

# 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. Anand Prakash, Sharbani Roy, **Jaisingh Thangaraj**, Jitendra K Mishra, "A novel dynamic distributed Raman amplifier for the gain excursion assessment of real-time optically amplified web", Taylor & Francis Fiber and Integrated Optics, Vol. 42(1), pp. 31-51, January 2023.
7. P Agilandeswari, K Girish, R Rajasekar, G Thavasi Raja, R Periyasamy, **T Jaisingh**, "Coupled Nanoring Resonators Based Reconfigurable and Multifunctional Platform for Photonic Integrated Circuits", IEEE Journal of Selected Topics in Quantum Electronics, Vol.28(6), pp. 1-9, November 2022.
8. Banoth Ravi, **Jaisingh Thangaraj**, "Performance evaluation of multi service provisioning for multi-hop cooperative data dissemination in SDHVN", Springer Journal of Ambient Intelligence and Humanized Computing, Vol. 13(10), pp. 4773-4786, October 2022.
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", Elsevier 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, pages 7515–7525 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 Multi-hop 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.
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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).
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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.

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