Prospectus
Faculty of Information and Communication Technology
Welcome to BUITEMS

Standing as the prestigious and world class university to design the future beginning today with academic excellence defined by its quality and rigour in education and applied research through its talented youth and learned academicians.

No. 4
In the Higher Education Commission ranking for Computer Science and Information Technology.

Top international recognitions
BUITEMS is the member of 6 reputed international networks and associations.

100+
Open days and events round the year

A World class university in Balochistan
The Express Tribune, May 2015.

80%
Job placement ratio within the first year after graduation.

1 of every 3
Students receive financial assistance.

BUITEMS events
Come to BUITEMS on an event day to explore the university yourself and see who we are and what we do.

http://www.buitms.edu.pk
The importance of Information and Communication Technology in the present times can hardly be over emphasized, and we are aware of its tremendous potential as a means of progress and prosperity for our country. Knowledge has become the most important contributor to economic development.

The productivity of a nation or productivity of an individual enterprise is based on a combination of qualified human resource capital and technology.

Those who are more technically sophisticated will always outperform those who are relatively lagging behind. When people adopt new approaches, they are able to find timely solutions to the problems that would have otherwise taken a long time to solve. Education and knowledge accumulation make effective use of the ubiquitous computer.

We have to keep abreast of the constant changes and developments in ICT to make meaningful and effective use of the computational power and the rapid flow of information. Emphasis in higher education on developing an interface between research and industry and on institutional development always yields fruitful results. We aim at maximizing the resource utilization, training of manpower and interaction with the industry in these technologies to benefit the economy of our country.

The university has state of the art laboratories, latest equipment and competent faculty. Our students are expected to avail this splendid opportunity for confident and competitive performance of learning and acquiring maximum creativity and skill for interaction with industry and today’s market.

Engr. Ahmed Farooq Bazai (SI)
Vice-Chancellor
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Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS) has given a new vision and a distinct meaning to education. Its guidelines for academic achievements are comparable to those of the most renowned institutions of the world.

The BUITEMS Advantage: **Wide range of programs**

We are committed to provide quality education with a focus on research and to equip students with the art of living as productive members of the society, contributing to the socio-economic uplift of Pakistan in general, and Balochistan in particular. Before getting started let’s explain the difference.

**Our Programs**

BUITEMS transformative education provides a wide range of academic programs spanning comprehensive areas of engineering, sciences and arts. It also provides multidisciplinary and cross-faculty learning opportunities.

**Flexibility and exploration**

BUITEMS offers a diverse and comprehensive choice of courses in five faculties with a range of undergraduate and graduate programs. We motivate our students to explore their interests, discover their talents and pursue their passions, and to create their own BUITEMS experience!
BUITEMS Structure
who does what?

BUITEMS quest for academic excellence is based on five fundamental pillars; the students, the faculty, curriculum, the learning environment and the civil society we serve. We stand committed that in our academic offering we shall not only follow the standards, we shall also set new “Records of Excellence.”

The University:

There are five faculties and each faculty is comprised of multiple departments. The Faculty of Information and Communication Technology (FICT) has seven departments: Computer Science, Information Technology, Computer Engineering, Electronic Engineering, Electrical Engineering, Software Engineering and Telecommunication Engineering. The university through the office of the Registrar, Controller of Examinations and the Directorates helps in maintaining a conducive environment for teaching and learning at BUITEMS.

The Faculties:

The Faculty and its Departments are responsible to
• Determine the curriculum
• Organize lectures, seminars, practicals and projects
• Set and mark examinations
• Maintain academic excellence and professionalism
• Provide an environment conducive to learning, teaching, academic inquiry and innovation

What are we looking for?

We are looking for individuals who can make it to be great future contributors in the fields of science, engineering and arts. We strongly encourage all applicants to choose fields of study that truly interest them. With the brilliant faculty at FICT and students with their best interest in a given field, we are confident that we will make great scientists and engineers out of our students. We are looking for students who:
• have a strong academic ability and potential
• have a strong interest in the fields they are applying for
• will benefit from and grow in the BUITEMS environment

Academic ability and potential
We are looking for students with a compelling academic background and potential. This should be reflected in all the past qualifications and the entry test. BUITEMS expects its students to excel further in terms of academic performance. Therefore, you should be aiming at excellent cumulative grade point average (CGPA) throughout your degree program. According to our experts, keeping up closely with all the instruction and independent study throughout the semester helps you perform brilliantly.

Interest in your field of study
At BUITEMS, we are looking for students who are truly excited with the field of study they have chosen and are not just interested in the degree at the end. We firmly believe that the academic excellence can only be achieved when the student is stimulated by his or her field of study; we believe that learning comes through stimulation and interest. Therefore, we strongly advise you to think carefully when you are choosing your field of study. You should not choose a field of study just because you think you ought to do, think about a field of study you are most excited and inspired about as you will be studying the field for the next few years.

Self motivation
We are looking for students who are self motivated and who can think critically. We are looking for students who can understand the model of the higher learning where a student is required to study and work independently in addition to classroom learning. If you believe you can excel in higher learning you need to be self-motivated, self-disciplined and have a desire to learn the breadths and depths of knowledge in your field of study.

If you think you have these abilities, we’re looking for students like you and hope you will apply. See Applying to BUITEMS for further information.
Applying to BUIITEMS:

Four simple steps

If you want to apply to BUIITEMS, here are the four simple steps:

1. **Major** (or field of study)

   You will be studying a particular field (also called major) for several years. Therefore, you should make sure that you choose a field that interests and excites you.
2 Apply

Fill out the admission form available by visiting admissions.buitms.edu.pk or the admissions office at campus. Submit the form online or at the admissions office along with the requisite documents and bank receipt of admission processing fee.

3 Test

Eligible students are invited to the NTS admissions test. The test is conducted on the NTS standard test for a given major.

Calculating the merit

Merit is based on the cumulative of 20% for the marks scored in matriculation examination, 50% for the marks scored in intermediate examination and 30% for the marks scored in the NTS admissions test.

Further information admissions.buitms.edu.pk

4 Admission Offer

Admission will be offered based on the merit calculated from the marks scored in metric, intermediate and the NTS admission test.
Applying to BUITEMS

How do I apply?

You can apply through online BUITEMS admissions system. Download and print the application form. Attach all relevant documents and the receipt of application processing fee with the application. Send the complete application to the BUITEMS admissions office, make sure that the hard copy of your application reaches the admission office before the closing date.

What are the entry requirements?

Entry requirements for undergraduate and graduate programs are available in the Disciplines and Departments section of this prospectus.

Supporting documents

1. Attested copy of Secondary School Certificate
3. Attested copy of the Applicant’s CNIC / B-form
4. Attested copy of Local/Domicile
5. Bank draft/pay order/receipt of cash payment (admission processing fee)
6. Six recent photographs (passport size)
7. Attested copy of CNIC of the applicant’s father/guardian
8. Attested copy of Character Certificate from the last institute attended

What are the payment options?

Online application processing fee is Rs. 2500 for national applicants and US $75 for foreign applicants. Whereas fee for manual application processing is Rs. 2000. Please note that these amounts are non-refundable and must be deposited on or before the last date of the application submission.

You can avail one of the following options to deposit the application processing fee:

• Bank draft / pay order drawn in favor of Registrar BUITEMS, Quetta.
• Cash deposited in Account Number: 23587000000201, Habib Bank Limited, BUITEMS University branch, Quetta, Pakistan.

Where to send the documents?

Post your supporting documents and hardcopy of the Admission Form along with bank draft / pay order (admission processing fee) on the following address:

Admissions Office,
Balochnistan University of Information Technology, Engineering and Management Sciences,
Takatu Campus, Airport Road, Bajeli, Quetta.
UAN: +92 81 111-717-111
Other lines: +92 81 2880560 / 2880136 / 2880432 / 2880511
Extensions: 163, 216, 217

What next?

Applicants will be called to take the admission test. The admit card for the test will be issued. In case of non-receipt of admit card, the admission office may be contacted. Please note that only candidates with complete applications will be notified. Candidate without the admit card will not be allowed to take the test/interview.
Frequently asked questions

What is the duration of a program at BUITEMS?
The duration of BS programs is four years, equally divided into eight semesters. However, the B. Arch program is spread over five years (ten semesters). Each semester is 18 weeks long, 16 weeks for teaching, and two weeks for the conduct of midterm and final examinations. The duration for completion of the MS program is 2 years from the date of enrolment into the MS program.

Can I freeze a semester?
Freezing is not allowed in the first semester of a program. A student shall be allowed to apply for freezing of at most two semesters in his / her entire program of study, after the first semester.

What are the different financial assistance options at BUITEMS?
The BUITEMS Fee Concession & Scholarship Policy has the following aspects:
- Merit scholarship (available after the first semester)
- Work and study program
- Fee concession for needy students
- Fee concession for siblings
- Fee concession for dependants of BUITEMS employees
- Fee in installments
- USAID need-based scholarship
For more information related to financial assistance you can contact the university advancement and financial assistance office.

Can I change my program of study after admission?
Change of academic program is generally not encouraged. However, it may be allowed on the recommendation of the Chairpersons concerned and approval of the Dean(s), within the first two weeks of the first semester, subject to the fulfillment of eligibility criterion and availability of the seat. Merit of the student has to be above the merit of the last student admitted into the program to which transfer is desired.

What is a probation period?
Whenever a student’s CGPA falls between 1.0 and 2.0 he / she shall be put on the first probation for the next semester
- If the student fails to raise the CGPA to 2.0 or above, he/ she shall be placed on the probation for the next semester.
- If the student who was earlier on second probation fails to raise CGPA to 2.0 or above, he/she shall be placed on the last probation.
- If the student fails to raise CGPA to 2.0 or above in the last probation, he / she shall be dropped from the university rolls.

For undergraduate and MS programs a minimum of 2.0 and 2.5 CGPA respectively, is required to pass out.
Teaching and Learning: A world class provision

The BUITEMS Advantage: Academic excellence

ICT R&D fund
Every year 10 innovative research projects from FICT are funded by Ministry of Information Technology.

Supervisions
Supervisors are specialists in particular areas of your subject.

14 : 1
Student teacher ratio.

We provide great learning opportunities for our students. We boast with the most personalized teaching method for our students complemented with effective supervisions.

As a research-intensive institution with a commitment to provide high-quality education, BUITEMS ensures an academically rigorous and stimulating experience for its students. Our Graduate Studies Office is dedicated to provide assistance and a systematic mechanism for the completion of graduate programs (MS and PhD). Graduate programs at BUITEMS are aimed to meet the competitive edge by considering the global requirements and by improving students’ academic competence through course work, field-based exercises and research studies that are relevant and useful in real world.

Programs are designed by keeping in view the global trends and requirements of the Higher Education Commission, and by improving the capacity in meeting the competitive edge at national and international level. Highly-qualified faculty members, equipped labs and structured program at BUITEMS provide a high-class learning experience in the undergraduate and graduate programs.

We are committed to provide outstanding academic programs that offer an excellent teaching and learning opportunity. We are here to foster the leaders of tomorrow in Science, Technology, Engineering and Mathematics (STEM) and arts, enabling the students to feel and experience the standards prevailing in the best universities of the world. We aspire to raise revenues from partnerships, research grants and technology transfer while strengthening our ability to
How will I be taught?
You will benefit from a contemporary teaching and learning environment at BUITEMS. Our facilities include modern lecture rooms, state-of-the-art labs, research clusters, and senior design labs as well as online access to many international databases including IEEE, Springer, ACM and ScienceDirect. In line with global academic trends, we equally emphasize on independent and self study. You are responsible for your own studies and are expected to study beyond the class lectures and study material.

Lectures
Lecture is the core teaching and learning point and also your starting point for research which lasts for a minimum of one hour and a maximum of three hours per week for a given course. Lectures delivered by experienced faculty can be highly stimulating; depending on the course material, the instructor may use a whiteboard, a digital multimedia (or both) complemented with oral instruction.

Experiments
These are the laboratory classes. Subjects with real time applications are instructed for three hours hands-on practice on the equipment and tools; and are separately assessed.

Supervisions
Supervisions are special hours of in depth discussions between individual student or groups with a subject or research area specialist teacher.

Study tours and field trips
The departments conduct study tours and field trips to industries and labs in different parts of the country. Students are facilitated to participate in different intra university competitions and are also assisted in visiting other universities for experience. Study tours are usually an extended form of field trips that involve out-bound trips for more than a night. During the course of these tours, a student is encouraged to build interpersonal skills with other batch mates through shared learning.

Independent research
(final year projects and theses)
Undergraduate students are engaged to carry out a one-year long research and development project under the supervision of a specialist faculty member. The students usually conduct this work in the Senior Design labs. The graduate students conduct independent research work in the form of thesis under the guidance of a thesis supervisor.

Peer mentoring
Student volunteer tutoring is available in the form of peer-mentoring. Select senior students who are young gurus in a given field of study are enrolled as mentors in the peer-mentoring program. The peer mentors guide and counsel students who require extra tutoring. At FICT, we provide support, encouragement, and advice to students who are facing problems related to academics or life at campus.

Internships
Internship is an opportunity to apply the knowledge gained from academic studies in a practical, workplace setting. All internship experiences provide exposure to occupations, industries and career field, with a clear purpose to complete specific projects, gives students the chance to evaluate, reflect upon and try a specific career field and a huge source of self awareness to identify their skills. Over 400 students at FICT are directly placed under the internship program every year; while many students get advice and indirect assistance in finding internship placements.
Support along the way

Facilities and resources

We are committed to connecting you with the right resources, from dedicated teaching staff to a world class library and a range of co-curricular facilities. At BUITEMS, we spend millions on our equipment and academic support services to create a quality environment where you feel stimulated and strengthened.

Libraries

With over 40,000+ books, the BUITEMS central library continues to add to student’s passion for reading. Both the campuses house one central library each with a number of small departmental libraries. The libraries also provide our students with free access to a world of books through digital library access. The library experience is augmented through a state-of-the-art automated library management system that assists in searching and locating books in the library anywhere from the campus.

