs Division, Government of Pakistan,							
	(i) Foreigner students (under Cultural Exchange Programme) nominated by the							
	Rawalpindi.							
L	Headquarters,	07						
	Sons and daughters of Armed forces personnel nominated by the General							
	Government of Pakistan, Islamabad.	02						
	(ii) Northern areas nominated by the state and frontier Region Division,	• •						
к	<ol> <li>QUEST Campus, Larkano = 00 Seats</li> </ol>	00						
	1. QUEST Nawabshah = 05 Seats	05						
	(i) Candidates belonging to Federally Administrated Tribal Areas (FATA)							
	<ol> <li>QUEST, Nawabshall = 05 Seats</li> <li>QUEST Campus, Larkano = 00 Seats</li> </ol>							
,	1. QUEST, Nawabshah = 03 Seats							
J	Government of Pakistan, Islamabad. The distribution is given below:	03						
	Education,							
	Candidates belonging to Azad Jamu Kashmir, nominated by the Ministry of							
	Diploma holders shall be considered for admission under this category only.							
r	Government Technical College/Polytechnic and are domiciled in former Sukkur and Larkana Divisions including District Shaheed Benazirabad (Nawabshah),	05						
F	Electrical, Electronic and Chemical/Glass & Fibre Ceramics Technology from	05						
	Candidates who have passed Diploma Examination in Civil, Mechanical,							
	of employer.							
	recommended by the Principal along with CNIC, form "B" and service certificate							
E	Technology, Nawabshah and Govt. College of Technology, Khairpur							
	Real Sons and daughters of regular employees of Government Habib College of							
	2. QUEST Campus, Larkano = 01 Seat							
	1. QUEST, Nawabshah = 05 Seats							

# Table-4: Detail of Urban Areas of Sindh Province

SN	District	SN	District
1	<b>Sukkur District</b> a) Sukkur Municipality b) Rohri Municipality	13	<b>Tando Allahyar District</b> a) Tado Allahyar Municipality
2	<b>Ghotki District</b> a) Ghotki Municipality b) Mirpur Mathelo Municipality	14	<b>Tando M. Khan District</b> a) T.M. Khan Municipality
3	<b>Khairpur District</b> 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	<b>Jamshoro District</b> a) Kotri Municipality
5	Naushero Feroze District a) Moro Municipality	17	<b>Thatta District</b> a) Thatta Municipality
6	Larkano District a) Larkano Municipality b) Ratodero Municipality c) Naudero Municipality		<b>Badin District</b> 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	<b>Umerkot District</b> No Urban Areas
9	Jacobabad District a) Jacobabad Municipality	21	<b>Tharparkar District</b> No Urban Areas
10	Hyderabad Districta) Hyderabad Municipalityb) Hyderabad Cantonmentc) Tando Jam Municipality		Sanghar District a) Sanghar Municipality b) Shahdadpur Municipality c) Tando Adam Municipality d) Sanjhoro Municipality
11	Kashmore District a) Kandhkot Municipality	23	Karachi
12	<b>Matiari District</b> a) Hala Municipality		

# Table-5: Distribution of Seats in Various Science Disciplines (Batch-20)

SN	District / Category	BS(IT) Cat. G	BS(CS) Cat. H	BS(Math) Cat. I	BS(English) Cat. P
1	Sukkur				
2	Ghotki				
3	Khairpur Mirs				
4	Sh. Benazirabad				
5	Naushahro Feroze				
6	Larkana				
7	Kambar Shahdadkot				
8	Shikarpur				
9	Jacobabad			40	
10	Kashmore				
11	Hyderabad	47	30		40
12	Matiari	47	50		40
13	Tando Allahyar				
14	Tando M. Khan				
15	Dadu				
16	Jamshoro				
17	Thatta				
18	Badin				
19	Mirpurkhas				
20	Umerkot				
21	Tharparkar				
22	Sanghar				
23	Karachi	00	00	02	00
24	Girls	05	05	05	05
25	QUEST Employees	05	05	05	05
26	Self-Finance (Regular)	10	10	10	10
	Total	67	50	62	60

# Table-6: Distribution of Seats for Self-Finance Scheme (Batch-20)

QUEST Campus Larkano	SN		istrict	QUEST N/				WABSHAH
CE, EL, ME, ES		(I) SF (Sindh)		CE	EL	ME	Total	CS, ES, TC, E&E, CH, SW, E.E
Larkano	SN         1         2         3         4         5         6         7         8         9         10         11         12         13         14         15         16         17         18         19         20         21         22         23	(i) S Sukkur Ghotki Khairpur SBA N. Ferozo Larkana Shahdad Shikarpu Jacobaba Kashmor Hyderab Matiari T. Allahy T. M. Kha Dadu Jamshor Thatta Badin Mirpurkh Umerkot Tharpark Sanghar Karachi	F (Sindh)  Mirs  Mirs  Mirs  Kot  r  Ad  A  A  A  A  A  A  A  A  A  A  A  A	CE 1 1 1 1 1 1 1 1 1 1 1 1 1	EL 2 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1		-	
		Province (iii) SF	) SF (Sindh Province)	4	0	1	5	
		(iii) SF (Pass	SF (Sindh Province)	4	0	1	5	
		DAE)	SF (Other Province)	1	0	1	2	
			al (ii+iii)	6	0	3	9	
		Grand T	otal (i+ii+iii)	30	22	22	74	

