

## **INFORMATION FOR APPLICANTS**

We welcome you as an aspirant to join the Department of Electronic Engineering for undergraduate studies. We hope that this will provide pertinent information required to make that crucial decision about where to study.

We firmly believe that choosing to study at the Electronic Engineering Department will be one of the best decisions you'll ever make.

### **WE ARE**

- Enabling today's top students to become tomorrow's leading professionals
- Consistently heading the ranking lists in Sindh province and maintaining a high profile at home and abroad. A team of well reputed & highly skilled professional faculty & training staff.

## **INTRODUCTION OF ELECTRONIC ENGINEERING DEPARTMENT:**

The Department of Electronic Engineering was established in February 1999. The first batch of 70 students was admitted during the 1999-2000 Academic session. The student intake has now doubled to 140 from the 2001-2002 academic session.

At Undergraduate Level, the Department is offering B.E. Degree in Electronics, B.E. Degree in Telecommunications and at Post Graduate level, the Department is offering Master of Engineering Degree in Electronics in Evening Program.

### **Facilities:**

Department Of Electronic Engineering maintains several well equipped laboratories for basic & advance Electronics & Telecommunications courses.

#### **Laboratories for B.E Electronic:**

1. VLSI Laboratory.
2. DSP (Digital Signal Processing).
3. A & O (Amplifiers & Oscillators) Lab.
4. PLC (Programmable Logic Controller Laboratory.)
5. PCB (Printed Circuit Board) Lab.
6. Digital Electronic Laboratory.
7. I.C (Integrated Circuits Laboratory.)
8. I.E.P.E (Industrial & Power Electronic)
9. B.E.L (Basic Electronics Laboratory.)
10. EDC (Electronic Devices & Circuits Laboratory.)
11. Computer Laboratory.

#### **Laboratories for B.E Telecomm:**

1. Advanced Telecommunications Laboratory
2. Microwave & Radar Laboratory
3. Radio Engineering Laboratory
4. Telematics Laboratory
5. Optical Fiber Communications Laboratory
6. PHS/WLL Laboratory
7. Computer Laboratory

### **Other Facilities:**

1. Departmental Library.
2. Multimedia Projector & Over head Projector.
3. Internet Facility.
4. Licensed Electronic & Telecomm: Engineering Software's.

## **Courses offered by the Electronic Engineering Department**

### **First Year**

Electronic Engineering Drawing & Workshop  
Basic Electronics  
Basic Electrical Engineering  
Introduction to Computer Engineering Mechanics  
Applied Thermodynamics  
Applied Physics  
Applied Chemistry  
Calculus  
English  
Pakistan Studies OR  
Pakistan Studies (for Foreigners)

### **Second Year**

Electronic Devices & Circuits  
Amplifiers & Oscillators  
Programming with C Language  
Circuit Theory-I  
Instrumentation & Measurement  
Electrical Machines  
Electromagnetic Fields  
Logic Design & Switching Theory  
Linear Algebra & Ordinary Differential Equations (B)  
Complex Variable & Fourier Analysis  
Islamic Studies OR  
Ethical Behavior

### **Third Year**

Analog Integrated Circuits  
Digital Integrated Circuits  
Power Electronics

Industrial Electronics  
Electronics in Bio-Medical Engineering  
Circuit Theory-II  
Communication Systems-I  
Computer Architecture and Organization  
Applied Probability & Statistics  
Engineering Economics  
Business Communication & Ethics

### **Final Year**

Electronic Engineering Project  
Solid State Devices  
Linear Control Systems  
Opto Electronics & Microwave Systems  
VLSI System Design  
Communication Systems-II  
Digital Signal Processing  
Microprocessor & Assembly Language  
Computer Communication Networks  
Numerical Methods

## **Courses offered in the Telecommunications Engineering**

### **First Year**

Fundamentals of Electrical Engineering  
Basic Electronics  
Fundamentals of Computer Engineering  
Engineering Surveying  
Basic Mechanical Engineering  
Engineering Drawing  
Applied Physics  
Applied Chemistry  
Calculus  
English  
Pakistan Studies  
Pakistan Studies (for Foreigners)

### **Second Year**

Circuit Theory  
Amplifiers & Oscillators  
Programming with C Language  
Instrumentation  
Electrical Machines  
Electromagnetic Fields  
Computer Architecture & Organization  
Complex Variable & Fourier Analysis  
Linear Algebra & Ordinary Differential Equations  
Digital Electronics  
Islamic Studies OR  
Ethical Behavior

### **Third Year**

Antenna and Microwave Engineering  
Electric Filters  
Digital Signal Processing  
Communication Systems  
Microprocessor and Assembly Language  
Communication Electronics  
Navigational Aids & Radar Systems  
Feedback Control System  
Probability and Statistics  
Engineering Economics  
Business Communication & Ethics

### **Final Year**

Digital Communication and Information Theory  
Satellite Communication  
Wireless & Mobile Communication  
**OPTIONAL COURSE:**  
(a) Telecommunications Switching Systems OR  
(b) Multimedia Communication  
Telecommunications Management Network  
Optical Fiber Communication  
Computer Communication Networks  
Internet Computing  
Numerical Methods  
Telecommunications Engineering Project

## Career Prospects:

The graduates have been successful in securing good job positions in local & multinational industries and in attaining admission for Master's program in the country & abroad.

and to invent completely new devices. Here at Department Of Electronic Engineering, we believe in understanding fundamentals of our subject, as well as working at the forefront of technology development.



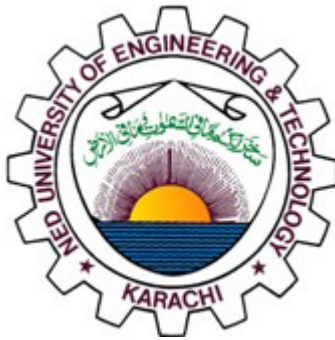
## Final Note:

Engineering and more so Electronics & Telecomm: Engineering are an exciting field to study and lead to promising career opportunities.

Electronic & Telecommunication Engineering is at the heart of all modern technology, with electronic devices being incorporated into everything from hand tools and washing machines to palmtop, laptop, desktop, mainframe and super-computers, from fixed and mobile communication systems to entertainment systems, medical diagnostics... the list is almost endless. Electronic & Telecomm Engineers use their ingenuity and skills to design, develop and build such products,



**DEPARTMENT OF  
ELECTRONIC  
ENGINEERING**



**NED UNIVERSITY  
OF ENGINEERING  
& TECHNOLOGY,  
KARACHI.**

**For Further Information**

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