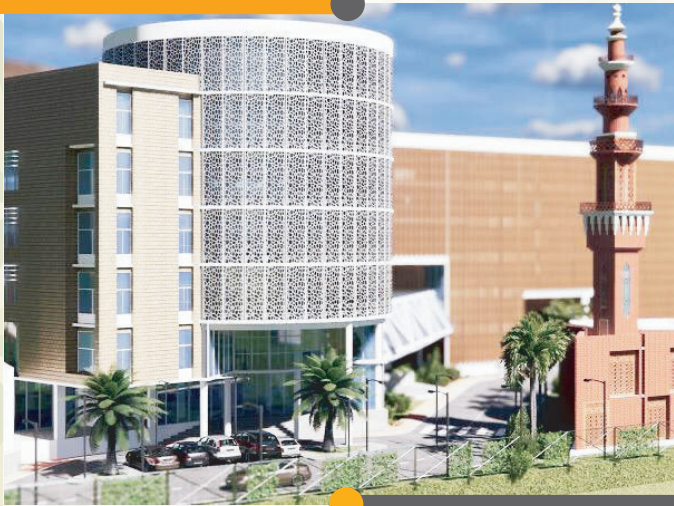


EEE-337	Biomedical Instrumentation
EEE-338	Biomedical Instrumentation Lab
EEE-419	Analog Integrated Circuits
EEE-421	VLSI I
EEE-422	VLSI I Lab
EEE-429	Solid State Devices
EEE-437	VLSI II
EEE-438	VLSI II Lab
EEE-439	Optoelectronics

Computer group (any 5 courses-15 credit hours)

CSE-223	Operating Systems
CSE-224	Operating Systems: Lab
CSE-231	Database Management System
CSE-232	Database Management System: Lab
CSE-311	Computer Networks
CSE-312	Computer Networks: Lab
CSE-333	System Analysis, Design and Development
CSE-335	Management Information System
CSE-337	Object Oriented Software Development Using UML
CSE-338	Object Oriented Software Development Using UML: Lab
CSE-415	Microprocessor System Design
CSE-416	Microprocessor System Design Lab
CSE-413	Real Time Computer System
CSE-425	Computer Architecture
CSE-435	Multimedia Communications



Credit Transfer

Credit transfer to Universities in the USA, the UK, Australia, New Zealand, Canada and many other European Universities is available for our undergraduate & graduate programmes.

04 February 2021

Faculty Members

- ▶ **Prof. Dr. Abdul Rob**
B.Sc. (Hons.), Ph.D (Biochemistry), Sheffield Hallam University, UK
- ▶ **Prof. Dr. Abdul Hoque**
B.Sc. (Hons.), Metallurgy, Ph.D (Material Science), Sheffield Hallam University UK
- ▶ **Dr. A.S.M. Iftekhar Uddin**
B.Sc. (CCE), IIUC
M.Sc. leading Ph.D (Electrical Engineering) University of Ulsan, South Korea
Associate Professor
- ▶ **Miah Md. Asaduzzaman**
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Assistant Professor
- ▶ **Kazi Wohiduzzaman**
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Assistant Professor
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B.Sc., M.Sc. (Physics), SUST
Ph.D (in progress), Canada

EEE B.Sc. (Engg.) in Electrical and Electronic Engineering



মেট্রোপলিটন ইউনিভার্সিটি
Metropolitan
UNIVERSITY

Founder & Chairman

Dr. Toufique Rahman Chowdhury

Vice Chancellor

Professor Md. Saleh Uddin PhD



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General Information

The waves of Globalisation of knowledge, its expansion and dissemination have brought about a radical shift in the concept of University. A further shift is registered in dismantling the age-old notion that the state alone is to shoulder the burden of tertiary education and accommodating the private universities to share this national duty, of course, without making any compromise in academic excellence and other matrices of university education is the call of the hour.

Metropolitan University joins this historic shift to bring quality university education at affordable cost to the doorsteps of the students. Under the leadership of Dr. Toufique Rahman Chowdhury, Founder Chairman, Board of Trustees and with the approval of the Ministry of Education under the Private University Act of 1992 (which was amended in 1998) Metropolitan University came into being on 3rd May 2003. Metropolitan University (MU) is situated in Sylhet, Bangladesh.

The Programme

The Bachelor of Science in Electrical and Electronic Engineering (B.Sc. in Electrical and Electronic Engineering) Programme at Metropolitan University is designed to offer an internationally recognized degree at undergraduate level. We have assembled a band of highly qualified and experienced faculty members reputed for delivering one of the best undergraduate Electrical and Electronic Engineering degree in Bangladesh.

The Bachelor of Science (B.Sc) in Electrical and Electronic Engineering program, designed by Metropolitan University plays a crucial and in fact, obligatory role in all fields of modern sciences. Electrical and Electronic Engineering has established itself as one of the most important branches of engineering. All the students of Electrical and Electronic Engineering are expected to have a balanced knowledge of digital electronics, computers, micro processors and programming. The new generation of electrical engineers is encouraged to undertake research and development activities in the above areas and this department is committed to the study and analysis of fundamental as well as applied problems. Problems in the fields of electric power generation, Transmission and distribution, high voltage transients, power system stability, economic operation of power systems, system planning, design. Throughout the study programmes, considerable emphasis is placed on the development of methodical procedure for analysis and design, and on the responsible use of technology.