# 8.2 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.

- 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).
- 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.
- Commencement: These Regulations shall be deemed to have come into force with effect from January 1<sup>st</sup>, 2017 (applicable to 2017 Batch and onwards)
- 4. Definitions: In these Regulations unless otherwise explicitly stated.
  - "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 theory 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 133 - 140.
- 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.
- 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 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 1 <sup>st</sup> semester	16 Weeks
	(Including Mid Semester Examination)	
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	16 Weeks

(Including Mid Semester Examination)

	Total	52 Weeks
viii.	Winter Break	02 Weeks
vii.	Conduct of 2nd Semester Examination	04 Weeks
vi.	Preparation of 2nd Semester Examination	02 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 is42.
- 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 in 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 min 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.	Attendance	10	05
ii.	Test(s)	05	03
iii.	Assignments	05	02
iv.	Md Semester Exanimation	20	10
v.	V. Final Semester Examinatio	n 60	30
	Total Marks:	100	50

#### PRACTICAL

		Max Marks 100	Max Marks 50
i.	Attendance	10	05
ii.	Lab Evaluation Work	30	15
iii.	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. Distribution of attendance marks will be as under:

### For Theory of 3 CH i.e. 100 Marks

	No. of Lectures Attended	Marks to be Awarded
i.	41 to 42 (98% to 100%)	10
ii.	37 to 40 (86% to 94%)	09
iii.	33 to 36 (81% to 85%)	08
iv.	31 to 32 (75% to 80%)	07
۷.	Below 31 (Below 75%)	00

### For Theory of 2 CH i.e. 50 Marks

	No. of Lectures Attended	Marks to be Awarded
i.	20 to 21 (90% to 100%)	05
ii.	18 to19(80% to 89%)	04
iii.	16 to 17 (75% to 79%)	03
iv.	Below 16 (Below 75%)	00

### For Practical of 2 CH i.e. 100 Marks

	No. of Practicals Attended	Marks to be Awarded
i.	98% to 100%	10
ii.	86% to 94%	09
iii.	81% to 85%	08
iv.	75% to 80%	07
٧.	Below 75%	00

### For Practical of 1 CH i.e. 50 Marks

	No. of Practicals Attended	Marks to be Awarded
i.	90% to 100%	05
ii.	80% to 89%	04
iii.	75% to 79%	03
iv.	Below 75%	00

For the Labs carrying marks other than 50 or 100, the distribution of attendance marks will be accordingly.

- 16. 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.
- 17. 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.
- 18. 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 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. (viii)The teachers will prepare 3 copies of the result of each course separately at the end of each semester (attendance, 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 attendance, assignments, tests, mid semester examination and final semester examination) of each semester of a year will be announced by the Controller of Examinations.
- 19. 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.
- 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.
- The following applicable guideline parameters shall be included by the Examiners for setting of objective type Question Papers.
  - Fill in the blanks, True or False, Multiple Choice Questions (MCQ), 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.

- 20. 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.
- 21. 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.
- 22. 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. A candidate having passed all the heads of both semesters from 1<sup>st</sup> to Final Year of Bachelor of Engineering / Bachelor of Science with minimum 55% aggregate marks shall be declared "PASS". If any student is not able to get 55% 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 55% 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 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.
- 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.
- 23. Grade Equivalent

		Marks			
Grade	Grade	The	eory	Practical	
	Point	Max marks 100	Max marks 50	Max marks 100	Max marks 50
A+	4.00	>=85	>=42	>=85	>=42
Α	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
В	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
С	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).

#### 24. Promotion Rules:

- A student will be promoted to the 2<sup>nd</sup> semester 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 1<sup>st</sup> semester examinations (First Semester). (A theory or practical would be treated as separate heads).
- ii. A student will be promoted to the 1<sup>st</sup> semester of the 2<sup>nd</sup> year (3<sup>rd</sup> semester) provided he/she has obtained C-Grade or higher in at least 50% Heads (including minimum of 02 theory papers) of 1<sup>st</sup> semester of first year in regular examination and has completed minimum attendance requirement of 2<sup>nd</sup> semester of the first year and has filled up examination form and appeared in at least one of the heads of examinations (2<sup>nd</sup> Semester). Benefit of the fraction will be given to the student.
- iii. A student will be promoted to the 2<sup>nd</sup> semester of the 2<sup>nd</sup> year (4<sup>th</sup> semester) provided he/she has completed minimum attendance requirement or the 3<sup>rd</sup> 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 1<sup>st</sup> semester of the 3<sup>rd</sup> year (5<sup>th</sup> semester) provided he/she has obtained C-Grade or higher in at least 50% Heads (including minimum of 05 theory papers) of 1<sup>st</sup> year prior to start of classes of 5<sup>th</sup> semester and has completed minimum attendance requirement of the 4<sup>th</sup> semester, and has filled up the examination form and appeared in at least one of the heads of the examination (4<sup>th</sup> Semester). Benefit of the fraction will be given to the student.
- A student will be promoted to the 2<sup>nd</sup> semester of the 3<sup>rd</sup> year (6<sup>th</sup> 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 (5<sup>th</sup> semester)
- vi. A student will be promoted to the 1<sup>st</sup> semester of the 4<sup>th</sup> year (7<sup>th</sup> 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 7<sup>th</sup> semester, and has completed minimum attendance requirement of the 6<sup>th</sup> semester, and has

filled up the examination form and appeared in at least one of the heads of the examination (6<sup>th</sup> Semester).

