



Annual Report 2018

Department of EEE

Green University of Bangladesh



Group photograph of the Faculty members of EEE Department

1. Overview of the Department:

Electrical and Electronic Engineering (EEE) education has entered a transitional phase. All the areas of the electrical and electronic engineering are growing rapidly and new fascinating disciplines of this subject are being created. Keeping this in mind, an international standard and current job market oriented undergraduate course curriculum of Electrical and Electronic Engineering (EEE) Department at Green University of Bangladesh (GUB) has been designed. The main focus of the B.Sc. in EEE curriculum is on four major areas- power and energy, electronics, communication and computer. A student is expected to become specialized in one of these groups without compromising the fundamental knowledge in EEE. Courses on basic sciences, mathematics, English language, social sciences, business studies, relevant branches of Engineering including laboratory works are also incorporated in the curriculum.

The Department of Electrical and Electronic Engineering, under the Faculty of Science and Engineering, is one of the largest departments of Green University of Bangladesh in terms of the number of students and full-time and part-time faculty members. At present, EEE Department has over 1500 registered undergraduate students and annual student intake is approximately 750. More than 850 students have already graduated from EEE department.

In this department, we have already established 18 laboratories. All of these laboratories are fully computer-based and are equipped with very highly configured equipment including 52 desktop computers and various licensed software. We are upgrading and purchasing more equipment and software day by day and thus improving the quality of our laboratory experiments to cope with the changes of the engineering, science and technology. The Department of EEE has 40 highly qualified full-time faculty members with 03 Full time professors. In addition, we also have 03 part time faculty members. All of them are from various renowned universities of Bangladesh. In this department, we have 9 laboratory technicians, 2 administrative officer and 5 other staffs. All of them work very hard for the betterment of the department and provide all possible supports to the students. Apart from the academic and administrative facilities of this department, we have also many extra-curricular activities; we have a departmental club named EEE Club that is open for all the students of this department.

In 2018, EEE department got the most prestigious accreditation from Board of Accreditation for Engineering and Technical Education (BAETE). The department is now working on outcome-based education (OBE) which has become very important in the challenging world. Therefore, the syllabus of EEE Department has been designed so that it can cover a broad range of disciplines related to the different fields of Electrical Engineering; especially in the field of power and energy, electronics, telecommunications and computer. Our curricula are regularly updated to accommodate the latest developments and breakthroughs in various fields of Electrical and Electronic Engineering, and make our graduates able to accept the emerging challenges in their fields of interests. With a view to earning practical knowledge the students are kept attached to different industries for 3 months in general.

Our specifically targeted curriculum prepares the graduates to compete in the high-tech job market on a global scale. In addition to the foreign job opportunities, graduates can avail job opportunities in the country, both in public and private sector in the diversified areas, such as, electrical power generation, transmission and distribution, telecommunication industry, wireless and mobile telecommunication companies, satellite communication systems, integrated circuit (IC) design, satellite television channels, switching systems, networking, consumer electronics manufacturer, process industries, textile industries, computer industry, design firms of embedded system, microprocessor and microcontroller based systems etc. To prepare the students, EEE Department undertakes various extended learning activities inside the department through the year apart from class room teaching and learning. In the power generation and automation companies the control is implemented through PLC device. In order to gain knowledge on PLC certificate course is running under the department. In this annual report, few of these important activities are presented for the year 2018.

Vision Statement:

The vision of the Department of Electrical and Electronic Engineering, Green University of Bangladesh (GUB) is to develop it as a full-fledged learning and research hub of Bangladesh within next fifteen years in the field of EEE and hence to make a positive contribution towards the technical and socio-economic development of the country.

Mission Statement:

The mission of the Department of Electrical and Electronic Engineering is to produce graduates who

- Can understand the basic concept of modern electrical and electronic technology.
- Will be prepared towards research, entrepreneurship and lifelong learning in the field of EEE.
- Will be able to apply their knowledge in solving the technical problems with leadership skill.
- Will create an environment of learning with due consideration of ethical and moral issues.
- Will provide knowledge-based technology and service to meet the needs of the society.