Online access to:

Institute of Electrical and Electronics Engineers (IEEE):
The IEEE/IET Electronic Library (IEL) provides access to almost a third of the world’s current electrical engineering and computer science literature, featuring high-quality content from the Institute of Electrical and Electronics Engineers (IEEE) and the Institution of Engineering and Technology (IET).

Springer Link:
Springer Link provides access to 503 full-text Springer-Verlag Journals and 738 full-text journals formerly published by Kluwer Academic Publishing, one of the world’s leading information services for Science, Technical and Medical journals.

Association of Computing Machinery:
The ACM Digital Library provides online access to thirty magazines and journals in computing and IT, with complete archive reaching back to 1950’s. Also includes the ACM Special Interest Group newsletters and conference proceedings, many with full archives. The ACM Online Guide, allows ACM users to expand their searches to include non ACM works in their results.

Research center and senior design labs

BUITEMS is committed to provide a conducive environment to the entire learning experience of students. The research center located in the Sir Syed block is a cutting-edge facility to serve that commitment. The research center has dedicated research desks for graduate students. The research desks are equipped with high performance computing and related resources necessary to carry out graduate research. To cater the needs of undergraduate students working on final year projects, senior design labs are provided where student groups are assigned a research space with computing and other necessary resources depending on the student discipline within ICT.

Art galleries

Thanks to the Faculty of Arts and Basic sciences, the campus has a number of art galleries showcasing fascinating collection of modern art ranging from artifacts, paintings, and sculptures made by the students and faculty of FABS. Even if not directly related to your course, students of FICT spend time and receive their share learning and knowing arts at the galleries.
“What impresses me more about BUITEMS is the high standards that it holds for quality, objectivity and the growth opportunities that it provides to talented and hardworking people.”

Babar Ali,
Graduate Student (MS Electronic Engineering)
Student Life: More than just studying

Life at BUITEMS is a work hard and have fun culture. As members of the BUITEMS family, the student, faculty and staff enjoy an exciting, vibrant and colourful life at BUITEMS. From high class academic lectures and laboratory experiments, to exciting sports, art events and service projects, there are always great things happening on campus.

The BUITEMS Advantage: **Work hard and have fun**

20+

Student clubs and societies to choose from.

World class sports facilities

BUITEMS sports complex and stadiums are among the best in the country.

Arts and culture

Non-stop events complemented with excellent venues.
Events and fests
From the one-of-a-kind cultural festivals on campus to accomplished student performances in theatre, arts and culture, the student affairs plays a leading role in the life at BUITEMS. Student affairs comprises of more than twenty student clubs and organizations that continuously provide fuel for constructive social life at BUITEMS. The Student Affairs, on average, virtually conducts at least one event each day on campus. The scale of the events varies from attendance of 50 participants to thousands of participants and spectators in the flagship events like the Spring Festival, Culture Fest and the Home Coming. The preparations for the events and the events days make an amazing atmosphere in the campus where every student and staff seems to be working with an exceptional bond. The sense of ownership of the institution among the students and staff is exemplary at BUITEMS. The quarterly newsletter and Markhor magazine provide a coverage of the events and developments on campus.

The Olympiad
The annual Olympiad marks the culmination of athletics and sports at BUITEMS. The Olympiad is a week of non-stop sports and athletics competitions in more than fifteen sports categories with over one thousand athletes participating from among the staff and students. The Olympiad is witnessed by thousands of spectators and sports fans from within campus and the city.

Community service
Another important aspect of the life of BUITEMS family has been community involvement and service. BUITEMS family members have a very special motivation for social service and social contribution for the society. The students and staff are contributing in the elementary education for child labor under the Free Citizen Schools. The organization has been formed by the staff and students of BUITEMS. Through the organization, the students and staff of BUITEMS have been directly educating young children who are laboring to meet the finances of their families. The children are educated on basic reading, writing in Urdu and English, and basic math and science. The students and staff also visit special community schools on weekends in different parts of the city and educate students using modern instruction methods. The students and staff are also helping the poor and needy citizens who are in need of support in their health problems. BUITEMS blood donation drives have earned good recognition in the province. A large number of citizens have been helped with BUITEMS blood donations. BUITEMS has also been helping the citizens of the province in their career planning, and providing counseling on scholarships. The counseling and trainings are organized for the young graduates of different universities of the province.

Continuous buzz
BUITEMS enhances the ability of students and staff to reach their fullest potential through diverse academic, personal, and professional development experiences. To achieve this, we foster a welcoming, stimulating campus life environment where students and staff develop intellectually, experience meaningful co-curricular opportunities, evidence civic responsibility, model intercultural and interpersonal understanding, and promote health and well-being. BUITEMS family is prepared to freely pursue life-long personal and professional fulfillment, engagement, and stewardship of ever-changing local and global communities.
Get ahead of the game

Sports

Whether you’re a world-class athlete or new to exercise, we have the facilities and expertise to keep you motivated. From the fun to the competition side of the sport, we love it all at BUITEMS. We have more than 3,000 members of our sports facilities and approximately 1,000 students participate in different sports tournaments inside and outside the province. With so many activities to try out and plenty of post-exertion socializing opportunities available, you can get fit and have fun at the same time.

If you are a talented athlete in training, we offer a range of services to support you as well as sports bursaries and funds for team participations in the inter-university championships and tournaments.

Facilities

BUITEMS boasts in providing one of the best sports facilities in the nation. Sports and athletics form one of the core features of life at BUITEMS. The newly constructed sports complex is a jewel of recreation facilities at BUITEMS.

The Sports Complex provides venues and gear for a range of sports including basketball, handball, badminton, table tennis and volleyball. Fully equipped gym and fitness center is part of the Sports Complex that houses the finest fitness equipments to keep you agile and healthy. The world class cricket stadium at BUITEMS is commendable facility for cricket lovers. The stadium is operated with the support of the Pakistan Cricket Board (PCB) and regular regional tournaments are held at the stadium.

The football ground at BUITEMS is no less treat for football fans and players. The lush green ground remains one of the most busy sporting facilities on campus around the year.

In addition, a number of separate facilities for basketball and other sports are located in different parts of the campus. Get registered and enjoy the excellent facilities to cope with your tedious work and study routine.

The University also has:

- Multi-purpose sports complex
- High class gym
- PCB standard cricket stadium
- High class football ground
- Basketball courts
In and around BUITEMS

BUITEMS is located in Quetta, also called the fruit basket of Pakistan. Quetta is one of the most beautiful cities of Pakistan distinguished by the unique backdrop of mountains, beautiful lakes and fruit orchards in the outskirts.

The city is famous for its amazing weather and beautiful fruit orchards in and around. Quetta is surrounded by small valleys and hills. The juniper forest in Ziarat, located at about 125 kilometers north of Quetta, is another natural distinction of being the second largest juniper forest in the world. Located in Pakistan’s most attractive destination, BUITEMS has loads to offer you as a student.

The World in BUITEMS
With students and faculty from different cities around Pakistan and the world, BUITEMS brings a diverse world to the campus. With such a unique blend of people, life in the university is never dull. Apart from the fervent exchange of academic ideas, a host of programs and activities are offered. An event like the spring Olympiad and cultural show allows students to showcase their own country’s culture and share the festive mood and vibes with the BUITEMS community.

Campus tours
A frequent sight at BUITEMS is that of young school children escorted by a guide, and the group walks across different facilities on campus. Young school children from different schools of the province are invited to the campus for university life orientation. Young school children are given an orientation of the variety of science, engineering and arts disciplines offered at the university. The children spend a day at the campus and witness the university life. The unique experience at BUITEMS for school children is aimed at helping the students plan their careers and future early in their lives. The exercise will help producing professionals in the province and in the country who will truly excel in their fields of specialization.

Restaurants and Cafeterias
Home is where the heart is. From food carts to fine dining, the University is full of places with good eats, drinks and treats. The tea and food houses of BUITEMS serve the best. Retail dining options include Road Stoves, Hot & Chili, Gosha-e-Fikr-o-Nosh, Life café, and City café. BUITEMS dining recognizes the great power and importance of food. Dining rooms are gathering places, and breaking bread together helps create a sense of community and comfort. You can
easily drop in the cafes and put an order of your choice. You can also join the freewheeling academic debates, poetry recitation and literary repartee in the cafes.

**Entertainment**

At BUITEMS, we believe in fun every day, every milestone, every achievement. There are many collaborative competitions and celebrations organized to make you feel being part of the family. Each day on campus there is an event engaging the BUITEMS family and visitors from outside. The scale of the events varies from attendance of a small group of participants to thousands of participants and spectators in the flagship events like the Spring Festival, Culture Fest, Olympiad and the Home Coming.

The preparations for the events and the events days make an amazing atmosphere in the campus where every student and staff seems to be working with an exceptional bond.

**Airport and highway**

BUITEMS is located just three kilometers away from Quetta International Airport. The airport, through many national and international carriers, provides a round the clock connection to other major cities of Pakistan and abroad. The campus is located adjacent to the RCD international highway that provides road access to the rest of the nation and the Central Asian countries.

**Going places with BUITEMS**

In an interconnected world, graduates need to stand out as culturally sensitive, well-informed and articulate individuals who can learn and think for themselves. They will also need to keep abreast with global developments in order to meet its challenges. Here in BUITEMS we encourage, support and assist our students to participate in many national and international conferences, competitions, and study tours. BUITEMS effectively helps in fostering national and international relationships across cultures and borders through its programs.

**Attractions in and outside the city**

Hanna Lake, which nestles in the hills ten kilometres east of the city, is a turquoise body of water that contrasts markedly with the bare surrounding hills. It is an attractive destination for vacationers, with facilities for boat hire. A lakeside restaurant is crowded with hikers and campers during holiday periods.

The Hazarganji Chiltan National Park, 20 km south-west of Quetta, is a protected park area. In the folds of the mountains, according to legend, there are over a thousand buried treasures, reminders of the passage over the ages of great armies including the Bactrians, the Scythians, the Muslims, and the Mongols. Pir Ghaib is a waterfall and picnic spot located 70 km from the Quetta City in historic Bolan valley.

Kharkhasa is located 10 km west of Quetta in a 16 km long narrow valley that contains a variety of flora and fauna species. The Chiltan Hill Viewpoint in the park provides a panoramic view of the city. A visit to the nearby cities of Kirani and Ziarat are popular scenic places for tourists travelling to and from Quetta.

The Quetta Geological Museum, located on Sariab Road has a collection of rocks and fossils. The Command and Staff College Museum is a museum dedicated to British military history. It is housed in the former bungalow of Field Marshal Bernard Montgomery. The Quetta Archaeological Museum, located on Wafa Road has a collection of rare antique guns, swords, manuscripts and a display of Stone Age tools, prehistoric pottery and articles found in Mehrgarh. There are also coins, manuscripts and photos of Quetta before the 1935 earthquake.

The Balochistan Arts Council Library houses arts and crafts from the province.

If you want to explore further a field and looking for somewhere to relax and escape city buss, Hanna lake, Urak valley, holiday stations such as Ziarat and Pishin are home for fresh fruits and natural forests and are famous outing spots around Quetta.
The BUITEMS Advantage: **Extensive range of programs**

Today’s Information and Communication Technology experts are driven by interests that are directly improving and assisting life and physics of this world. Electrical engineers are revamping the world’s energy through smart grid. Computer engineers and scientists are contributing in areas ranging from business information processing to helping explore the universe beyond our planet; while Telecommunication engineers are virtually removing all distances. As a result, we at the Faculty of Information and Communication Technology (FICT) at BUITEMS are redefining education in engineering and information sciences by preparing students to build a coherent connection between knowledge and solutions to challenges faced by humanity and the world. It is this mission that has enabled us to continuously prepare graduates that are contributing at the leading technology and academic organizations in the region and worldwide. The faculty of ICT boasts on our most proficient faculty qualified from the finest educational institutions of the world, state of the art facilities, a very helpful admin and support staff, and a perfect teaching and learning environment.

We encourage you to explore us on our website, learn about our unique programs or, better yet, come visit us and see for yourself how we are redefining education in engineering and information sciences.

Dr. Faisal Ahmad Khan
Dean FICT
BS Software Engineering degree is focused on preparing for future job roles in software industry. It transforms students to work as Software Engineer, Enterprise Solution Developer, Software Architect, Systems Engineer, Business Analyst and Software Quality Engineer in software industry.

BS Software Engineering program is designed to equip the students with technical knowledge of the fundamentals of computing, their mathematical foundations and application. A sequence of courses is designed so that theoretical study is amalgamated with practical on ground exercises. The pedagogy employed is learning by doing thereby marking the most distinguished aspect of our program. We believe that teaching should not be confined in between the class room walls, rather it should be activity driven combining lecturing, assigning real life projects and imparting soft skills. This beyond class room experience prepares the students with computing skills, ability to solve problems, and for tackling the challenges in team work environment.

Software Engineering at BUITEMS
The department of Software Engineering at BUITEMS was founded in 2012, as an undergraduate program with just three faculty members and fifty students. Today, the Software Engineering has seven faculty members; most of them are foreign qualified from best universities of the world. The department has a growing, vibrant, research-oriented faculty who take great pride in research and in undergraduate education. We, at Department of Software Engineering, are committed to imparting quality education in the fields of computer communication, networking, security, software development, database management systems, programming, and to examine the features, attributes, technical issues, and concepts in these areas.

Programs offered in Software Engineering
We offer following programs in Software Engineering
• Four years BS-SE

Objectives
• to build a strong foundation in theoretical concepts in computing and software engineering.
• to enable the use of software engineering methodologies and tools for requirements gathering, designing, engineering and testing software systems.
• to nurture problem-solving skills, clarity of thought, and creativity.
• to prepare students for rigours of graduate studies, as well as for careers in the industry.
• to provide a balanced exposure to liberal arts.
• to prepare students for effective oral and technical communication.
• to foster a sense of professional and ethical responsibilities.