- vii. A student will be promoted to the 2<sup>nd</sup> semester of the 4<sup>th</sup> year (8<sup>th</sup> 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 (7<sup>th</sup> semester).
- 25. 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.

26. 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).

27. Time for Checking Scripts:

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

28. 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.

29. 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.

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30. As Per Rule (APR) Policy:

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

31. Medium of Instructions:

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

32. Modification of Regulations:

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

33. 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 obtain "A+" grade for a three credit hours course then his quality points will be calculated as follows:

$$Q.P = 4 \times 3 = 12$$

## 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 semester is determined by the following way.

- 34. Migration / Transfer Policy
  - i. Migration Policy:
    - a. 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:
    - a. 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 may not be exceed from allowed PEC intake in case migration 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 technologies.
  - 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 passing students will be allowed to apply for migration to QUEST in the same batch/technology.
- 35. 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:

- "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 likewise 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.
- 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 Discipline 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 the 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.

## 8.3 Pre-admission Test Sample Paper

### 8.3.1 General Instructions

- 1. You will be required to write your name, father's name, and seat number on the top of your answer sheet and rough work sheet 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 parts. Each part is composed of many short items.
- 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 conducting 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 that the work be stopped.
- 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 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 have not 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. There will be no negative marking for any wrong answer.
- 13. You are strictly prohibited to bring 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, claimant should have to provide solution of the same verified and attested by subject specialist. Failing which claim will not be entertained.

### 8.3.2 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, the circle marked with 'A' will be blackened i.e.



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 circle. Hence the correct answer will be "directed towards the center of the circle". Therefore, the choice "B" is correct answer and appropriate circle on answer sheet will be blackened.

### 8.3.2.1 Additional Examples for Physics

1. 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

2. A body with the 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.40.0kg.m/sec D. 160 kg.m/sec 3. 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 expension 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
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4. Which one of the following instruments is considered as the most accurate voltage measuring device?

A. Ammeter B. Ohm meter C. AVO meter D. Potentiometer

### 8.3.3 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 correct answer and the circle relevant to letter 'D' on answer sheet will be blackened.

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".

### 8.3.3.1 Additional Examples for Chemistry

1. When a volume of H2(g) reacts with and equal volume of Cl(g) at the same temperature and pressure, what volume of product having the formula HCl is formed?

A. The volume of HCl produced is always same as the volume of limiting reactant.

- B. The volume of Cl produced is always 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.
- 2. 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.

3. Ethene is the first member of the

A. Alkane Series	B. Unsaturated hydrocarbons
A. Alkane Series	B. Unsaturated hydrocarbons

C. Aromatic hydrocarbons D. Alkyne series

4. A dipolar, charged but overall electrically neutral ion is called

A. double ion	B. zwitter ion

C. amino ion D. peptide link

### 8.3.4 Mathematics Examples

1. What is the harmonic mean of 5 and 10?

	A. 35/6	B. 3/20	C. 30/3	D. 100/9
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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 answer sheet circle relevant to letter C will be blackened.

2. What is the nature of the roots of the quadratic equation 3x?+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 complex number. Therefore, the correct answer is 'B' i.e. the roots of the given numbers will be complex numbers.

8.3.4.1 Additional Examples for Mathematics

1. 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

2. The general term of an arithmetical progression whose first term is 7 and the common difference=-4, is

	A A+11d	B. 7+4n		C. 11-4n	D. A+(	n+1)(-4)
3. Evaluate (Limx2 + x – 2) / (4X2 -1)						
	A.0	Β. ∞		C. 1	D. 4	
4. So	lve the differential equ	ation: sec2 x ta	n y dx +	- sec2 y tan x dy=0		
	A. ±1+x2=0		B. cos	ec2x+1		
	C. sec2 x+cosec2 x+tan2 x=0 D. tan x tan x					
8.3.5 English Examples Choose the answer that give the correct meaning of the given word						
1. SURROGATE:						
	A. Unlikely	B. Wide		C. Opening	D. Sub	ostitute
From the given choices, the word 'substitute' most closely matches the meaning of the work 'SURROGATE. Therefore, circle relevant to choice 'D' will be blackened on the answer sheet.						
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 o	ther	C. compared to othe	r	D. of any
In comparison of this type, 'than any other' would be the best fit.						
8.3.5.1 Additional Examples for English						
Choose the sentence that represents the correct passive voice of the given sentence.						

word

enouse the sentence that represents the correct passive voice of the given sen

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 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 were 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.