Admission Requirements

- Students who have passed SSC and HSC or any equivalent Public Examination with at least two 2nd divisions or minimum GM 2.5 in each 15.00 scale) may apply for admission. Students who have minimum 2.00 in any one of SSC or HSC and a total of GPA 6.00 may also apply.
- For English medium students, minimum 05 subjects in O level and 02 subjects in A level examinations are required. At least Grade B or GPA 4.0 in four subjects out of the seven subjects and at least Grade C or GPA 35 in the remaining three subjects 1A=5.8=4, C=3, D=2 & E=1).
- The children of Freedom Fighters with a total of GPA 5.0 in both SSC and HSC or in equivalent Public Examination may apply for admission with Freedom Fighter Certificate of the Government.

Total Credit Hours	: 150
Programme Duration	: 4 Years
Total Terms	: 12 Terms (Each of 04 months)

List of Courses

English Courses

ENG-114	English Language I
ENG-115	English Language II

General Education Courses

GED-201	Bangladesh Studies
BBA-115	Functional Accounting
BBA-211	Business Communication
GED-202	History of Emergence of Bangladesh
GED-129	Functional Bangla
GED-221	Principles of Economics
GED-131	Introduction to Sociology
GED-213	Professional Ethics
GED-323	Industrial Management
GED-335	Public Administration
GED-337	Political Science

Basic Science Courses

PHY-111	Physics I
PHY-112	Physics: Lab
PHY-124	Physics II
PHY-126	Physics: Lab
CHE-213	Chemistry

Mathematics Courses

MAT-112	Differential and Integral Calculus
MAT-135	Matrices, CV & Fourier analysis
MAT-123	Differential Equations & Laplace transform
MAT-216	Geometry & Vector Analysis
STA-215	Basic Statistics & Probability

Computer courses

CSE-121	Structured Programming
CSE-122	Structured Programming Lab
MAT-235	Numerical Analysis
MAT-236	Numerical Analysis Lab

Other Engineering Discipline Courses (Any two courses-3.5 credit hours)

CHE-221	Chemical Process Principles
EGD-213	Engineering Drawing: Lab
MEG-213	Mechanical Engineering Fundamentals

Core Courses

EEE-121	Electrical Circuits I
EEE-122	Electrical Circuits I Lab
EEE-123	Electrical Circuits II
EEE-124	Electrical Circuits II Lab
EEE-131	Electronics I
EEE-132	Electronics I Lab
EEE-211	Electronics II
EEE-212	Electronics II Lab
EEE-213	Energy Conversion I
EEE-214	Energy Conversion I Lab
EEE-221	Energy Conversion II
EEE-222	Energy Conversion II Lab
EEE-225	Digital Electronics
EEE-226	Digital Electronics Lab
EEE-227	Engineering Electromagnetics
EEE-231	Continuous Signals and Linear Systems
EEE-232	Continuous Signals and Linear Systems Lab

EEE-233	Electrical Services Design
EEE-235	Electrical Properties of Materials
EEE-237	Communication Theory
EEE-238	Communication Theory Lab
EEE-300	Project
EEE-313	Power System I
EEE-314	Power System I Lab
EEE-315	Microprocessor & Computer Interfacing
EEE-316	Microprocessor & Computer Interfacing Lab
EEE-321	Control System I
EEE-322	Control System I Lab
EEE-311	Digital Signal Processing I
EEE-312	Digital Signal Processing I Lab
EEE-335	Measurement and Instrumentation
EEE-336	Measurement and Instrumentation Lab

Final year thesis/internship courses

EEE 400	Final Year Internship
EEE 401	Final Year Project

Power group (any 5 courses-15 credit hours)

EEE-411	Power System II
EEE-413	Energy Conversion III
EEE-415	Power Electronics
EEE-416	Power Electronics Lab
EEE-417	Power Plant Engineering
EEE-435	Renewable Energy Systems
EEE-427	Power System Protection
EEE-428	Power System Protection Lab
EEE-423	High Voltage Engineering
EEE-424	High Voltage Engineering Lab
EEE-425	Power System Reliability
EEE-431	Power System Operation and Control
EEE-433	Advanced Machines

Communication group (any 5 courses-15 credit hours)

ECE-411	Random Signals and Processes
ECE-413	Digital Signal Processing II
ECE-415	Microwave Engineering
ECE-416	Microwave Engineering Lab
ECE-419	Optical Fiber Communication
ECE-417	Advanced Digital Communication
ECE-418	Advanced Digital Communication Lab
ECE-421	Cellular Mobile & Satellite Communication
ECE-423	Telecommunication Engineering
ECE-425	Control System II
ECE-426	Control System II Lab
ECE-427	RF and Microwave Engineering
ECE-429	Data Communication
ECE-431	Remote Sensing Technology
ECE-432	Remote Sensing Technology: Lab
ECE-439	Wireless Communication
ECE-435	Broadband Communication Networks
ECE-436	Broadband Communication Networks : Lab
ECE-433	Digital Communication and Coding Techniques

Electronics group (any 5 courses-15 credit hours)

EEE-317	Robotics & Computer Vision
EEE-318	Robotics & Computer Vision: Lab
EEE-331	IC Processing and Fabrication Technology
EEE-333	Radio and Television Engineering
EEE-334	Radio and Television Engineering: Lab