Mobinul Hoda
B.Tech, Electronics & Electrical Engineering
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Career Objective:

I am looking to work with one of the most reputed organizations where I can learn and use my skills to contribute towards company's growth as well as mine that will provide me a good platform and training for my future endeavor.

Work Experience: **Associate System Engineer, i2n Technologies Pvt, ltd, Bangalore, and Jan 2017 to till date.**

- In i2n Technologies, the Scanning Tunneling Microscopy and Atomic Force Microscopy are developed. I am handling the design & development of MEMS based Pressure Transducer Transmitter used for Aerospace & Industrial application, MEMS based product developed at Indian Institute of Science, IISc, and Bangalore, India.

Detailed Roles & Responsibilities:

- **Project 1:** *MEMS Pressure Sensor Transducer & Transmitter*

  System integration, Design & Development of wide range of pressure sensor, testing of signal conditioning, sensor interface electronics board, Define and perform system test cases and test procedures

- **Project 2:** *Wireless Tyre pressure measuring system (In production)*

  System Integration, Optimization power requirement for battery operated electronics device, Designing of PCBs using KiKad tool, testing of electronics module, Developing test parameters & procedures, designing of user datasheet & manual.

- **Project 3:** *SPM (Scanning Probe Microscopy)*

  Product development and system integration, Design and simulation of analogue circuits for signal conditioning, power management, and actuators for electromechanical systems, Circuit validation using circuit simulation tools and prototyping, Define and perform system test cases and test procedures, Review system design and test results against requirements specification and generate test reports.

- **Project 4:** *Atomic Force Microscopy (AFM)*

  Designing of voltage divider board and testing of signal interface and AC to DC converter board.

Courses Undergone:

- Sensors and transducer, Electronic measurements systems, Analog electronics circuit
- "Embedded system on ARM platform", Under Center for Continuing Education (CCE) – Proficience Programme, Jan-May 2019 Indian Institute of Science(IISc), Bangalore, India

Software:

LabVIEW, KiKad, Arduino programming, MATLAB basics, Open source software for scanning probe microscopy products.

Research Projects:

- *Summer Internship at Indian Institute of Science (IISc), Bangalore, India.*

The objective of this project is to provide a cheap, efficient device to the Ayurvedic doctors so that they can read and obtain reliable information about the patient's health. For this purpose, we are using the phenomenon of piezoelectricity, to catch the vibrations of the pulse (present on the wrist due to the blood flow in the radial artery) and provide an output graph, which can be analyzed using LabVIEW software or oscilloscope. The same pulse capture is tried with the help of photo diode-based pulse oximeter.

- *B.Tech Research Project:*

Comparative study of SPWM (Space Pulse Width Modulation) and SVPWM (Space Vector Pulse Width

Modulation) technique using two-level voltage source inverter fed induction motor. The objective of this project is to compare between two PWM (Pulse width Modulation) techniques & select a best PWM technique to drive a 2-phase induction motor. We framed theoretical analysis, design and implementation of SPWM and SVPWM technique.

- *Industrial Internship:*

Undergone summer training at Rourkela Steel Plant (RSP), Steel Authority of India (SAIL), Odisha, India, 2014 and gained a complete knowledge on thermal power plant and switchyard an essential part of power plant rather protective part of the power plant. It included all the details such as PLC, EPI, Coal yard etc. A complete report with certification is available.

Achievements:

- Represented i2n Technologies Pvt. Ltd in "**Indian Nanoelectronics User Program(INUP)**" held in Center for Nano Science and Engineering (CeNSE), IISc, Bangalore, India
- Presented a case study on "**Review on application of industrial robots in Steel Industry**" National level seminar "Robots in Industry", Padmanava College of Engineering (PCE), 2015 Odisha, India.
- Qualified for a Zonal round in "**Inter-college Robotic competition**" held at Padmanava College of Engineering, Odisha, India."
- Qualified for the grand finale "**Robotryst - Indian institute of technology, Delhi**" at IIT Delhi. Held in Padmanava College of Engineering in the year of 2014.

Education Qualification:

- B. Tech, Electrical and electronics engineering, Padmanava College of Engineering, Odisha, India, August 2016, 6.76 CGPA.
- 12^{th}, PCMB, Indian Council for Secondary Education, Delhi (I.S.C.E), Ispat E.M. School, Odisha, India, April, 2012, 54.1%.
- 10^{th}, St Paul's School, Indian Council for Secondary Education (I.S.C.E) Odisha, India, April 2010 , 74.4%.

Personal Details:

DOB: 02-03-1994
Gender: Male
Marital status: Single
Nationality: Indian
Languages: English, Hind