ZAMIR AHMAD WANI, Ph.D.
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Department of Electronics & Instrumentation Technology
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EDUCATION

Ph.D. in RF/MW Electronics, **Indian Institute of Technology Delhi, India** **Jan 2016 – Sep 2020**
Supervisor: **Prof. Mahesh P Abegaonkar** and **Prof. Shiban K Koul**

- **Consolidated GPA**: **8/10**
- **Thesis Title**: "Design of Antennas for Millimeter Wave 5G Applications"
- **Sponsorship**: Ministry of Electronics and Information Technology (MEITY), Govt. of India
- **Main Research Techniques**: Millimeter Wave Antenna Design, Metamaterials: Anisotropic Media Realization, Metasurfaces, Lens Antennas, MIMO Antennas
- **Software and Simulation Skills:** CST MW Studio Suite, MATLAB, FDTD and ADS

M.Tech. in Electronics & Comm Engg, **Indian Institute of Information Technology, Jabalpur, India**
Jul 2013 – Aug 2015
Supervisor: **Prof. Dinesh Kumar V**

- **Consolidated GPA**: **8.4/10**
- **Thesis**: "Compact Planar Antennas for Portable UWB MIMO Terminals"
- **Main Research Techniques**: Antenna Design, UWB, MIMO antenna, Isolation Enhancement Techniques

M.Sc. in Electronics, **University of Kashmir, Srinagar, India** **Apr 2009 – Dec 2011**

- **Percentage**: **70.4%** *(Gold Medallist)*

RESEARCH AND ACADEMIC EXPERIENCE

Assistant Professor at CAIML, SKUAST Kashmir **22 Feb 2024 to Sep 2025**

SERB National Postdoc Fellow at Indian Institute of Technology Jammu **21 April 2022 to 21 Feb 2024**

Project Officer/Scientist at Indian Institute of Technology Jammu **21 June 2021 to 18 April 2022**

Project Scientist at Indian Institute of Technology Delhi, New Delhi, India **17 Sep 2020 to 16 June 2021**

RESEARCH GRANTS/ EXTERNALLY FUNDED PROJECTS

On Going Projects

1. **ANRF** sponsored **PM Early Career Research Grant** entitled "*Development of Frequency-Diverse Microwave Imaging System for Dielectric Contrast Mapping*" (2025-2028), Role: **Principal Investigator**, (**INR 60.24 Lakhs**)

PUBLICATIONS AND PATENTS

Patents:

- "A Method for Gain and Aperture Efficiency Enhancement of a Linearly Polarized Antenna and System Thereof", **Granted Patent No. 477581.**
- "Multi-Beam Lens Antenna System for Millimeter Wave 5G Massive MIMO applications", *Indian Patent Application No. 202211010818*, Filed on: Feb 28, 2022.

Authored Book:

- Shiban K Koul and **Zamir Wani**, "Novel Millimetre Wave Antennas for MIMO and 5G Applications". *Springer Nature Singapore*, 2021, DOI: 10.1007/978-981-16-7278-1.

Journals:

1. **Z. Wani** and K. Saurav, "Generation of Multibeam Radiation Using an Array of High Refractive Index Vertical Slabs," in *IEEE Antennas and Wireless Propagation Letters*, vol. 23, no. 10, pp. 2939-2943, Oct. 2024, doi: 10.1109/LAWP.2024.3416051. **(IF=4.8)**
2. **Zamir Wani** and Shiban K. Koul, "Millimeter Wave Beam-Tilted Antenna using 1D-Phase Gradient Metasurface", *Int J RF Microw Comput Aided Eng*, Vol. 32(6), e23147, 2022. doi:10.1002/mmce.23147. **(IF=1)**
3. **Zamir Wani,** Mahesh P. Abegaonkar, Shiban K. Koul, "Thin Planar Metasurface Lens for Millimeter Wave MIMO Applications," in *IEEE Transactions on Antennas and Propagation*, doi: 10.1109/TAP.2021.3098571. **(IF=5.8)**
4. **Zamir Wani,** Mahesh P. Abegaonkar, Shiban K. Koul, "High-Low-Epsilon Biaxial Anisotropic Lens for Enhanced Gain and Aperture Efficiency of a Linearly Polarized Antenna," in *IEEE Transactions on Antennas and Propagation*, vol. 68, no. 12, pp. 8133-8138, Dec. 2020, doi: 10.1109/TAP.2020.2983787. **(IF=5.8)**
5. **Zamir Wani**, Mahesh P. Abegaonkar, Shiban K. Koul, "Dual-Beam Antenna using Routing of Electromagnetic Waves by Single-Epsilon-High Anisotropic Medium at 28- GHz," in *IEEE Transactions on Antennas and Propagation*, vol. 68(1), pp. 142-151, 2020. *(Most popular paper Jan 2020)* **(IF=5.8)**
6. **Zamir Wani,** Mahesh P. Abegaonkar, Shiban K. Koul, "Millimeter-Wave Antenna with Wide-Scan-Angle for MIMO Applications", *Int J RF Microw Comput Aided Eng*, Vol. 29(5), pp. 1-9, 2018. *(Top downloaded paper)* **(IF=1)**
7. **Zamir Wani,** Mahesh P. Abegaonkar, Shiban K. Koul, "A 28-GHz Antenna for Multiuser MIMO 5G Applications", *Progress in Electromagnetics Research (PIER) Letters*, Vol. 78 pp. 73-79, 2018. **(IF=0.7)**
8. **Zamir Wani,** Dinesh Kumar, "A Compact 4x4 MIMO Antenna for UWB Applications", *Microwave and Optical Technology Letters*, Vol. 56(6) pp. 1433-1436, 2016. **(IF=1.2)**
9. **Zamir Wani,** Dinesh Kumar, "An Ultra-wideband Antenna for Portable MIMO Terminals", *Microwave and Optical Technology Letters*, Vol. 56(1), pp. 51–57, 2016. **(IF=1.2)**
10. **Zamir Wani,** Dinesh Kumar, "Dual-band-notched antenna for UWB MIMO applications", *International Journal of Microwave and Wireless Technologies*, Vol. 9, pp. 381-386, 2017. **(IF=1.3)**
11. Agrawal, S., **Wani, Z.** & Parihar, M.S. Patch Loaded Slot Antenna for Super Wideband Applications with Dual-Band Notch Characteristic. *Wireless Pers Commun* (2021). **(IF=2.2)**
12. Sachin Agrawal, **Zamir Wani** & Manoj Singh Parihar (2021), "Rectangular Patch Loaded Circular Monopole Super Wideband Antenna with Triple-Band Notch Characteristic", *IETE Technical Review*, DOI: 10.1080/02564602.2021.1973598. **(IF=1.8)**
13. Magray, MI, Muzaffar, K, **Wani, Z,** Singh, RK, Karthikeya, GS, Koul, SK, "Compact frequency reconfigurable triple band notched monopole antenna for ultrawideband applications", *International Journal of RF and Microwave Computer-Aided Engineering*, Vol 29(11), pp. 1-12, 2019. **(IF=1)**
14. Nitesh Kashyap, **Zamir Wani**, Rishi Jain, Khusboo, V. Dinesh Kumar, "Investigation of a nanostrip patch antenna in optical frequencies", *Applied Physics A*, Vol. 117(2), pp. 1-4, 2014. **(IF=2.8)**