Department Goals:

Goals of the Department of Electrical and Electronic Engineering are to:

- (a) Prepare the students for entry into the profession;
- (b) Instill in students the capabilities required by the discipline, the recognition of the need to enhance the discipline, and the desire for life-long learning; and
- (c) Equip students with a general knowledge of technical and non-technical disciplines so that they are prepared for further study in other fields including professional and graduate education

2. BAETE accreditation of B.Sc. EEE program for Qualifying EEE graduates to become members of Institution of Engineers Bangladesh (IEB):

A three members' team from Board of Accreditation for Engineering and Technical Education (BAETE) visited Green University of Bangladesh during 7-9 February 2018 for assessing its B.Sc. in Electrical and Electronic Engineering program for possible accreditation of BAETE. The visiting team critically scrutinized the academic programs and non-academic activities of GUB and highlighted the strengths persisting in the program as well as some weaknesses that need to be focused by the EEE department and GUB administration jointly. The visiting team was satisfied with the overall performance of the EEE program and accredited the

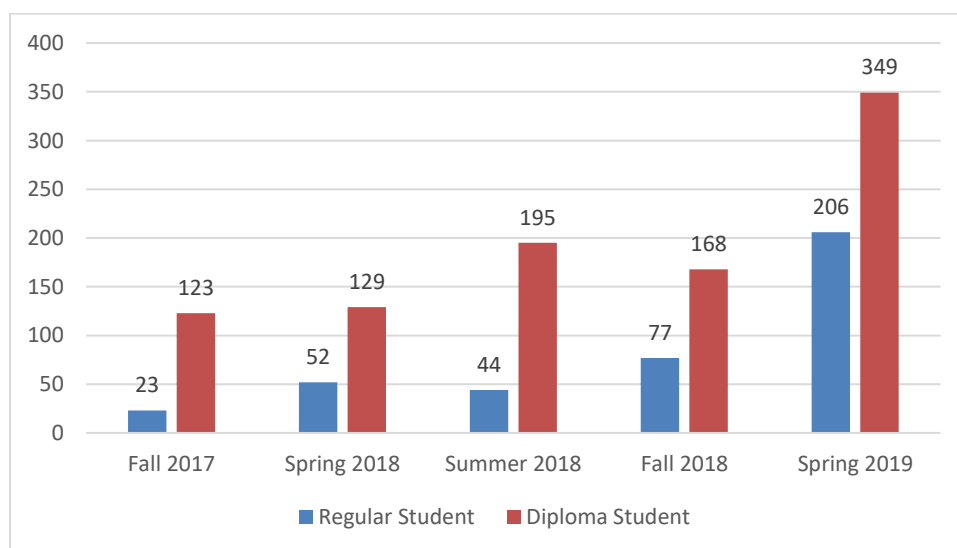
EEE program of GUB thus paving the way for its graduate to become members of Institution of Engineers of Bangladesh (IEB).

3. IQAC External Peer Reviewer (EPR) team visited for B.Sc. EEE program:

A three member's team from Institutional Quality Assurance Cell (IQAC) of the University Grants Commission of Bangladesh visited the Green University of Bangladesh during the period 07 – 09 March, 2018 for assessing its B.Sc. in Electrical and Electronic Engineering (EEE) Program. Prof. Dr. M. H. Rahman, International Development Consultant Learning Synergy Ottawa, Canada was present as Quality Assurance (QA) Specialist (Foreign); Dr. Md. Serajul Islam Prodhan, Associate Professor Dept. of Civil Engineering, & Director, Institutional Quality Assurance Cell (IQAC), Dhaka International University Bangladesh was present as a QA Specialist (Local) and Dr. Kazi Khairul Islam, Professor of EEE & Dean of School of Science & Engineering at Uttara University, Dhaka, Bangladesh was present as a Subject Matter Specialist. Based on the visit, documents, reports, discussion and meetings with the stakeholders (Students, Alumni, Employers, and Academic and Non-Academic staff), different offices, and other related officials of Green University are investigated by the team. Finally, considering the judgments given for the different QA aspects, the Review Team was able to give an overall judgment of **36.0** out of 50 that translates to *Very Good* status of the **Department of Electrical & Electronic Engineering**, Green University of Bangladesh.

