CURRICULUM VITAE

Dr. Dinesh Gupta
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PROFESSIONAL SUMMARY

Academic professional with a doctoral degree from Indian institute of Technology (IIT) and have one year of faculty experience, bringing a balanced commitment to high-quality teaching and impactful research. Adept at creating engaging learning environments and pursuing scholarly work that contributes to the advancement of knowledge. Passionate about student development, academic collaboration, and supporting the institution's mission through both innovative research and effective teaching.

EXPERIENCE

Assistant Professor SRMS CET&R Bareilly (Mar, 2024- Current)	• Actively involved in both research and teaching, with a strong focus on advancing the field of semiconductor device simulation and modeling. • Currently engaged in teaching core subjects while mentoring and supervising students in their academic and research projects. • Research contributions have been recognized through publications in reputed scientific journals and conferences.
Research experience IIT Hyderabad (Aug, 2016 – Feb,2024)	• Focused on the design and modeling of semiconductor devices, as well as the analysis of their electrical characteristics. • Specializing in the analysis of Silicon-Germanium Heterojunction Bipolar Transistors (HBTs) and the modeling of their parameters. • Also experienced in the field of surface plasmons, studying their properties and modeling them using the FDTD tool.

ACADEMIC DETAILS

Degree	Department/Specialization	Alma mater	Year
Doctor of Philosophy	Electrical Engineering (Microelectronics & VLSI)	Indian Institute of Technology Hyderabad	2024
Master of technology	Electrical Engineering (Microelectronics & VLSI)	Indian Institute of Technology Hyderabad	2018
Bachelor of technology	Electronics Engineering	Dr. A.P.J. Abdul Kalam Technical University, Lucknow	2015
Intermediate/+2	Physics, Chemistry, Mathematics	Uttar Pradesh Board	2009
Matriculation	Science & Mathematics	Uttar Pradesh Board	2007

SKILLS

Scientific Tools	• Wireshark Software • Arduino Uno Software • Sentaurus TCAD • Ansys Lumerical				
Technical Skills	Linux	Windows	Python programming	MS-Power point	MS-Excel and Word

COURSES TAUGHT

- Fundamental of Electronic devices
- Semiconductor devices and modeling
- Embedded System Design
- Cyber Security
- Introduction to Python
- Sensor and Instrumentation

NPTEL Certificate Courses

- Embedded System Design
- Integration of Artificial Intelligence (AI) in Educational Practice

RESEARCH PUBLICATION

1. Dinesh Gupta, et. al., "THz Device Design for SiGe HBT under Sub-room Temperature to Cryogenic Conditions," 5th IEEE ICEE Proceedings, International Conference, **2020**, pp. 1-4, DOI:10.1109/ICEE50728.2020.9776700.

2. Kumar Prashant, Yerragudi Pullaiah, **Dinesh Gupta**, et. al., "Atomistic Modeling to Engineer Ohmic Contacts Between Monolayer MoS2 and Transition Metals", 23rd IEEE IITC Proceedings, International Conference, San Jose, California, USA, Oct **2020**. DOI: 10.1109/IITC47697.2020.9515662. (**Best Student paper award**)

3. Kumar Prashant, **Dinesh Gupta**, et. al., "Electrode Orientation Dependent Transition Metal - (MoS2; WS2) Contact Analysis for 2D Material Based FET Applications", IEEE Electron Device Letters, vol. 42, no. 12, pp. 1878 - 1881, **2021**. DOI:10.1109/LED.2021.3121810.

4. Dinesh Gupta, et. al., "Silicon-Germanium Heterojunction Bipolar Transistor DC and AC Analysis Operating under Cryogenic Temperature." Electronics 11, no. 24 (**2022**): 4164. DOI: 10.3390/electronics11244164.

5. Dinesh Gupta, et. al. "Minimizing Intrinsic Base Resistance for Silicon-Germanium Heterojunction Bipolar Transistor" 21st IEEE INDICON Proceedings, International Conference, **2024**. (In Press)

6. Dinesh Gupta, et. al., "Base Resistance Analysis Toward High Performance Prediction in SiGe Heterojunction Bipolar Transistor" IEEE Transaction on electron devices, **2025** (Under review).

7. Dinesh Gupta, et. al., " Recent Progress on Silicon-Germanium Heterojunction Bipolar Transistor Operating Under Cryogenic Temperature" Journal manuscript, **2025** (Under preparation).

AWARDS/ACHIEVEMENTS

- Awarded Best Student Paper at the IITC 2020 international conference held in California, USA.
- Received research grant from CSIR, Delhi File no. 1024/09(2016)/EMR-I
- Qualified for the CSIR-UGC NET-JRF (Engineering Science), in June 2015.
- Qualified twice for GATE (Electronics and Communication Engineering) in 2015 and 2016.
- Qualified for UP-JEE in Group I, ranking 41st out of 200 qualified candidates in 2011.
- Awarded a fee waiver scholarship while studying for the four years of the B. Tech program.

INVITED TALKS

- **Dinesh Gupta**, "SiGe HBT Devices Operating under Cryogenic Temperature for High-Speed Electronics Application" faculty development program on recent advance in electrical, electronics and communication Engineering, Galgotias university,Greater Noida, India, May 9, 2024.

- **Dinesh Gupta** "Silicon-Germanium Physical-Chemistry for Emerging Field in Nanoscience and Technology"*ICCP Conference (Chemistry 2023)* London, UK, February 11, 2023. https://chemistry.sciencezoplanet.com/past-conference-report/