

List of Publications

1. Devarapaga Sriramulu, Garima Saini and Balwinder S. Dhaliwal, "Design of Wearable Microstrip Patch Antenna for WBAN Applications to Enhance Bandwidth using Multiple Slots and CRR," International Journal of Advanced Research in Engineering and Technology, Vol. 11, No. 8, August 2020, pp. 319-327.
2. Vikas Jain and Balwinder S. Dhaliwal, "Flexible Wearable Patch Antennas for Body Area Network Applications: A Review" Wutan Huatan Jisuan Jishu, Volume XVI, Issue XII, December 2020, pp.1040-1046. doi.org/10.37896/whjj16.12/468
3. Tanvi sood, Kanika Sharma, "LUET: A novel lines –of-uniformity based clustering protocol for heterogeneous-WSN for multiple-applications, Journal of King Saud University -Computer and Information Sciences, 2020
4. Rachit Manchanda, Kanika Sharma, "Energy efficient compression sensing-based clustering framework for IoT-based heterogeneous WSN", Springer Telecommunication systems, Vol. 74, pp. 311-330, 2020. <https://link.springer.com/article/10.1007/s11235-020-00652-2>
5. Rachit Manchanda, Kanika Sharma, "A novel framework for energy-efficient compressive data gathering in heterogeneous wireless sensor network", International Journal of communication systems, <https://onlinelibrary.wiley.com/doi/abs/10.1002/dac.4677>.
6. Vinod, Kanika Sharma, "A review on different Cluster head selection methods for improving the lifetime of wireless sensor network" in International conference on Electrical, Electronics, Computer Science and Information Technology on 2nd Jan. 2020 at Ernakulam, India
7. Amit Kumar, Dr. Amod Kumar, Dr. Kanika Sharma, "A review paper on Estimation of pain of patients using various techniques and methods", National Conference on Biomedical Engineering (NCBE-2020), held on 22-24 Jan.2020
8. Sanjay Kumar Mirania, Kanika Sharma, "Review on Energy Efficient Routing Protocol in Wireless Sensor Network", National Conference on Biomedical Engineering (NCBE-2020), held on 22-24 Jan.2020
9. Rachit Manchanda, Kanika Sharma, "A review of reconstruction Algorithm in Compressive Sensing" paper in IEEE sponsored International Conference on Advances in Computing, Communication and Materials (ICACCM), Conference ID-50413, held from 21st and 22nd Aug.2020.
10. Susamma Mathew, Garima Saini, S.S Gill, "Design of Compact MIMO Antenna for 5G Mobile Terminal" International Journal of

Recent Technology and Engineering (JRTE) ISSN: 2277-3878, Volume-9 Issue-3, pp. 202-207, September 2020

11. Chahat Jain and Balwinder Singh Dhaliwal, "Design and analysis on omega structure metamaterial in lower C Band for Shared Aperture Applications," National Conference on Biomedical Engineering (NCBE-2020), Chandigarh, January 22-24, 2020.
12. Amandeep Kumar, Balwinder Singh Dhaliwal, and Damanpreet Singh, "Smart healthcare using Wireless Sensor Networks," National Conference on Biomedical Engineering (NCBE-2020), Chandigarh, January 22-24, 2020.
13. Vikas Jain, Balwinder S. Dhaliwal and Suman Pattnaik, "Recent Wearable Microstrip Patch Antennas for Body Area Networks," National Conference on Biomedical Engineering (NCBE-2020), Chandigarh, January 22-24, 2020.
14. Jayant G. Joshi, Balwinder Singh, Shyam S. Pattnaik, "Curriculum Development for Autonomous Technical Institutions under NEP 2020 to Accelerate Multidisciplinary Research: A Step towards Atmanirbhar Bharat," National Conference on Unlocking Atmanirbhar Bharat Through NEP-2020, November 27, 2020, NITTTR, Chandigarh.
15. Meenakshi Sood, Balwinder Singh Dhaliwal, P K Singla, "Innovations in Curriculum Design for Implementation of NEP 2020 to Achieve Atmanirbhar Bharat Objectives," National Conference on Unlocking Atmanirbhar Bharat Through NEP-2020, November 27, 2020, NITTTR, Chandigarh.
16. Jayant Gajanan Joshi, Mandar P Joshi, Balwinder Singh Dhaliwal, Shyam S Pattnaik, "Soil Humidity Measurement using Microstrip Interdigital Capacitor (IDC) and Rectangular Slotted Fingers Interdigital Capacitor (RSFIDC)," 35 Indian Engineering Congress, December 18-20, 2020, Institution of Engineers (India) through online Mode.
17. Vinod K, Kanika Sharma, "A Review on Different Cluster Head Selection Methods for Improving the Lifetime of Wireless Sensor Network", International Journal of Advance Computational Engineering and Networking (IJACEN) ISSN: 2320-2106, Volume-8, Issue-4, April 2020.
18. Jamal Kutty, Kanika Sharma, "Improved DV- Hop localization Algorithm for Wireless Sensor Networks", International Journal of Engineering and Advance Technology (IJEAT), Vol. 9, Issue 5, June 2020.
19. Rachit Manchanda, Kanika Sharma, "SSDA: Sleep Scheduled Data Aggregation in Wireless Sensor Network- based Internet of Things", International Conference on Data Analytics and Management, An Indo-European Conference (ICDAM-2020), Organized jointly by Jan Wyzykowski University, Poland and B.M Institute of Engineering and Technology, India on 18th June 2020.
20. Roshan Lal, Kanika Sharma, "GAEER: Genetic Algorithm Based Energy Efficient Routing Protocol in Wireless Sensor Network" International Journal of Scientific and

