# DEPARTMANT OF ELECTRICAL & ELECTRONIC ENGINEERING

# EEE





WORLD UNIVERSITY
OF BANGLADESH

#### World University of Bangladesh (WUB)

The University is approved and recognized by the Ministry of Education, Government of the People's Republic of Bangladesh and the University Grants Commission (UGC) of Bangladesh. It is a leading university for utilitarian education. The University has so far produced as many as 12000 graduates in its eleven departments covering twenty five programs. None of its degree holders are unemployed implying its commitment to offer up to-date and quality education.

The vision of the University is to create leaders who will make their brain the tiniest laboratory capable of making enormous contributions to economic emancipation and social well-being.

#### B.Sc. in Electrical and Electronic Engineering (EEE):

Electrical Department of Electronic Engineering offers four years B.Sc course in Electrical & Electronic Engineering. There is also programme for diploma engi-neers to become graduate engineers with waiver on certain The teachers of this subjects. department are experienced and dedicated. The laboratories are well equ-ipped and up to the mark The syllabus has been prepared with a view to create well educated and self-confident graduate engineers capable of serving the nation with up to date knowledge and technology in consultation with distinguished profes- sors of BUET IUT, Japan, America.

Besides normal Engineering subjects, special attention has been given to Power System (Generation, Transmission Distribution & Protection) Electrical Machines. Electronics Digital, Power), Communication System (Satellite, Mobile, Optical Fiber), Instrum-entation (Electrical, Elearonic & Bio-Medical), Microprocessor Application, Programmable Logic Controller, Digital Processing, VLSI design Engineering Management etc The teaching methods are constantly being monitored, syllabus is upgraded and laboratory facilities are expanded time to me to meet the demandsof the latest engineering requirements.

#### Objectives of EEE:

- \* Developing the competence in the practical application of the techniques and methods in Electrical and Electronic arena.
- \* Equipping candidates for a challenging career in the field cif Electrical and Electronic Engineering.

Credit Hours & Duration: Minimum 160 credit hours (duration4 years ).

**Admission Requirements:** 2nd division or GPA of 2.50 in S.S.C & H.S.C separatly or total GPA of 6.00 with minimum GPA of 2.00 either in S.S.C or in H.S.C or total GPA of 5.00 in S.S.C & H.S.C for wards of the freedom fighter or minimum 5' O Lebel, 2' A Level courses or equivalent. Diploma holders are also admitted with waiver of courses.





Diploma in Electronics, Electrical, Power, Refrigeration Engineering or related disciplines.

# Course Structure:

#### Semester 1:

Course Code	Course Name	Credit Hours
ENG 101	Functional English	3
PHY 102	Physics I	3
CSE 201	Introduction to Programming	3
CSE 202	Introduction to Programming Lab	1.5
BAN 320	Bangla Literature	2
MATH 308	Differential and Integral Calculus	3

#### Semester 2:

Course Code	Course Name	Credit Hours
EEE 203	Electrical Circuits -I	3
EEE 204	Electrical Circuits - I Lab	1.5
MATH 205	Statistics	3
HUM 205	Technical and Scientific Writing	2
BUS 220	Bangladesh Studies	2
MATH 305	Ordinary & Partial Differential Equation	3

#### Semester 3:

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Course Code	Course Name	Credit Hours
EEE 301	Electrical Circuits -II	3
EEE 302	Electrical Circuits - II Laboratory	1.5
EEE 303	Electronics I	3
EEE 304	Electronics I Laboratory	1.5
CHEM 306	Chemistry	3
CHEM 307	Chemistry Lab	1.5

#### Semester 4:

Course Code	Course Name	Credit Hours
EEE 403	Electrical II	3
EEE 404	Electrical II Lab	1.5
EEE 405	Electrical Machines I	3
EEE 406	Electrical Machines I Lab	1.5
MATH 407	Matrices and Vector Analysis	3
ECON 408	Engineering Economics	2

#### Semester 5:

Course Code	Course Name	Credit Hours
ME 501	Thermodynamics and Fluid Mechanics	3
ME 502	Thermodynamics and Fluid Mechanics Lab	1.5
EEE 503	Electrical Machine II	3
EEE 504	Electrical Machines II Lab	1.5
EEE 505	Digital Electronics	3
EEE 506	Digital Electronics Lab	1.5
EEE 507	Electromagnetics	3

#### Semester 6:

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Course Code	Course Name	Credit Hours	
ACC 601	Accounting	2	
MATH 602	Fourier Transformation, Laplace	3	
	Transformation and Special Functions		
EEE 603	Engineering Materials	3	
EEE 604	Numerical Methods and Computer	3	
	Programming		

#### Semester 7

Course Name	Credit Hours	
Instrumentation and Measurement	3	
Instrumentation and Measurement Laboratory	1.5	
Continuous Signals and Linear Systems	3	
Complex Variables and Co-Ordinate Geometry	3	
Engineering Drawing	1.5	
	Instrumentation and Measurement Instrumentation and Measurement Laboratory Continuous Signals and Linear Systems Complex Variables and Co-Ordinate Geometry	

