Jaisingh T

Associate Professor
Department of Electronics Engineering
Faculty Incharge (Networks and Systems)
Indian Institute of Technology
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Dhanbad
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Date of Birth: March 29, 1980
Place of Birth: Mettupalayam, Tamilnadu, India. Citizenship: Indian

Education

B.E. Electronics and Instrumentation Engineering, Government College of Technology, Coimbatore, Tamilnadu, India, 2001.

M.E. Applied Electronics, Government College of Technology, Coimbatore, Tamilnadu, India, 2004.

Ph.D. Optical Networks, Indian Institute of Technology, Kharagpur, West Bengal, India, 2016.

Ph.D Thesis

Lightpath Provisioning in Single and Multidomain WDM Optical Networks

Area of Interest

Optical Networks, Wireless Sensor Networks, Vehicular Ad hoc Networks, Software Defined Networks, Optical Sensor and Networks.

Academic Experience

Indian Institute of Technology (Indian School of Mines), Dhanbad, India

Associate Professor, Department of Electronics Engineering from March 22, 2023 to till Date.

Assistant Professor, Department of Electronics Engineering from December 2011 to March 21, 2023.

Indian Institute of Technology Kharagpur, India

Research Scholar(Institute), Department of Electronics and Electrical Communication Engineering from July 2007 to December 2011

Sri Ramakrishna Engineering College, Coimbatore, India

Lecturer, Department of Electronics and Instrumentation Engineering from August 2001 to July 2002 and from June 2004 to July 2007

Sponsored Funding Research

Sl. No.	Title of the Project	Sponsoring Agency	Fund granted	PI/Co-PI
1.	Wireless Sensor Network	TEQIP-II	Rs. 2.00 lakhs	PI
2.	Optical Sensors Based Traffic Weighbridge	DST-SERB	Rs.42.39 lakhs	Co-PI
3.	Design and Characterization of SBVT for Elastic Optical Networks	DST-SERB	Rs.15.11 lakhs Ongoing	PI
4.	Performance Evaluation of Controller Placement for Software Defined Networks	DST-SERB	Rs. 18.20 lakhs Ongoing	PI
5.	Design and Development of Artificial Intelligence Based Fiber optic Respiration Rate Measurement System for Psychophysiological Health Monitoring	DST-SERB	Rs. 21.00 lakhs Ongoing	Co-PI
6.	Capacity building for human resource development in unmanned aircraft system (Drone and related technology)	MEITY	Rs. 150.91 lakhs Ongoing	Co-PI

Research Publications

International Journals

1. Ananya Banerjee, Rahul Rahul, **Jaisingh Thangaraj**, Santosh Kumar, "Novel Plasmonic-based D-shaped Fiber-optic Sensor for Detecting Milk Fat and Melamine Concentration", Springer Plasmonics Vol. 19, 3439–3453 November 2024.

2. Ananya Banerjee, Rahul Rahul, **Jaisingh Thangaraj**, Santosh Kumar, "High-sensitivity SPR fiber-optic biosensor with nano-grating structure for pathogenic bacteria detection in drinking water", IEEE Sensor Journal, VOL. 24, NO. 22, October 2024.

3. Anand Prakash, Sharbani Roy, **Jaisingh Thangaraj**, Jitendra K Mishra, "Performance analysis of real-time multi-wavelength nonlinear DRA for the next-generation photonic network", Taylor & Francis Journal of Electromagnetic Waves and Applications, pp. 1-16, March 2024.

4. Anand Prakash, **Jaisingh Thangaraj**, Sharbani Roy, Shaury Srivastav, Jitendra K Mishra, "Model-Aware XGBoost Method Towards Optimum Performance of Flexible Distributed Raman Amplifier", IEEE Photonics Journal, June 2023.

5. Murla Bhumi Reddy, **Jaisingh Thangaraj**, Vishnu Priye, "Multiservice provisioning optical code switched generalized multiprotocol label switching optical networks", Springer Wireless Personal Communications, Vol. 128(3), pp. 1651-1669, February 2023.

6. A Prakash, S Roy, **Jaisingh Thangaraj**, JK Mishra, "A Novel Dynamic Distributed Raman Amplifier for the Gain Excursion Assessment of Real-Time Optically Amplified Web" Fiber and Integrated Optics 42 (1), 31-51, 2023.

