Dipayan Das

West Bengal University of Technology

I have completed my Bachelor's degree in Electronics & Instrumentation Engineering from **West Bengal University of Technology**, India on August 2012.The following year I was a Programmer Analyst and Web developer in **Cognizant Technology Solution,** a US Multinational and leading software firm. Following are the details about my academics, subject of interests and others.

Academics:

o <u>Primary School</u> – Rahara Ramakrishna Mission **B**oys Home
   Aggregate – **81.625 %** (653 out of 800) Mathematics - 92/100, Physics–90/100

o <u>High School</u> – Northland High School
   Aggregate – **76.4 %** (382 out of 500) Mathematics – 96/100 (A+)

o **<u>Bachelor of Technology</u> – West Bengal University of Technology**
   Grade Point Average – 7.67 out of 10

Professional Appointment:

2013 – 2014 Programmer Analyst and Web Developer at **Cognizant Technology Solution**

Technical Skills:

Programming Language: C , Microsoft Visual C++ , Java (OOP & Advanced), Python, Matlab

IDE: Eclipse, Pycharm, Sublime Text

Database: MySql, Oracle

Hardware: Arduino, Picaxe, Raspberry Pi, X-Bee

Web Design: HTML, CSS, JavaScript, JQuery, Bootstrap

3D Graphics Tool: Blender, Unity

Miscellaneous: OpenCV, Pygame, Arduino C

Area of Interests:

Robotics - **Sensors and Transducers, SLAM, Swarm Robot, Designing**

Artificial Intelligence – **Machine learning, Probabilistic Programming, Kalman Filter, Particle Filter**

Other – **Networking, Algorithm Efficiency, Game Design**

Past and Ongoing Projects:

o **Autonomous Grabber Robot with Obstruction Detection and Path Finding Capability**
   Under guidance of Prof. Nabanita DasGupta. and with fellow students Debajit De, Subhra Kamal Sengupta, Arnab Sarkar
   <u>Objective</u> – The goal of our project was to develop a fully automatic system, which will be able to grab object and transport it from its start location to end location through complex path.
   The main challenge was to navigate through mazes all by itself, by having a knowledge of the maze or by solving the maze 1st time with much amount of time, and other major challenge was to differentiate between a moveable object and a wall.

- **29 - A Card Game with Application of Probabilistic Modelling**
  In collaboration with **Dibyendu Das (Tufts University, PhD Candidate)**
  Objective – The aim of this project is to create 29 (a card game very popular in eastern Asia).and played with 4 player, and the challenge is to make the Computer Player recognize the human players playing attribute (bluffing, aggression, defense) and respond to it accordingly.
  Currently under review in Elsevier Entertainment Computing.

- **Other Projects**

  - ♦ **Balancing a Robot using Ultrasonic sensor**
    This robot was made to make a balancing robot without using traditional approach of level sensor. This project was made by me and my friend **Bivas Roy**. I did the coding of actuator movements with respect to sensor data.

  - ♦ **A.V.M.P (Arduino based Vending Machine Prototype)**
    The idea of a simple vending machine using CPU packing box as the outer shell. A delightful project made by my juniors in my college. I did the mechanical part where rice vending is done, using one broken DVD player, and the total coding of the project.

- **Hands-on Experience**

  - **PC to Microcontroller Interfacing with LCD**
    In Ardent Computech Private Ltd. Here I was instructed and informed about the various aspect of Microcontroller and Embedded System. And in my hands on I made an interfacing system using 8051 microcontroller with pc.

  - **Project Based Training on PLC**
    in Electronics Regional Test Laboratory. During the course I was conveyed instruction and hands on experience on PLC technology. I created a Tank Water Level control programming using SCADA and Siemens S7-300

Publications:

Conference Attended:

1) Attended a 2 Days ACEEE International Conference on "Recent Trends in Communication and Computer Networks 2013" (ComNet 2013), held at Hyderabad on 8-9th November and presented a research paper on "**Autonomous Grabber Robot with Obstruction Detection and Path Finding Capability**".
  -- Debajit De, Dipayan Das, Subhra Kamal Sengupta, Arnab Sarkar
  ELSEVIER 2013 Proceedings Of ComNet, CIIT and ITC, ISBN No.: 978- 81-910691-6-3, Page No.: 115-124 , Paper ID: ComNet2013-60RE

Journal Papers:

1) **Autonomous Grabber Robot with Obstruction Detection And Path Finding Capability**
  -- [Book - Advances in Engineering and Technology Series, ISSN No.: 2214-0344, Volume No.: 7, Page No.: 115-124]

2) **Implementation of an AI player for card game Twenty Nine (29)**
  -- **[** submitted in ELSEVIER Entertainment Computing, 4/11/2014 **]**