4. Student Enrolment in EEE Department:

The student enrolment rate in the Department of Electrical and Electronic Engineering (EEE) is increased in the year 2018. The EEE department has achieved the IEB accreditation and very good results from IQAC EPR team at the beginning of the academic year 2018. Therefore, the students are interested to study EEE program at GUB.



Student Enrolment in the EEE department

5. Fresher's Orientation Program:

At the beginning of every semester the Fresher's Orientation Program of EEE Department is organized by EEE club. Newly admitted students, all faculty members and staffs of the Department sincerely attend the program. Departmental course curriculum, different activities, mentorship program, and other necessary information's were usually delivered by the chairperson, Prof. Dr. Md. Fayzur Rahman and all other faculty members were introduced by themselves. The university provides lunch for all fresher's, faculties and staffs on this occasion.



Orientation program for 181 Batch students of EEE Dept. in the Spring Semester 2018



Orientation program for 182 Batch students of EEE Dept. in the Summer Semester 2018



Orientation program for 183 Batch students of EEE Dept. in the Fall Semester 2018

6. Attending Ekushe February 2018:

Prof. Dr. Md. Fayzur Rahman, Chairperson, EEE and senior faculty members Md. Hasan Maruf, Khan Ramat Ullah attended in the program of Ekushe February 2018 with EEE students. The Students competed on Intra University Wall Magazine Competition regarding International Mother Language Day- 2018.

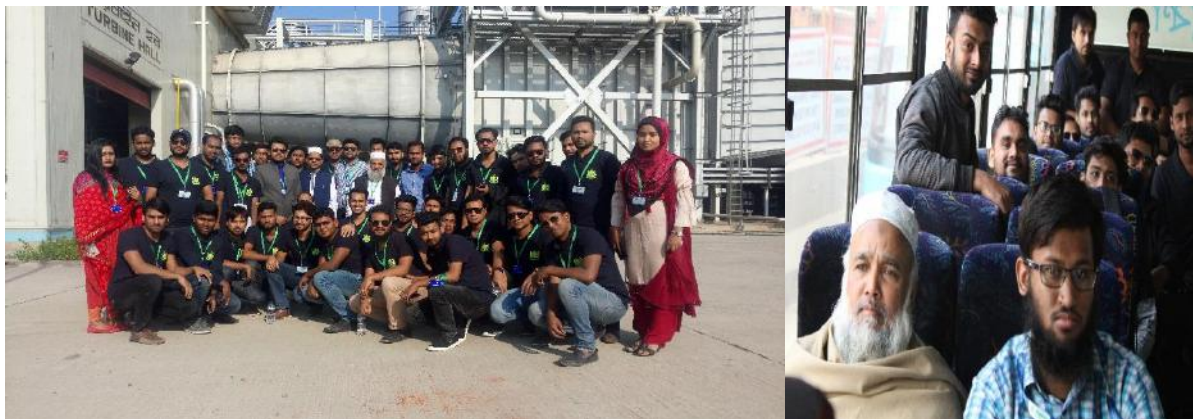


Faculty and Students in the Ekushe February program 2018

7. Study tour at Ashuganj Power Station Company Limited (APSCL):

The final year students had the opportunity to gather practical knowledge from the training officials and the Engineers regarding the geometrical structure of the plant, its construction and working procedure, the method of power generation, the safety and security measurements. Fifty three (53) students led by Dr. Md. Fayzur Rahman, Chairperson, Department of EEE participated in the tour. Besides, two (2) other

