

CURRICULUM VITAE

UMAR FAROOQ

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DOB: 15 August 1991



Academic Qualifications

Ph.D	National Institute of Technology(NIT) Srinagar, Kashmir, India Thesis: Millimeter Wave Propagation & Antennas for Next Generation Mobile Networks			2020
M.Tech	Electronics and Communication Engineering (Thesis: Wavelet Transform Based Data Transmission in WSNs)	Punjab Technical University, Jalandhar Punjab	71.82%	2014
B.Tech	Electronics and Communication Engineering	IUST, Jammu & Kashmir, India	CGPA 8.28	2012
12th	Non Medical	J&K BOSE	78.6%	2007
10th	Science	J&K BOSE	86.8%	2005

Teaching Experience

August 2014 to August 2015 - Assistant Professor in Department of Information Technology, National Institute of Technology Srinagar, Kashmir, India

February 2021 to Till date – Lecturer (Contract) in Department of Electronics and Communication, Islamic University of Science and Technology Awantipora, Kashmir, India

Research Experience

August 2015 to August 2020- Research Fellow (JRF, SRF) in Department of Electronics and Communication Engineering, National Institute of Technology Srinagar, Kashmir, India

Research Interests

Millimeter Wave/TeraHertz band Communication, Antenna Design, 5G/B5G Networks, Internet of Things, Wireless Sensor Networks, Body Centric Networks.

Awards and Fellowships

- 1) Recipient of Senior Research Fellowship (SRF) from Ministry of Human Resource Development (MHRD), Govt. of India from **August 2017 to August 2020**.
- 2) Received Junior Research Fellowship (JRF) from MHRD, Govt. of India from **August 2015 to August 2017**.
- 3) Received **Best Paper award** in Springer International Conference on Advanced Computing and Intelligent Engineering, Ajmer, India, 2017.

Invited Talks/Resource Person

Invited resource person at “One Week Short Term Course (STC) on Communication System Design” sponsored by TEQIP-III at NIT Srinagar, India on April 24-25, 2018.

Membership

1. Institution of Electrical and Electronics Engineers (IEEE)
2. Microwave Theory and Techniques Society (MTTS)
3. Institution of Engineers India (IEI)
4. International Information and Engineering Technology Association (IIETA)

Research Publications

Journals:

1. **Umar Farooq** and Ghulam Mohammad Rather, "Design and Analysis of Rectangular Microstrip antenna for Millimeter Wave Applications" *Traitement du Signal*, Vol. 36, No. 5, October, 2019, pp. 433-438. <https://doi.org/10.18280/ts.360508> (SCIE/SCOPUS)
2. **Umar Farooq** and Ghulam Mohammad Rather, "Design and Analysis of Dual band Slotted Microstrip Antenna for Millimeter Wave Applications", *International Journal of Computing and Digital Systems*, Vol.9, No. 4, pp.607-614. <http://dx.doi.org/10.12785/ijcds/090408> (SCOPUS)
3. **Umar Farooq** and Ghulam Mohammad Rather, " Millimeter Wave Communications for Next Generation Mobile Networks: Evolution, Challenges and Potential Applications", *International Journal of Service Science, Management, Engineering & Technology*, IGI Global, Vol. 12, Article 8(SCOPUS)
4. **Umar Farooq** and Ghulam Mohammad Rather, "Design & Analysis of C/Ka/V multiband miniaturized antenna for Next Generation Network Applications", *International Journal of Computer-Aided Engineering & Technology*, Inderscience (*Accepted*) doi:10.1504/ijcaet.2022.10038721(SCOPUS)
5. **Umar Farooq** and Ghulam Mohammad Rather, "Design and Analysis of miniaturised multiband MMW antenna for Body Centric Network Applications", *Alexandria Engineering Journal*, Elsevier (*Accepted*) (SCI/SCOPUS)
6. **Umar Farooq** and Ghulam Mohammad Rather, "Performance Analysis of Millimeter wave link for Next Generation Mobile Networks." *International Journal of Computing and Network Technology*, Vol. 7, No. 2, May 2019, pp. 41-46. <http://dx-doi.org/10.12785/ijcnt/070201>

Conference Proceedings:

1. **Umar Farooq**, Jyoti Saxena and Shabir Sofi, "Wavelet Transform based Effective Energy Utilisation Approaches of Data Transfer in Wireless Sensor Networks: A Survey," *Proceedings of International Conference on Advances in Engineering and Technology*, Roorke, India, May 2014, pp. 599-604.
2. **Umar Farooq**, Shabir Ahmad Sofi and Roohie Naaz Mir, "Experimental Study of different wavelets for real time transmission in Wireless Visual Sensor Networks," *Proceedings of International Conference on Advances in Computers, Communication and Electronic Engineering*, 16-18 March, 2015, Kashmir, India. ISBN: 978-93-82288-63-3.
3. **Umar Farooq** and Ghulam Mohammad Rather, "Design and Analysis of Graphene based TeraHertz band Antenna for Nano Network Applications", *Proceeding of 5th International Conference on Nanotechnology for Better Living 2019*, ISBN: 978-81-939516-0-6
4. Hushmat Amin, **Umar Farooq** and G M Rather, "Internet of nano-things: An energy efficient routing protocol for healthcare applications," *Proceeding of 5th International Conference on Nanotechnology for Better Living 2019*, ISBN: 978-81-939516-0-6
5. Yusra Bandy, **Umar Farooq** and G M Rather, "Diffusion based molecular communication in next generation nano-networks," *Proceeding of 5th International Conference on Nanotechnology for Better Living 2019*, ISBN: 978-81-939516-0-6

