

Ashique Anan Abir

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Education

University of Asia Pacific

74/A Green Road, Dhaka 1215

Bachelor of Science in Electrical and Electronics Engineering ————— 2018

Major Courses: Electrical Circuits I, Electrical Circuits II, Electronic Circuits I, Electrical Machines I, Electronic Circuits II, Electrical Machines II, Digital Electronics, Electrical Design and Drafting Sessional, Power System Analysis I, Signals and Linear Systems, Electromagnetic Fields and Waves, Electrical Engineering Materials, Communication Engineering Fundamentals, Digital Signal Processing I, Microprocessor and Interfacing, Control Systems I, Energy Conversion and Special Machines, Power Station Engineering, VLSI Design I, Numerical Methods, Solid State Devices, Computer Networking, Opto-electronics, Power Electronics.

Minor Courses: Differential and Integral Calculus, Physics I, Physics II, Differential Equations and Matrix, Computer Programming, Coordinate Geometry and Vector Analysis, Fundamentals of Mechanical Engineering, Transformations and Partial Differential Equation, Probability and Statistics; Complex Variable and Harmonics, Industrial and Operational Management.

Cumulative Grade Point Average: 3.60

Research Publications

1. A Single-Phase Cascaded H-Bridge Multilevel Inverter with Reduced Switching Devices and Harmonics

Authors : A. Anan, T. K. Chakraborty and K. Sultan Mahmood

Published in : 2018 IEEE International Conference on Smart Energy Grid Engineering (SEGE)

2. Generation of 13-Level Output Voltage from Single-Phase Multilevel Inverter Consisting of Cascaded Three H-Bridge Units

Authors : T. K. Chakraborty, A. Anan, S. H. Rakib, M. I. Prodhan, M. M. Kamal and M. Mahabubunnabi.

Published in : 2018 2nd IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)

3. Experimental Investigation on Single-Phase Multilevel Inverter for Generating 21-Level Output Voltage Using Four H-Bridge Units

Authors : T. K. Chakraborty, A. Anan and S. H. Rakib

Published in : 2018 IEEE 4th Southern Power Electronics Conference (SPEC)

4. Experimental and Simulation Study of Harmonics in Asymmetric Multilevel Inverter Fabricated Using Four Units

Authors : A. A. Abir, M. M. Kamal, M. I. Prodhan and T. K. Chakraborty

Published in : 2022 6th International Conference on Green Energy and Applications (ICGEA)

Undergraduate Thesis

Experiment on Multilevel Inverter

Design and development of microcontroller based multilevel inverter and obtaining several levels of multileveled sinusoidal wave along with improving its performance.

Work Experience

Research Assistant - Research & Development ————— **Sep. 2022 – Jul. 2023**

Giga Tech Limited, BEXIMCO Group

Worked on the development and testing of backend embedded systems for a prototype mechanical ventilator, utilizing a TM4C Texas Instruments microcontroller. Demonstrated strong problem-solving abilities by regularly tackling complex project-related issues. Conducted comprehensive testing of components and sensors to ensure optimal performance. Enhanced team communication and efficiency by contributing to the documentation of workflow processes.

Trainee Engineer – Operation & Maintenance ————— **Sep. 2018 – Aug. 2019**

United Mymensingh Power Limited & United Jamalpur Power Limited, 315MW Combined, (UMPL & UJPL), United Group

Commissioned and monitored multiple boilers and turbines using the SCADA system, while conducting regular inspections of all boiler and turbine areas. Operated a range of systems and equipment, managed shift manpower, work systems, and safety protocols. Responded to emergency situations and performed tasks assigned by supervisors. Handled the operation and synchronization of turbines, maintained daily reports and documentation for assigned shifts, and operated safety devices during incidents.

Award and Accomplishments

I received the **Dean's Award** for outstanding performance three times during my Bachelor's studies.

Skills

Programming language : C++, Assembly, Python, NumPy

Software : MATLAB, Multisim

My Google Scholar Profile

scholar.google.com/citations?hl=en&user=1qCPet0AAAAI