Mission
Our mission is to produce the next-generation Software Engineers, creating well-aware developments and techniques for contributing to the advancement of computing and research.
BUITEMS has clinched fourth position among top ranking universities of the country in Computer Science/IT. The ranking was based on the number of students, research productivity and quality, innovation and knowledge transfer, infrastructure, annual graduate output, international collaborations, student satisfaction and financial health of the institution. Our program is accredited by PEC.

Scheme of study

**Semester 1**
- Introduction to Computing Programming Fundamentals
- (Math-I) Calculus & Analytical Geometry
- Pakistan Studies
- (English I) English Language Proficiency
- Islamic Studies/Ethics

**Semester 2**
- Graphics Designing (UE 2)
- Introduction to web Development
- Introduction to Software Engineering
- Multivariable Calculus
- Digital Logic and Design
- Object Oriented Programming

**Semester 3**
- Discrete Structures
- Numerical & Symbolic computing
- Software Requirements Engineering
- Operating System
- Data Structures and Algorithms

**Semester 4**
- Computer Communication and Networks
- Software Design and Architecture
- Simulation and Modelling
- Linear Algebra
- English III (Communication Skills)

Teaching is provided through lectures and practical classes. Typically six assignments and three quizzes are given for sessional marks. Moreover, some subjects need presentations during the semester. Practical work is assessed separately.

**BS Program Summary**

- Total Credit hours: 137
- Theory: 113
- Lab: 24

**Contact Us**

*Chairperson*
Engr. Shah Rukh Rayaz
(Ext: 708)

- UAN: +92 (81) 111 717 111
- www.buitms.edu.pk/

**Semester 5**
- DBMS
- Software Construction
- Human computer Interaction
- Probability and statistics
- Operational Research
- Psychology

**Semester 6**
- Software Quality Engineering
- Distributed Systems
- Software engineering economics
- Information System Audit
- Web Engineering
- Professional Practices

**Semester 7**
- Multimedia Applications (UE 4)
- Software Project Management
- English II (Technical Report Writing)
- Senior Design Project – I
- Application of AI in Game Programming (UE 5)

**Semester 8**
- Formal Methods in software Engineering
- Entrepreneurship and Leadership
- Data warehousing and Data mining
- Senior Design Project – II
- Software Testing

**Essentials**
FSc(Pre Eng)/ICS with Mathematics & Physics from any recognized board or equivalent with at least 60% marks. Diploma of Associate Engineer in the same field, securing at least 60% marks.

**Admission Test**
Qualifying the admission test.
Electrical Engineering

Electrical engineering is one of the dynamic fields which is continually introducing new technologies to benefit the society.

Electrical Engineering at BUITEMS
The department of Electrical Engineering at BUITEMS was founded in 2012, as an undergraduate program. The progress of the department, in a very short time, has been laudable. At this moment, it has 12 faculty members and; most of them are foreign qualified from best universities of the world. The department has a growing, vibrant, research-oriented faculty who take great pride in research and in undergraduate and graduate education. We, at Department of Electrical Engineering, are committed to imparting quality education in the fields of power, electronics, telecommunication, control engineering, renewable energy, and to examine the features, attributes, technical issues, and concepts in these areas. It also started its Master degree program in spring 2014.

Facilities and work experience
Computer laboratories equipped with latest technologies. Similarly students can benefit from internships and study tours offered by department. Workshops and guest talks are arranged on regular basis to increase practical knowledge of students. Students get the chance to work as an assistant to the senior faculty members where they get experience of research and teaching.

Programs offered in Electrical Engineering
We offer following programs in Electrical Engineering
- Four years BSELE
- Master of Science (MSELE)

Achievements
Currently 170 students are enrolled in BS and 40 students in the MS programs. We have been successful in clinching the top priority of most of the prospective engineering students of BUITEMS. Our program is accredited by Pakistan Engineering Council (PEC).

Facilities and work experience
Computer laboratories equipped with latest technologies. Similarly students can benefit from internships and study tours offered by department. Workshops and guest talks are arranged on regular basis to increase practical knowledge of students. Students get the chance to work as an assistant to the senior faculty members where they get experience of research and teaching.

Mission
Our mission is to provide our students a firm base in Electrical Engineering which can lead them in lifelong learning, postgraduate studies and research.
**Scheme of study**

**Semester 1**
- Computing Fundamentals
- Applied Physics
- Linear Circuit Analysis
- Functional English
- Calculus & Analytical Geometry
- Islamic Studies
- Workshop Practice

**Semester 2**
- Electronic Devices & Circuits
- Engineering Drawing
- Communication Skills
- Linear Algebra
- Digital Logic Design
- Programming Fundamentals

**Semester 3**
- Electrical Machines-I
- Electrical Network Analysis
- Data Structure and Algorithms
- Differential Equations
- Pakistan Studies

**Semester 4**
- Electrical Machines-II
- Complex Variable & Transforms
- Electromagnetic Field Theory
- Microprocessor Systems
- Applied Thermodynamics

**Semester 5**
- Probability Methods in Engineering
- Power Distribution & Utilization - Elective I
- Computer Communication and Networks
- Signals & Systems
- Power Electronics Elective-II

**Semester 6**
- Power Generation Elective -III
- Technical Report Writing
- Digital Communication
- Linear Control Systems
- Instrumentation & Measurements

**Semester 7**
- Power Transmission & Protection-Elective IV
- Engineering Economics & Management
- Digital Signal Processing
- Senior Project I

**Semester 8**
- Power System Analysis-Elective V
- PLC & Industrial Drives
- Organizational Behaviour
- Senior Design Project II

Teaching is provided through lectures and practical classes. Typically six assignments and three quizzes are given for sessional marks. Moreover, some subjects need presentations during the semester. Practical work is assessed separately.

**BS Program Summary**

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Total Credit hours: 136</th>
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</tbody>
</table>

**Contact Us**

*Chairperson*
*Engr. Ayesha Baloch*  
(Ext:411)

*UAN:* +92 (81) 111 717 111

*www.buitms.edu.pk/*

**Essentials**

- FSC (Pre Eng) from any recognized board or equivalent with at least 60% marks.
- Diploma of Association Engineering in the same field securing at least 60% marks.

**Admission Test**

Qualifying the admission test.
Graduate Program Information

The Department offers the Master of Science (MS) degree in Electrical Engineering with specialization in Power.

Summary of Basic Degree Requirements

- At least 24 hours of graduate level coursework
- At least 6 hours Master's Thesis.

Core Courses

- Advanced Power System Analysis-I
- Advanced Power System Analysis-II
- Advanced Power System Protection
- Advanced Electrical Power Distribution System Engineering –I
- Advanced Electrical Power Transmission System Engineering-II
- Research Methodology
- Linear Control Systems
- Optimal Control Systems
- Adaptive Control System
- Stochastic Processes in Electrical Engineering
- Digital Control Systems
- Advanced Linear Algebra
- Advanced Numerical Techniques

Elective Course's Domains

- Power Generation
- Power Transmission
- Power Distribution & Utilization
- Power Electronics
- Power Stability and Control
- Renewable Energy
- Control Systems
- Telecommunications

MS Program Summary

<table>
<thead>
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<th>Total Credit hours:</th>
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<td>Theory</td>
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</tbody>
</table>

Contact Us

Graduate Coordinator
Dr. Anayat Ullah
(Ext:416)

UAN: +92 (81) 111 717 111
www.buitms.edu.pk/

Essentials

- BS(ELE) 4 years Degree Program

Admission Test

Graduate Assessment Test (GAT General) scores are required for admission consideration.
Computer Science

Computer Science is an exciting and fast growing field that impacts everyday life. Careers in computer science are in high demand, providing new prospects in education and employment.

Computer Science at BUITEMS

The department of Computer Science at BUITEMS was founded in 2002, as an undergraduate program with just five faculty members and thirty students. Today, the computer science has twenty seven faculty members; most of them are foreign qualified from best universities of the world. The department has a growing, vibrant, research-oriented faculty who take great pride in research and in undergraduate and graduate education. We, at Department of Computer Science, are committed to imparting quality education in the fields of computer communication, networking, security, software development, database management systems, programming, and to examine the features, attributes, technical issues, and concepts in these areas.

Programs offered in Computer Science

We offer following programs in Computer Science

- Four years BSCS
- Master of Science (MSCS)
- Doctor of Philosophy in Computer Science.

Achievements

BUITEMS has clinched fourth position among top ranking universities of the country in Computer Science. The ranking was based on the number of students, research productivity and quality, innovation and knowledge transfer, infrastructure, annual graduate output, international collaborations, student satisfaction and financial health of the institution.

Our course is accredited by National Computing Education Accreditation Council (NCEAC) and categorized in ‘w’ highest category.

Facilities and work experience

Our students have access to computer laboratories equipped with latest technologies. Besides students can benefit from internships and study tours offered by department. Workshops and guest talks are arranged on regular basis to increase practical knowledge of students. Students get the chance to work as an assistant to the senior faculty members where they get experience of research and teaching.

Fact file

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<th>Code</th>
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<td>Duration</td>
<td>Four years (8 Semesters)</td>
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Mission

Our mission is to produce the next-generation Computer Scientists, and to develop techniques for contributing to the advancement of computing and research.
### Scheme of study

#### Semester 1
- Introduction to Computing
- Programming Fundamentals
- Calculus and Analytical Geometry
- Islamic Studies
- English I (Functional English)

#### Semester 2
- Discrete Structures
- Object Oriented Programming
- Multivariable Calculus
- Basic Electronic
- Pakistan Studies
- English II (Communication Skills)

#### Semester 3
- Digital Logic and Design
- Data Structures and Algorithms
- Linear Algebra
- Technical Report Writing
- Probability and Statistics
- CS Elective I - Computer Graphics

#### Semester 4
- Operating Systems
- Introduction to Database Systems
- Differential Equations
- Introduction to Software Engineering
- Computer Organization and Assembly Language

#### Semester 5
- Computer Communication and Networks
- Theory of Automata & Formal Languages
- Computer Architecture
- Human Computer Interaction
- University Elective I – Visual Programming
- University Elective II – Advanced Software Engineering

#### Semester 6
- Compiler Construction
- Computer Science Elective II – Mobile Application Development
- Numerical Computing
- Design and Analysis of Algorithms
- University Elective III – Introduction to Psychology
- University Elective IV - Human Resource Management

#### Semester 7
- Project Part I
- Computer Science Elective III – Wireless Networks
- Computer Science Elective IV – Web Engineering
- Artificial Intelligence
- Professional Practices

#### Semester 8
- Project Part II
- Computer Science Elective V – Advanced DBMS
- Computer Science Elective VI – Data and Network Security
- Computer Science Elective VII – System Administration

Teaching is provided through lectures and practical classes. Typically six assignments and three quizzes are given for sessional marks. Moreover, some subjects need presentations during the semester. Practical work is assessed separately.

### BS Program Summary

<p>| | |</p>
<table>
<thead>
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<td>Theory</td>
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<td>Lab</td>
<td>16</td>
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</tbody>
</table>

### Contact Us

**Chairperson**  
*Dr. Riaz ul Amin*  
(Ext: 710)

- UAN: +92 (81) 111 717 111
- [www.buitms.edu.pk/](http://www.buitms.edu.pk/)

### Essentials

FSc(Pre Eng)/ICS with Mathematics & Physics from any recognized board or equivalent with at least 60% marks. Diploma of Association Engineering in the same field securing at least 60% marks.

### Admission Test

Qualifying the admission test.
Graduate Program Information
The Department offers the Master of Science (MS) degree in computer science. The Department presently has active research groups in the following areas
- Communication Systems Group (CSG)
- Computational Intelligence Group (CIG)
- Information Retrieval & Processing (IRP)
- Wireless & Sensor Networks (WSN)
- System Security Group (SSG)
- Distributed & Networked Systems (DNS)
- Machine Learning and Big Data

Summary of Basic Degree Requirements
- At least 24 hours of graduate level coursework
- At least 6 hours Master's Thesis.

Core Courses
- Advance theory of computation
- Advance Algorithm Analysis
- Advance Operating System
- Advance Computer Architecture

Elective Course Domains
- Software Engineering
- Artificial Intelligence
- Information Management
- Human Computer Interaction
- Computer Science Education
- Network Performance Evaluation

MS Program Summary

<table>
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<th></th>
<th>Hours</th>
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<tr>
<td>Total Credit hours:</td>
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<td>Theory</td>
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</tr>
<tr>
<td>Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

Contact Us

Graduate Coordinator
Dr. Anayat Ullah
(Ext:416)

UAN: +92 (81) 111 717 111
www.buitms.edu.pk/

Essentials
- BS(CS) 4 years Degree Program or equivalent

Admission Test
Graduate Assessment Test (GAT General) scores are required for admission consideration.

“I have to admit I was very nervous on my first day but there was no reason at all to be so. All the students, teachers, and other people I’ve met, everyone is so friendly, helpful and supportive, especially in the first time. And even after you got used to the basic daily procedures, there is no pressure either from University works or from the teachers.”

Muhammad Fayzan Malik
Undergraduate student
Technology and Science are transforming our world, changing the way we do business, the way we learn, the way we communicate, and even the way we entertain ourselves. Success in any field – law, medicine, business, education, entertainment, finance and investment – requires a command of Technology.

B.S. in Information Technology draws on the university’s rich resources in engineering, computer science, architecture, management and the sciences to prepare students for a career in integration, design and management of computing and telecommunication resources and services in such diverse fields as bioengineering, e-commerce, multimedia, network security, software engineering and telecommunications. A sequence of courses is designed so that theoretical study is amalgamated with practical on ground exercises. The pedagogy employed is learning by doing thereby marking the most distinguished aspect of our program. We believe that teaching should not be confined in between the class room walls, rather it should be activity driven combining lecturing, assigning real life projects and imparting soft skills. This beyond class room experience prepares the students with IT skills, ability to solve problems, and for tackling the challenges in team work environment.