7. P Agilandeswari, K Girish, R Rajasekar, GT Raja, R Periyasamy, **Jaisingh Thangaraj**, "Coupled Nanoring Resonators Based Reconfigurable and Multifunctional Platform for Photonic Integrated Circuits", IEEE Journal of Selected Topics in Quantum Electronics 28, 2022.

8. A Prakash, **Jaisingh Thangaraj**, S Roy, S Srivastav, JK Mishra, "Model-aware XGBoost Method towards Optimum Performance of Flexible Distributed Raman Amplifier", IEEE Photonics Journal, 2023

9. Ujjwal, **Jaisingh Thangaraj** and Aaron Antonio Dias Barreto, "Accurate QoT estimation for the optimized design of optical transport network based on advanced deep learning model", Optical Fiber Technology, Volume 70, May 2022, 102895.

10. Ujjwal and **Jaisingh Thangaraj**, "Outright fit resource allocation approach for advance reservation requests in elastic optical networks", Journal of Optical Communications and Networking, Vol. 14, Issue 5, pp. 327-338 (2022). https://doi.org/10.1364/JOCN.450831

11. Banoth Ravi, **Jaisingh Thangaraj** and Shishir Kumar Shandilya, "Stochastic modelling and analysis of mobility models for intelligent software defined internet of vehicles", Elsevier Physical Communication, Volume 50, February 2022, 101498.

12. Deep Pal, Amitesh Kumar, Abhinav Gautam, **Jaisingh Thangaraj**, "FBG Based Optical Weight Measurement System and Its Performance Enhancement Using Machine Learning", IEEE Sensors Journal 22 (5), 4113-4121, 2022.

13. Ujjwal, Neha Kumari, **Jaisingh Thangaraj** and Chhandita Roy,"Distance adaptive hybrid super-channels enabled by sliceable bandwidth variable transponder for spectrally efficient elastic optical networks", Elsevier Computer Networks, Volume 200, December 2021, 108533.

14. Chintala, S., **Thangaraj, J.** and Edla, D.R., "Elimination of EOG signals from raw EEG signals using step size based recursive least squares- least mean fourth adaptive algorithm", Elsevier Applied Acoustics Volume 180, September 2021, 108097.

15. Chintala, S., **Thangaraj, J.** and Edla, D.R., "Mixed step size normalized least mean fourth adaptive algorithm for artifact elimination from raw EEG signals", Elsevier Biomedical Signal Processing and Control, Volume 65, March 2021, 102392.

16. Ravi Banoth, and **Jaisingh Thangaraj**, "Performance evaluation of multi service provisioning for multi-hop cooperative data dissemination in SDHVN", Springer Journal of Ambient Intelligence and Humanized Computing, 4(3):1-14, April, 2021.

17. Ujjwal, **Jaisingh Thangaraj** and Rajnish Kumar,"Multi-path provisioning in elastic optical network with dynamic on-request optimal defragmentation strategy", Elsevier Optical Switching and Networking, Volume 41, September 2021, 100607.

18. Neha Mahala and **Jaisingh Thangaraj**, "Resource allocation with advance reservation using artificial neural network in elastic optical networks" Springer Soft Computing, 25, pages7515–7525 April 2021.

19. Neha Mahala and **Jaisingh Thangaraj**, "Routing and Spectrum Allocation in Elastic Optical Networks for Ecosystem Monitoring" IEEE Sensors Journal, Feb 2021.

20. Ravi Banoth, and **Jaisingh Thangaraj**, "Stochastic Traffic Flow Modeling for Multihop Cooperative Data Dissemination in VANETs", Elsevier Physical Communication, Feb 02, 2021.

21. Neha Mahala and **Jaisingh Thangaraj**, "Weight distributed spectrum allocation in flexible-grid optical networks", Elsevier Optik Journal, 228 (2021): 166171.

22. Ujjwal, Neha Mahala and **Jaisingh Thangaraj**, "Dynamic adaptive spectrum allocation in flexible grid optical network with multi-path routing", IET Communications, December 2020.

23. Ujjwal and **Jaisingh Thangaraj**, "Limitation of Erlang B Traffic Model in Elastic Optical Network for Blocking Probability Estimation" De Gruyter Journal of Optical Communication, Volume 42, Year 2021, Pages 249-258.