faculty members of the Department of EEE, Mr. Md. Hasan Maruf and Mr. Tyfur Rahman guided the students during the study tour. Ashuganj Power Station Company Limited (APSCCL) is one of the major electricity generation plants in Bangladesh. It consists of nine (9) power generating units including private power plants. Its installed generation capacity is about 1876 MW; but it can generate 1627 MW. Two steam turbine units and one gas turbine unit are available now to form a combined cycle power plant. The tour consisted of three parts. At first, students visited the electrical control room and power generation unit. Then they observed the mechanical control room, boiler and turbine coupled with generator. At last, they observed the substation.



Faculty member and students of EEE Department of Green University of Bangladesh visited Ashuganj Power Station Company Ltd.

8. Seminar on PLC Programming and Application:

The Department of Electrical and Electronic Engineering (EEE), Green University of Bangladesh (GUB) successfully conducted a seminar on “PLC Programming and Application” on Thursday, 27 September, 2018 at 4:30 pm in the GUB Campus, Building 2 (Room # 609-B).



Seminar on PLC Program conducted by EEE department

Mr. Raju Ahmed and his team members, Motive Automation Ltd. have conducted the seminar. Total 50 students of EEE department have participated in the seminar.

The Hon'ble Pro Vice-Chancellor of GUB, Prof. Dr. Muhammad Fayyaz Khan had kindly consented to grace the occasion as the Chief Guest. Dr. Md. Anwar Hossain, Mr. Ahmed Al Mansur, Mr. Khan Rahmat Ullah, Mr. Shahriar Mahmud Kabir, Mr. Md. Hasan Maruf, Ms. Showkot Ara were also present in the seminar.

9. Seminar Conducted on How to Write a Good Thesis and Ethical Issues:

The Department of Electrical and Electronic Engineering (EEE), GUB successfully conducted a seminar on "How to Write a Good Thesis and Ethical Issues" was presented by **Dr. M. Hasanuzzaman**, Senior Lecturer and Programme Coordinator (Master of Renewable Energy) in the UM Power Energy Dedicated Advanced Centre (UMPEDAC), Higher Institution Centre of Excellence (HiCoE), **University of Malaya** on Wednesday, 11 July, 2018 at 3:00 pm in the Green Auditorium (Room # 302-A), Main Campus, GUB. The Hon'ble Vice Chancellor of GUB, **Prof Dr. Md. Golam Samdani** Fakir was present to grace the occasion as the Chief Guest. Prof. Dr. Md. Fayzur Rahman, Chairperson, Department of EEE, Dean (in charge), Faculty of Science and Engineering was present to lead this seminar as a session chair. From the Department of Textile Engineering Prof. Dr. Md. Ismail Chowdhury and Dr. Jagannath Biswas, Center Head Ms. Serajum Munira and others faculty members were also present in the seminar.



Dr. Hasanuzzaman conducted a seminar on How to Write a Good Thesis and Ethical Issues organize by EEE department

10. Seminar Conducted on Industrial Automation & PLC:

The Department of Electrical and Electronic Engineering (EEE), GUB successfully conducted another seminar on "Industrial Automation & PLC Programming" was presented by Mr. Raju Ahamed, Managing Director, Motive Automation on Friday, 23 March, 2018 at 2:00 pm in Room # 609, Building-2, GUB Campus. The Honorable Pro Vice Chancellor of GUB, Prof. Dr. Muhammad Fayyaz Khan was present as the Chief Guest of the seminar and Prof. Dr. Md. Fayzur Rahman, Chairperson, Department of EEE, Dean, Faculty of Science and Engineering was present as a session chair.