Information Technology at BUITEMS
The department of Information Technology at BUITEMS was founded as an undergraduate program later on expanded its offerings to MS in Information Technology as well. The department has a growing, vibrant, research-oriented faculty who take great pride in research and in undergraduate education. We, at Department of Information Technology, are committed to imparting quality education in the fields of computer communication, networking, security, software development, database management systems, programming, telecommunication management and to examine the technical issues related to technology implementation.

Programs offered in Information Technology
We offer following programs in Information Technology (IT)
- Four years (BSIT)
- Two Years Master of Science in Information Technology (MSIT)

Objectives
- To give the students sound knowledge base of programming, systems analysis and design, business telecommunications, and database management with concentration in a variety of areas
- To produce graduates who have good rounding and a wide range of knowledge and competence in the sector of information science and technology
- To train students for work in the field of the production, development, management and mainte-

Fact file

<table>
<thead>
<tr>
<th>Code</th>
<th>BSIT</th>
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</thead>
<tbody>
<tr>
<td>Duration</td>
<td>Four years (8 Semesters)</td>
</tr>
</tbody>
</table>

Mission
Collection, storage, processing, dissemination and use of information with computers not confined to hardware and software, but acknowledging the importance and the goals one sets for this technology. Applying Information Technology to the scientific, technological and engineering disciplines and the management techniques used in information handling and processing; accentuating computers and their interaction with men and machines; and associated social, economic and cultural matters.
Achievements

BUITEMS has clinched fourth position among top ranking universities of the country in Computer Science and IT. The ranking was based on the number of students, research productivity and quality, innovation and knowledge transfer, infrastructure, annual graduate output, international collaborations, student satisfaction and financial health of the institution.

Scheme of study

Semester 1

- Introduction to ICT
- Programming Fundamentals
- (Math-I) Calculus & Analytical Geometry
- Basic Electronics
- Functional English

Semester 2

- Discrete Structures
- Object Oriented Programming
- Fundamentals of Information Technology
- Digital Logic & Design
- Communication Skills
- Pakistan Studies

Semester 3

- Data Structures and Algorithms
- Linear Algebra
- Technical Report Writing
- Islamic Studies/ Ethics
- University Elective 1 – Visual Programming
- University Elective 2 – Computer Architecture

Semester 4

- Introduction to Database Systems
- Organizational Behaviour
- Probability & Statistics
- Computer Communication & Networks
- University Elective 3 – Operating Systems
- University Elective 4 – E- Commerce

Semester 5

- Web System & Technologies
- Introduction to Software Development
- Information Security
- Multimedia Systems & Design
- Information Systems
- University Elective 5 – Cluster & Grid Computing

Semester 6

- System & Network Administration
- Knowledge-Based Systems
- Web Services
- Human Computer Interaction
- University Elective – Communication Technologies
- University Elective 6 – Wireless Communication

Semester 7

- IT Capstone Part – 1
- Technology Management
- Mobile & Pervasive Computing
- Network Security
- System Integration & Architecture
- Database Management

Semester 8

- IT Capstone Part – 2
- IT Services Management
- Profession Practices
- Data Warehousing

Teaching is provided through lectures and practical classes. Typically six assignments and three quizzes are given for sessional marks. Moreover, some subjects need presentations during the semester. Practical work is assessed separately.

BS Program Summary

<table>
<thead>
<tr>
<th></th>
<th>Total Credit hours:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theory</strong></td>
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<tr>
<td><strong>Lab</strong></td>
<td>24</td>
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<tr>
<td><strong>Total Credit hours:</strong></td>
<td><strong>134</strong></td>
</tr>
</tbody>
</table>

Contact Us

Chairperson
Farhan Elahi
(Ext: 415)

UAN: +92 (81) 111 717 111
www.buitms.edu.pk/

Essentials

FSc (Pre Engg)/ICS with Mathematics & Physics from any recognized board or equivalent with at least 50% marks.

Admission Test

Qualifying the admission test.
Computer Engineering

Computer Engineering is fast emerging and an exhilarating field that impacts most aspects of everyday life. Careers in Computer Engineering are in high demand, covering both Software Programming and Hardware Designing & Implementation areas, and in Application of Computing System and Networks providing new prospects in education, research and employment. Computer Engineers apply electrical engineering techniques and computer science concepts to develop dependable, cost effective hardware and software systems.

Computer Engineering at BUITEMS
The department of Computer Engineering at BUITEMS was founded in 2002. Today, the department has 20 faculty members; most of them are either foreign qualified or pursuing their doctorate degrees from best universities of the world. Computer engineering department provides program that develops the necessary skills and competence required to design and implement computer systems and networks. We, at Department of Computer Engineering, are committed to imparting quality education that provides students with the ability to enter local, national and global technology workforce, and make significant contributions to computer engineering through research, design and development of a wide range of computer engineering applications.

Programs offered in Computer Engineering
We offer following programs in Computer Engineering
- Four years BSCE
- Master of Science (MSCE)

Facilities and work experience
Our students are provided with computer laboratories equipped with latest technologies. Besides students can benefit from internships and study tours offered by department. Workshops and guest talks are arranged on regular bases to increase practical knowledge of students. Students get the chance to work as an assistant to the senior faculty members where they get experience of research and teaching.

Fact file

<table>
<thead>
<tr>
<th>Code</th>
<th>BSCE</th>
</tr>
</thead>
</table>

| Duration | Four years (8 Semesters) |

Mission
Our mission is to produce graduates with the ability to analyse, synthesize, and design both core parts of modern computing systems and integrated application systems based on computers through learning the scientific foundation for hardware and software engineering and applying it in engineering exercises.
Semester 1
- Computing Fundamental
- Basic Electrical Engineering
- Calculus and Analytical Geometry
- English Language Proficiency
- Pakistan Studies
- Applied Physics

Semester 2
- Programming Fundamentals
- Discrete Mathematics
- Circuit Analysis
- Islamic Studies/Ethical Behaviour
- Communication Skills
- Linear Algebra

Semester 3
- Computer Application in Engg Design
- Differential Equations
- Digital Logic and Design
- Object Oriented programming
- Electronic Circuits & Devices

Semester 4
- Computer Organization and Architecture
- Data Structures and Algorithms
- Data Communication
- Probability Methods in Engineering
- Engineering Economics
- Workshop practice

Semester 5
- Operating Systems
- Database Management Systems
- Technical Report Writing
- Numerical Methods
- CE Elective I

Semester 6
- Signals & Systems
- Microprocessors & Embedded Systems
- Computer Communication Networks
- CE Elective II
- CE Elective III

Semester 7
- Organizational Behaviour
- Engineering Practices & Ethics
- CE Elective IV
- IDE Elective I
- Senior Design Project-I

Semester 8
- Entrepreneurship and Leadership
- Critical Thinking
- CE Elective V
- IDE Elective II
- Senior Design Project- II

Teaching is provided through lectures and practical classes. Typically six assignments and three quizzes are given for sessional marks. Moreover, some subjects need presentations during the semester. Practical work is assessed separately.

BS Program Summary

| Total Credit hours: | 137 |
| Theory            | 107 |
| Lab               | 30  |

Contact Us

Chairperson
Dr. Bakhtiar Kasi
(Ext:403)

UAN:+92 (81) 111 717 111
www.buitms.edu.pk/

Essentials
FSc(Pre Engg)/ICS with Mathematics & Physics from any recognized board or equivalent with at least 60% marks. Diploma of Associate Engineer (DAE) in the same field securing at least 60% marks.

Admission Test
Qualifying the admission test.
Graduate Program Information
The Department offers the Master of Science (MS) degree in Computer Engineering. The Department presently has active research groups in the following areas
- Communication Systems Group (CSG)
- Computational Intelligence Group (CIG)
- Wireless & Sensor Networks (WSN)
- Distributed & Networked Systems (DNS)

Summary of Basic Degree Requirements
- At least 9 credit hours of core graduate level courses
- At least 15 credit hours of advanced elective graduate level courses.
- At least 6 credit hours Master’s Thesis.

Core Courses
Mathematical & Simulation Modelling
Distributed Computer Systems
Research Methodologies

Elective Courses Domains
Advanced Computer Systems Architecture
Advanced Digital Signal Processing
Introduction to Robotics
Elective courses contain nearly 40 elective courses of engineering field.

MS Program Summary
<p>| | |</p>
<table>
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<tr>
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<tbody>
<tr>
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</tr>
</tbody>
</table>

Contact Us
Graduate Coordinator
Dr. Anayat Ullah
(Ext:416)

UAN: +92 (81) 111 717 111
www.buitms.edu.pk/

Essentials
- BS(CE) 4 years Degree Program or equivalent

Admission Test
Graduate Assessment Test (GAT General) scores are required for admission consideration.

It made me what I am today. A place that enabled me to struggle, progress and work hard for a better life !.. Proud of it”

Muhammad Jahanzaib
Alumnus
Electronic Engineering

Electronic Engineering is the study associated with electronic circuits and systems, and is one of the major branches of electrical engineering. Defense, Medical Instrumentation, Mobile Technology, Nanotechnology, Satellite Communication and Robotics are among the fields in which Electronic Engineers are employed.

Electronic Engineering at BUITEMS
The department of Electronic Engineering at BUITEMS was founded in 2003, as an Undergraduate Program. Today, the Electronic Engineering has twenty seven faculty members and now also offering Graduate Program. The department has a growing, vibrant, research-oriented faculty who take great pride in research and in undergraduate and graduate education. We, at Department of Electronic Engineering, are committed to imparting quality education in the fields of Electronic Engineering, Communication, Instrumentation, Control, Power Electronics, Industrial Electronics, Nanotechnology, Opto Electronics, Semiconductor Physics and VLSI to examine the features, attributes, technical issues, and concepts in these areas.

Programs offered in Electronic Engineering
We offer following programs in Electronic Engineering.
- 4 years BS(EE)
- 2 years MS(EE)

Facilities and work experience
Our students are provided with Computer Labs, Basic Electronics Lab, Digital System Lab, Microprocessor Lab, Basic Telecommunication Lab, PCB Lab, Control, automation and robotics lab and Embedded System Lab equipped with latest technologies. Besides students can benefit from internships and study tours offered by department. Workshops and guest talks are arranged on regular basis to increase practical knowledge of students.

BUITEMS is offering BS in Electronic Engineering since 2003 and is recognized by Pakistan Engineering Council (PEC). The department of Electronic Engineering received the title of best department among all the 40 departments of BUITEMS in year 2013 based on achievement of whole year in project competitions, representation of university at national level and quality of education. Our graduates are serving at PAEC, SUPRACO, PPL, CAA, OGDCL, SNGPL, and NTDCL to name a few. Some graduates of Electronic Engineering are also post graduate students at foreign institutions.

Mission
Our mission is to produce the next-generation Electronic Engineers, creating well-aware developments and techniques for contributing to the advancement of Electronic engineering field.
Scheme of study

Semester 1
Introduction to Computing
Fundamental English
Pakistan Studies
Calculus and Analytical Geometry
Workshop Practice
Engineering Drawing
Applied Physics

Semester 2
Programming Fundamentals
Linear Circuit Analysis
Islamic Studies/Ethics
Differential Equation
Communication Skills

Semester 3
Data Structures & Algorithms
Electrical Network Analysis
Digital Logic Design
Complex Variables and Transforms
Electronic Devices and Circuits

Semester 4
Computer Organization and Architecture
Data Structures and Algorithms
Data Communication
Probability Methods in Engineering
Engineering Economics
Workshop practice

Semester 5
Electromagnetic Field Theory
Electrical Machines
Technical Report Writing and Presentation
Communication Systems
Instrumentation and Measurement

Semester 6
Elective – I
Analog Integrated Electronics
Engineering Economics and Management
Digital Communication
Linear Control Systems
Humanities Elective

Semester 7
Senior Design Project-I
Digital Signal Processing
(IDEE-1) Embedded Systems
Elective - II
Elective - III

Semester 8
Senior Design Project-II
MGT-Elective-2
IDEE-III(Elective-2)
Elective - IV
Elective - V

Teaching is provided through lectures and practical classes. Typically six assignments and three quizzes are given for sessional marks. Moreover, some subjects need presentations during the semester. Practical work is assessed separately.

BS Program Summary

<table>
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<th>Total Credit hours:</th>
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<td>Theory</td>
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<td>Lab</td>
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Contact Us

Chairperson
Dr. Anayat Ullah
(Ext:416)

UAN:+92 (81) 111 717 111
www.buitms.edu.pk/

Essentials
FSc(Pre Eng)/ICS with Mathematics & Physics from any recognized board or equivalent with at least 60% marks. Diploma of Associate Engineer (DAE) in the same field securing at least 60% marks

Admission Test
Qualifying the admission test.
Graduate Program Information
The Department offers the Master of Science (MS) degree in Electronic Engineering.

Core Courses
- Linear Control
- Stochastic Processes

Elective Courses
- Electronics and embedded systems
- Advance DSP
- Advanced Integrated Electronics
- Advanced Computer Architecture
- Advance Industrial Electronics
- Advanced VLSI Design
- Nano Electronics
- MEMS Sensor Design
- 3D Printing
- Advanced Opto Electronics
- Advanced FPGA Design
- Advanced Instrumentation Systems
- Multirate Systems And Filter Banks
- Advanced Machine Drives
- Switched Mode Converter Analysis And Design
- Advanced Power Electronics
- Advanced Image Processing
- Control systems
- Modelling And Simulations
- Multivariable Control
- Optimal Control
- Nonlinear Control
- Digital Control Systems
- Advanced Control Systems
- Adaptive Control
- Stochastic Control
- Model Predictive Control
- Robotics
- Advanced IPC
- Intelligent Control
- Advanced Topics In Control Systems
- RF Electronics
- Advanced Microwave Engineering
- Advanced Antenna Design
- Advanced RF Electronics
- Advanced Electromagnetic Theory
- Transmission Lines
- Advanced Concepts In RADAR Applications

MS Program Summary
<table>
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<tbody>
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<td>Theory</td>
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</table>

Contact Us
Graduate Coordinator
Dr. Anayat Ullah
(Ext:416)

UAN: +92 (81) 111 717 111
www.buitms.edu.pk/

Essentials
- BS(EE) 4 years degree

Admission Test
Graduate Assessment Test (GAT General) scores are required for admission consideration.
Telecommunication Engineering

The Telecommunication Engineering academic program covers the structure of Telecommunication systems, Networks, Software and Computer systems. Using their knowledge of electronics, computer hardware and software, signal processing and networking techniques, our graduates can contribute in a range of voice, data and multimedia communication activities.