24. Abhinav Gautam, Amitesh Kumar, **Jaisingh Thangaraj**, Devendra Chack and VishnuPriye, "Optical weight measurement system using FBG based D-IM edge filter detection", Elsevier Optical Fiber Technology, Volume 61, January 2021, 102386.

25. Ravi Banoth, and **Jaisingh Thangaraj**, "Stochastic performance modeling and analysis of multi service provisioning with software defined vehicular networks", Elsevier AEU - International Journal of Electronics and Communications, Volume 124, September 2020, 153327.

26. Shrinivas Petale, and **Jaisingh Thangaraj**, "Link Failure Recovery Mechanism in Software Defined Networks", IEEE Journal on Selected Areas in Communications, Volume: 38, Issue: 7, July 2020.

27. Abhinav Gautam, Amitesh Kumar, Kumar Kinjalk, **Jaisingh Thangaraj** and Vishnu Priye, "A Low Cost FBG Based Online Weight Monitoring System",IEEE Sensors Journal, Volume 20, Year 2020, Pages 4207-4214.

28. Rakesh Kumar Maurya, **Jaisingh Thangaraj** and Vishnu Priye, "Dynamic Routing and Wavelength Assignment Using Cost Based Heuristics in WDM Optical Networks", Springer Wireless Personal Communication Journal, Volume 115, Year 2020, Pages 971-992.

29. Shrinivas Petale, and **Jaisingh Thangaraj**, "Failure-Based Controller Placement in Software Defined Networks", IEEE Transactions on Network and Service Management, Volume 17, Year 2020, Pages 503-516.

30. Ravi Banoth, **Jaisingh Thangaraj** and Shrinivas Petale, "Data Traffic Forwarding for Inter-vehicular Communication in VANETs Using Stochastic Method", Springer Wireless Personal Communication Journal,106, pages 1591–1607 (2019).

31. Rakesh Kumar Maurya, Shrinivas Petale, **Jaisingh Thangaraj** and Vishnu Priye, "Burst Contention Resolution Using Fiber Delay Management in WDM Optical Networks", Springer Wireless Personal Communications volume 107, pages785–796 (2019).

32. Shrinivas Petale, Rakesh Kumar Maurya, **Jaisingh Thangaraj** and Vishnu Priye, "Improved Connection Establishment of Dynamic Traffic with Queue in WDM Optical Networks", Springer Wireless Personal Communications volume 100, pages1707–1725 (2018).

33. Ujjwal and **Jaisingh T**, "Generation of an ultraflat and power efficient optical frequency comb by cascading of electroabsorption and single-drive Mach–Zehnder modulator", SPIE Optical Engineering, 57(12), 126106 (2018).

34. Ujjwal Yadav and **Jaisingh Thangaraj**, "Review and analysis of elastic optical network and sliceable bandwidth variable transponder architecture", SPIE Optical Engineering, 57(11), 110802 (2018).

35. Ujjwal and **Jaisingh T**, "Generation of ultra-wide and flat optical frequency comb based on electro absorption modulator", Springer Optoelectronics Letters, Volume 14, Year 2018, Pages 185-188.

36. **Jaisingh Thangaraj**, Banoth Ravi, Sunaina Kumari, "Performance Analysis of Collision Avoidance Routing Protocol for Inter-Vehicular Communication", Springer Cluster Computing, Volume 22, Year 2019, Pages 7769-7775.

37. Ujjwal and **Jaisingh T**, "Design and development of a new architecture of sliceable bandwidth variable transponder", Elsevier Optoelectronics review, April 2017.

38. Murla Bhumi Reddy, **Jaisingh Thangaraj** and Vishnu Priye, "Connection Provisioning for PCE-Based GMPLS Optical Networks", Springer Wireless Personal Communications, Volume 103, Year 2018, Pages 2775-2790.

39. Jazil Nazir, Vivek T and **Jaisingh Thangaraj**, "Temperature Stabilization In Fiber Optic Gyroscopes For High Altitude Aircraft", *Journal of Optik, Elsevier, Vol. 127, Issue 20, pp.9701 to 9710*, October 2016.