Book Chapters (SCOPUS INDEXED):

1. **Umar Farooq** and Ghulam Mohammad Rather, "Millimeter Wave (MMW) Communications for Fifth Generation (5G) Networks." *Progress in Advanced Computing and Intelligent Engineering*. Springer, 2019. 97-106. https://doi.org/10.1007/978-981-13-0224-4_9
2. **Umar Farooq** and Ghulam Mohammad Rather. "A Study on the Coverage of Millimeter Wave (MMW) Communication Link for Fifth Generation (5G) Mobile Networks." *Innovations in Electronics and Communication Engineering*. Springer, 2019. 361-370. https://doi.org/10.1007/978-981-10-8204-7_37
3. **Umar Farooq**, H A Kar and S A Bandy, "A Miniaturised Multilayer Tri band Off-body Antenna for Heterogeneous Applications in Internet of Medical Things." *Extended Reality for Healthcare Systems*, Elsevier (**In Press**) 2021.
4. **Umar Farooq**, Aqib Amin and Nasir Sharief, "Integrating IoT Technology for Effective Agriculture Monitoring: An Approach to Smart Farming System." *Intelligent Green Communication Network for Internet of Things*, Springer (**Under Revision**) 2022.

Participation in Conferences, Workshops, FDPs and Training Courses

1. One Week Workshop on *Mathematica and Related Software* conducted by Jammu and Kashmir Institute of Mathematical Sciences at Amar Singh College, Kashmir, India.
2. Three Day Workshop on “*5G: An Evolution to Revolution*” at IUST Awantipora, Kashmir, India.
3. Two Week Training on “*Flow Code and Associated Hardware*” at Technics Infosolutions Delhi, India.
4. One Week STC on “*Communication System Design*” at NIT Srinagar, India.
5. Ten Day Training on “*Big Data Analytics*” at NIT Srinagar, India.
6. One Week Training on “*CST Microwave Studio*” at Dassault Systems Bangalore, India.
7. One Week STC on “*Open Source Technologies*” at NIT Srinagar, India.
8. Attended *IEEE International Conference IMARC 2016* at IIT Delhi, India.
9. Attended *IEEE International Conference IMARC 2017* at ISRO Ahmedabad, India.
10. One Week AICTE FDP on “*Biomedical Instrumentation and IOT*”
11. One Week AICTE FDP on “*Wearable Devices*”
12. One Week FDP on “*Recent Trends in Information Technology*” at IUST, Kashmir, India
13. One Week AICTE FDP on “*Engineering Applications of Artificial Intelligence and Machine Learning*” NITTR Chandigarh.
14. One Week AICTE FDP on “*Flexible & Wearable Antennas*” NITTR Chandigarh.
15. One Week Short Term Training on “*Word Processing with LaTeX*” NITTR Kolkata.

Computer Skills

Simulation (Level: Proficient):

CST MICROWAVE STUDIO, MATLAB, MULTISIM, FLOW CODE, ORIGIN.

Documenting (Level: Proficient):

MS Word, Latex, MS Excel, MS PowerPoint

Personal Details

Date of Birth : August 15, 1991
Father's Name : Farooq Ahmad Dar
Mother's Name : Rafiq
Languages Known : English, Hindi, Urdu, Kashmiri and Punjabi
Residential Address : Arigam Tral, Jammu & Kashmir, India-192123

REFERENCES

Dr. G M Rather Professor and Head, Dept. of Electronics & Comm. National Institute of Technology Srinagar (NIT Srinagar), Srinagar, India - 190006 e-mail: gmrather@nitsri.ac.in Ph No: +91-9419076741	Dr. Rajinder Amberdar Professor, Dept. of Material Science Engineering National Institute of Technology Srinagar (NIT Srinagar), Srinagar, India - 190006 e-mail: rajinderambardar@nitsri.ac.in Ph No: +91-9419191635	Dr. M A Shah Associate Professor, Dept. of Physics National Institute of Technology Srinagar (NIT Srinagar), Srinagar, India - 190006 e-mail: shah@nitsri.ac.in Ph No: +91-7889426961
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Declaration

I hereby declare that the information given above is true to the best of my knowledge.

Date: 15th January, 2022
Place: Srinagar, India

Sincerely Yours
(Umar Farooq)