Technology Research (Scopus Listed with ISSN 2277-8616), Vol.9, Issue 6, June 2020.

21. Jamal Kutty K, Kanika Sharma, “Advanced DV-Hop Localization Algorithm for Wireless Sensor Network”, International Journal of Advanced Research in Engineering and Technology (IJARET) ISSN Print: 0976-6480 and ISSN Online: 0976-6499, pp. 359-369, Volume-11 Issue-8, August 2020.
22. Akhlesh Kumar, Sanjeev Kumar, Ajeet Kaushik, Amod Kumar & J. S. Saini, “ Real time estimation and suppression of hand tremor for surgical robotic applications”, Microsystem Technologies, January 2020, DOI 10.1007/s00542-019-04736-1 (IF = 1.61).
23. Akhlesh Kumar, Amod Kumar, JS Saini, “Measurement and analysis of Physiological tremor with Electromyography”, Solid State Technology, Vol. 63, Issue 1s, October 2020. (Scopus).
24. Girish Wadhwa, **Balwinder Raj**, "An Analytical Modeling of Charge Plasma based Tunnel Field Effect Transistor with Impacts of Gate underlap Region" Superlattices and Microstructures, Elsevier, Vol. 142, PP. 106512, June 2020. <https://doi.org/10.1016/j.spmi.2020.106512>
25. Shailendra Singh, **Balwinder Raj**, "Modeling and Simulation analysis of SiGe heterojunction Double Gate Vertical t-shaped Tunnel FET”, Superlattices and Microstructures, Elsevier Volume 142, PP. 106496, June 2020 <https://doi.org/10.1016/j.spmi.2020.106496>
26. Girish Wadhwa, Jeetendra Singh, **Balwinder Raj**, “Design and Investigation of Doped Triple Metal Double Gate Vertical TFET for performance Enhancement”, Journal of Silicon, Springer, July 2020. <https://doi.org/10.1007/s12633-020-00585-0>
27. Shailendra Singh, **Balwinder Raj**, "Analytical Modeling and Simulation of SiGe heterojunction Dual Material Gate Vertical t-shaped Tunnel FET, Journal of Silicon, Springer, 2020 <https://doi.org/10.1007/s12633-020-00505-2>
28. Sunil Kumar, Balwant Raj and **Balwinder Raj**, “Dual-Material Gate-Drain Overlapped DG-TFET Device for Low Leakage Current Design”, Journal of Silicon, Springer, May 2020. <https://doi.org/10.1007/s12633-020-00547-6>
29. Shailendra Singh, **Balwinder Raj**, " Analysis of ONOFIC technique using SiGe heterojunction Double Gate Vertical TFET for low power applications”, Journal of Silicon, Springer, July 2020, (SCI). <https://doi.org/10.1007/s12633-020-00634-8>
30. Anil Kumar Bhardwaj, Sumeet Gupta and **Balwinder Raj**, Development & Analysis of compact model for Double Gate Schottky Barrier CNTFET, Journal of Nanoelectronics and Optoelectronics, ASP, August 2020 (SCI). http://www.aspbs.com/jno/accept_articles.htm

31. Parveen Kumar, Sanjeev Kumar, **Balwinder Raj**, “Comparative Analysis of Nanowire Tunnel Field Effect Transistor for Biosensor Applications, *Journal of Silicon, Springe, Sep, 2020 (SCI)*. <https://doi.org/10.1007/s12633-020-00718-5>.