40. **Jaisingh Thangaraj**, Shriphal Meena and Raja Datta, "End-to-end path protection considering four wave mixing in multi-domain WDM optical networks", *Vol.42, No.3, pp.268-280, Journal of Optics, Springer*, 2013.

41. **Jaisingh Thangaraj**, Praful D Mankar and Raja Datta, "Improved Shared Resource Allocation Strategy with new ILP formulation for Survivability in WDM Optical Networks" *(Vol.39(2), pp.57-75, Journal of Optics, Springer India)*, 2010.

Conferences

1. A Banerjee, R Dahiya, **Jaisingh Thangaraj**, RS Moriangthem, “A D-shaped refractive index SPR fiber optic sensor for NIR region”, SPIE Future Sensing Technologies, 12327,pp 299-305, 2023.
2. Chintala, S., Ankit Kumar and **Thangaraj**, J.,"Ocular Artifact elimination from EEG signals using Robust Variable Step Size LMF Adaptive Algorithm", IEEE Proceedings of INDICON, February 2020.
3. Neha Mahala and **Jaisingh Thangaraj**, "Efficient Spectrum Provisioning in Elastic Optical Networks" Springer 4th International Conference on Internet of Things and Connected Technologies (ICIoTCT), 2019 pp 221-228.
4. Chintala, S., **Thangaraj**, J. "Ocular artifact elimination from eeg signals using RVFF-RLS adaptive algorithm", IEEE Proceedings of NCC 2020.
5. Murla Bhumi Reddy, **Jaisingh Thangaraj** and Vishnu Priye, "Performance Analysis and modelling of GMPLS Optical Networks with Multiservice Queueing model", IEEE Proceedings of ICE3, Pages 158-161, February 2020.
6. Chintala, S., Jyoti Mishra and **Thangaraj**, J.,"Variable Step Size NLMF Adaptive Algorithm for Elimination of Ocular Artifacts from EEG Signals", IEEE Proceedings of ICCCS, October 2020.
7. Abhinav Gautam, Amitesh Kumar, Vishnu Priye and **Jaisingh Thangaraj**, "Optical Weight Measurement System Using FBG based Edge Filter Detection Technique", IEEE Proceedings of WRAP" December 2019.
8. Chintala, S., **Thangaraj**, J. and Edla, D.R., "GVFF-RLS Adaptive Algorithm for Elimination of Ocular Artifacts from EEG Signals", IEEE Proceedings of INDICON December 2019.
9. Neha Mahala and **Jaisingh Thangaraj**, “Spectrum Assignment using Prediction in Elastic Optical Networks” IEEE Proccedings of ICCCNT, July 2019.
10. Neha Mahala and **Jaisingh Thangaraj**, “Elastic Optical Networks: Emerging Approach for Effective Spectrum Provisioning” IEEE Proccedings of ICCCNT, July 2019.
11. Banoth Ravi, **Jaisingh Thangaraj**, "Improved Performance Evaluation of Stochastic Modelling and QoS Analysis of Multi-hop Cooperative Data Dissemination in IVC" IEEE Proceedings of IMICPW, December 2019.
12. Shrinivas Petale, Harshavardhan Unnibhavi, **Jaisingh Thangaraj**, "Physical Layer Impairment Aware Network Routing in Software Defined Optical Networks" IEEE Proceedings of IMICPW, December 2019.

13. Abhinav Gautam, Ritu Raj Singh, Amitesh Kumar, **Jaisingh Thangaraj**, "FBG based sensing architecture for traffic surveillance in railways" IEEE Proceedings of ICMAP, February 2018.

14. Shrinivas Petale, and **Jaisingh Thangaraj**, "RWA Based Optimal Placement of Wavelength Converters in WDM Optical Networks", IEEE Proceedings of ICMAP, February 2018.

15. Banoth Ravi, **Jaisingh Thangaraj** and Shrinivas Petale, "Stochastic Network Optimization of Data Dissemination for Multi-hop Routing in VANETs", IEEE Proceedings of ICMAP, February 2018.

16. Ujjwal, **Jaisingh Thangaraj**, "Optimal spectral slot width assignment in flexible grid elastic optical network", IEEE Proceedings of ICMAP, February 2018.

17. Jyoti Kumari, Ujjwal, **Jaisingh Thangaraj**, "Generation of optical frequency comb by cascading of Mach-Zehnder modulator and phase modulator with polarization controller", IEEE Proceedings of ICMAP, February 2018.