Conference Proceedings:

1. **Zamir Wani**, Amit K Singh, Shiban K Koul, "Anisotropic Magnetic Media for Antenna Gain Enhancement", *IEEE Indian Conference on Antennas and Propagation (InCAP)*, Dec. 2021.
2. **Zamir Wani,** Mahesh P. Abegaonkar, Shiban K. Koul, "Gain Enhancement of a Millimeter Wave Antenna using Stacked Dielectric-Slabs Superstrate", *IEEE Indian Conference on Antennas and Propagation (InCAP*), Ahmedabad, India, Dec. 2019.
3. **Zamir Wani,** M. P Abegaonkar, S. K. Koul, "Dual-Beam Antenna for Millimeter Wave MIMO Applications". *IEEE Indian Conference on Antenna and Propagation (InCAP)*, Hyderabad, 2018.
4. **Zamir Wani,** M. P Abegaonkar, S. K. Koul, "Gain Enhancement of Millimeter Wave Antenna with Metamaterial Loading", *2017 International Symposium on Antenna and Propagation (ISAP),* Thailand. (Best Student Paper Award Finalist)
5. J. A. Sheikh, **Z. Ahmad**, S. A. Paraha and G. M. Bhat, "A compact dual band MIMO antenna for WLAN applications". *2016 IEEE Annual India Conference (INDICON),* Bangalore, 2016, pp. 1-4., DOI: 10.1109/INDICON.2016.7838994.

FELLOWSHIPS AND AWARDS

- **Research Scientist (Antenna)** at Tamesek Labs, NUS Singapore (2022) (Declined)
- **Postdoctoral Research Fellowship** at Queen's University Belfast, UK (2022) (Declined)
- **National Postdoctoral Fellowship (NPDF)**, DST Postdoctoral fellowship worth INR 23Lakhs (2022-24)
- **Raj Mittra Grant in India (RGMI) Award**, Presented at IEEE INCAP2018
- **Visvesvaraya PhD Fellow at IIT Delhi**, Fellowship support from MeitY, Govt. of India (2016-2020)
- **Grant Scheme to Attend IEEE ISAP 2017**, MeitY Govt. of India, (INR. 50,000)
- **GATE Fellowship**, for M.Tech ECE at IIITDM Jabalpur (2013-2015)
- **University Gold Medal**, University of Kashmir, 2012

SKILLS

- **Testing:** RF/Microwave/MM-Wave Antenna/Circuits Testing. RF/uWave Active Circuits/Device Characterization, Antenna Measurements, 40GHz Probe Station, THz VNA**,** Dielectric Measurements using VNA
- **Software and Simulation tools**: CST Studio Suite, Ansys HFSS, Keysight ADS, QUICS, FDTD
- **Programming Languages**: MATLAB and C/C++
- **Other tools:** Lumerical, Antenna Magus, IntelliCAD and DXP

PROFESSIONAL SERVICE

- ✓ **Journal Reviewer:** IEEE Trans on AP, IEEE Antennas and Wireless Propagation Letters, IEEE Sensors, IEEE Access, International Journal of Microwave and Wireless Technologies, PIER, Microwave and Optical Technology Letters, Journal of Electromagnetic Waves and Applications, International Journal of RF and Microwave Computer-Aided Engineering, IEEE Trans on Consumer Electronics.
- ✓ **Conference Reviewer:** IEEE NCC 2018, IEEE INCAP 2021, IEEE MAPCON 2022
- ✓ **Memberships:** IEEE APS and MTTs Member, Secretary IEEE MTTs SBC IIT Delhi (Y'2019)
- ✓ **Young Professional Coordinator:** IEEE MTTs Delhi Chapter (Y'2021)

OTHER ACHIEVEMENTS

- ✓ **Competitive Exams Qualified**:

March 2013	**GATE Electronics & Comm. Engg.**
	AIR: 1885 out of 256135 candidates, GS: 697, Marks: 54.67/100
	IIT Bombay
June 2012	**NET Electronic Science**
& Dec 2014	University Grants Commission/CBSE

Zamir Wani
Date: 11-09-2025