Seminar Conducted on Industrial Automation

11. Seminar Conducted on Guidance of the Quran for Scientific Research:

The Department of EEE, GUB successfully conducted a seminar on “ *Guidance of the Quran for Scientific Research* ” was presented by Prof. Dr. Md. Quamrul Ahsan , Professor and Advisor, Department of EEE, Green University of Bangladesh on Thursday, 22 March, 2018 at 3:00 pm in IQAC Auditorium (Room # 302-A), Main Campus, GUB. The Honorable Vice Chancellor of GUB, Prof Dr. Md. Golam Samdani Fakir was present to grace the occasion as the Chief Guest. Prof. Dr. Md. Fayzur Rahman, Chairperson, Department of EEE, Dean, Faculty of Science and Engineering was present to lead this seminar as a session chair. The Hon’ble Pro Vice Chancellor of GUB, Prof. Dr. Muhammad Fayyaz Khan was present as a Special Guest.



Prof. Dr. Md. Quamrul Ahsan presents a seminar on Guidance of the Quran for Scientific Research

12. Workshop Conducted on Substation Planning, Designing & Commissioning:

The Department of Electrical and Electronic Engineering (EEE), Green University of Bangladesh (GUB) successfully conducted a daylong workshop on "Substation Planning, Designing and Commissioning" under the Institutional Quality Assurance Cell (IQAC) on Tuesday, 24 July 2018 from 10:00 am to 4:00 pm in the GUB Campus, IQAC Auditorium (Room # 302).



Workshop on Substation Planning, Designing & Commissioning

Engr. Md. Fardouse Alam, Director (ISDTC), Innova Engineering Ltd. Engr. Md. Amzad Hossain, Asst. Engineer, Engr. Md. Mazharul Islam, Trainer (ISDTC), Engr. Zannatul Islam Sajib, Asst. Engineer, Innova Engineering Ltd. have conducted the workshop. Total 85 students have participated in the program. The Hon'ble Pro Vice-Chancellor, Prof. Dr. Muhammad Fayyaz Khan was the Chief Guest. Prof. Dr. Md. Fayzur Rahman-Dean, Faculty of Science and Engineering; Director- IQAC- Dr. Jagannath Biswas and faculty members from EEE departments were also present.

13. EEE Department Participated in the Club Fair 2018:



Judges are evaluating the project works of EEE Department in the Club Fair 2018

Every year the Green University of Bangladesh arranges a club fair to explore the activities of different departmental clubs. Like each year, the EEE club has participated in the club fair with their new project. Prof. Dr. Abdur Razzaque, Chairperson of CSE, and other respected faculty members were present in the club fair as a judge. The student presented different projects in front of the respected judge.

14. GUB Permanent Campus Visit in Summer 2018 Semester:

Under the guidance of Professor Dr. Md. Fayzur Rahman around 40 students from the Department of Electrical and Electronic Engineering visited the permanent campus of Green University of Bangladesh in the Summer Semester 2018. The construction work of administrative building is already done and its architectural looks attracted the students very much.



GUB Permanent campus visit in summer 2018 semester

15. GUB Permanent Campus Visit in Fall 2018 Semester:

Around 40 students and four faculty members of the Department of EEE visited the permanent campus of Green University of Bangladesh in the fall semester. The university authority provides bus services for this purpose. The students played football and cricket in the ground and they also arranged a lunch program in the permanent campus. In the fall semester, student shows more encourage to visit the permanent campus, especially to enjoy the unlimited beauty of natural green environment in the winter season.



GUB Permanent campus visit in Fall 2018 semester

16. Attending Pohela Boishak 2018:

Prof. Dr. Md. Fayzur Rahman, Chairperson, EEE and student of EEE Departments were attended in the program of Pohela Boishak Program in 2018 at GUB campus. The Green University of Bangladesh encouraged the students to perform different cultural activities on this occasion.



