

CURRICULUM VITAE

DR. MOHAMMAD AYOUB SOFI

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EDUCATION

- Postdoc, Nanyang Technological University Singapore 2023
- Ph.D, Indian Institute of Technology Jammu, India | 2022 | A
- B.Tech. (Electronics and Communication Engineering), Islamic University of Science & Technology, Awantipora (J &K), India
- Class XII, Govt. Hr. Sec. School, Koil, Pulwama (J&K), India

COMPETENCIES

- CST (Computer Simulation Technology) Microwave Studio, HFSS, Keysight ADS, MATLAB
- Design of antennas and microwave circuits using CST/HFSS/ADS
- Fabrication, and characterization of antennas and microwave circuits using PCB Prototyping (MITS Autolab W) and (Photolithography)

AREAS OF INTEREST

- Reconfigurable Intelligent Surfaces
- Frequency Selective Surfaces, Polarimetric Surfaces
- MIMO Antenna Systems
- Defected Ground Structure (DGS) in Microstrip Antennas
- Applied Electromagnetics
- Microwave and Millimeter-Wave Engineering

PHD THESIS TOPIC

Studies on the Design of Thin Microwave Linear-to-Circular Polarization Converters Based on Frequency Selective Surfaces

PUBLICATIONS

TRANSACTIONS/JOURNALS

- M. A. Sofi, K. Saurav and S. K. Koul, "Frequency-Selective Surface-Based Compact Single Substrate Layer Dual-Band Transmission-Type Linear-to-Circular Polarization Converter," *IEEE Transactions on Microwave Theory and Techniques*, vol. 68, no. 10, pp. 4138-4149, Oct. 2020, doi: 10.1109/TMTT.2020.3002248. (IF=4.38)
- M. A. Sofi, K. Saurav and S. K. Koul, "Four-Port Orthogonal Circularly Polarized Dual-Band MIMO Antenna With Polarization and Spatial Diversity Using A Dual-Band Linear-to-Circular Polarization Converter," *IEEE Transactions on Antennas and Propagation*, vol. 70, no. 9, pp. 8554-8559, Sept. 2022, doi:10.1109/TAP.2022.3161493. (IF=5.7)
- M. A. Sofi, K. Saurav and S. K. Koul, "A linear-to-circular polarization reconfigurable converter based on frequency selective surface", *Microwave and Optical Technology Letters*, 2021; 63: 1425-1433. <https://doi.org/10.1002/mop.32779>. (IF=1.5)
- M. A. Sofi, K. Saurav and S. K. Koul, "Linear-to-Circular Polarization Converter with Wide Angular Stability and Near Unity Ellipticity-Application to Linearly Polarized Antenna Array," *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol. 69, no. 12, pp. 4779-4783, Dec. 2022, doi:10.1109/TCSII.2022.3196385. (IF=4.4)
- M. A. Sofi, K. Saurav and S. K. Koul and E. L. Tan "Wideband Multifunctional Polarization Converter: Application to Low Radar Cross-Section Radiating System," *IETE Journal of Research*, 2023, <https://doi.org/10.1080/03772063.2023.2258519> (IF=1.5)

CONFERENCES

- M. A. Sofi, J. Ahmad, K. Saurav and S. K. Koul, "Wideband Multifunctional Reflective Linear and Circular Polarization Converter," *IEEE Microwave, Antennas, and Propagation Conference (MAPCON), Bangalore, India, 2022*, pp. 851-855, doi: 10.1109/MAPCON56011.2022.10046866.
- M. A. Sofi, K. Saurav and S. K. Koul, "A Linear-to-Circular Polarization Converter with Wide Angular Stability and High Ellipticity for Ka-Band Applications," *51st European Microwave Conference (EUMC), 2021*, pp. 486-489, doi: 10.23919/EuMC50147.2022.9784394.
- M. A. Sofi, K. Saurav and S. K. Koul, "A Dual Band Linear to Circular Polarization Converter for Satellite Communication," *2019 IEEE Asia-Pacific Microwave Conference (APMC), 2019*, pp. 563-565, doi: 10.1109/APMC46564.2019.9038380.
- M. A. Sofi, K. Saurav and S. K. Koul, "Reconfigurable Polarization Converter Printed on Single Substrate Layer Frequency Selective Surface," *2019 IEEE MTT-S International Microwave and RF Conference (IMARC), 2019*, pp. 1-4, doi: 10.1109/IMaRC45935.2019.9118663.