18. C Sarojini, **Jaisingh Thangaraj**, "Implementation and Optimization of Throughput in High Speed Memory Interface Using AXI Protocol" IEEE Proceedings of ICCCNT, July 2018.

19. R.S. Pragdheesh, Vairavel Murugaraj Arangaiah, **Jaisingh Thangaraj**, "An Updated Anti-Collision System Between Machines in a Stack Yard Using Image Processing Techniques" IEEE Proceedings of ICCES, October 2018.

20. Neha Mahala and **Jaisingh Thangaraj**, "Spectrum assignment technique with first-random fit in elastic optical networks" IEEE Proccedings of RAIT, March 2018.

21. Banoth Ravi, **Jaisingh Thangaraj**, "End-to-End Delay Bound Analysis of VANETs Based on Stochastic Method via Queueing Theory Model" *IEEE WiSPNET 2017*, March 2017.

22. Murla Bhumi Reddy, Vishnu Priye, **Jaisingh Thangaraj**, "Analysis of control plane for Multiservice Provisioning on GMPLS Core Networks" OSA IONS 2016, September 2016.

23. Rakesh Kumar Maurya, **Jaisingh T**, Vishnu Priye, "Analysis of Blocking Probability in g-link Topology" OSA IONS 2016, September 2016.

24. **Jaisingh T**, Shilpee Kumari, "Evaluating feasibility of using Wireless Sensor Network in Agricultural land through simulation of DSR,AOMDV, AODV, DSDV Protocol" IEEE Proceedings of WiSPNET 2016, March 2016.

25. Rakesh Kumar Maurya, **Jaisingh T**, Vishnu Priye, "Statistical Analysis of Blocking Probability for Dynamic Traffic in WDM Optical Networks Based on Erlang B Model", IEEE Proceedings of WiSPNET 2016, March 2016.

26. **Jaisingh T**, Amitesh Kumar, Vishnu Priye, "Heuristic Approach For Survivability in WDM Optical Networks With The Impact of Four Wave Mixing", IEEE Proceedings of ICMAP, December 2013.

27. **Jaisingh T**, R Karthikeyan, K Srinivasan, K Saravanakumar, "On Adaptive Noise Cancelling Based on Independent Component Analysis", Proceedings of National Conference on Emerging Trends in Instrumentation Systems, Coimbatore, India, January, 2006.

28. R Karthikeyan, K Porkumaran, **Jaisingh T**, K Srinivasan, "Design of Intelligent Cascade Controller for Thermal System", Proceedings of National Conference on Emerging Trends in Instrumentation Systems, Coimbatore, India, January, 2006.

29. **Jaisingh T**, K Srinivasan, R Karthikeyan, D Sivakumar, "Efficient Wavelet Based JPEG Image Compression", Proceedings of National Conference on Emerging Trends in Industrial Automation & Control, Hosur, India, August 2005.

30. **Jaisingh T**, Bhaskar K, Ebenezer Jeyakumar A "An Optimized Cross Layer Design for wireless Mobile Ad Hoc Networks", Proceedings of National Conference on Modern Trends in Electrical and Instrumentation Systems, Coimbatore, India, March 2005.

31. **Jaisingh T**, Rajkumar P V, "Terminode Routing in Ad Hoc Networks", Proceedings of National Conference on Recent in Networking Technology, Coimbatore, India, December 2003.

32. **Jaisingh T**, Rajkumar P V, "Micro Payment for Packet Forwarding in Ad Hoc Networks", *National Conference on Recent in Networking Technology*, Coimbatore, India, December 2003.

33. **Jaisingh T**, Sakthivel P, Vasanthanayaki C, "Image Morphology using contour representation", Proceedings of National Conference on Power Conversion and Industrial Controls, Palakkad, India, January 2003.

34. **Jaisingh T**, Shanmugasundaram, "Dynamic Overload Control for Distributed Call Processors using Neural Network Methods", Proceedings of National Conference on Sensors and Instrumentation, Hyderabad, India, January 2002.

Conference/Seminar/Workshop Organized

Currently organizing IEEE sponsored International Conference on Microwave and Photonics as Technical Program Chair at Indian School of Mines, Dhanbad in February 2018.

