



Dr. MERLIN GILBERT RAJ. S

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RESEARCH/TEACHING INTERESTS

My teaching interests include Electromagnetics and Waves, Antenna Design, Digital Signal Processing, Digital Communication, and Wireless Communication. My research focuses on reconfigurable antenna design, RIS-assisted communication, and millimeter-wave systems. I am also interested in hybrid beamforming and channel estimation using convex and concave optimization approaches to enhance next-generation wireless networks.

EXPERIENCE

- Assistant Professor-II, Electronics and Communication Engineering, Karunya Institute of Technology and Sciences, Coimbatore, India, 2023 – present
- Assistant Professor-I, Electronics and Communication Engineering, Karunya Institute of Technology and Sciences, India, 2013 – 2023
- Assistant Professor, Electronics and Media Technology, Karunya Institute of Technology and Sciences, India, 2011 – 2012
- Lecturer, Electronics and Media Technology, Karunya Institute of Technology and Sciences, India, 2009 – 2011

EDUCATION

| Degree | Branch / Specialization | University | Class | Mode | Month & Year of Passing |
|--------|------------------------------------|---------------------------|-------------|-----------|-------------------------|
| Ph.D., | Electronics and Communication Engg | Karunya Deemed University | - | Part Time | Aug 2021 |
| M.E., | Communication Systems | Anna University | First Class | Full Time | May 2009 |
| B.E., | Electronics and Communication Engg | Anna University | First Class | Part Time | April 2005 |

SUMMARY OF INTERNATIONAL JOURNAL & CONFERENCE PUBLICATIONS - [PUBLISHED & ACCEPTED]

| Year | International Journal Publications | International Conference Publications | National Conference publications |
|-------------|------------------------------------|---------------------------------------|----------------------------------|
| 2009 - 2025 | 10 | 12 | 2 |

PATENTS

| | |
|---|------------------------------------------------------------------------------------------------------------------------------|
| 1 | Electronic Sound Synthesizer-Based Wild Animal Deterrent System, Application No.202541040313 A, Publication Date: 16/05/2025 |
|---|------------------------------------------------------------------------------------------------------------------------------|

INSTITUTE DEVELOPMENT PROJECT

| # | Title of the project | Funding Agency | Amount(Rs.) | Year |
|---|-------------------------------------------------------|----------------|-------------|------------|
| 1 | Modernisation of RF Laboratory with MIMO SDR Platform | AICTE - MODROB | 39.4 lacks | 2019- 2021 |

RESEARCH GUIDANCE

| Research guidance as supervisor | Completed | Ongoing |
|--------------------------------------------------|-----------|---------|
| Doctor of Philosophy - PhD Thesis advising | - | 1 |
| Master of Engineering - Master's Thesis advising | 6 | - |

PROFESSIONAL MEMBERSHIPS

| | |
|---|-------------------------------------------------|
| 1 | Member of IEEE & Communication Society (ComSOC) |
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AWARDS/HONORS

- Summer Industry Experience Fellowship Award, ICON Design Automation Pvt Ltd, Bengaluru, India.
- NPTEL Elite Award, Applied Optimization for Wireless, Machine Learning, Big Data(12 Weeks Course).
- National Young Leaders Programme Award, National Service Scheme, Ministry of Youth Affairs & Sports, Government of India.
- Member of Expert Technical Committee, Telecom Technology Development Fund (TTDF) Proposals, Bharat 6G Vision, Ministry of Communications, Department of Telecommunications, Govt. of India

INDUSTRY CERTIFICATION

- AWR Microwave Office for RF Designers, CADENCE