#### SM KAMRUZZAMAN

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#### Research Interest

Data Science & Machine Learning, Operations Research, Optimization, Internet of Things, Wireless Sensor Network, Industry 4.0.

### **Education & Test Scores**

2014-2018 Rajshahi University of Engineering & Technology

Rajshahi-6204, Bangladesh

Year: 2021

Year: 2023

BSc in Industrial & Production Engineering [CGPA: 3.13]

GRE: Q: 161 V: 149 AWA: 3.5 [*Total: 310*]
TOEFL: R: 17 L: 28 S: 22 W: 26 [*Total: 93*]

**Technical Skills** 

Language and Scripts: C, Python, MATLAB Programming, HTML, CSS, MySQL

Design and Simulation: Autodesk Inventor, Solidworks, AutoCAD

Operating System: Windows, Linux (Kali, Ubuntu)

Statistics: IBM SPSS, Minitab

## **Field of Interest and Experience**

Internet of Things: Developing wireless sensor network (Undergrad. Research)

Optimization: Solving optimization problems applying different Novel algorithms.

**Environment: MATLAB, PYTHON** 

Network optimization, Vehicle Routing Problem, Travelling Salesman Problem

Data Science and ML: Data collection, Data preprocessing, Data analysis, Developing models.

Training and Testing ML Models.

# **Undergraduate Research and Project Works**

Thesis Title: Integrated IoT Framework with WSN for Monitoring Industrial Environment and Controlling

Appliances in the Context of Industry 4.0.

Objectives:

1. To design a Wireless Sensor Network system and implement it in the industrial environment (prototype scale).

- 2. To develop a website for using it as an interface for monitoring and controlling functions.
- 3. Develop a local server for hosting the website using Raspberry-Pi

<u>Case Study</u> <u>Title:</u> Effects of Language Barrier in International Trade.

Objectives:

- 1. To find out whether language is a barrier in international trade or not.
- 2. To recommend remedies to overcome the barrier.

Project Design and Development of a Mini CNC Plotter using Arduino.

- 1. To develop a low-cost device that can plot an image on a paper with pen.
  - a. 3-Axis numeric control system

- b. G-code to control the toolpath
- c. Using open-source software (Inkscape) for converting image to G-code
- d. Using open-source program (JAVA) as a user-interface

## **Professional Experience and Internships**

\_\_\_\_\_ 2019 August-**United Surgical Limited, Bangladesh** Gazipur, Bangladesh Present Engineer, New Product Development • Process Improvement by optimizing process parameters. Process planning, material planning, manpower planning, Sourcing raw materials and machinery. Waste reduction by monitoring process. • Quality Management System. Inventory monitoring. Facility Layout & Optimization • New Project Planning and Execution. · Bill of Materials making and auditing 2016 (July) Industrial Attachment Training: Confidence Infrastructure Limited Dhaka, Bangladesh **Activities** 2014-2018 Volunteer Rajshahi, Bangladesh NIROB - Nirapod Rokter Bandhan (A voluntary blood donation organization) Class Representative 2017-2018 Rajshahi, Bangladesh Dept. of Industrial & Production Engineering, Rajshahi University of Engineering & Technology 2018 Organizer & First Aider Final year tour of Department of IPE, RUET 2017 Volunteer Rajshahi, Bangladesh FAB-LAB establishment in RUET (CNC Router M/C setup) 2017 Volunteer (Technical Support) Rajshahi, Bangladesh 3<sup>rd</sup> International Conference of Mechanical, Industrial and Materials Engineering (ICMIME). Venue: Rajshahi University of Engineering & Technology

Rajshahi, Bangladesh

Kaggle: <a href="https://www.kaggle.com/kamruzzamanselim/">https://www.kaggle.com/kamruzzamanselim/</a>
GitHub: <a href="https://github.com/KamruzzamanSelim/">https://github.com/KamruzzamanSelim/</a>

2017

Website: <a href="https://kamruzzamanselim.github.io/portfolio/index.html">https://kamruzzamanselim.github.io/portfolio/index.html</a>

Second Runners Up

Intra RUET CAD Competition