#### Semester 8:

Course Code	Course Name	Credit Hours
EEE 801	Communication	3
EEE 802	Communication Laboratory	1.5
EEE 803	Digital Signal Processing	3
EEE 804	Digital Signal Processing Laboratory	1.5
EEE 805	Power Systems I	3
EEE 806	Power Systems Lab	0.75

#### Semester 9:

Course Code	Course Name	Credit Hours
EEE 901	Microprocessor and Interfacing	3
EEE 902	Microprocessor and Interfacing Laboratory	1.5
ME 903	Engineering Management	2
EEE 904	Control System	3
EEE 905	Control System Lab	0.75

#### Semester 10:

Course Code	Course Name	Credit Hours
	Elective I	3
	Elective II	3
	Elective III	3
	Elective III Lab	1.5

#### Semester 11:

Course Code	Course Name	Credit Hours
	Elective IV	3
	Elective IV Lab	1.5
EEE 1101	Radio Engineering	3
EEE 1102	Radio Engineering Lab	1.5
	Elective V	3
	Elective VI	3

#### Semester 12:

Course Code		Credit Hours
EEE 1201	Project Preparation	3
EEE 1202	Project defense/viva/presentation	1.5



Elective Courses: students are required to choose six (6) courses from each elective course that is, 21 credits must be completed from the elective courses.

Courses Waiver: Course may be exempted for Candidates beyond 12 years of education and the may complete the course in less than 4 years.

#### Lab Facilities:

The Department of Electrical and Electronic Engineering (EEE) has established various labs such as:

- Electrical Circuits Lab
- Analog Electronics Lab
- Digital Electronics Lab
- Power System Protection Lab
- Measurement & Instrumentation Lab
- Control System Lab

- · Digital Signal Processing Lab
- Communications Lab
- Electrical machanic Lab
- High Voltage Engineering Lab
- Thermodynamics and Fluid Meachanics

Class Timing: Morning, Day & Evening. However, evening classes are meant for employed persons.



### **Career Opportunity**

- \* Power Company
- \* Telecommunication Sector
- \* Electrical & Electronics Industry
- \* IT Sector including Banking
- \* Software Engineering
- \* Microcontrollers and Embedded Systems
- \* Biomedical Engineering
- \* Computer Engineering
- \* Solid-State Electronics

- \* Industrial Automation
- \* TV Broadcasting Center
- \* Satellite Communications Engineering
- \* Radar Engineering
- \* Research Organizations
- \* Renewable Energy Sector
- \* Goverment Organizations
- \* Nanotechnology
- \* Integrated Circuits and Systems



#### **Credit Transfers/Exemptions:**

Students can transfer to the World University of Bangladesh provided they can submit previous evidence of credits completed at a recognized University or University College of any Commonwealth country. Moreover, students with HNC, HND and Diploma from the BTEB or any



recognized examination bodies will be given necessary credit exemptions to enable them to complete their courses in a shorter period.

Collaboration: Collaboration with Universities is USA, UK, Germany, China, Australia, Japan, Italy, Russia, Latvia, Portugal, Malaysia, Phillippines, Vietnam, Malawi, Uganda, Iraq, Iran, Spain, Swizerland, Puerto Rico, Georgia, South Africa, Nigeria, Kazakhstan, Palestine and many more List of Partner Universities at http://www.wub.edu.bd/international students/partners international affa

#### **Alumni Relations:**

The aim of the association is to build an interactive strong WUB community around the world. Alumni are the number one priority for the university and the university helps them to engage with all the current students, develop their professional growth, and assist them to conjoin with other alumni of the association.





#### world University of Bangladesh (WOB) at a Glance -

- \* A magnificent new Campus
- \* A supportive Learning Environment
- \* A fully comprehensive University
- \* 300 Faculty members and staff
- \* Internetional Recognition
- \*11 Departments, 25 day & evening programs
- \* 5000 total students enrolled
- \* More than 12,000 alumni
- \* Active clubs 15 \* Lab 40

\* 4 Convocation Concluded

**Academic Session:** The course are run by semester system, each year consis of 3 semesters. Spring (Jan-Apr), Summer (May-Aug) and Fall (Sep-Dec) Semester.

#### **Admission Procedure:**

Apply online or by physical presence; submit all relevant papers and documents; sir for admission test if your total of CGPA in SSC and HSC is below seven; alternatively you have to face viva-voce; obtain a positive instruction and make payments.

**Financial Aid:** WUB provides a number of scholarships and financial grant to the deserving students to meet their tuition fees. To be considered for this Scholarship, a student must achieve for both SSC and HSC (or its equivalents): Golden GPA-5.00=100%, GPA-5 (1 Golden)= 80%, Normal GPA-5=70%, GPA 4.26-4.99=45%, GPA-3.5-4.25=35%, GPA 3.00-3.49-25% and GPA 2.50-2.99=20%. Special scholarship for female students, siblings, spouse, athletes, group and many other. Best performers of each semester will enjoy full free scholarship for that semester.

