Dr. Thennarasi G

Assistant Professor | Electronics and Communication Engineering

St. Joseph’s Institute of Technology, Chennai, Tamil Nadu, India

esthergovind19@gmail.com

Professional Profile

PhD-qualified academic in Electronics and Communication Engineering specializing in RF and microwave antennas. Experienced in undergraduate teaching, laboratory instruction, student mentoring, departmental coordination, research publication, and peer review.

Teaching Experience

Assistant Professor

Department of Electronics and Communication Engineering

St. Joseph’s Institute of Technology, Chennai | 16 August 2023 – Present

Subjects Taught

Subject	Subject Code	Year	Department
Electromagnetic Fields	EC4306	II	ECE
Transmission Lines and RF Systems	EC4406	II	ECE
Digital Logic and Computer Organization	CS4351	II	ADS
Wireless Broadband Networks	EC4862	IV	ECE
Total Quality Management	MB4741	IV	ECE

Laboratories Handled

Laboratory	Subject Code	Year	Department
Analog and Digital Circuits Laboratory	EC4307	II	ECE
Linear and Integrated Circuits Laboratory	EC4408	II	ECE
Linear and Digital Integrated Circuits Laboratory	EE4313	II	EEE
Advanced Communication Laboratory	EC4706	IV	ECE

Departmental Responsibilities

Advisory Board for Higher Studies (ABHS) Coordinator; GATE Examination Coordinator; Soft Skills In-charge; Internship In-charge; Class Mentor.

Educational Qualifications

Degree and Specialization	Institution	Year	Result
PhD RF and Microwave Antennas (ECE)	SRM Institute of Science and Technology	2024	7.69
M.Tech Communication Systems (ECE)	Karunya Institute of Technology and Sciences	2019	9.65 – First Class with Distinction; Gold Medalist
B.E. Electronics and Communication Engineering	Anna University, University College of Engineering, Villupuram	2017	7.98 – First Class
HSC State Board	Sri Vivekanandha Higher Secondary School	2013	93%
SSLC State Board	Sri Vivekanandha Higher Secondary School	2011	97% – School First

Research Specialization

RF and microwave engineering; wearable and textile antennas; UWB antennas; MIMO antennas; electromagnetic band-gap (EBG) structures; frequency-selective surfaces (FSS); ingestible and implantable antennas; biomedical antennas; wireless body area networks (WBAN).

Technical Skills

Antenna design and simulation: CST Microwave Studio, Ansys HFSS, CADFEKO.

Research Profile

8 international journal articles | 2 book chapters | 9 international conference publications

Citations: 215 | h-index: 7

Google Scholar | ORCID | Scopus | Web of Science

Semantic Scholar | DBLP

ResearchGate and LinkedIn: Thennarasi Govindan

Funded Project and Project Experience

Funded project: “Design and Development of Multi-Tag Tracking System for School Children’s Safety,” funded under the Student Project Scheme of the Tamil Nadu State Council for Science and Technology during the academic year 2018–2019.

- Contributed to the funded project on a multi-tag tracking system for schoolchildren’s safety, involving tag antennas operating at 1.5 GHz and 2.4 GHz for GPS and RFID applications.
- Worked on “Arduino-Based Electrical Discharge Machining” using an Arduino Nano (ATmega328) board.
- Designed a circularly polarized microstrip patch antenna for RFID reader applications at 2.4 GHz and 5.8 GHz.
- Worked on stub optimization and characteristic mode analysis of a circularly polarized microstrip patch antenna.
- Worked on flexible MIMO antennas for WBAN applications, including wearable/textile UWB monopole MIMO antennas and an ingestible MIMO antenna for biomedical applications.

Research Publications

International Journal Articles

1. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Rajesh Agarwal, Rajkishor Kumar, and Damodar Panigraphy, “Design and Analysis of a Conformal MIMO Ingestible Bolus Sensor Antenna for Wireless Capsule Endoscopy for Animal Husbandry,” IEEE Sensors Journal, vol. 23, no. 22, pp. 28150–28158, 15 November 2023. Impact Factor: 4.3; 27 citations.

2. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, and Mohammed Gulam Nabi Alsath, “Low Specific Absorption Rate Quad-Port Multiple-Input Multiple-Output Limber Antenna Integrated with Flexible Frequency Selective Surface for WBAN Applications,” Flexible and Printed Electronics, vol. 8, 015018, 2023. Impact Factor: 2.8; 8 citations.

3. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Mohammed Marey, and Hala Mostafa, “Design and Analysis of a Flexible Smart Apparel MIMO Antenna for Bio-Healthcare Applications,” Micromachines, vol. 13, 1919, 2022. Impact Factor: 3.0; 37 citations.

4. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, and Sachin Kumar, “Design and Analysis of UWB MIMO Antenna for Smart Fabric Communications,” International Journal of Antennas and Propagation, vol. 2022, Article ID 5307430, 14 pages, 2022. Impact Factor: 1.5; 30 citations.

5. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sangeetha Velan, Sachin Kumar, and Thipparaju Rama Rao, “Quad-Port Electromagnetic Band Gap (EBG)-Backed Non-Isomorphic Multiple-Input Multiple-Output (MIMO) Antenna for Wearable Applications,” Flexible and Printed Electronics, vol. 7, 035030, 2022. Impact Factor: 2.8; 9 citations.

6. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Thipparaju Rama Rao, and Mohammed Gulam Nabi Alsath, “On the design and performance analysis of wristband MIMO/diversity antenna for smart wearable communication applications,” Scientific Reports, vol. 11, 21917, 2021. Impact Factor: 3.8; 49 citations.

7. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Thipparaju Rama Rao, and Mohammed Gulam Nabi Alsath, “Conformal Quad-Port UWB MIMO Antenna for Body-Worn Applications,” International Journal of Antennas and Propagation, vol. 2021, Article ID 9409785, 13 pages, 2021. Impact Factor: 1.5; 19 citations.

8. Sugumar Durai, **Thennarasi Govindan**, Anita Jones T., Vanathi P. T., Jency N., and Jenifer Bosco, “Circularly Polarized Rectangular Microstrip Patch Antenna with Diagonal Asymmetric Slits,” International Journal of Engineering & Technology, vol. 7, no. 4.6, pp. 444–448, September 2018. ISSN 2227-524X. Impact Factor: 1.27.

Book Chapters

1. Sandeep Kumar Palaniswamy, Sachin Kumar, **Thennarasi Govindan**, and Malathi Kanagasabai, “Flexible Antennas for Wireless Body Area Network Applications,” in Radio Frequency and Microwave Design for Next Generation Wireless Applications, CRC Press, pp. 119–139, 2025.

2. Sugumar Durai, Anita Jones T., K. S. Senthilkumar, R. J. S. Jeba Kumar, and **Thennarasi Govindan**, “Smart vehicle monitoring and tracking system powered by active radio frequency identification and internet of things,” in The Cognitive Approach in Cloud Computing and Internet of Things Technologies for Surveillance Tracking Systems, pp. 51–64, Elsevier, Amsterdam, 2020. Citations: 8.

International Conference Publications

1. Jeevadharshini B., Kaviya S., and **Thennarasi G.**, “Band-Type MIMO Antenna Design for Wireless Body Area Network Communication,” 2026 International Conference on Smart Futuristic Technology, Bengaluru, India, pp. 1–6, 2026. DOI: 10.1109/ICSFT66733.2026.11508112.

2. Kumaresh V., Kishorekumar C., and **Thennarasi G.**, “Design and Analysis of an FSS-Based Wearable MIMO Antenna for Wireless Body Area Networks in Telemedicine Applications,” 2026 International Conference on Computing, Communication, Control and Cyber-Physical Systems (I5CPS), Karaikal, Puducherry, India, pp. 1–6, 2026. DOI: 10.1109/I5CPS67958.2026.11452575.

3. Praveen Gawtham Y., Prakash T., and **Thennarasi G.**, “Dual-Port Ingestible Antenna for In-Body Wireless Communication in Biomedical Applications,” 2026 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), Chennai, India, pp. 1–6, 2026. DOI: 10.1109/WiSPNET69615.2026.11489408.

4. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Thipparaju Rama Rao, and Lekha Kannappan, “Hexagon Shaped UWB Monopole MIMO Antenna for WBAN Applications,” 2022 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), pp. 302–305, March 2022. Citations: 8.

5. Lekha Kannappan, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Thipparaju Rama Rao, and **Thennarasi Govindan**, “CPW-Fed Quad-Band Dual Port Meandered Monopole Automotive Antenna,” 2022 International Conference on Communication, Computing and Internet of Things (IC3IoT), Chennai, India, pp. 1–4, 2022. Citations: 5.

6. Lekha Kannappan, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Thipparaju Rama Rao, and **Thennarasi Govindan**, “Sub-6 GHz Eight-Port 3-D Vehicular Antenna,” 2022 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), Chennai, India, pp. 293–296, 2022. Citations: 3.