Organized in OSA sponsored International Symposium on IONS (International Optical Networks Students) 2016 as Organizing Co-chair at Indian Institute of Technology (ISM) Dhanbad in September 2016.

Organized one IEEE sponsored International Conference on Microwave and Photonics at Indian School of Mines, Dhanbad in December 2015.

Organized one IEEE sponsored International Conference on Microwave and Photonics at Indian School of Mines, Dhanbad in December 2013.

Volunteered in organizing IEEE Region 10 Colloquium and 3^{rd} International Conference on Industrial and Information Systems at IIT Kharagpur in December 2008.

Organized first National Conference on Emerging Trends in Instrumentation Systems at Sri Ramakrishna Engineering College, Coimbatore, India in January 2006.

M.Tech Thesis Guidance

Completed: 34

Ongoing: 2

PhD Guidance

Membership in Professional Bodies

Senior Member in IEEE, USA

Senior Member in Optica (formerly OSA)

Regular Member in SPIE

Life Fellow in Optical Society of India

Sl. No.	Name	PhD Thesis Topic	Status
1.	Rakesh Kumar Maurya	Traffic Grooming in WDM optical networks	Awarded
2.	Murla Bhumi Reddy	Connection Provisioning in GMPLS networks	Awarded
3.	Banoth Ravi	Stochastic Analysis in Vehicular Networks	Awarded
4.	Neha Mahala	Routing and Spectrum Assignment in Elastic Optical Networks	Awarded
5.	Sridhar Chintala	Modeling and Simulation of Brain Computer Interface (BCI) Using Adaptive Learning Techniques	Awarded
6.	Ujjwal	Design of Architecture for Sliceable Bandwidth Variable Transponder (SBVT) and Routing and Spectrum Assignment	Awarded
7.	Ananya Banerjee	Design of SPR based fiber Optic Sensors	Going on
8.	Nitesh Kumar	Resource Allocation for Elastic Optical Networks Using Machine Learning Algorithms	Going on
9.	Anand Prakash	Design of Distributed Raman Amplifier for Optical Communication	Thesis Submitted
10.	Rahul	Optical Sensor Networks In IoT	Going on

Fellow in IETE

Life member in ISTE

Life member in Institution of Engineers

Honors, Awards & Fellowships

Acted as resource person and delivered technical talk on two days workshop on **Artificial Intelligence and Machine Learning Application in Healthcare** at SRM Institute of Science Technology, Kattankulathur, Tamilnadu during 16^{th} and 17^{th} September 2021.

Acted as resource person and delivered technical talk on AICTE Sponsored 5 days Faculty Development Programme (ATAL-FDP) on **Embedding AI in Smart Sensors** during 7^{th} June to 11^{th} June 2021 at Sri Ramakrishna Engineering College, Coimbatore.

Acted as resource person for the **AICTE Training and Learning Academy (ATAL)** sponsored Five days Faculty Development Program on Machine Learning from 07.12.2020 to 11.12.2020 at RMK College of Engineering and Technology, Chennai.

Acted as a speaker for the AICTE-AQIS Sponsored Short Term Training Program (STTP) on **AI and 5G Communication Technology** from December 7-12, 2020 at Poornima College of Engineering, Jaipur, Rajastan.

Acted as Guest of Honour and resource person for **National Seminar emMET-II** at Christ College (Autonomous), Irinjalakuda, Kerala during January 24-25, 2019.

Acted as a resource person for delivering Technical Talk on **Optical Networks-Impact on Society** through TEQIP-III during 7 December 2018 at Ramgarh Engineering College, Ramgarh.

Acted as a resource person for delivering guest Lecture on **Evolution of Optical Networks** during 19 December 2017 at CMS College of Engineering and Technology, Coimbatore.

Acted as a resource person for faculty development training programme (FDTP) on **Multi core Architecture and Programming** approved by Anna University, Chennai during 12 - 19 December 2016 at KPR Institute of Engineering and Technology, Coimbatore.

Acted as a resource person for short term course on **Optical Communication Networks and Photonics Devices** at Indian School of Mines, Dhanbad during 18 - 20 December 2015.

Awarded one year research scholarship in the field of Information and Communication Technologies related to the advanced topics of Photonic Networks and Optoelectronic Systems at the Centre of Excellence for Information, Communication and Perception Engineering (CEIICP), Scuola Superiore Sant'Anna, Pisa, Italy in December 2009.

