DR. KAUSHIK MAZUMDAR/ ASSOCIATE PROFESSOR

Department of Electronics Engineering **IIT-**ISM **[Indian Institute of Technology** (Indian School of Mines)**] Dhanbad, Govt. of India**

RESEARCH INTEREST:

VLSI design, Semiconductor devices, Electronic Low dimensional systems & Nano-Devices.

EDUCATION

BTech., MTech., PhD (Tech.)

WORK EXPERIENCE:
Full-time Regular, Faculty (from year 2012-Till Date)

Department of Electronics Engineering, **IIT**-ISM **[Indian Institute of Technology (Indian School of Mines)] Govt. of India, Dhanbad**

SUPERVISION

1. Supervised **19 MTech.** Thesis and many number of BTech. Students in IIT(ISM) Dhanbad.
2. Already Supervised **PhD scholar** as **Sole** Guide and also currently Supervising 12 allotted **PhD scholars** in **ECE** dept., **IIT**(ISM) Dhanbad.

Externally funded RESEARCH & DEVELOPMENT Sanctions

1. Completed **DST,** GOVT. OF INDIA funded **Research & Development Project** of budget amount **Rs 34,99,679 as PI** on title: Design and efficient implementation of low cost and power proficient model of **Cyber Security** System physical Layer Circuit through accomplished powerful algorithm by advanced innovative electronic active devices. Here the proposal also include security scheme for cloud system. Project start date: 08-01-2019 and end date: 07-05-2022.

2. Completed **DST,** GOVT. OF INDIA funded **Research & Development Project** of budget amount **Rs 23,76,000** as **PI** on title: Design and development of innovative MOSFET and some investigations on its novel properties for industrial deployment. Here a proposal for design of quality MOSFET and its applications was made. Project start date: 27-03-2018 and end date: 26-03-2021.

3. Completed **TEQIP** funded **Research & Development Project** of budget amount **Rs 2,00,000** as **PI** on title: Design of circuitry for obtaining significant characteristics using GaN and GaAs based high electron mobility transistors (HEMT) and MOSFET. Project start date: 21-01-2017 and end date: 20-07-2017.

4. Completed **DST,** GOVT. OF INDIA funded **Research & Development Project** of budget amount **Rs 30,10,000 as PI** on title: Design and investigation of high performance In0.52Al0.48As/In0.53Ga0.47As MOSFET with optimized switching efficiency (sanctioned in 2022) funded by SERB DST.

Recent Journal **PUBLICATIONS (after 2017)**

1. S.Chakraborty, **K.Mazumdar** and D.De, "CBLM: Cluster-Based Location Management for **5G** Small Cell Network Under Stochastic Environment", Journal of Circuits, Systems and Computers, World Scientific Publishing Company, Accepted on 05.12.2020, (**Q4**, SCI Impact Factor 1.278, Thomson Reuters Journal Citation Reports 2020).

2. S.Chakraborty and **K.Mazumdar**, "**Sustainable task offloading decision using genetic algorithm in sensor mobile edge computing**", Journal of King Saud University – Computer and Information Sciences, Elsevier, Accepted on 13.02.2022, (**Q1,** SCI, Thomson Reuters Journal Citation Reports 2020).

3. **K.Mazumdar**, S.Saha, Sk.R.Ali and V.P.Singh, "Modelling of InAs nanowire and MOSFET under phonon emission and absorption by using NEGF formalism", Superlattices and Microstructres, Elsevier, Accepted on 16.11.2020, (**Q2**, SCI Impact Factor 2.658, Thomson Reuters Journal Citation Reports 2020).

4. S S.Chakraborty, **K.Mazumdar** D.De and S.Kumar, "RMS: A Delay Sensitive Road Monitoring System using Edge Intelligence", Revision (completed in) IEEE Journal (**Q2**, SCI).

5. S.Chakraborty, D.De and **K.Mazumdar**, "DOME: Dew Computing based Microservice Execution in Mobile Edge using Reinforcement Learning", accepted on 13/08/2022 in **Applied Intelligence**, Springer. (**Q2**, SCI Impact Factor **5.019**, Thomson Reuters Journal Citation Reports 2021). https://doi.org/10.1007/s10489-022-04087-x

6. S.Chakraborty, **K.Mazumdar** and J.Dutta, "A Hybrid GRASP-GA based Collaborative Task Offloading Technique in Fog Computing", Revision submitted, Springer. (**Q3**, Science Citation Index Expanded).

7. **K.Mazumdar**, R.Shankar, and A.Ghosal, "**Nanocrack Formation Due to Inverse Piezoelectric Effect in AlGaN/GaN HEMT**", Superlattices and Microstructres, Elsevier, Accepted on 23.04.2018, (**Q2**, SCI Impact Factor 2.658, Thomson Reuters Journal Citation Reports 2020).

8. **K.Mazumdar**, R.Shankar, and A.Ghosal, "**Design and investigation of InAlN/Al14N15N superlattice MOSFET**", Superlattices and Microstructres, Elsevier, Accepted on 14.04.2017, (**Q2**, SCI Impact Factor 2.658, Thomson Reuters Journal Citation Reports 2020).

Kaushik Mazumdar