## Course

#### **Breakdown**

To obtain the B.Sc. degree in EEE, students will have to successfully complete minimum 140 credits. The credit and course requirement for the EEE degree program is shown in the table below

Course Type	Courses	Credit
General Education (GED) Courses	8	24
Essential Skills	4	0
Major Core	17	66
Basic Science	2	8
Mathematics and Statistics	5	15
Major Concentration	4	14
Minor / Optional	3	9
Final Year Project	1	4
Total	44	140

#### Co- and Extra-Curricular Activities

The EEE Department regularly organizes seminar, webinar, workshop, project fair, EEE Fest, industry visit, excursion, picnic, sports week etc in collaboration with ULAB Electronics and Robotics Club, IEEE Robotics and Automation Society, IEEE WIE. Resource persons from industry and academia both from home and abroad share their knowledge, expertize and experiences with the students.

#### Outcome-Based Education (OBE) Curriculum

The EEE program started Outcome-Based Education curriculum since Fall 2020. In this curriculum 12 Program Outcomes of BAETE (Board of Accreditation for Engineering and Technical Education), IEB, have been adopted.

## **Job Prospects**







#### CAMPUS

688 Beribadh Road, Mohammadpur, Dhaka-1207, Bangladesh Phone: +88-02-223328001-6 Web: www.ulab.edu.bd

#### ADMISSIONS

Mobile: 01730 082197, 01713 091936, 01714 161613, 01405 310787



# DEPARTMENT OF **ELECTRICAL & ELECTRONIC ENGINEERING (EEE)**













# Statement of **Identity**

#### **Vision**

The Department of Electrical and Electronic Engineering is focused on producing high-quality graduates and researchers with excellent analytical skills and social values to become globally competitive.

### **Mission**

The Department of Electrical and Electronic Engineering will offer high-quality education through updated curriculum and state-of-the-art laboratory facilities in Electrical and Electronic Engineering on major areas including Electronics, Power, Communication and Computer with a view to producing competent graduates for both industry and academia.

Contribute to the engineering profession and devote to the welfare of society by adopting an array of contemporary and innovative service activities through liberal arts perspective

## **Core Courses**

EEE 1101	Electrical Circuits I	3
EEE 1102	Electrical Circuits I Lab	1
EEE 1203	Electrical Circuits II	3
EEE 1204	Electrical Circuits II Lab	1
CSE 1203	Structured Programming	3
CSE 1204	Structured Programming Lab	1
EEE 1301	Electronic Circuits I	3
EEE 1302	Electronic Circuits I Lab	1
EEE 2103	Electronic Circuits II	3
EEE 2104	Electronic Circuits II Lab	1
EEE 2205	Electrical Machines I	3
EEE 2309	Electrical Machines II	3
EEE 2310	Electrical Machines Lab	1
EEE 2313	Signals and Systems	3
EEE 2216	Numerical Techniques Simulation Lab	1
EEE 2301	Digital Electronics	3
EEE 2302	Digital Electronics Lab	1
EEE 3103	Digital Signal Processing	3
EEE 3104	Digital Signal Processing Lab	1

EEE 3105	Electrical Properties of Materials	3
EEE 3109	Communication Systems	3
EEE 3110	Communication Systems Lab	1
EEE 3207	Power System I	3
EEE 3208	Power System I Lab	1
CSE 3209	Data Communication and Computer Networks	3
CSE 3210	Data Communication and Computer Networks Lab	1
EEE 3311	Microprocessors and Embedded Systems	3
EEE 3312	Microprocessors and Embedded Systems Lab	1
EEE 3316	Electrical Service Design Lab	1
EEE 4103	Control System I	3
EEE 4104	Control System I Lab	1
EEE 4196	Final Year Capstone Project	4

# **EEE Concentration Group**

- I. Electronics Concentration
- II. Communication and Signal Processing Concentration
- III. Power Concentration
- IV. Smart Systems and IoT Concentration

# Scholarships and Financial Aid

ULAB provides approx. 15 crore taka every year as scholarships and financial aid in different categories.

## **Highlights** of the EEE Department

- IEB Accredited.
- About 75% Faculty members are PhD holders.
- Faculty expertise and research networks in the field of Power System and Smart Grid, Renewable Energy, Electric Vehicles, Machine Learning, Internet of Things (IoT), Signal and Image Processing, VLSI, Electronics and Antenna Engineering.
- State-of-the-art Laboratory including government funded IoT Lab (1st independent IoT Lab among all private universities).
- Strong industry-academia collaboration.
- Regular workshops, seminars, and technical talks by industry and academic experts from home and abroad.
- Regular industry visits and internships at renowned public and private organizations.
- Research collaborations with foreign universities.
- Credit transfer facilities to foreign universities

## **IEB** Accreditation

 The EEE Department received prestigious IEB accreditation in February 2023.

### **EEE Lab Facilities**

The EEE department emphasizes on students to gain hands-on experience to facilitate industry exposure, and to understand the demand of real life and possess the ability to tackle real life problems through the knowledge acquired at ULAB. The department has enriched laboratory facilities equipped with modern hardware and software facilities.





Electrical Circuit Lab

Electronics Lab Communication







VLSI Lab

Physics Lab

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Machine Lab



Power System Protection Lak







Internet of Things (IoT) Lab



Power System Lab

# **Faculty** Information



The EEE department has excellent faculty members who hold both Ph.D. and M.Sc. degrees obtained from around the world. There are Professors. Assistant Professors, Senior Lecturers, and Lecturers in the department. While the department boasts of

its extremely promising junior teachers, the number of senior Professors in the department is significantly and satisfactorily high. Both the faculty members and students have easy access to a range of electronic journals, including IEEE, Science Direct, and Springer.