Telecommunication Engineering at BUITEMS
The department of Telecom Engineering at BUITEMS was established in 2005, as an undergraduate program. The contribution of the department over the years has been incredible. Currently the department has 17 faculty members including 3 PhDs, 2 masters and rest of the faculty is either enrolled in PhD or master program. Most of them are foreign qualified from best universities of the world. It also started its Master degree program in spring 2013.

Programs offered in Telecom Engineering
- 4 years BS(TE)
- 2 years MS(TE)

Achievements
Currently 180 students are enrolled in BS and up to 50 students in MS program. We have been successful in clinching the top priority of most of the prospective engineering students of BUITEMS. Our program is accredited by Pakistan Engineering Council (PEC)

Facilities and Practical Exposure
Telecom Department has a range of well equipped laboratories. Students are also provided with computer laboratories equipped with latest technologies. Similarly students can benefit from internships and study tours offered by department. Workshops and guest talks are arranged on regular basis to increase practical knowledge of students. Students get the chance to work as an assistant to the senior faculty members where they get experience of research and teaching.

Objectives
- BS in Telecommunication Engineering is designed to produce graduates with specialized skills.
- They will be able to design telecommunication devices, circuits and systems.

Mission
The mission of the Telecommunication Engineering degree program is to provide quality education in communication networks and systems; to train our graduates in a variety of subfields of telecommunication engineering at the systems level and prepare them for rewarding and successful careers in data communications, network architecture, wireless, optical networking and next generation networks.
### Scheme of Study

#### Semester 1
- Functional English
- Calculus and Analytical Geometry
- Islamic Studies/ Ethical Behavior (for non-Muslims)
- Applied Physics
- Pak Studies

#### Semester 2
- Fundamentals of Telecommunication
- Differential Equation
- Communication Skills
- Electronic Workbench
- Electronic Devices & Circuits
- Computer Programming

#### Semester 3
- Complex Variables & Transforms
- Digital Logic Design
- Circuit Analysis
- Technical Report Writing & Presentation
- Data Structure and Algorithms

#### Semester 4
- Computer Communication & Networks (Breadth Core I)
- Instruments & Measurements (Elective I)
- Engineering Drawing
- Signals & Systems
- Electromagnetic Theory
- Linear Algebra

#### Semester 5
- Probability & Statistics
- Communication System
- Wave Propagation & Antennas
- Digital Signal Processing (Elective II)
- Computer Architecture & Organization

#### Semester 6
- Engineering Mechanics (IDEE I)
- RF & Microwave Engineering (Elective IV)
- Digital Communication (Elective V)
- Microprocessor & Interfacing Techniques
- Numerical Analysis

#### Semester 7
- Control Systems
- Wireless & Mobile Communication (Elective VI)
- Optical Communication (Elective VII)
- Engineering Economics
- Electrical Machines
- Project-I

#### Semester 8
- Transmission & Switching Systems (Breadth Core II)
- Telecom Traffic Engineering
- Power Distribution and Utilization (IDEE II)
- Professional Practice
- Engineering Management
- Project-II

Teaching is provided through lectures and practical classes. Typically six assignments and three quizzes are given for sessional marks. Moreover, some subjects need presentations during the semester. Practical work is assessed separately.

### BS Program Summary

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### Essentials
- FSc(Pre Eng)/ICS with Mathematics & Physics from any recognized board or equivalent with at least 60% marks.
- Diploma of Associate Engineer (DAE) in the same field securing at least 60% marks

### Admission Test
- Qualifying the admission test.
**Graduate Program Information**
The Department offers the Master of Science (MS) degree in Telecommunication Engineering.

**Core Courses**
- Stochastic Processes
- Telecom Systems & Networks
- Advanced Digital Communication

**Elective Course**
- Specialization (Communication System)
  - Optical Fiber Communications
  - Advanced Computer Networks
  - Advanced Wireless Communication
  - Telecom Management Network
  - QOS in Telecommunication Networks
  - Telecom Policies and Regulations

- Specialization (Signal Processing)
  - Advanced Digital Signal Processing
  - Adaptive Signal Processing
  - Real Time DSP
  - Digital Image Processing
  - Statistical Signal Processing
  - Video Signal processing
  - Speech Processing

- Specialization (RF & Wireless Communication)
  - Antenna Design
  - Microwave Engineering
  - Advanced Engineering Electromagnetic
  - Radar Engineering
  - Advanced Wireless Communication
  - Mobile Communications
  - Satellite Communication

- Specialization (Telecommunication Networks)
  - Mobile Ad-hoc Networks
  - Optical Communication & Networks
  - Advanced GSM Architecture
  - Telecom Management Network
  - Broadband Communication
  - SS7 & Intelligent Networks
  - CDMA based Networks
  - Network Security
  - Next Generation Networks
  - Sensor Networks

**Electives**
- Research Methodology
- Simulation and Modeling
- Operational Research

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**MS Program Summary**

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</table>

**Contact Us**

**Graduate Coordinator**

Dr. Anayat Ullah  
(Ext:416)

**UAN:** +92 (81) 111 717 111

**Website:** www.buitms.edu.pk

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**Essentials**

- BS(TE) 4 years degree

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**Admission Test**

Graduate Assessment Test (GAT General) scores are required for admission consideration.

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“*I have been at BUITEMS for four years. BUITEMS offers me so many sporting opportunities, academic skills. The high reputation, excelling sporting competition, and the ‘brotherhood’ lifestyle here make BUITEMS a unique University. I also led the BUITEMS Cricket team at Peshawar for me this was very special. Coming to BUITEMS will give you a great experience and you will learn many lessons to use for the rest of your life. I will never forget the valuable four years I had in this University.*”

**Syed Asghar Ali Shah**  
(Undergraduate student)
FICT has the most remarkable interdisciplinary faculty. We have faculty working in a wide range of disciplines ranging in Computing, Embedded Systems, Communications and Wireless Networks, Electrical and Power Engineering and Technology Management. One of the notable features of our faculty is the high degree of scholarly collaboration between faculty who come from diverse fields with academic achievements from across the globe.

**Faisal Ahmed Khan Kakar**
Dean
Ph.D., Georgia Institute of Technology, USA.
fasal.khan@buitms.edu.pk

Dr. Faisal Khan is the Dean of the Faculty of Information and Communication Technology, BUITEMS Quetta. He is also the Director of Communications Systems Laboratory. He holds a PhD degree in Electrical and Computer Engineering from the Georgia Institute of Technology, USA. Dr. Khan’s research interests include intelligent vehicle area networks, disaster resilient communications and network security. Dr. Khan is an active member of the IEEE Standards Association. He is a prolific researcher and active contributor for IEEE conferences and transactions. Dr Khan is the member of Computing Education Accreditation Council. He has worked with the Communications Systems Center (CSC) at the Georgia Institute of Technology from 2009 to 2013. Awards and distinctions to his credit include Fulbright PhD scholarship award 2009-2013, Bahria University scholarship award 2006, distinction Bahria University 2005, and the best teacher award BUITEMS 2008.

**Mumraiz Khan Kasi**
Faculty Coordinator, Assistant Professor
Ph.D., University of Waikato, New Zealand
mumraiz.kasi@buitms.edu.pk

Dr. Mumraiz Kasi is Assistant Professor of Computer Science. He holds a PhD in computer science from University of Waikato, a master’s degree from University of Adelaide, and a bachelor’s degree from Government College University, Lahore. He has a wide range of research interests, including semantic web technologies, sensor networks, query processing, and context-aware systems. His current work focuses on the use of energy-efficient methods for processing sensor data in heterogeneous wireless sensor networks.

**Ayesha Shaukat Baloch**
Chairperson, Electrical Engineering
aisha.baloch@buitms.edu.pk

Ayesha is Assistant Professor in Electrical Engineering department and has been chairing the department since December 2012. Her fields of interest are Nanotechnology and Quantum mechanics. Her MS research work is titled “Comparative Study of Si and GaAs in Ballistic Transport using NEGF”.

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**Faisal Ahmed Khan Kakar**

Dr. Faisal Khan is the Dean of the Faculty of Information and Communication Technology, BUITEMS Quetta. He is also the Director of Communications Systems Laboratory. He holds a PhD degree in Electrical and Computer Engineering from the Georgia Institute of Technology, USA. Dr. Khan’s research interests include intelligent vehicle area networks, disaster resilient communications and network security. Dr. Khan is an active member of the IEEE Standards Association. He is a prolific researcher and active contributor for IEEE conferences and transactions. Dr Khan is the member of Computing Education Accreditation Council. He has worked with the Communications Systems Center (CSC) at the Georgia Institute of Technology from 2009 to 2013. Awards and distinctions to his credit include Fulbright PhD scholarship award 2009-2013, Bahria University scholarship award 2006, distinction Bahria University 2005, and the best teacher award BUITEMS 2008.

**Mumraiz Khan Kasi**

Dr. Mumraiz Kasi is Assistant Professor of Computer Science. He holds a PhD in computer science from University of Waikato, a master’s degree from University of Adelaide, and a bachelor’s degree from Government College University, Lahore. He has a wide range of research interests, including semantic web technologies, sensor networks, query processing, and context-aware systems. His current work focuses on the use of energy-efficient methods for processing sensor data in heterogeneous wireless sensor networks.

**Ayesha Shaukat Baloch**

Ayesha is Assistant Professor in Electrical Engineering department and has been chairing the department since December 2012. Her fields of interest are Nanotechnology and Quantum mechanics. Her MS research work is titled “Comparative Study of Si and GaAs in Ballistic Transport using NEGF”.

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Faculty Profiles

Faizullah Khan
Chairperson,
Telecommunication Engineering
Ph.D., Beijing University of Post and Telecommunications, China
faizullah.khan@buitms.edu.pk

Dr. Faizullah Khan is working as Assistant Professor and chairperson Department of Telecommunication Engineering. Before joining BUITEMS he has worked in Power (PEPCO) and Telecommunication (PTCL) sectors of Pakistan for 14 years at various positions. He got a PhD degree in Management Science and Engineering from Beijing University of Posts and Telecommunication (BUPT) PR China. His research areas include Telecommunication Policies & Regulation, Digital Divide and eGovernment.

Shah Rukh Rayaz
Chairperson,
Software Engineering
Shahrukh@buitms.edu.pk

Engr. Shah Rukh Rayaz received his MS degree in Software Engineering from Hamdard University Karachi and Bachelor’s degree in BS Computer Engineering from BUITEMS. He joined BUITEMS in September 2007. His Subjects of Interest includes Cloud Computing Architecture and Software Project Management.

Shah Rukh Rayaz
Chairperson,
Software Engineering
Shahrukh@buitms.edu.pk

Dr. Shah Rukh Rayaz is Assistant professor and chairperson Department of Software Engineering. He joined BUITEMS in September 2007. His research areas include Cloud Computing Architecture and Software Project Management.

Dr. Bakhtiar Kasi has been serving BUITEMS as Assistant professor in the Computer Engineering department since Nov 2008. He proceeded to USA on study leave for PhD funded through Fulbright scholarship in 2010. Dr. Kasi received his Ph.D. degree in Computer Science from University of Nebraska-Lincoln, USA, in Dec 2015. He received his M.S. degree in Computer Science from SZABIST, Karachi, and B.E. in Software Engineering from Bahria University, Karachi. His research interests are to understand how coordination issues in distributed software development affects developers’ productivity. His interests include machine learning, information retrieval, constraint processing, static analysis, and ‘big data’ analysis; more specifically, he has worked in multi-label classifications, SMT solving, and natural language processing. He has presented his research at top-tier international conferences on software engineering, and has also served on program committees, and co-reviewed papers in international conferences.

Bakhtiar Khan Kasi
Chairperson,
Computer Engineering
Ph.D., University of Nebraska-Lincoln, USA
bakhtiar.kasi@buitms.edu.pk

Dr. Bakhtiar Khan Kasi received his MS degree in Software Engineering from Hamdard University Karachi and Bachelor’s degree in BS Computer Engineering from BUITEMS. He joined BUITEMS in September 2007. His Subjects of Interest includes Cloud Computing Architecture and Software Project Management.

Riaz-Ul-Amin
Chairperson,
Computer Science
Ph.D., University of Glasgow, UK
riaz.ulamin@buitms.edu.pk

Prior to his PhD, Dr. Riaz-Ul-Amin immersed in the field of Computer science with MSCS from UCP Lahore, and Bachelor’s degree in Computer Science from B.Z.U Multan. He has been involved in the teaching and research activities in BUITEMS Quetta since 2005. He was the Team Lead in the HEC’s Research Project of Cluster Computing. He is one of the pioneers to teach Graduate-Level courses in MS Programs at BUITEMS. During his PhD, he tutored several courses in School of Computing Science, University of Glasgow for four years. In his PhD, he conducted research on context-aware service migration in VANET over integrated network environments. In MS research, he performed analysis of resource allocation strategies in grid computing platforms. He is an expert in the fields of mobile service design and distributed computing. The areas of his specialisation include Distributed systems, Mobile computing and system programming.

Anayat Ullah
Chairperson,
Electronic Engineering
Ph.D., University of Kassel, Germany
anayat.ullah@buitms.edu.pk

Anayat Ullah
Chairperson,
Electronic Engineering
Ph.D., University of Kassel, Germany
anayat.ullah@buitms.edu.pk

Dr. Engr. Anayat Ullah is Assistant Professor at the Electronic Engineering Department whose research centers on optical filters and sensors, spectroscopy, nanotechnology and MEMS devices. He has extensively worked with MEMS and NEMS device fabrication and Nano Imprint Lithography. He also has vast experience in the Telecom field and has been associated with Pakistan Telecom Company Limited. His current research involves interference bandpass filter and MEMS device design.

