

## FACULTY PROFILE



**Name:** Dr. M. VINOTH KUMAR

**Designation:** Assistant Professor

**E-Mail:** vinothkm@srmist.edu.in

### Professional Qualification:

Degree	University/ Board	Specialization/Department	Year of Passing
PhD	SRM Institute of Science & Technology, Kattankulathur, Chennai	Free-Space Optical Communication	2021
M.Tech	B.S. Abdur Rahman University	VLSI and Embedded Systems	2009
B.E	Erode Sengunthar Engineering College (Affiliated with Anna University)	Electronics and Instrumentation Engineering	2001

### Publications (Journals & Conferences):

#### Journal Publication

- M Vinoth Kumar, Singh R, Karuppiyah M, “Mitigation of atmospheric losses using dual-polarized 16-QAM MIMO technique in free-space optical system in various weather conditions”. Int J Commun Syst. 2024; 37(12): e5816. doi:10.1002/dac.5816. [SCI] IF – 1.7
- M. Vinoth Kumar & Vinod Kumar (2022) Investigation of a coherent dual-polarized 16-QAM 16-channel WDM FSO gamma–gamma fading system under various atmospheric losses, Journal of Modern Optics, 69:12, 665-676, DOI: 10.1080/09500340.2022.2074160. [SCI] IF – 1.464
- M Vinoth Kumar, Vinod Kumar, Rupali Singh “Investigation of PSK/QAM Modulated Hybrid Fiber Optic and Free Space Optic System under Various Atmospheric Losses” ASEAN Engineering Journal. [SCOPUS] SNIP – 0.306

- Vinoth Kumar Mani, Vinod Kumar, "Free-space optical channel performance under atmospheric losses using orthogonal frequency division multiplexing", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 25, No. 3, March 2022, pp. 1571~1579. [SCOPUS] SNIP – 0.513
- M Vinoth Kumar & Vinod Kumar. "Mitigation of Atmospheric Attenuations in Hybrid Fiber-optical and Free-space Optical Channel for Last-mile Communication System." IEIE Transactions on Smart Processing & Computing 11.1 (2022): 64-72. [SCOPUS] SNIP – 0.215
- Pharindra Kumar Sharma, Saptarshi Gupta, Aditya Agarwal, Neeraj Sahu, M. Vinothkumar, ManojKumar Vishnoi, Amit, and Anurag Singh , "Eminent method of voice identification by applying pitch, intensity and pulse", AIP Conference Proceedings 2393, 020079 (2022) <https://doi.org/10.1063/5.0074174> [SCOPUS] SNIP – 0.262
- S. Ramesh, T. Manikandan, M. Vinoth Kumar, Aishwarya Kanakala, Lau Chee Yong; Monitoring and controlling of bacterial blight disease using K-means clustering algorithm. AIP Conf. Proc. 30 August 2024; 3161 (1): 020304. <https://doi.org/10.1063/5.0229275> [SCOPUS] SNIP – 0.291
- M.Vinothkumar, Abhishek Chauhan, Saptarshi Gupta “Review of Planar Slow Wave Structures for Travelling Wave Tube”, International Journal of Pure and Applied Mathematics ISSN: 1314-3395.Volume 119 & Issue 10, PP 273-277. [SCOPUS]

### Conference Publication / Presentation

- Vinothkumar, M., Kumar, V. (2021). Simulation and Analysis of 5G Wireless mm-Wave Modulation Technique for High Capacity Communication System. In: Singh, V.K., Sergeyev, Y.D., Fischer, A. (eds) Recent Trends in Mathematical Modeling and High-Performance Computing. Trends in Mathematics. Birkhäuser, Cham. [SCOPUS]
- Vinoth Kumar, M., and Vinod Kumar. "Relative investigation of methods to generate millimeter wave in radio-over-fiber communication." Micro-Electronics and Telecommunication Engineering. Springer, Singapore, 2020. 567-574. [SCOPUS]
- Vinothkumar, M., Vinod Kumar, “Investigation of M-ary PSK/ M-ary QAM Modulated Fiber Optic and Free Space Optic (FO-FSO) System under Various Atmospheric Attenuations”, 2nd International Conference on Electrical, Electronics and Communication Technology" (ICEECT-2021), Sri Shakthi Institute of Engineering and Technology, Coimbatore, on August 26-27, 2021. **Received best paper presentation award.**
- Presented paper, “IoT-Based Smart Fertilization System: Design and Implementation”, in International Conference on Intelligent Computing and Communication Techniques (ICICCT-2024) at JNU New Delhi, India from 28th to 29th June, 2024.
- Presented paper, “IoT-Based Ecosystem Services in Agroecology”, in International Conference on Intelligent Computing and Communication Techniques (ICICCT-2024) at JNU New Delhi, India from 28th to 29th June, 2024.

