

Samrat Sagardeep Ghosh

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CAREER OBJECTIVE

To obtain a job or internship working with professionals who will allow me to learn and grow, and utilize my electrical knowledge and programming skills.

EDUCATION

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| M. Tech. in Power Electronics & Drives , <i>National Institute of Technology Delhi</i> 8.27 CGPA 1st year | 2021 – Ongoing |
| B. Tech. in Electrical Engineering , <i>Techno India, Salt Lake under MAKAUT University</i> 8.08 CGPA | 2015 – 2019 |
| XII(Senior Secondary) – CBSE Board , <i>Kendriya Vidyalaya Cossipore</i> 84.8 % | 2014 |
| X(Secondary) – CBSE Board , <i>Kendriya Vidyalaya Cossipore</i> 9.6 CGPA | 2012 |

PROJECT & TECHNICAL EXPERIENCE

INTERNSHIP: MITSUBISHIPLC (QSERIES) & HMI (GSSERIES)

- Introduction to PLC, Ladder Diagram
- Functional Block Diagram (FDB)
- Human Machine Interface (HMI)
- Industrial Project on Car Parking Management System

INTERNSHIP: EASTERN RAILWAY (SEALDAH DIVISION)

- Types of Generation Mechanisms in Trains
- Types of Coaches
- Power Scheme of Rajdhani
- Power Scheme of Non-AC Coaches
- Sealdah Power House HT and LT Schemes

PROJECT: CAR PARKING MANAGEMENT SYSTEM

- Automatic Car Parking System using GX Works 2

PROJECT: REGENERATIVE BREAKING IN DC MOTOR USING CHOPPER

- Regenerative Breaking of DC motor Four Quadrant DC chopper Drive using PI Controller in MATLAB

PROJECT: DESIGNING DIFFERENT CONVERTERS IN SIMULINK

- Finding the L_{crit} and C_{crit} values
- Making the state space representation
- Modeling the converters based on state space representation in simulink
- Converters designed: Buck, Boost and Buck-Boost

PROJECT: MPPT OF PV USING TRADITIONAL MPPT, PI AND BACKSTEPPING CONTROLLER

- MPPT of PV using traditional P&O
- MPPT of PV using P&O to find the v_{ref} for the PI and using that v_{ref} to generate control signal for the switch via PI controller
- MPPT of PV using P&O to find the v_{ref} for the PI and using that v_{ref} to generate control signal for the switch via non-linear backstepping controller

PROJECT: SOLAR WIND HYBRID MODEL IN MATLAB

- Solar PV Working at MPPT using InC
- Wind Turbine Connected with PMSG working at MPPT using PO
- Battery connection with close loop to maintain DC bus voltage
- Grid connection with phase lock loop

CERTIFICATES

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| Basics of C++ with Data Structures and Algorithms , <i>Coding Ninjas</i> | Feb 2022 – Sep 2022 |
| Master Program in Cyber Security , <i>Simplilearn with EC-Council & MIT Schwarzman College of Computing</i> | Aug 2021 – Jan 2022 |
| Faculty Development Programme on “Modern Trends in Manufacturing Processes and Control Techniques in Renewable Energy System” , <i>Department of Mechanical Engineering, National Institute of Technology Delhi</i> | 16 Nov 2021 – 21 Nov 2021 |
| Prime Minister’s Scheme under Nation Defence , <i>Prime Minister of India, Narendra Modi</i> | 2015 – 2019 |

SKILLS

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| Tools and Languages | C, C++, WordPress |
| Quantitative Research | MATLAB, Proteus, PSpice |
| Communication | English, Hindi, Bengali |

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ACTIVITIES

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| IEEE NIT Delhi Coordinator | Oct 2021 – Present |
| Volunteer in PIICON 2022 | NOV 2022 |
| IEEE PIICON 2022 Web Page Designing | Feb 2022 – Nov 2022 |
| IEEE NIT Delhi Web Page Designing | Nov 2021 – Feb 2022 |