Riaz-Ul-Amin
Chairperson,
Electronic Engineering
Ph.D., University of Kassel, Germany
anayat.ullah@buitms.edu.pk

Prior to his PhD, Dr. Riaz-Ul-Amin immersed in the field of Computer science with MSCS from UCP Lahore, and Bachelor’s degree in Computer Science from B.Z.U Multan. He has been involved in the teaching and research activities in BUITEMS Quetta since 2005. He was the Team Lead in the HEC’s Research Project of Cluster Computing. He is one of the pioneers to teach Graduate-Level courses in MS Programs at BUITEMS. During his PhD, he tutored several courses in School of Computing Science, University of Glasgow for four years. In his PhD, he conducted research on context-aware service migration in VANET over integrated network environments. In MS research, he performed analysis of resource allocation strategies in grid computing platforms. He is an expert in the fields of mobile service design and distributed computing. The areas of his specialisation include Distributed systems, Mobile computing and system programming.

Farhan Elahi
Chairperson,
Information Technology
farhan@buitms.edu.pk

Farhan Elahi received his Masters degree in Computer Science from University of Balochistan, Quetta in 2003. He joined as Lecturer in the department of Computer Science BUITEMS in September 2005 where he has been teaching courses of Data Communications, Computer Communication & Networks, Programming Fundamentals and Information Systems. He did his MS degree from BUITEMS in 2010. His research interests
Engr. Abdul Wahid is Assistant Professor in Telecommunication Engineering. His research interests are Telecommunication policy, internet regulation and broadband internet access in unlicensed bands. He is conducting research on market structure of telecommunication industry and telecommunication policy affects.

Aftab Ahmed Shaikh  
Professor,  
Ph.D., BUAA, PR. China  
aftab.shaikh@buitms.edu.pk

Dr. Aftab is one of the pioneer faculty members of BUITEMS since 2002. He has more than sixteen years experience in education and research. He earned his Doctorate Degree in Computer Application & Technology from Beihang University Beijing in 2010. He also rendered his services as Dean, Faculty of Information and Communication Technology during 2012-13. Dr. Aftab has published several research articles in reputable international Journals and Conference Proceedings. He received the ‘Best Teacher Award’s in during years 2005, 2006 and 2011. His research interest(s) include Computational Intelligence, Machine Learning, Multi-Agents Technology, Analysis of Algorithms and many other similar themes.

Jan Muhammad  
Associate Professor,  
Computer Engineering  
Ph.D., University of Glasgow, UK  
jan.muhammad@buitms.edu.pk

Dr. Jan Muhammad is Associate Professor in the department of Computer Engineering with research focused in Distributed Systems. He has a teaching experience of 15 years and has been teaching a broad range of undergraduate and graduate level courses including: Computer System Architecture, Microprocessors & Assembly Language, Operating Systems, Database Management Systems, Programming Fundamentals and Research Methodology. His current work focuses on cloud based learning management systems and distributed systems security (Cloud and Grid security).

Abdul Wahid Traeen  
Assistant Professor  
abdul.wahid@buitms.edu.pk

Zahid Rauf  
Associate Professor,  
Ph.D., University of Canterbury, New Zealand  
zahid.rauf@buitms.edu.pk

Dr. Zahid Rauf is Associate Professor at the Faculty of Information and Communication Technology (FICT). He is also serving as the Director of Quality Enhancement and Accreditation (QE&A). He teaches Communication and Networks. His research interests are digital wireless communications, including MIMO, Multiuser Communication Systems, Channel Estimation, Equalization and Low-complexity Iterative Detection Algorithms, Cooperative Relaying Networks, Network Coding, Optimal and Adaptive Resource Allocation in Wireless Networks, and Cross-layer Design and Analysis (primarily Physical and Link layer).

Sadique Ahmed Bugti  
Associate Professor,  
Ph.D., BUAA PR. China  
sadique.shaikh@buitms.edu.pk

Dr. Bugti completed his early education from Balochistan. For higher education he went to university of Sind Jamshoooro, where he earned the degree of Master in Computer Sciences. He joined the BUITEMS in 2003 as a faculty member. He earned his MS (Computer Science) degree from BUITEMS in 2006. He left for Higher education abroad in September 2008, Beijing University of aeronautics and astronautics (BUAA), China and got his Doctorate Degree (PhD). After his PhD he joined as Assistant Professor.

Abdul Samad  
Assistant Professor,  
Ph.D., University of Georgia  
abdul.samad1@buitms.edu.pk

Dr. Abdul Samad is Assistant Professor in Computer Science, BUITEMS. His research interests includes machine learning, data mining, big data and analysis of algorithms. He is particularly interested in scalable machine learning methods.
Syed Usman
Assistant Professor,
Ph.D., BUPT PR. China
syed.usman@buitms.edu.pk

Dr. Surat Khan is Assistant Professor in the department of Telecom Engineering (FICT). His teaching and research focus includes Engineering Management, Telecom Management, Supply Chain Management Organizational Behavior, Professional Practices, e-Business and e-Commerce. He received his Ph.D in Management Science and Engineering from Beijing University of Posts and Telecommunications (BUPT) PR China. He has more than 15 years experience in managing Electrical Projects and Telecommunication Organizations.

Rahila Umer Sumalani
Assistant Professor
rahilaumer@buitms.edu.pk

Rahila Umer is Assistant Professor in Computer Science department. Her field of interest is Machine learning, Behavior targeting, Data mining. She worked on Machine learning approaches for Computer Aided diagnosis and prediction of Alzheimer’s Diseases based on clinical data in her MS thesis. She is currently on study leave.

Asad Ali
Lecturer,
asad.ali@seecs.edu.pk, asad.ali@seecs.nust.edu.pk

Asad Ali is serving as lecturer at Faculty of Information and Communication Technology. Currently, he is working on Adaptive Streaming of high quality multimedia applications over the internet.

Kanza Ali
Lecturer,
kanza.ali@buitms.edu.pk

Kanza Ali received her BS (CS) from Sardar Bahadur Khan Womens’ University Quetta in 2010. During her BS she worked on different assignments including International Project. She joined BUITEMS in September 2011 as Lecturer in the department of Computer Science and is now pursuing her MS (CS) studies at BUITEMS.

Syed Usman received his Bachelor of Engineering in Electrical with specialization in Communications from MUST, Mirpur in 1999. He did his PGD from COMSATS Islamabad in 2002. He was associated with Pakistan Television Corporation (PTV) Quetta for two years as an Assistant Engineer. Later on he joined Pakistan Telecommunication Company Limited (PTCL) as an Assistant Divisional Engineer. He served PTCL for 10 years as an ADE & Senior Engineer. He joined BUITEMS in September 2010 in the Department of Telecommunication Engineering, Faculty of Information & Communication Technology. His research areas include C-RAN, Conversion of TDM into Packet based networks, Wireless Networks & Next Generation Networks.

Saima Gul
Assistant Professor,
saima.gul@buitms.edu.pk

Saima Gul is Assistant Professor of Computer Science department. Her research and teaching interests include theoretical computer sciences as well as the practical essence of programming and software engineering. Her future research goals are to work on data security engineering and cryptography. Her research is on crypto techniques and cybersecurity.

Poma Panezai
Lecturer,
PomaPanezai@buitms.edu.pk

Poma Panezai is Lecturer in the department of Computer Science. She received her Bachelors in Computer Science in December 2011 with interest in Software Development. She was appointed as Lecturer in December 2012. She teaches courses of Computer Graphics, Software Development, Database System, Object Oriented Programming and Bioinformatics Computing.
Sadaf Riaz is Lecturer in BUITEMS. Her Research area is Cloud Computing. She has also done research in Human Computer Interaction. Her fields of Interests are Data Base Management System, Web Application, Object Oriented Programming, Human Computer Interaction and Software Engineering. She did her MSCS from BUITEMS.

Attiya has maintained a brilliant Academic career throughout her life. She joined BUITEMS in January 2006 as Lecturer in department of Computer Science., Her fields of interest include Software Engineering, Cloud Computing, Human Computing Interaction, Data Base Management System, Electronic Commerce, Computer Graphics.

Amir Shahzad Khokhar received his MS degree in Computer Science from Blekinge Tekniska Hogskola (BTH) Sweden in 2010. He joined the university as a Lecturer Faculty of Information & Communication Technology (ICT) in December 2010 and later on as Assistant Professor. Prior to joining BUITEMS, he worked as System Engineer at NADRA, Quetta. His MS thesis with Ericsson AB, Sweden was in “Distributed Database Systems in Telecom Environment”. He was awarded scholarship at Sweden.

Siraj received his BS (CS) & MS (CS) from BUITEMS in 2009 and 2015, respectively. He joined BUITEMS, department of Computer Science, FICT as Lecturer in 2011. Siraj was also an active member of the team that deployed the Campus Management Solution in BUITEMS. His research areas include Cloud Computing, Software Development, Software Engineering and Cloud Security.

Ahthasham Sajid received MS (CS) from SZABIST Karachi in “Communication & Networks” in 2007 securing CGPA 3.70. He joined BUITEMS in November 2009 as a Lecturer in the department of Computer Science and later appointed as Assistant Professor.

Muhammad Adeel Mahmood is working as Assistant Professor in the department of Computer Science. He received his MS in Computer Science from University of Adelaide, Australia with research focused on wireless sensor networks. He was awarded scholarship for higher studies under Faculty Development Program in 2007.
Mr. Imran Siddique is working as Assistant Professor in the department of Computer Science, BIITEMS. He received his MS degree from the University of Adelaide, Australia. Now he is on study leave for PhD studies.

Sheikh Mir Ahmed is working as Lecturer in department of Computer Sciences. He served in different ISPs and Telecommunication companies before joining BIITEMS. His work currently concentrates upon the application & management of Big Data and Analytics processes in different field scenarios.

Engr. Shah Marjan is a Lecturer of Computer Engineering department. He has been serving BIITEMS since October 2008. He received his MS Computer Engineering degree from BIITEMS in 2014, in which he secured Gold Medal. Engr. Shah Marjan teaches Programming and Networking Skills. He is currently pursuing his PhD degree.

Waheeda Panezai is working as Lecturer in the department of Computer Engineering. Her areas of research are in the field of wireless communications and data communications. Currently she is teaching various subject; Fundamentals of Communications, Digital Communications, Control Engineering, C Programming, Digital System Design, Database Management Systems and Circuit analysis.

Engr. Muhammad Nadeem is working as Assistant Professor at department of Computer Engineering. He received his BS Computer Engineering from Sir Syed University of Engineering & Technology Karachi in 2002. He competed MS in Computer Science from BIITEMS with specialization in Software Engineering. His technical expertise is web applications (developed in J2EE, and .NET platform) and databases (Oracle 9i, SQL Server, and MySQL). He is also working as a beta tester for Microsoft. He has also designed applications for automation of different systems at BIITEMS. Currently he is pursuing his PhD on fullbright scholarship from Mississippi State University, USA.

Engr. Masood ur Rehman received his MS degree in Computer Engineering from BUITEMS. He joined BUITEMS as Lecturer in January 2011. He served as GIS associate in EYCON Pvt Ltd, Islamabad before joining BUITEMS. He has conducted different workshops and seminars on leadership and professional skills development and has participated in many professional trainings in different parts of the country. He has a vast experience in the field of Remote Sensing and GIS. His area of interest include Computer Programming, Artificial Intelligence, RS and GIS.

Engr. Taqia Manzoor received her Bachelors in Computer Engineering from BUITEMS in 2011 with distinction. She joined BUITEMS in January 2013 as a Lecturer in the department of Computer Engineering. Her interest areas include: Digital logic design, Computer Communications & Networks, Signal Processing and Circuit Analysis.

Engr. Shanila Azhar received her BS Computer Engineering from BUITEMS University, Quetta, Pakistan. She is currently pursuing her MS in Computer Engineering from BUITEMS. Her area of specialization is Circuit Logic & Designing, Distributed Computing Systems, and Computer Communication Networks.

Engr. Mehrullah Soomro received his Bachelors in Engineering Sciences (Modeling and Simulation) from GIK Institute, Topi in 2012. Currently he is pursuing his MS in Computer Engineering from BUITEMS Quetta. He is working as Lecturer in the department of Computer Engineering since January 2013.
Engr. Akbar Khan received his B.E (Computer System Engineering) from BUET Khuzdar with distinction. He joined BUITEMS in 2013 as Lecturer in Computer Engineering department. He is currently pursuing his MS in Computer Engineering from BUITEMS. His area of specialization is Computer Architecture and Organization and Distributed Computing Systems.

Engr. Junaid received his Bachelors in Electronic Engineering from Dawood College of Engineering & Technology, Karachi in 2007. He joined BUITEMS in 2007 as a Lecturer in the department of Electronic Engineering and now he is serving as Assistant Professor.

Engr. Hamid Karim is Assistant Professor. He joined BUITEMS in June, 2007 as a Lecturer in the department of Electronic Engineering. He promotes utilization of technology and cultivates communication skills with quantitative and critical thinking.

Engr. Taimoor received his Bachelors in Electronic Engineering from BUITEMS in 2007. He has completed his MS from Germany with distinction and secured PhD Scholarship from Kassel University Germany. He joined BUITEMS in November 2007 as a Lecturer in the department of Electronic Engineering.

Engr. Talha received his Bachelors degree in Electronic Engineering from BUITEMS in 2007 and has done his M.Sc in Electronics Communication from University of Bradford England in 2011. He joined BUITEMS in January 2013 as Assistant Professor in the department of Electronic Engineering. He also served in PTV and CNBC Pakistan as Communication Engineer.

Engr. Wajahat received his Bachelor in Electronic Engineering from Dawood College of Engineering & Technology, Karachi in 2002. He joined BUITEMS in April 2003. He received his MS in Electronic Engineering from BUITEMS and is pursuing his PhD at Malaysia. He is working as Assistant Professor.

