BISHOWJIT PAUL

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

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Phone: +8801878082195 Birth: 20 June 2001

Linkedln, GitHub, Porfolio, Male

PERSONAL OBJECTIVE

I am a skilled **Mechatronics Engineer** with a passion for **3D design** and **integrating mechanical, electrical, and computer engineering principles** to create innovative and efficient automation systems. With a strong foundation in both hardware and software, I thrive in the dynamic world of mechatronics, where I design, develop, and optimize cutting-edge solutions that bridge the gap between mechanical and electronic systems. Due to my extensive knowledge in Machine Learning and AI, I can harness the power of data- driven insights to enhance the performance and intelligence of mechatronic systems.

EDUCATIONAL QUALIFICATION

- **B.Sc. in Mechatronics Engineering (MTE)** [Jan 2019-current]
  Rajshahi University of Engineering and Technology, Rajshahi, Bangladesh.
  , 4th year, CGPA: 3.41 (upto 7th semester).
- **Higher School Certificate (H.S.C)** [2018]
  Govt Majeed Memorial City College, Khulna.
  GPA 5.00 (Scale of 5.00).
- **SecondarySchoolCertificate (S.S.C)** [2016]
  Saint Joseph High School, Khulna.
  GPA 5.00 (Scale of 5.00)

PROFESSIONAL TRAINING

- **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.
- **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.
- **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, Robotic Arm, Refrigerator, Cycle, Guiter, Servo Motor and many more.
8. **ANN (DL) based binary classification of Normal data and Attack data of Cyber attack of Smart Grid.** [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: Adaptive Anomaly Detection of Cyber Attack for IEC 61850 based Smart Substation.
  Supervisors: Sarafat Hussain Abhi Sir, Md. Firoj Ali Sir.
- **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.** Link: Self Balancing Robot.

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"**

REFERENCES

Name of Reference

MD. FIROJ ALI

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Name of Reference

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