# NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR



## MAHATMA GANDHI AVENUE, DURGAPUR - 713209

#### CURRICULUM VITAE

### > Personal Details

Name: Jayanta Ghosh
Date of Birth: 30th January 1998
Guardian's Name: Sankar Kumar Ghosh

**B. Tech:** NIT Durgapur

**Specialization:** Electronics & Communication Engineering

**Registration No:** 16U10555

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Google scholar Profile https://scholar.google.com/citations?authuser=2&user=pOVHvFMAAAAJ

ResearchGate Profile https://www.researchgate.net/profile/Jayanta Ghosh14

#### > Educational Qualifications



### Secondary & Higher Secondary

Examination	Board/Institution	Year of Passing		Marks	
10 <sup>th</sup> Std	CBSE/ Jawahar Navodaya	2014	Obtained	Out of (Total)	%
	Vidyalaya Balurghat		CGPA-10	CGPA-10	95
12 <sup>th</sup> Std	CBSE/ Jawahar Navodaya Vidyalaya Balurghat	2016	478	500	95.6

#### • Graduation

Semester	<b>1</b> st	2nd	3rd	4th	5th	6th	7th
SGPA	9.20	8.84	9.23	9.55	9.59	9.50	9.77
CGPA	9.20	9.02	9.08	9.19	9.27	9.30	9.37

#### > Publication

Jayanta Ghosh, Indranil Sarkar, Soumya Suvra Ghosal & Soumyadip Deb. "Automated Vehicle Management System using Wireless Technology". In the Second International Conference on Innovative Computing and Communication (ICICC - 2019), 21st - 22nd March 2019. Advances in Intelligent Systems and Computing Book Series: Publication Partner Springer Nature Singapore, Organised by Technical University of Ostrava, Czech Republic.

Link: https://link.springer.com/chapter/10.1007/978-981-15-0324-5 18

### > Scholastic Achievements

- Regional rank holder among top 5 in XIIth CBSE Navodaya Vidyalaya Samiti Patna region in 2016. Secured 1st position in the (**Science Exhibition**) in 2013 among all Jawahar Navodaya Vidyalaya
- Secured 2nd position in **All India Science Engineering Congress** 2018-19, organized at NIT Durgapur, by presenting project on Advanced Vehicle Management System
- Secured 2nd position in Insignia (The Techno-Environmental Exhibition).



### **➤** Academic Projects

- \* Design of a Communication Architecture for Unmanned Aerial Vehicle (UAV) Swarm Networks
- \* Supervisor: Dr. Ketan Rajawat, Assistant Professor, (Indian Institute of Technology Kanpur)
- \* Description of Project:

Prototype for communication between UAV Drone and Ground Station. UAV has Pixhawk autopilot controller that send the sensor data to the ground station via Wi-Fi for short range and via RFD-900x for long range. We design an integrated communication system which can itself decide when it has to use Long Range communication System or when it needs to use Short Range Communication System on the basis of favourable conditions.

- \* Design of Single chip Inphase-Quadrature(I/Q) demodulator for L band by using CMOS Technology
- \* Supervisor: Dr. Debapratim Ghosh, Assistant Professor, School of Electrical Sciences,
- \* Description of Project:

This project presents a new Inphase Quadrature Demodulator for L band signal. The proposed integrated circuit contain two Mixer, one Low pass Filter, one Phase shift circuit. The analog mixer is implemented by the modification of Gilbert cell mixer topology. The Low Pass Filter and Phase Shifter circuit are implemented by simple RC circuit. The circuit is operating by the supply voltage of 1.8V. The layout and simulations performed in 180nm CMOS technology

- \* Automated Vehicle Management System by using wireless Technology
- \* Supervisors: Dr. Durbadal Mandal, Associate Professor, (National Institute of Technology Durgapur)
- \* Description of Project:

Developed a prototype which will provide Green corridor for an ambulance and another important convoy when it will receive RF signal within a certain range from those vehicles. If no RF signal is being received, then it will take the real-time image and provide the green signal to denser side based on image processing. On the basis of the entropy value of the image, it will determine the denser side of the road.

### > Internships / Trainings

- \* SURGE-2019, Summer Research Internship in Indian Institute of Technology Kanpur, Under the guidance of Dr. Ketan Rajawat (Dept. Of EE, IIT-K)
- \* Winter 2018, Research Internship in Indian Institute of Technology Bhubaneswar, Under the guidance of Dr. Debapratim Ghosh (Dept. Of EE, IIT-BBS)
- \* Training Course on Internet of Things (IoT) and VLSI from Central Tool Room and Training Centre CTTC Bhubaneswar, Government of India

# ➤ Technical Skills

\* Programming C, C++

Languages VLSI, Digital Electronics, Internet of Things (Arduino-Uno)

Proficient in Unmanned Aerial Vehicle (UAV)Communication

Familiar with VLSI- (Computer Aided Designing by using Micro-wind, Magic-Layout Editor)

Circuit Maker, LT-Spice, NI-Multisim (For Circuit Schematics and Simulations)

**Application packages** MATLAB and Simulink, Arduino Ide (For Internet of Things)

Xilinx ISE, Microwind (For VLSI-layout)

#### > Position of responsibilities

- \* Member of IEEE Student Branch NIT Durgapur
- \* Senior Member of NSS at NIT Durgapur Chapter

# > Extracurricular activities

- \* I was the winner of District level painting competition.
- \* 2<sup>nd</sup> Winner of District level Inter -school debate competition.

Jayanta Airosh

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