Shafi is Lecturer at department of Computer Engineering, BUITEMS. His knowledge in Database Management systems provides guidance in academic learning and practicalities. His current work focuses on Artificial intelligence where course allocation within the faculty has been automated.

Engr. Wajahat received his Bachelors in Electronic Engineering from Dawood College of Engineering & Technology, Karachi in 2002. He joined BUITEMS in April 2003. He received his MS in Electronic Engineering from BUITEMS and is pursuing his PhD at Malaysia. He is working as Assistant Professor.

Engr. Junaid received his Bachelors in Electronic Engineering from Dawood College of Engineering & Technology, Karachi in 2007. He joined BUITEMS in 2007 as a Lecturer in the department of Electronic Engineering and now he is serving as Assistant Professor.

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Engr. Taimoor received his Bachelors in Electronic Engineering from BUITEMS in 2007. He has completed his MS from Germany with distinction and secured PhD Scholarship from Kassel University Germany. He joined BUITEMS in November 2007 as a Lecturer in the department of Electronic Engineering.

Mohammad Umer is working as an Assistant Professor in Electronic Engineering department. He worked as Vice Principal in Baluchistan Residential College Khuzdar. Since May 2011, he is working at BUITEMS. His field of specialization is “Deep Level Defects in Semiconductors”. He is teaching Electromagnetic Field Theory, Electronic Devices, Basic Electrical Engineering and Physics.
Engr. Jameel received his Bachelors in Electronic Engineering from BUITEMS in 2008. He was appointed as Lecturer in the department of Electronic Engineering in September 2011. His areas of interest includes Microcontroller Based Hardware Circuits and Embedded Systems.

Jameel Ahmed Khan
Lecturer,
jameel.ahmed@buitms.edu.pk

Engr. Jameel received his Bachelors in Electronic Engineering from BUITEMS in 2008. He was appointed as Lecturer in the department of Electronic Engineering in September 2011. His areas of interest includes Microcontroller Based Hardware Circuits and Embedded Systems.

Muhammad Arif is Lecturer in department of Electronic Engineering since September 2011. He teaches Digital Logic and Design, Digital Systems, Basic Electronics, Integrated Electronics. He is currently working towards his MS dissertation. His research interests include Femtocells Power control and Quality of Service.

Muhammad Arif
Assistant Professor,
muhammad.arif@buitms.edu.pk

Muhammad Arif is Lecturer in department of Electronic Engineering since September 2011. He teaches Digital Logic and Design, Digital Systems, Basic Electronics, Integrated Electronics. He is currently working towards his MS dissertation. His research interests include Femtocells Power control and Quality of Service.

Engr. Muhaddisa did her Bachelors in Electronic Engineering from Mehran University of Engineering and Technology in 2009. She joined BUITEMS in May, 2009 as lecturer in the department of Electronic Engineering BUITEMS and is pursuing MS leading to PhD in Turkey.

Muhaddisa Barat
Lecturer,
engr.muhaddisa@buitms.edu.pk

Engr. Muhaddisa did her Bachelors in Electronic Engineering from Mehran University of Engineering and Technology in 2009. She joined BUITEMS in May, 2009 as lecturer in the department of Electronic Engineering BUITEMS and is pursuing MS leading to PhD in Turkey.

Syed Owais Athar
Lecturer,
syed.owais@buitms.edu.pk

Syed Owais is Lecturer in Department of Electronic Engineering. He did his BS in Electronics Engineering from BUITEMS in 2012. He served as Assistant Technical Manager in AH Automation (Pvt.) Ltd. Islamabad for, and joined BUITEMS in January 2015. He is currently enrolled in the MS (Electrical Engineering) in BUITEMS. His research interests are Control Systems Engineering and its applications in Power Generation, Transmission and Distribution.

Syed Owais Athar
Lecturer,
syed.owais@buitms.edu.pk

Syed Owais is Lecturer in Department of Electronic Engineering. He did his BS in Electronics Engineering from BUITEMS in 2012. He served as Assistant Technical Manager in AH Automation (Pvt.) Ltd. Islamabad for, and joined BUITEMS in January 2015. He is currently enrolled in the MS (Electrical Engineering) in BUITEMS. His research interests are Control Systems Engineering and its applications in Power Generation, Transmission and Distribution.

Syed Mudassir Hussain
Assistant Professor,
Mudassir.hussain@buitms.edu.pk

Syed Mudassir is Lecturer at the department of Electronic Engineering. He received his masters in Electronic Engineering from BUITEMS in 2015. His major subjects of instruction are Very Large Scale integration (VLSI), Electronic Circuit Designs and Optical Communication System Devices. His major focus of research is on designing and optimization of AlGaN/GaN based HEMTs high power amplifiers.

Syed Mudassir Hussain
Assistant Professor,
Mudassir.hussain@buitms.edu.pk

Syed Mudassir is Lecturer at the department of Electronic Engineering. He received his masters in Electronic Engineering from BUITEMS in 2015. His major subjects of instruction are Very Large Scale integration (VLSI), Electronic Circuit Designs and Optical Communication System Devices. His major focus of research is on designing and optimization of AlGaN/GaN based HEMTs high power amplifiers.

Hina Gohar
Lecturer,
hina.gohar@buitms.edu.pk

Hina is Lecturer at Electrical Engineering department. She received her MS in Electronic Engineering from Ghulam Ishaq Khan Institute in 2015. Her research work focuses on Power Electronic Converters, Solar Charge Controller, Linear Control System and Optimal Maximum Power Point Tracking.

Hina Gohar
Lecturer,
hina.gohar@buitms.edu.pk

Hina is Lecturer at Electrical Engineering department. She received her MS in Electronic Engineering from Ghulam Ishaq Khan Institute in 2015. Her research work focuses on Power Electronic Converters, Solar Charge Controller, Linear Control System and Optimal Maximum Power Point Tracking.
Mohsin is Lecturer at Electronic Engineering. He is serving BUITEMS since January 2015. He received his BS from BUITEMS in 2013 with distinction and is currently enrolled as MS student in Electronic Engineering BUITEMS.

Mohsin Habib  
Lecturer,  
mohsin.habib@buitms.edu.pk

Awais Bin Iqbal received his B.E (Hons) from NED University of Engineering and Technology Karachi in 2013. Currently he is serving as Lecturer at the department of Electronics Engineering.

Awais Bin Iqbal  
Lecturer,  
awais.iqbal@buitms.edu.pk

Babar Ali is Lecturer in department of Electronic Engineering. He received his BS degree in Electronics Engineering from BUITEMS in 2013. He joined BUITEMS in January 2015. He is currently enrolled in the MS (Electronic Engineering) at BUITEMS. He is teaching subjects of Computer Architecture, Computer Organizations and Assembly Language, Microprocessors & Microcontrollers and Embedded Systems. He also has expertise in graphics designing and visual tools.

Babar Ali  
Lecturer,  
babar.ali@buitms.edu.pk

Engr. Ayub Tareen received his Bachelors in Electronic Engineering from BUITEMS and also an MBA (MIS) from Virtual University of Pakistan. He was appointed as Lecturer in the department of Electronic Engineering in December 2012. Before joining BUITEMS he served in different Telecommunication Regulation, Vendor, and Operator related organization in Province Balochistan. He has vast experience in CDMA IS-95, CDMA-2000, CDMA EVDO, GSM, NGN, Access Network, STP, SS7, Telecommunication Performance Management, and Telecommunication Signaling.

Muhammad Ayub Tareen  
Lecturer,  
Muhammad.Ayub@buitms.edu.pk

Muhammad Bux received his Bachelors in Telecommunication Engineering from Mehran University of Engineering & Technology Jamshooro (MUET) in 2008. He joined BUITEMS in November 2009 as Lecturer in the department of Telecommunication Engineering.

Muhammad Bux  
Lecturer,  
muhammad.bux@buitms.edu.pk

Engr. Hamayoun Shahwani received his Bachelors in Telecommunication Engineering from BUITEMS in 2010. He joined BUITEMS in 2011 as Lecturer in the department of Telecommunication Engineering.

Hamayoun Yousaf Shahwani  
Lecturer,  
hamyoun.yousaf@buitms.edu.pk

Paend is Lecturer in the department of Telecom Engineering. He is currently doing his MS telecom Engineering from BUITEMS. He has professional experience of working in Wateen telecom in optical fiber cable department.

Muhammad Paend Bakht Buzdar  
Assistant Professor,  
Muhammad.paend@buitms.edu.pk

Engr. Raza Ali is Lecturer in department of Telecommunication Engineering, BUITEMS. His research interests include Communication System, Signal Processing and Network Security.

Raza Ali  
Assistant Professor,  
raza.ali@buitms.edu.pk
Malghalara Kakar
Lecturer,
Malghalara.Kakar@buitms.edu.pk

Malghalara Kakar is Lecturer in Telecommunication Engineering department. She did her Bachelor’s in Telecommunication Engineering from BUITEMS in 2009. She joined BUITEMS in 2013. Her subjects of interest include Wireless Communication, Telecommunication Networks, Data Communication and Security Management.

Engr. Muhammad Shoaib Ali
Lecturer,
muhhammad.shoaib@buitms.edu.pk

Engr. Muhammad Shoaib Ali received his Bachelor’s in Telecommunication Engineering from BUITEMS in 2009. He did his Masters in Electrical Engineering specialization in Communication from UET Lahore. He was appointed as Lecturer in the department of Telecommunication in 2013.

Adil Israr
Assistant Professor,
adil.israr@buitms.edu.pk

Engr. Adil Israr earned his Bachelor’s degree in Telecommunication Engineering from BUITEMS in 2009 with distinction. He joined BUITEMS in January 2010 as Lecturer in the department of Telecommunication Engineering. Now he is doing Master of Science in Telecommunication Engineering.

Waleed Bin Qaim
Lecturer,
waleed.qaim@buitms.edu.pk

Waleed is Lecturer in Telecommunication Engineering department serving BUITEMS since 2015. He received his BS(Telecom) from FAST-NUCES in 2011 with distinction. After graduation he served as Assistant Manager in Pakistan Telecommunication Company Limited for 3 years in the Optical Fiber Systems Department. He is currently enrolled in MS (Telecommunication Engineering) program in BUITEMS and his research area spans Wireless Sensor Networks and Optical Communication.

Syed Tariq Shah
Lecturer,
syed.tariq@buitms.edu.pk

Engr. Tariq received his Bachelor’s in Telecommunication Engineering from BUITEMS. He joined BUITEMS in January 2010 as Lecturer in the department of Telecommunication Engineering. He is currently pursuing his Ph.D degree at Sungkyunkwan University, Korea.

Rabia Qadar
Lecturer,
rabia.qadar@buitms.edu.pk

Rabia Qadar received her BS degree in Telecommunication Engineering with distinction from BUITEMS. In 2015, she joined the department of Telecommunication Engineering as Lecturer. Her research spans underwater Wireless Optical Communication Systems, Optical Fiber Communication and Probability Theory.

Mehmood Alam
Lecturer,
Mehmood.alam@buitms.edu.pk

Mehmood Alam is Lecturer of Telecommunication Engineering and his research centers on Communication Systems. He studies to reduce the interference and scarcity of resources while communicating between two cell phones without traversing the Base Station. He has been involved in the designing and implementation
Bushra Naeem completed her Bachelor’s degree in Telecommunication Engineering from BUITEMS in 2009. She received her Master’s degree in Engineering and Management from the University of Exeter, United Kingdom in 2010. She completed her PhD from Universiti Teknologi Malaysia in April 2016. She is a Lecturer at BUITEMS since 2011. Her subjects of interest include Wireless Communications, Heterogeneous Networks, Cognitive Radios, 5G. She has published various scientific papers and attended high-end international conferences. She is a registered member of Pakistan Engineering Council and IEEE.

Bushra Naeem
Assistant Professor,
Ph.D., Universiti Teknologi Malaysia
bushra.naeem@buitms.edu.pk

Engr. Imran received his Bachelor’s in Electronic Engineering from Mehran University of Engineering & Technology, Jamshoro, Sindh in 2007 with a distinction. He joined BUITEMS in November 2007 as Lecturer in Department of Electronics Engineering. He received his Master’s from NUST University in 2012, and currently he is on study leave to pursue his PhD from USA.

Imran Qureshi
Assistant Professor,
engr.imran@buitms.edu.pk

Muhammad Abbas received his MS in Electrical Engineering from Linnaeus University, Sweden in 2012 with specialization in Signal Processing and Wave Propagation. He did his BE in Electronic Engineering from UET, Peshawar (2008). His research interest is in Image Processing.

Muhammad Abbas Khan
Assistant Professor,
Muhammad.Abbas@buitms.edu.pk

Engr. Mehr Gul Buzdar is appointed as Lecturer in BUITEMS in Electrical Engineering department in 2012. He received his Bachelor’s from Bahauddin Zakriya University, and his Master’s from Mehran University of Engineering and Technology, Jamshoro. Currently he is on study leave & pursuing his PhD from China.

Mehr Gul Buzdar
Assistant Professor,
mehr.gul@buitms.edu.pk

Sara is Lecturer in Department of Electrical Engineering in BUITEMS. She joined BUITEMS in 2015. She received her MS in Electrical Engineering from College of Electrical and Mechanical Engineering NUST Islamabad in September 2014 and Bachelor’s in Electronic Engineering from BUITEMS in 2008. Her research work is a combination of Signal Processing and Control Systems. Her research work also includes optimization of different frame works using evolutionary algorithms, MIMO OFDM and Adaptive Signal Processing.

Sara Ayub
Assistant Professor,
sara.ayub@buitms.edu.pk

Mehdi is Assistant Professor at the Department of Electrical Engineering. He has worked with national grid company, NTDCL, in the field of Power Transmission Planning, Load Forecasting and Generation Planning. His research interest includes, Power System Analysis, System Stability & Control, Integration of Renewable Resources to Power System.

