Ankur Kumar

Date 6-09-2024

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OBJECTIVES

- I aim to optimize integrated circuits and communication systems by advancing VLSI circuits' design, performance, and scalability, Analog RF IC Design, and Antenna technologies. I strive to contribute to next-generation innovations in electronics and wireless communication.

TEACHING PROFICIENCY

- Electrical, Instrumentation, and Electronics.

ACHIEVEMENTS

- GATE Qualified- EE19S68040089

EDUCATION AND EMPLOYMENT

- **Pursuing Ph.D. in VLSI** from IIT Mandi (August 2024 – Contin..)
- **Experience as a Research Assistant (RA)** (November 21, 2021 – January 12, 2023)
- **Completed Master in Technology (M. Tech**) in Instrumentation & Control Engineering from Sant Longowal Institute of Engineering and Technology, Longowal with a 7.07 CGPA in 2021. "Dissertation Topic (Design and analysis of double rotor axial flux permanent magnet synchronous motor (AFPMSM) with hybrid stator)"
- **Bachelor of Engineering (B.E)** in Electrical Engineering from Sant Longowal Institute of Engineering and Technology, Longowal with 6.84 CGPA in 2019.
- **Diploma** in Electronics and Communication from Sant Longowal Institute of Engineering and Technology, Longowal with 65.05% in 2016.
- **Certificate** in CSME **(12th equivalent)** from Sant Longowal Institute of Engineering and Technology, Longowal with 64.25% in 2016.
- **Matriculation**: GDPS Lalukheri, Muzaffarnagar, with a 7.4 CGPA in 2012.

RESEARCH INTEREST

- VLSI design, Robotics, Artificial intelligence, Machine learning, Biomedical.
- IOT, Sensors, Precision Agriculture, and Mechanical coating.

SKILLS

- **Experienced in scientific software**: Python, Ansys Maxwell.
- **Handled diverse research Instruments:** IOT Builders, Vector Network analyzer (VNA), and Open-ended coaxialprobes.
- **Computer Skills**: Experienced in Windows and Linux operating systems platforms; Microsoft Office tools, Python programming.

RESEARCH PUBLICATIONS (8)

Journals/International& National Conferences

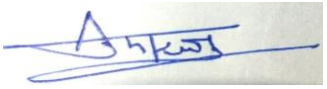
1. Palta, Prachi, **Ankur Kumar**, and Prabhdeep Kaur. "Evaluation of the impact of wastewater irrigation on the soil's dielectric parameters." *Land Degradation & Development*.
2. Singh, V., **Kumar, A.**, Kaur, S., Bansal, A., & Singla, A. K. (2024). Enhancing cavitation erosion resistance of VC+ TiC coatings with PTFE in marine environments via lasso regression optimization. *Tribology International*, *196*, 109697.
3. Singh, J., Pandey, B., Karna, S., Arora, A. S., & **Kumar, A**. (2024). Enhancing the thermographic diagnosis of maxillary sinusitis using deep learning approach. *Quantitative InfraRed Thermography Journal*, 1-15.
4. Sharma, A., Dhanka, S., **Kumar, A.**, & Maini, S. (2024). A comparative study of heterogeneous machine learning algorithms for arrhythmia classification using feature selection technique and multi-dimensional datasets. *Engineering Research Express*, *6*(3), 035209.
5. Palta, P., & **Kumar, A.** (2024). Effect of vermicompost additive on soil's physical, chemical and dielectric properties and its modeling. *Journal of Microwave Power and Electromagnetic Energy*, *58*(3), 186-206.
6. **Kumar, A**. et al. "A comprehensive machine learning framework with particle swarm optimization for improved polycystic ovary syndrome (PCOS) diagnosis" *Engineering Research Express*.
7. Arrhythmia Detection Using Machine Learning: A Study with UCI Arrhythmia Dataset in **12th International Conference on frontiers of intelligent computing: theory and applications (ficta-2024).**
8. Optimizing AFPMSM for Electric Vehicles: A Hybrid Stator Core Design for High Torque Density and Reduced Complexity in **National Conference on Advanced & Emerging Materials for Technological Applications (AEMTA-2024)**
9. Convolutional Neural Networks for Potato Leaf Disease Detection and Classification: **National Conference on Revival and Advancement of Technology/Organic Agricultural Practices through Innovation, Collaboration, and Incubation.**
10. Design and Torque Profile Analysis of Axial Flux Permanent Magnet Synchronous Motor (AFPMSM) with Hybrid Stator: **10th international conference on advancements in engineering and technology(2022).**

PERSONAL PARTICULARS

Permanent Address:	Vill- Lakhan, Post- Titavi (251301), Muzaffarnagar (U.P)
Date of Birth:	11 January 1997
Marital Status:	Single
Languages (R/W):	English, Hindi

DECLARATION

I hereby declare that the information stated above are correct and up to the best of my knowledge.



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