#### **International Affairs Division**

For information regarding the Section's activities, please refer to the following link: <a href="http://www.wub.edu.bd/international">http://www.wub.edu.bd/international</a> students/overview





# Some Distinguished Faculty Members:

## Full time & Adjunct

Professor Quazi Deen Mohd. Khosru, Ph.D.(Japan).	Advisor
Dr. M. Abdus Samad, B.Sc Engg, M.Sc. Engg, Ph.D , D.Sc.(USA)	Professor & HOD
Dr. Md. Amanullah Choudhury, B.Sc., M.Sc., Ph.D.	Professor
Dr. Md. Riyad Tanshen, B.Sc.Engg., M.Sc., Ph.D. (South Korea)	Asst. Professor
Dr. Md. Mohsin, B.Sc.Engg. (KUET), M.Sc. Engg.(BUET), Ph.D. Engg.(BUET)	Asst. Professor
Kamal Ahmed, B.Sc., Engg., M.Sc. Engg. (BUET)	Fellow
Mir Afzal Hossain, B.Sc. Engg.(USA)	Sr. Lecturer
Md. Imran Khan, B.Sc.Engg.(KUET), M.Sc.Engg. (BUET)	Sr. Lecturer
Muhammad Shaffatul Islam, B.Sc.Engg., M.Sc. Engg.(KUET)	Lecturer
Md. Mamunur Rahman, B.Sc.Engg., M.Sc. Engg. (KUET)	Lecturer
Md. Istianatur Rahman, B.Sc., Engg., M.Sc. Engg. (BRAC)	Lecturer
Farhana Latif, B.Sc. Engg. (RUET), M.Sc. Engg. (Germany)	Lecturer
Md. Nayeem Hasan Mallick, B.Sc. Engg.(AIUB), M.Sc.Engg. (Germany)	Lecturer
Awatif Nadia, B.Sc.Engg., M.Sc. Engg.(MIST)	Lecturer
S M Sajjad Hossain Rafin, B.Sc. Engg.(AIUB), M.Sc. Engg. (South Korea)	Lecturer
Md. Abdul Halim, B.Sc.Engg., M.Sc. Engg. (Italy)	Lecturer
Md. Siddikur Rahman, B.Sc.Engg. (AIUB), M.Sc. Engg. (MIST)	Lecturer
Redwan Ahmad, B.Sc.Engg. (RUET), M.Sc. Engg. (Prague)	Lecturer
Md. Rasel Sarker, B.Sc.Engg., M.Sc. Engg. (Malaysia)	Lecturer
Abdulla Ibna Karim, B.Sc.Engg., M.Sc. Engg. (KUET)	Lecturer
Anas Abdullah Alvi, B.Sc. Engg., M.Sc.Engg. (AIUB)	Lecturer
Mohammad Golam Mostafa, B.Sc.Engg., M.Sc.Engg.(Malaysia)	Lecturer
Amit Halder, B.Sc. Engg. (RUET), M.Sc. Engg. (RUET)	Lecturer
Faisal Ahmed, BA (Hons.), MA (UK)	Lecturer
Nabila Ahsan, BA (Hons.) MA (UK)	Lecturer
Mourin Barua, BA (Hons.), MA (DU), M.Phil (UK)	Lecturer
Md. Ashikur Rahman, B.Sc. Engg., M.Sc. Engg (UK), MBA	Lecturer
Sree Krishna Das, B.Sc. Engg., M.Sc. Engg (MIST)	Lecturer





#### Other Facilities:

- Remedial English course till the students attain fluency.
- Remedial courses for Computer Science & Mathematics.
- Student-friendly fee and payment system.
- Day & Evening classes, Friday-Saturday classes for professionals and service holders.
- Hostel facilities for ladies & mofassil students.
- Well equipped class rooms and state-of -the art Labs and modern teaching aids.
- Students' membership with professional, social and cultural organizations.
- Teaching with full-time teachers supplemented by guest teachers from DU, BUET, JU,RU, JNU, DUET and other professional bodies.
- Different performance-based scholarship & stipend.



Honorable V.C. Prof. Dr. Abdul Mannan Choudhury is receiving a crest from Honorable Speaker of the National Parliament Dr. Shirin Sharmin Chaudhury & Deputy Minister of Education Mr. Mohibul Hassan Chowdhuury

# Vice-Chancellor

#### Professor Dr. Abdul Mannan Choudhury

MBA (Manchester-Business School), PhD (London)

Formerly; Selection Grade Professor of DU

Chairman, Dept. of Management, DU

Academic Dean; Bayero University, Kano, Nigeria

Director, EMBA, & Chairman, Department of Management, DU

Proctor DU; Provost, S.M. Hall (DU)

Founder Chairman, MIS Dept. DU



#### Permanent Campus :

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