Received research fellowship from Ministry of Human Resource Development, India from July 2007 to July 2011.

B.Tech Courses Taught

Digital Circuits and Systems Design

Sensors and Transducers

Network Thoery and Filter Design

Electrical and Electronic Instrumentation

Computer Networks

Communication Networks

Analytical Instrumentation

Electronics Engineering

Electronics Instrumentation and Measurements

Operating Systems

Digital Electronics

Electric Circuit Analysis

VLSI Design

Power Electronics

Microprocessors and Microcontroller Applications

Computer Architecture

Electronics Engineering Laboratory

Electrical and Electronic Instrumentation Lab

Electronics Instrumentation and Measurements Laboratory

Design Project Laboratory

Electric Circuit Analysis Laboratory

M.Tech Courses Taught

Optical Networks

Computer Communication Networks

Internet of Things

Computer Communication Laboratory

Administrative Responsibilities

Faculty Incharge (Networks and Systems) from October 2023 to till date.

Associate Dean (Networks and Systems) from April 2023 to October 2023.

Vice Chairperson in Documentation and Ranking Cell from October 2021 to October 2023.

Chief Warden of Opal Hostel from July 2021 to June 2022.

Faculty Treasurer of OSA IIT(ISM) Student Chapter since October 2018.

Faculty Treasurer of SPIE IIT(ISM) Student Chapter since October 2018.

Warden of Opal Hostel from July 2019 to June 2021.

Member in the Dean(Information Systems) committee in the academic year 2019.

1 Academic Responsibilities

Convener of Department Post Graduation Committee for ECE Department from December 2022 to till date.

Timetable Coordinator for ECE Department from July 2022 to till date.

Member of Department Undergraduate Committee for ECE Department from September 2020 to till date.

Departmental Representative for CSR of ECE Department from 2020 to till date.

Member of selection committee for recruitment of JRF for ECE department from 2015-16 to till date.

Secretary for the Departmental Advisory Committee for ECE Department from 2018-2020.

Member of Department Post Graduate Committee for ECE Department from 2018-2020.

Faculty Advisor for First year B.Tech Electronics and Instrumentation Engineering from 2013-2014 to 2017-18.

Faculty Advisor for Third year B.Tech Electronics and Instrumentation Engineering in 2015-2016 and 2018-19.

Faculty Advisor for Second year B.Tech Electronics and Instrumentation Engineering in 2014-2015 and 2018-19.

Departmental Placement Incharge from August 2015 to 2017-18.

Member in Board of Studies for B.Tech Electronics and Instrumentation Engineering in 2012-2013.

Tabulator of the Semester Examination for the Department of Electronics Engineering from 2012-13 to 2013-2014.

Department purchase co-ordinator for the financial year 2014-15.

Worshops/Training Participated

Participated and undergone three weeks training in the 1^{st} orientation programme organized by Faculty Development Centre, MHRD, Government of India funded Centre under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), Indian School of Mines (ISM), Dhanbad in February 2016.

Participated in NI Meet and NI Director Meet organized by National Instruments at Bangalore, India, in November 2015.

Participated in two day international IEEE workshop WRAP'13 at IIT Delhi in December 2013.

Participated in one day national workshop on Effective Teaching and Research Methodology for college teachers at Sri Ramakrishna Engineering College, Coimbatore, India in September 2006.

Participated in one day national workshop on Fabrication of flexible microwave frequency circuits and antennas and their applications at Sri Ramakrishna Engineering College, Coimbatore, India in September 2006.

Undergone training for three months on Certificate Course in Networking at Indian Institute of Hardware Technology Limited, Bangalore from May 2006 to July 2006.

Participated in Two weeks AICTE sponsored Induction Training Programme for Teachers in Engineering Colleges at Pondicherry Engineering College, Pondicherry, India in December 2005.

Participated in one day national workshop on Embedded Systems and Networking at Kumaraguru College of Technology, Coimbatore, India in January 2005

Participated in one day national workshop on RF Instruments at Govt. College of Technology, Coimbatore, India in August 2004.

Participated in two days national workshop on Intelligent Instrumentation at CSIR Campus, Chennai, India in February 2002.

Last updated: March 11, 2025