7. **Thennarasi Govindan**, Sandeep Kumar Palaniswamy, Malathi Kanagasabai, Sachin Kumar, Thipparaju Rama Rao, and Lekha Kannappan, “RFID-Band Integrated UWB MIMO Antenna for Wearable Applications,” 2021 IEEE International Conference on RFID Technology and Applications (RFID-TA), pp. 199–202, October 2021. Citations: 8.

8. Sugumar Durai and **Thennarasi Govindan**, “RFID and GPS antennas design of heterogeneous tracking system for school children safety,” 2019 2nd International Conference on Signal Processing and Communication (ICSPC), pp. 361–365, 2019. Citations: 7.

9. A. B. Paul, A. U. Keerthana, Sugumar Durai, **Thennarasi Govindan**, and Prakash, “Design of Rectangular Array Microstrip Patch Antenna for Improved Return Loss,” 2019 2nd International Conference on Signal Processing and Communication (ICSPC), pp. 236–238, 2019. Citations: 2.

Peer Review Contributions

Served as a peer reviewer for 19 journal manuscripts and 4 international conference papers, contributing to the evaluation and enhancement of research quality.

Journal Manuscripts Reviewed

- Scientific Reports – 6
- International Journal of Antennas and Propagation – 2
- Wireless Personal Communications – 2
- Telecommunication Systems – 1
- Discover Electronics – 1
- Discover Applied Sciences – 2
- Alexandria Engineering Journal – 1
- Engineering Research Express – 1
- Analog Integrated Circuits and Signal Processing – 2
- Biomedical Materials and Devices – 1

Conference Papers Reviewed

- IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA 2026) – 2
- International Conference on Intelligent Communication Networks and Computation Techniques (ICICNCT 2025) – 1
- IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON 2025) – 1

Awards and Scholarships

- NPTEL Discipline Star Award – January–April 2025.
- Gold Medal – M.Tech in Communication Systems, CGPA 9.65.
- Dr. D. G. S. Dinakaran Merit Scholarship – 2019.
- School First in SSLC – 489/500 (97%).

NPTEL Course Achievements

- Top 2% – Communication Networks (79%, Elite + Silver).
- Top 5% – Body Language: Key to Professional Success (79%, Elite + Silver).
- Top 5% – Microprocessors and Microcontrollers (75%, Elite + Silver).
- Top 5% – Introduction to Wireless and Cellular Communications (71%, Elite + Topper).
- Antennas (81%, Elite + Silver).
- Network Security (72%, Elite).
- Microwave Theory and Techniques (71%, Elite).
- Digital Circuits (67%, Elite).
- Introduction to Machine Learning (Tamil) (62%, Elite).
- Electromagnetic Field (60%, Elite).
- Basic Electric Circuits (52%).

Workshops and Faculty Development Programmes

- Five-day FDP on “Flexible and RF Printed Electronics,” SRMIST, Kattankulathur, Chennai.
- Workshop on “Teaching Development Programme on Inspired Teaching of Electromagnetics,” SSN College of Engineering, Kalavakkam, Chennai.
- Five-day online FDP on “Advanced Electromagnetics and Modern Antenna Design Principles,” SSN College of Engineering, Kalavakkam, Chennai.
- Three-day online international webinar on “International Workshop on Advanced Design Principles,” SSN College of Engineering, Kalavakkam, Chennai.
- Five-day online FDP on “Advanced Electromagnetics and Applications,” SSN College of Engineering, Kalavakkam, Chennai.
- 10-day online FDP on “EICT-LTAA2020,” SRMIST, Kattankulathur, Chennai.
- Workshop on “Hands-on Training in Arduino and Raspberry Pi,” University College of Engineering, Villupuram, conducted by Dreamer India Innovations.
- 13-day training on “Employability Skill Building Programme (E-SBP),” University College of Engineering, Villupuram, conducted by CUIC, Anna University, and Titan Company Limited.
- Six-day national-level FDP on “Reconfigurable and Compact Antennas: Enabling Real-Time Solutions in Wearable and Healthcare Technologies,” Rajalakshmi Engineering College, Chennai.
- Six-day ATAL FDP on “Harnessing RF-Optical Synergy for Revolutionary Biomedical Devices in NGW Networks,” Hindustan Institute of Technology and Science, Chennai.

Professional Membership

Institute of Electrical and Electronics Engineers (IEEE) – Member ID: 95101302.

Languages

Tamil and English; Hindi (reading and writing).