



“Celebration of IEEE Day 2023”

On **Tuesday, 10th October 2023**, the **IEEE AIUB Student Branch** organized an all-day long event celebrating **“IEEE Day 2023”**. The event aimed to unite members and supporters of the **IEEE AIUB Student Branch**, showcasing the collaborative efforts of local IEEE members in shaping technology for a brighter future. It emphasized the collective impact of community-driven ideas and contributions in creating a positive change.

At the first phase of the **IEEE DAY 2023** celebration, **Dr. Shameem Ahmad**, *Counselor, IEEE AIUB Student Branch; Assistant Professor, Department of EEE, Faculty of Engineering, AIUB*, conducted the workshop titled **“Modeling and Analysis of PV Inverter using MATLAB/Simulink”**. He discussed PV panel output voltage, IPS, and power conversion, as well as designing single-phase inverters using MATLAB and hardware-in-loop setups. Additionally, discussed the role of DSP, microcontrollers, Arduino, and MATLAB in the design process. The transient period, H-bridge inverters, power electronic switches, pulse generation, initial stages, component selection, gate pulse generation, relationship of frequency and time in DC to AC conversion, and the significance of Total Harmonics Distortion in inverter output, including filter design and LC filter construction was explained. During this period, food and kits were distributed to promote the event.

The main phase of the event began with a moment of silence to honor and remember **A.N.M Nasimunnabi**, *Chair of IEEE Young Professionals Bangladesh*, who passed away tragically on October 4, 2023, due to complications from dengue fever. Then **Prof. Dr. A.B.M Siddique Hossain**, *Dean, Faculty of Engineering, AIUB; Advisor, IEEE AIUB Student Branch*, inaugurated the seminar session which was followed by a **cake cutting ceremony** to celebrate **IEEE Day 2023**. Afterwards, the honorable speaker **Dr. Shahriar Khan**, *Professor, Department of EEE, Independent University Bangladesh (IUB)* took the stage to conduct a seminar on **“Smart Power Systems: Automating Sustainability in the Age of Climate Change”**. He thanked the faculties and **IEEE AIUB SB** for inviting him to the session. He discussed a wide range of topics, such as automation, sustainability, and climate change, focusing on renewable energy which relates to **SDG 13: "Climate Action"**. He discussed solar energy and electric vehicles (EVs) and shared experiences from visits to power-generating facilities and discussed biofuels, global warming, and the future of oil production. Nuclear energy and climate change were also discussed. The speaker also discussed smart grid evolution, AI origins, and smart load tripping. The discussion concluded with IEEE's opportunities and contributions to major global companies, followed by a Q&A session. The seminar also explored the complexities of the modern world and the various forms of energy, aligning with various SDGs like **SDG 7 (Affordable and Clean Energy)** and **SDG 12 (Responsible Consumption and Production)**. **Prof. Dr. Mohammad Abdul Mannan**, *Associate Dean, Faculty of Engineering, AIUB; Advisor, IEEE AIUB Student Branch*, presented the token of appreciation to the honorable speaker and gave his kind remarks for the session.

There was a **poster presentation competition** involving a total of thirteen groups from which the top three groups were awarded. The winners were judged by distinguished faculty members **Dr. Tanbir Ibne Anowar**, *Associate Professor, Department of EEE, Faculty of Engineering, AIUB* and **Dr. Rifat Hazari**, *Senior Assistant Professor, Department of EEE, Faculty of Engineering, AIUB; Deputy Director, Dr. Anwarul Abedin Institute of Innovatio*. The main purpose of this segment was to introduce cutting-edge technical solutions to combat climate change that also correspond with the SDGs.. The poster presentation competition was followed by a cheerful cultural event. At the end of the event **Dr. Md. Saniat Rahman Zishan**, *Director, Faculty of*





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*Engineering, AIUB; Advisor, IEEE AIUB Student Branch & **Chowdhury Akram Hossain**, Department Head, CoE, Faculty of Engineering; Special Assistant, Office of Student Affairs (OSA), AIUB; Advisor, IEEE AIUB Student Branch*, declared the winners of the poster presentation competition. After the closing remarks, a photo session was arranged which concluded the session.

The event was attended by around 120+ attendees, including IEEE members and non-members. Honorable faculty members **Md. Shahariar Parvez**, *Lecturer, Department of Computer Engineering, Faculty of Engineering, AIUB*; **Mr. Tamim Hossain**, *Lecturer, Department of EEE, Faculty of Engineering, AIUB*, also attended the daylong event.

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