

Umhara Rasool

Department of Electronics & IT, University of Kashmir, Srinagar, Jammu and Kashmir, India, 190006
09797829986

umharakhn2@gmail.com

Professional Experience

Contractual Lecturer, Department of Electronics and Communication Engineering, Institute of Technology, University of Kashmir (November 2017 - January 2020)

- Teaching
- Lab Demonstration
- B.Tech Final Year Project Supervision

Contractual Lecturer, Department of Electronics & IT (April 2014 - July 2015)

- Delivered lectures on a contractual basis to undergraduate and graduate students in the department
- Demonstrated the experiments in the Laboratories
- Assisted students in developing a deeper understanding of the material through office hours and one on one tutoring sessions

Contractual Lecturer, Department of Computer Science Engineering, North Campus, University of Kashmir (April 2013 - January 2014)

- Delivered lectures on a contractual basis to undergraduate and graduate students in the Department
- Demonstrated the experiments in the Laboratories
- Assisted students in developing a deeper understanding of the material through office hours and one on one tutoring sessions

Education

B.E. in Electronics & Communication Engineering
University of Kashmir at Srinagar

October 2008 - February 2013

PERCENTAGE: 79.94

M.Tech in Electronics & Communication Engineering
Shri Mata Vaishno Devi University at Jammu

August 2015 - June 2017

CGPA : 9.13

INFOSYS PRIZE FOR EXCELLENCE (Topper of the batch)

Ph.D (Antennas for Biomedical Applications)
University of Kashmir, Srinagar

January 2020 - Present

Exams Qualified

JRF (UGC/NTA)

July- 2019

UGC-NET

June 2017

SET

July-2016

GATE

January-2013

List of Patents Granted

Twist Ease Clean Tank (Set)

December- 2023

Key Skills

- CST Microwave Studio Suite
- HFSS
- CADFEKO
- MATLAB
- PYTHON
- QualNet Simulator
- CiscoPacket Tracer
- MS Office (Word/Excel/Power Point)

List of Publications

1. Umhara Rasool et al, "Design of a Compact Hybrid Moore's Fractal Inspired Wearable Antenna for IoT Enabled Bio-Telemetry in Diagnostic Health Monitoring System", *IEEE Access*, 2022. <http://dx.doi.org/10.1109/ACCESS.2022.3219442>.
2. Umhara Rasool Khan, Javaid A. Sheikh, Shazia Ashraf, and Gh. Jeelani Qureshi, " Design of a Metasurface Inspired Circularly Polarized Dual-Band Compact Antenna for Bio-medical Applications, " *Progress In Electromagnetics Research M*, Vol. 119, 1-12, 2023, doi: 10.2528/PIERM23060103.
3. Umhara Rasool et al, "Metamaterial inspired wideband on-body antenna design for bio-medical applications", *Materials Today Proceedings*, 2021. <http://dx.doi.org/10.1016/j.matpr.2021.05.602>.
4. Umhara Rasool et al, "Design of Multiband Pattern Reconfigurable Antenna Loaded with Circular Split Ring Resonators", *Recent Innovations in Computing Publisher: Springer*, 2022. http://dx.doi.org/10.1007/978-981-16-8892-8_24.
5. Shazia Ashraf, Javaid Sheikh, Ayash Ashraf, Umhara Rasool Khan "Comparative analysis of rectangular framed S-shaped millimeter-wave antenna for different feeding techniques", *Materials Today Proceedings*, 2022. <http://dx.doi.org/10.1016/j.matpr.2022.08.029>.
6. Shazia Ashraf, Javaid A. Sheikh, Umhara Rasool & Zahid Ahmad Bhat (2022) A low-profile high gain U slotted wide band micro-strip antenna for 5G applications, *International Journal of Electronics*, doi: 10.1080/00207217.2022.2140838.
7. Umhara Rasool et al, " Wavelet Based Image Compression Techniques: Comparative Analysis and Performance Evaluation", *International Journal of Emerging Technologies in Engineering Research (IJETER)*, 2017.
8. Umhara Rasool et al, "Absorber using magnetic medium and metamaterial", *Proceedings of IEEE Applied Electromagnetics Conference (AEMC)*, 2017. <http://dx.doi.org/10.1109/AEMC.2017.8325682>.
9. S. Javeed, U. R. Khan*, J. A. Sheikh, A. Ara and B. Ali, "Metamaterial Inspired Antenna for Biomedical Applications," *2022 5th International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT)*, Aligarh, India, 2022, pp. 1-5, doi: 10.1109/IMPACT55510.2022.10029178.
10. B. Ali, U. R. Khan*, J. A. Sheikh, A. Ara and S. Javeed, "A New Circular Slot Based Dual Frequency Band Reconfigurable Antenna for 5G and Wi-Fi Applications," *2022 5th International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT)*, Aligarh, India, 2022, pp. 1-6, doi: 10.1109/IMPACT55510.2022.10029085.
11. A. Ara, J. A. Sheikh, U. R. Khan*, B. Ali and S. Javeed, "Fractal Antenna Design with Slotted Partial Ground For Breast Tumor Detection," *2022 5th International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT)*, Aligarh, India, 2022, pp. 1-6, doi: 10.1109/IMPACT55510.2022.10029036.
12. Jehangir Hameed, Javaid A. Sheikh, Umhara Rasool, "Design of a Semi-circular Finger shaped Antenna with Metamaterial Loaded Ground for Brain Tumor Detection and Localization," *2023 IEEE Microwave, Antenna and Propagation Conference (MAPCON)*, India. (Accepted)
13. Mohsina Shah, Javaid A. Sheikh, Umhara Rasool," A Meandered T-Shaped Patch Antenna for Microwave Thorax Monitoring," *2023 IEEE Microwave, Antenna and Propagation Conference (MAPCON)*, India. (Accepted)
14. Mantasha, Javaid A. Sheikh, Umhara Rasool Khan, "Bandwidth enhanced Duplex SIW Filtenna," 2023 *INDICON*. (Accepted)

Projects Supervised

- Earthquake emulator with Self balancing support system. (*B.Tech*)
- Azimuth and Elevation correction in microwave antennas for maximum power point reception. (*B.Tech*)
- Design of Free Space Optical Link. (*B.Tech*)
- Wireless Power Transmission system using inductive coupling, LASERS and resonant antennas. (*B.Tech*)