Muhammad Mehdi
Assistant Professor,
mohammad.mehdi1@buitms.edu.pk

Kalsoom Baloch is Lecturer in the Department of Electrical Engineering. Her areas of interest includes Power Generation, Transmission and Distribution, Control System, Communication and Networking.

Kalsoom Baloch
Lecturer,
kalsoom.baloch@buitms.edu.pk
Muhammad Waleed Raza
Lecturer,
mohammad.waleed@buitms.edu.pk

Waleed Raza received his Bachelors from University of Engineering & Technology, Taxila in 2014. He joined BUITEMS as Lecturer in the department of Electrical Engineering in January 2015. His area of interest includes High Voltage Transmission and he is pursuing his MS from BUITEMS.

Muhammad Zia Javed
Lecturer,
mohammad.zia@buitms.edu.pk

Muhammad Zia Javed is currently serving as Lecturer in the Electrical Engineering department. He received his Bachelors from University of Engineering & Technology, Lahore in 2012. His field of interest is Embedded & Control System.

Muzamil Hussain
Lecturer,
muzamil.hussain@buitms.edu.pk

Muzamil Hussain is currently serving as Lecturer in the Electrical Engineering department. He did his Bachelors from Quaid-e-Awam university Nawabshah in 2009. His field of interest is Power Transmission Lines.

Atiq Ur Rehman
Assistant Professor,
Attique.rehman@buitms.edu.pk

Atiq Ur Rehman is currently serving as a Lecturer in the Electrical Engineering department at BUITEMS. He received his B.Sc. in Electrical Engineering from University of Engineering and Technology, Peshawar in 2009. He got MSc. Degree in Electrical Power Engineering from University of Engineering and Technology, Peshawar. His main research interests include Renewable Energy Resources and Power Generation.

Abdullah Khan
Lecturer,
abdullah.khan1@buitms.edu.pk

Abdullah Khan did his MS Electrical Communication Engineering (ECE) with emphasis on Opto-Electronics and Nano-Technology, from University of Kassel, Germany in 2013. He did his BE Electrical Engineering from Balochistan University of Engineering & Technology Khuzdar, Pakistan.

Ishtiaq Marwat
Lecturer,
ishtiaq.ahmed@buitms.edu.pk

Ishtiaq Marwat is serving as Lecturer in Electrical Engineering department. He has six years teaching experience in the field of Electrical Power Engineering. His work focuses on Electrical Machines and Power Distribution & Utilization.

Abdul Rehman
Assistant Professor,
abdul.rehman1@buitms.edu.pk, rehmanquetta@yahoo.com

Abdul Rehman is Lecturer at Information Technology. His research areas are: HCI, Usability, VANET & Expert systems. His current work focuses on improving website usability.

Mehmood Baryalai
Assistant Professor,
mehmood.baryalai@buitms.edu.pk

Baryalai is Assistant Professor in the department of Information Technology. His research centers on high-throughput, highly-available software applications and computing services. His current work focuses on mining sentiments in social media technologies. Currently he is on study leave to pursue his Ph.D. from New Zealand.
Fazal Muhammad
Lecturer,
fazal.Mohammad@buitms.edu.pk
Fazal Muhammad received his Bachelors in Electrical Engineering from BUETK. He is Lecturer in Electrical Engineering department at BUITEMS. His fields of interest are Power Generation and Power Protection.

Syed Attique Shah
Assistant Professor,
attique.shah@buitms.edu.pk
Syed Attique Shah is working as Assistant Professor in department of IT. He received his Bachelor and Masters degree in Information Technology from BUITEMS with distinction in 2010 and 2013, respectively. He is currently pursuing his PhD from Istanbul Technical University in Geographical Information Technologies. His research area includes Security issues in Cloud Computing, Information Technology Infrastructure Library, Geo Data policies and Geo Data standards.

Irfan Ahmed Magsi
Lecturer,
irfan.ahmed@buitms.edu.pk
Irfan Ahmed Magsi received his Bachelors degree in Information Technology from Quaid-e-Awam University for Engineering, Science & Technology (QUEST) Nawabshah in 2009. He joined BUITEMS in October 2010 as Lecturer in the department of Information Technology.

Ayesha Iftikhar
Lecturer,
Ayesha.Iftikhar@buitms.edu.pk
Ayesha is Lecturer at the department of Information Technology. She is currently pursuing her MS degree in Information Technology from BUITEMS. Her research interests lie under the domains of Cognitive Radios, Distributed Systems, Information Security, Technology Management and IT Infrastructure Management.

Raja Asif Wagan
Assistant Professor,
raja.asif@buitms.edu.pk
Raja Asif received his Bachelors in Computer Science from University of Sindh in 2005. He joined BUITEMS in April 2007 as Lecturer in the department of Information Technology. He did his MS in Information Technology from University Utara Malaysia and recently he has been appointed as Assistant Professor in Department of Information Technology.

Ayesha Abdul Majeed
Lecturer,
ayesha.majeed@buitms.edu.pk
Ayesha Abdul Majeed is Lecturer at Information Technology department. She received her Bachelors in Information Technology from BUITEMS with distinction. Her research interests include Mobile Computing, Cloud Computing, Distributed Systems.

Akram Khan
Assistant Professor,
engr.akram@buitms.edu.pk
Akram received his Masters in Software Engineering from Hamdard University, Karachi. He did his Bachelors in Computer Engineering from BUITEMS in 2007. His area of interest include Distributed Systems, Software Project Management and Software Systems Security.

Adnan Ali Memon
Lecturer,
Adnan.Ali@buiems.edu.pk
Engr. Adnan Ali received his Bachelors in Software Engineering from Mehran University of Engineering and Technology, Jamshoro in 2009. At present, he is working as Lecturer in Software Engineering department.
Syed Muhammad Junaid Hassan is Lecturer at the Information Technology department. His research centers on the shortest path algorithms, their complexity, and their implementation in the real world context.

Mohammad Imran joined BUITEMS as Lecturer at the department of Information Technology, in January 2015. He received his Bachelors in Information Technology from the University of Balochistan, Quetta, in 2013. His research interests include Semantic Web and Mobile Application Development.

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Zubair Zaland Kasi received his BS (Software Engineering) from SZABIST Islamabad, in 2010 and MS in Mobile Computing from University of Bedfordshire, Luton, United Kingdom in 2012. He is currently appointed as Assistant Professor in the department of Software Engineering. His areas of interest includes Web Designing, Desktop, Web and Mobile Development, Information Security, and Cryptography.

Bushra Haq received her MS degree in Computer Science from BUITEMS in 2007. Her thesis was on Intrusion detection system (IDS). She joined BUITEMS in October 2014 as a Lecturer in the Department of Computer Sciences. Her area of interest includes Databases and Distributed Computing.

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Support: We care for our students

Support to the students in every possible way is central to BUITEMS in general and FICT in particular.

The BUITEMS Advantage: A supportive environment

We take your career seriously, so we work to incorporate the qualities and abilities that employers require from your experience at the university, whether you’re studying, volunteering, playing sport or taking part in work placement programs. The University has various services and a number of people to look after your academics and personal well-being, and support you throughout your time at BUITEMS. The hierarchy of support goes like this:

**Class counselor**
Class counselor is your first stop when you need any assistance. At FICT every class has a class counselor whose duties include supporting and helping students of his or her class in all kinds of academic and non-academic issues. They:
- advise you on your subjects
- sometimes arrange supervisors for you
- help you in planning your progress

**Departmental focal person**
Every department has one focal person (also called CMS focal person) who is responsible for course registrations/enrollments, student records, results and all other issues related to the automated Campus Management Solution (CMS).

**Chairperson’s office**
The Chairperson’s office is available for assistance in case you need assistance beyond the class counselor and the focal person’s responsibility. The Chairperson and staff are available during the office hours to listen to your problems. The office can also be accessed via email and telephone. The counselor and focal person may themselves consult the Chairperson’s office to resolve your problem or query. The Chairperson and his or her office are always there to provide you full support with a smile.
with a smile and can advise you on academic, personal or financial matters.

**Faculty Coordinator**
The Faculty Coordinator overlooks the academic and non-academic matters at the overall level of the Faculty of Information and Communication Technology. Occasionally, you might need to consult the Faculty Coordinator in case the Chairperson's office refers your request / problem further. One-to-one consultations can be scheduled to discuss to plan a successful learning and all kinds of issues can be advised by the coordinator.

**Dean's office**
The Dean's office is the highest office at the Faculty of Information and Communication Technology. Characterised by instant support with smile, the office sows and spreads courtesy and student support throughout the FICT. The office assists students in resolving problems that require the help of the Registrar's office, the Finance section and the office of Controller of Examinations, when the problem cannot be resolved at the Chairperson's and the Faculty Coordinator's office.

**International Students Coordinator**
Programs offered at FICT have been popular among the international students hailing from diverse nationalities. FICT has an International Students Coordinator dedicated to help the international students at the faculty. The international students coordinator helps students with a wide range of general assistance and support on issues that relate to international student admissions, cultural adjustment, academics, community relations, and campus-wide assistance.

**Disabled students**
BUITEMS extends extra support to students with disabilities. The infrastructure at BUITEMS is developed keeping in consideration the needs of disabled students. The building facilities of FICT have the necessary access features for disabled students. Students with a specific learning difficulty, physical/mobility or visual impairments are fully facilitated; when needed, the instruction and evaluation are also adapted to the needs of disabled students.

**Financial support**
We boast with our financial support at BUITEMS where every third student receives financial assistance in the form of scholarships and fee waivers. The students receive scholarships and fee waivers under a wide range of programs. The assistance is provided from our own resources as well as with the support of our friends including the USAID, PPL and many more. BUITEMS also offers the work and study program that not only supports students with full fee waiver but also provides an exposure to work environment; thus providing the opportunity of learning about practical life during their academic journey. The office of financial assistance at BUITEMS lets you know more about the financial support available at BUITEMS.

**Career services**
We want you to be a success, both now and in the future. From the moment you arrive at BUITEMS, we can help you to enhance your CV, build your experience, and network with potential employers. The mission of BUITEMS Career Unit is to provide advice, services, programs, resources, to empower the students and alumni throughout their career development journey. We provide opportunities to assist our students in decision making, identifying skills, interests, and values to discover meaningful professional experiences. We partner with potential employers for internship and job opportunities. We offer:

- Career Assessment
- Career Advising /Counseling
- Workshops and Panels
- Job Listing/Job Placement
- Mock Interviews with Feedback
- On-Campus Interviewing/Recruitment
- Internship Program
- Career Fairs

Further information

**Career Support Team**

- 081-2880511
- imran.khan@buitms.edu.pk
- www.buitms.edu.pk
This is all possible because the culture at BUITEMS encourages thinking big and fearless pursuit of grand challenges. Another factor that sets BUITEMS apart from other research universities is the harmonious, highly collaborative environment among the faculty that fuels the university. The challenging research goals at BUITEMS are continuously accomplished through funding from BUITEMS and with the support of national and international agencies who share a passion for great ideas, courageous thinking and a desire to shape the future to come. With the courage and passion of the people at BUITEMS and with the help of friends, BUITEMS will achieve its greatest aspirations to become the technological research university of the twenty first century.

Office of Research, Innovation and Commercialization

To manage the enthusiastic and comprehensive research objectives, BUITEMS has established a central Office of Research, Innovation, and Commercialization (ORIC). ORIC has become a pivotal entity to promote research in the university and is assisting researchers within the university to think the unthinkable research solutions and seek national and international funding for their endeavors. Through ORIC, BUITEMS is also encouraging its researchers by providing them incentives to publish quality research work in the most reputable research journals worldwide.
Travelling to BUITEMS

Quetta is the capital of the province of Balochistan. Being one of the important cities of Pakistan, Quetta is easily accessible by all modern means of transportation.

By car/bus
If you are planning to travel to Quetta via road, you can take the major national highway connecting to Quetta. The city is connected to Karachi at a distance of 686 km via the national highway N25. Quetta is connected to Lahore at a distance of 935 km via N70 and N5 and 980 km via N50. The distance between Quetta and Islamabad is 911 km via N50. The distance between Quetta and Peshawar is 835 km via N50 and N55. All major bus service companies provide service to Quetta from all major cities of the country.

By air
BUITEMS is located at a distance of 3 km from Quetta International Airport. The airport, through many national and international carriers, provides a round the clock connection to other major cities of Pakistan and abroad.

By train
Quetta Railway Station is one of the major railway stations in the country. The railway track was laid in the 1890s during the British era to link Quetta with rest of the country. The extensive network of Pakistan Railways connects Quetta to Karachi in the south, by a 863 km track, Lahore in the northeast (1,170 km) and Peshawar further northeast (1,587 km). Regular train service of Pakistan railways connects Quetta to the rest of the country.

<table>
<thead>
<tr>
<th>Distance to BUITEMS</th>
<th>Distance</th>
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<tbody>
<tr>
<td>Karachi</td>
<td>686 km</td>
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<td>Islamabad</td>
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<td>Hyderabad</td>
<td>712 km</td>
</tr>
</tbody>
</table>
Mohammad Umer is working as an Assistant Professor in the Electronic Engineering department. He previously worked as Vice Principal in Baluchistan Residential College Khuzdar. Since May 2011, he has been working at BUITEMS. His field of specialization is "Deep Level Defects in Semiconductors." He teaches Electromagnetic Field Theory, Electronic Devices, Basic Electrical Engineering, and Physics.
Credits

Editorial
Rabia Qadar
Mudassir Hussain
Faisal Ahmad Khan
Bakhtiar Khan Kasi

Design
Babar Ali
Mudassir Hussain
Faisal Ahmad Khan

Illustrations and Photography
Shoaib Ali
Gulzar
Muhammad Ayub
Mudassir Hussain
Babar Ali
Please note
Every effort has been made to ensure the accuracy of the information in this Prospectus at the time of printing. However, changes and developments continually occur at the University and alterations may occur to fees, courses, staff and services described in this Prospectus. Please refer to the website (www.buitms.edu.pk) for, relatively, updated information.

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