Parth Sarthi Sharma

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EDUCATION

CORNELL UNIVERSITY
MEng in Electrical and Computer Engineering
1st semester

AIACTR
B.Tech in Electronics and Communication Engineering
2015 - 2019
Overall CGPA: 8.3 / 10

LINKS

Github:// **ParthSSharma**
LinkedIn:// **parthssharma**

COURSEWORK

UNDERGRADUATE
Embedded Systems
Microprocessors and Microcontrollers
Digital Communication
Digital System Design
Computer Organisation and Architecture
Introduction to Programming
Data Structures and Algorithms

SKILLS

Hardware Platforms
Arduino • RaspberryPi • NodeMCU
Programming Languages
C\C++ • Python • JAVA
Tools
MATLAB • MIT App Inventor • Processing • Gurobi • OpenCV • LaTeX
Areas of Interest
Embedded Systems • Internet of Things • Image Processing

EXPERIENCE

CORNELL UNIVERSITY | Graduate Teaching Research Specialist
Jan 2021 – Current
- GTRS for ECE 4670 (Digital Communication System Design)

INDIAN INSTITUTE OF TECHNOLOGY, DELHI | Research Associate
Jun 2019 – Sep 2020
- Worked on Genetic Algorithms for energy conservation in power grids under Prof. Ashu Verma
- Worked on hacking CAN Bus and disrupting data under Prof. B. K. Panigrahi

INDIAN INSTITUTE OF TECHNOLOGY, DELHI | Intern
Jun 2018 – Aug 2018
- Worked on "Energy Efficient Buildings" under Prof. B.K. Panigrahi and Prof. Ashu Verma
- Successfully developed an integrated light automation system (for HVAC) with 4 ambient zones

RESEARCH

• Patents:
Ashu Verma, B.K. Panigrahi, Sumedha Sharma, Parth Sharma, "Optimal Building Energy Management System" (Indian Patent Application No.: 202011051401)

• Publications:
"A Cyber-Secure Distributed Control Architecture for Autonomous AC Microgrid," in IEEE Systems Journal, doi: 10.1109/JSYST.2020.3020968.

"Development of a Cost-effective Color Pattern-based Security System," 2019 6th International Conference on Computing for Sustainable Global Development (INDIACom), New Delhi, India, 2019, pp. 988-991.

"Coin Detection based Mobile Charging System," 2019 6th International Conference on Computing for Sustainable Global Development (INDIACom), New Delhi, India, 2019, pp. 60-63.

"Localisation of License Plate and Character Recognition Using Haar Cascade," 2019 6th International Conference on Computing for Sustainable Global Development (INDIACom), New Delhi, India, 2019, pp. 971-974.

AWARDS

2018	2nd	LFR, BVP
2018	3rd	Evoluzione, BVP
2017	2nd	LFR, IGDTUW
2016	2nd	Robotuille, IGDTUW
2016	1st	Robo-LFR, BPIT
2012	All India Rank: 156	Silverzone International Olympiad of Science

PROJECTS

High frequency AC switching using TRIACS
Implementation of Alexnet for self-driving car (Major)
Hand Motion Controlled Quadpod Robot (Minor)
Music Visualizer on LED Strip