- Presented paper, “IoT-Assisted Aquaponics Using Smart Sensors”, in International Conference on Intelligent Computing and Communication Techniques (ICICCT-2024) at JNU New Delhi, India from 28th to 29th June, 2024.
- Vinothkumar, M., Vinod Kumar, “A comparative analysis of methods to improve capacity for optical fiber communication”, 21st Annual Conference of Vijnāna Parishad of India on Modeling, Optimization and Computing for Technological and Sustainable Development, SRMIST, Modinagar, on April, 2019.
- M.Vinoth Kumar, Minakshi Sanadhya “Recent Development in Efficient Adiabatic Logic Circuits and Power Analysis with CMOS Logic”, Elsevier procedia, 1877-0509 © 2015 Published by Elsevier, Third International Conference on Recent Trends in Computing (ICRTC-2015), March 2015
- M. Vinoth Kumar, “Design of Mixed Signal Integrator for RF Amplifier”, International Journal of Computer Applications, ICIIOES (13):7-11, December 2013. Published by Foundation of Computer Science, New York, USA
- M.Vinoth kumar, “Design of Two Stage CMOS Operational Amplifier and Its Analysis for Mixed Signal Integrator”, International Conference ICEET’13, April 2013.
- M.Vinoth kumar, “Performance Analysis of High Speed Low Power Multipliers using High Speed Tree Adder”, National Conference NCRTICT’13, September 2013.

### Book Chapters

- Ramesh, S., and M. Vinoth Kumar. "Identification of Paddy Diseases by Various Algorithms–A Review." Artificial Intelligence and Cybersecurity (2022): 141-154.
- Ramesh, S., and M. Vinoth Kumar. "A Review of Precision Agriculture Based on Embedded System Applications." Artificial Intelligence and Cybersecurity (2022): 87-106.

### Awards and Achievements

- Received “**Best Teacher**” award in SRM Institute of Science & Technology, Delhi-NCR Campus for the academic year 2022-2023.
- Received “**Best Paper Presentation Award**” – Presented a paper titled “Investigation of M-ary PSK/ M-ary QAM Modulated Fiber Optic and Free Space Optic (FO-FSO) System under Various Atmospheric Attenuations at 2nd International Conference on Electrical, Electronics and Communication Technology" (ICEECT-2021), Sri Shakthi Institute of Engineering and Technology, Coimbatore, on August 26-27, 2021.

### Workshops/Seminars/FDPs

- AICTE-QIP Sponsored Online STC on Statistical Modelling and Analysis of Advanced Wireless Communication Systems", IIT Indore from 17-03-2022 to 23-03-2022
- Short Term Course (STC) funded by TEQIP 3 on "5G and Beyond Wireless Technologies: Modelling and Simulations using MATLAB", IIT Indore from 24-12-2020 to 26-12-2020

- "Construction Procedures for Optical Fiber Sensors" organized by IE (I), SRM IST, Chennai on 19-05-2020
- Technical Webinar on International Day of Light on 16-05-2020
- "MATLAB Project Course on Design and Performance Analysis of 5G Wireless Systems: mm Wave, Massive MIMO, NOMA, FBMC, Full Duplex and IoT" conducted by IIT Kanpur from 13-11-2019 to 19-11-2019
- Attended Faculty Development Program in "Product Engineering Services – PACE – Automotive Electronics" conducted from 12th – 17th December, 2016 at KPIT Technologies Limited, Pune.
- Attended one week short term course on, "EDA Tools and Design Methodologies in VLSI & Communication Systems (ETVCS - 15)", during June 12-16, under TEQIP-II at NIT Hamirpur.
- Conducted Workshop on "Orcad Pspice Tool for Analog and Digital Circuits Design" at SRM University – NCR Campus.

## **Work Experience**

### ➤ *Assistant Professor*

- SRM Institute of Science and Technology– NCR Campus, Delhi – Meerut Road, Ghaziabad, from July 2013 to Present

### ➤ *Service Engineer*

- Statex, Coimbatore, from July 2009 - May 2010

### ➤ Teaching / Industry Experience

13 years / 1 year

## **Professional Memberships:**

- Life member - Indian Society for Technical Education