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- ✚ M. A. Sofi, K. Muzaffar, M. A. Shafi, A. B. Dar, "Defected Ground Structure Based Rectangular Microstrip Patch Antenna With Triple Band Operation, 2017 *International Conference on Innovations in Control, Communication and Information Systems (ICICCI)*, 2017, doi: 10.1109/ICICCI.2017.8660929.
- ✚ M. A. Sofi, K. Muzaffar, "On The Use of DGS for Multiband Operation, Size Miniaturization and Bandwidth Increment in Microstrip Patch Antennas for Wireless Communication Systems, *IEEE Sponsored 3rd International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS' 16) Internationally Renowned Conference.*

RELEVANT COURSES

- ✓ CAD of RF and Microwave Devices
- ✓ Radiating System for RF Communication
- ✓ RF & Microwave Measurement
- ✓ Microwave Laboratory

POSITIONS OF RESPONSIBILITY

- Member IEEE
- Served Chair IEEE MTT-S Student Branch Chapter IIT Jammu India (2020-21)
- IEEE Microwave Theory and Techniques Society Graduate Student Member
- IEEE Antenna and Propagation Society Graduate Student Member
- Amateur Wireless Station (HAM) License Holder, Ministry of Communication, Department of Telecommunication, Government of India, New Delhi

AWARDS

Award	Year	Received for
Outstanding Doctoral Student Award	2022	Best Ph.D Thesis given to one graduating Ph.D Student of the Institute
Best Student Paper Award	2019	Research Paper "Reconfigurable Polarization Converter Printed on Single Substrate Layer Frequency Selective Surface" in IEEE MTT-S IMaRC 2019 at IIT Bombay, India
MGA SSI Award	2019	Research Paper, "A Dual Band Linear to Circular Polarization Converter for Satellite Communication," in IEEE Asia-Pacific Microwave Conference (APMC), at Singapore .
International Travel Grant from Science Engineering and Research Board (SERB) Ph.D Initiative Program of IEEE MTT-S IMaRC	2022 2018	To present the Research Paper, "A Linear-to-Circular Polarization Converter with Wide Angular Stability and High Ellipticity for Ka-Band Applications" in European Microwave Conference (EuMC) at London, 2022. Selected to Participate in Ph. D Initiative Program of IEEE MTT-S IMaRC at Kolkata on academic performance basis.
MHRD Fellowship	2018-2022	Fellowship from Ministry of Education, Government of India for entire Ph.D duration

WORK EXPERIENCE

- Worked as Senior Project Associate at Indian Institute of Technology Jodhpur India in the project "Substrate Integrated Coaxial Line (SICL) Based Circuits and Systems for Millimeter wave Applications" 23.02.2018 to 17.07.2018

WORKSHOPS/TALKS CONDUCTED

Role	Year	Title
Expert and Demonstrator	2021	A Hands on Training programme on PCB design Using Photolithography
Expert and Demonstrator	2021	Latex for Beginners
Expert and Demonstrator	2022	Hands on PCB design Using Photolithography and characterization of Microwave Circuits
Speaker	2022	Scholars Symposium IIT Jammu (Electronically Reconfigurable polarization Converter)

DECLARATION

I hereby, solemnly declare that the above furnished information is true to the best of my knowledge and belief.

Place: Koil Pulwama Kashmir (India)

Dr Mohammad Ayoub Sofi

REFERENCES

Prof. Shibani Kishen Koul Emeritus Professor Center for Applied Research in Electronics Indian Institute of Technology Delhi Hauz khas, New Delhi, 110016 Email: shiban_koul@hotmail.com Telephone: +91-11-2659110 Mobile : +918588867801	Dr. Kushmnada Saurav Assistant Professor Department of Electrical Engineering Indian Institute of Technology Jammu NH-44, Nagrota, Jagti Jammu Pincode - 181221. Email:Saurav.kushmanda@iitjammu.ac.in
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