Pohela Boishak 14 April (Saturday) 2018

17. Annual Cultural Program Competition in 2018

Like every year the Green University of Bangladesh has arranged a cultural program competition in 2018. The significant number of students from all the departments has participated in the program with different activities. The EEE students not only participated in the program but also won prizes in various areas in the competition. Prof. Dr. Md. Fayyaz Khan, honorable Pro-Vice Chancellor of GUB; Prof. Dr. Md. Fayzur Rahman, Chairperson Department of EEE and many other faculty members were present in the program to encourage the students.



EEE Students are awarded as a champion group in the Annual Cultural Program Competition in 2018 at Green University of Bangladesh

18. Iftar Party 2018

The department of EEE has arranged an Iftar party in 2018. All faculty members and EEE students are participated in the program at the roof top of GUB campus. It was a memorable day for the department. Like every year, this year a large number of students including Alumni has participated in the program with religious faiths. Prof. Dr. Md. Fayzur Rahman, Chairperson Department of EEE, Mr Khan Rahmat Ullah, Shahriar Mahmud Kabir and other senior faculty members were present in the program.



Iftar Party program in Friday, 8 June 2018

19. Arrangement of EEE Day program in 2018

The Department of Electrical and Electronic Engineering (EEE) of Green University of Bangladesh (GUB) arranged 'EEE Day 2018' on 20 March, 2018. The day-long programme started with a colorful rally followed by technical talk session, technical quiz competition, circuit debugging, MATLAB coding challenge, project showcase, games events and a cultural show etc. **Prof. Dr. Md. Golam Samdani Fakir**, Vice Chancellor of GUB, inaugurated the programme as the chief guest. Prof. Dr. Md. Fayyaz Khan was present as a special guest. Prof. Dr. Md. Fayzur Rahman, Chairperson of Electrical and Electronic Engineering department welcomed the audience. **Mr. Md. Mostafizur Rahman, Head of Marketing, Energypac Engineering Ltd.** was the keynote speaker in Technical Talk Session. **Prof. Dr. Md. Quamrul Ahsan**, Professor and Advisor of EEE Department also spoke on the occasion among others. Prof. Dr. Md. Fayzur Rahman, chairperson of EEE department distributed prizes among the winners of different competitions. A total of more than 300 students and faculty members from EEE department were participated in the day-long event. In addition, around 15 students from other Departments and Universities have participated in the Project Show and Poster Presentation Competition where a team from Ahsanullah University of Science and Technology and another team from the Department of CSE at GUB have won the prizes in poster presentation and project showcasing respectively.



(a) Opening ceremony in the EEE day Program in 2018



(b) Honorary Crests given to the Speakers of Technical Session at the EEE day Program in 2018



(c) Cultural program arranged by EEE students in the EEE day Program in 2018



(d) Project Competition program in the EEE day Program in 2018



(e) Poster Presentation Competition program in the EEE day Program in 2018



(f) Certificate giving ceremony in the EEE day Program in 2018

20. Attending Short course on PLC Applications: Present State-of-the-Art at IUT:

Three faculty members from the Department of EEE, Mr. Ahmed Al Mansur, Mr. Khan Rahmat Ullah, Mr. Md. Hasan Maruf, have participated in a short course on “PLC Applications: Present State-of-the-Art” at Islamic University of Technology (IUT), Gazipur from 26th to 29th November, 2018. PLC is for Programmable Logic Controller which is one of the major parts of Modern Industrial Automation where Electrical and Electronic Engineers play the leading roles. Thirty seven participants attended the course. There were around fifty participants from seventeen various nations and countries including national and international students, faculty members and industrial experts. A number of resource persons from renowned universities such as IUT, CUET and leading power industries such as Pran RFL, System Engineering Limited delivered lectures.



Ahmed Al Mansur, Khan Rahmat Ullah and Md. Hasan Maruf, Assistant Professor of EEE Department of Green University of Bangladesh have received certificate as a participant upon the successful completion of the course at IUT on 29th November 2018