BISHOWJIT PAUL

MECHATRONICS ENGINEERING (MTE), RUET, RAJSHAHI, BANGLADESH.

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Phone: +8801878082195 Birth: 20 June 2001

Linkedln, **GitHub**, **Porfolio**. Male

PERSONAL OBJECTIVE

A highly skilled **Mechatronics Engineer** with a passion for **3D design** and a unique ability to integrate mechanical, electrical, and computer engineering principles. I excel in designing, developing, and optimizing innovative automation systems that seamlessly bridge the gap between mechanical and electronic components. My robust foundation in both hardware and software allows me to thrive in the dynamic field of mechatronics. Leveraging extensive knowledge in Machine Learning and AI, I harness data-driven insights to enhance the performance and intelligence of mechatronic systems, driving efficiency and innovation.

EDUCATIONAL QUALIFICATION

- **B.Sc. in Mechatronics Engineering (MTE)** [Jan 2019-May 2024]
  Rajshahi University of Engineering and Technology, Rajshahi, Bangladesh.
  , 4th year, CGPA: 3.47 (First Class).
- **Higher School Certificate (H.S.C)** [2018]
  Govt Majeed Memorial City College, Khulna.
  GPA 5.00 (Scale of 5.00).
- **Secondary School Certificate (S.S.C)** [2016]
  Saint Joseph High School, Khulna.
  GPA 5.00 (Scale of 5.00)

PROFESSIONAL BACKGROUND

- **RFL Plastic Limited, DPL, RIP Factory.** [May 01, 2024 to Current]
  I have been working as a DPL-Development (Trainee Design Engineer) for the past two months, gaining hands -on experience in **SolidWorks, AutoCAD, ANSYS, Product & Mold design and development.**
- **Rupsha Tyres & Chemicals Limited, Dhaka.** [April 09,2022 to April 27,2022]
  Industrial Training: Completed a month-long industrial attachment gaining hands-on experience in machine operation, materials management, and business strategies.
- **Programmable Logic Controller (PLC) Training.** [March 1, 2024 to March 30 2024]
  Organized by Gobeshona Learning Academy, Dhaka, where I've completed a 1-month training on PLC Programming, VFD and HMI.
- **Internet of Things (IoT) Training.** [Jul 1, 2022 to Sep 30 2022]
  Organized by Bangabandhu Sheikh Mujib hi-tech park, Rajshahi project of Bangladesh Hi- Tech Park Authority where I've completed a thorough 3-month IoT training with a score of 76/100.
- **Katakhali 50MW Peaking Power Plant, Rajshahi.** [2019]
  Day-long Industrial Tour.

SKILLS & EXPERTISE

- **Programming Languages** Python, C++, Embedded C(Avr), C, JavaScript, HTML, CSS.
- **Design Software** Solidworks, AutoCAD, Seimens NX, ANSYS, MasterCad.
- **Typesetting** LaTeX.
- **Hardware** PLC, Micro-Controller, Arduino, NodeMCU.
- **Simulation and Modelling** Proteus, Simulinks, MATLAB, LOGO!.
- **Graphics Design, Editor** Adobe Illustrator, Canva, Adobe Photoshop.
- **Documentation** MS word, Power point, Google Docs, Microsoft Excel.
- **Language** Bangla, English.
- **Algorithm** Machine Learning, Deep Learning.
- **Communication** Organizing and management, Leadership and Team Work.

INTERESTS

- **3D Designing**
- Mechatronics System Design, Robotics, Control System.
- Electronics and Power Systems
- Embedded Systems
- Artificial Intelligence (ML, DL, Image Processing)
- Cyber Security of Smart Grid
- Artificial Emotional Intelligence.

PROJECTS

1.Line Follower Robot (LFR), Battle Bot, Arduino Based Rader System. [2019]
- Working on PCB board, designing bots using Solidworks.

2. IOT based drinking water monitoring system with custom real time web server and Android application. using Django and Flet. [2024]
- Fully embedded project.

3. Self Balancing Robot. [2023]
- Design the whole robot in solidworks.
- Implement the design in physical world with proper programming

4. Automated Dustbin. [2019]
- Main components of the project were ArduinoUno, Sonar sensor, and Servo motor.

5. Path Finding System (Algorithm). [2020]

6. Python Projects. [2020-2021]
- Smart Calculator, SHOOT'Em Up, Let's Jumping

7. Solidwork Projects. [2019-2024]
- Drone, Steam Engine, Robotic Arm, Refrigerator, Cycle, Guiter, Servo Motor, Plastic Products and Mold

8. Cyber Security System of Smart Grid Control Room For Cyber Attack From Hacker. [2023-2024]

RESEARCH WORK

- **Case Study Review Paper:**
  Title: Potential Smart Grid Vulnerabilities to Cyber Attacks: Current Threats and Existing Mitigation Strategies. Status: Under Review.
- **Undergraduate Thesis:**
  Title: Next Generation Adaptive Anomaly Detection Strategies For IEC 61850 Based Smart Substation Cybersecurity.
- **Conference Papers:**
  Title: A Smart Approach to Control a Two-Wheeled Self Balancing Robot Using a PID Controller with Two Degrees of Freedom. **ICMIME 2022 conference at RUET.**
  Title: A Cost Effective Real-Time Water Quality Monitoring System. Power, Electrical, **Electronics and Industrial Applications 2024 (PEEIACON)**

EXTRA CURRICULAR ACTIVITIES

- **Author in the ICMIME 2022 conference at RUET**
  Presented a paper on a smart two-wheeled self-balancing robot controlled by a PID controller.
- **Chief Reporter at 'Radio RUET' for two years**
  Oversaw news reporting activities and ensured accurate event coverage.
- **Class Representative for Two years at the Department of Mechatronics Engineering, RUET**
  Represented classmates and contributed to departmental functioning.
- **Member of "Onuronon" & "Robotic Soceity of RUET"**
- **Participator, Team leader & Volunteer in Robotronics 2019 & 2022, Smart Unibator- University Innovation Hub Program, Robotic Society of RUET's Annual Competition, ANO Energy of The Future-Rooppur Nuclear Power Plant project.**
  Poster Presentation, Business Case Competition, Science Olympiad, Line Follower Robot.

HONOR & AWARD

- **General Stipend Full Free Studentship (2 Times)**
  HSC Scholarship 2018 & SSC Scholarship 2016
- **Class Representative Award From MTE Dept of RUET**
- **Chief Reporter Award of "Radio RUET"**