

Name	<b>Dr. Aman Kumari Dahiya</b>
Designation	Associate Professor
Qualifications	Ph.D., M.Tech, M.B.A., B.E.
Email	<a href="mailto:amandahiya@msit.in">amandahiya@msit.in</a>
Area of Interest	Artificial Intelligence, IOT based applications, Design of Microwave & Millimetre-wave waveguides, Antenna Designing,
Experience	16+ years



### Key Publications:

1. **Dahiya, Aman, et al.** Design and Construction of a Low Loss Substrate Integrated Waveguide (SIW) for S Band and C Band Applications. *MAPAN* **36**, 355–363 (2021). **SCI-E Indexed**
2. **Dahiya, Aman, Kumar, D.** A W-band Substrate Integrated Waveguide (SIW) Bandpass Filter at 95 GHz for Millimeter Wave Applications. *Wireless Pers Commun* (2021). **SCI-E Indexed**
3. **Aman Dahiya, et.al.**, "Detecting Crop Health using Machine Learning Techniques in Smart Agriculture System" *JSIR*, vol. 80, pp. 699-706, 2021. **SCI-E Indexed**
4. **Dahiya, Aman, et.al.**, An Optimized Approach for Feature Extraction in Multi-Relational Statistical Learning, *JSIR*, Vol. 80, No. 6, 2021. **SCI-E Indexed**
5. Chaudhary, K.P., Dubey, P.K., Gahlot, **Dahiya, Aman.**, Advances in Sensors and Measurements for Metrological Applications. *MAPAN* 36, 211–213 (2021). **SCI-E Indexed**
6. Anand Pratap Singh Sengar, **Aman Dahiya,** "Reconfigurable smart broadband Antenna for wireless Communication Devices, *IEEE Microwave Magazine*, Vol. 17, no. 7, pp. 89-92, July 2016. **SCI-E Indexed**
7. **Kumari, Aman, Kumar, D. & Kumar, A.** Dual-band substrate integrated waveguide (SIW) band pass filter for scientific radar applications. *Int. j. inf. tecnol.* 11, 875–878 (2019). **Scopus Indexed**
8. **Aman Dahiya,** "Design of An Offset Posts K- band Bandpass Filter using Substrate Integrated Waveguide for microwave Applications," *International Journal of Recent Technology and Engineering (IJRTE)* ISSN: 2277-3878, Volume-8 Issue-6, March 2020. **(Scopus Indexed)**

### Papers presented in Conferences:

1. **Aman Dahiya**, Deepti Deshwal, “Design Fundamentals: : Iris Waveguide Filters vs. Substrate Integrated Waveguide (SIW) Bandpass Filters,” International conference on Artificial Intelligence and applications (ICAIA-2020), New Delhi, 6-7 Feb 2020.
2. **Aman Dahiya**, Anand Pratap Singh, Dharendra Kumar “Design Techniques of Substrate Integrated Waveguide (SIW) and its Microstrip Transitions,” International multidisciplinary conference on current research trends-2020 (**IMCCRT-2020**), 19-20<sup>th</sup> September, **Malaysia**, 2020.
3. **Aman Dahiya**, Anand Pratap Singh Sengar, Dharendra Kumar, Arun Kumar, “A Critical Review of Substrate Integrated Waveguide for Microwave Applications,” International Conference on Computational Intelligence & Communication Technology (CICT-2016) **IEEE computer society**, pp. 495-499 , Ghaziabad, India Feb. 2016.
4. **Aman Kumari**, Adarsh Pal, Dharendra Kumar, “3.5 GHz Microstrip Transmission Line Design for Microwave IC’s,” International Conference on Latest Trends in Electronics & Communication Engineering, IIMT College of Engineering, Greater NOIDA, 9-10<sup>th</sup> April 2019.
5. Dharendra Kumar, **Aman Dahiya**, “Compact E-Shaped Microstrip Bandstop Filter,” International Centre For Radio Sciences (ICRS), Jodhpur, Rajasthan, 14-17 December 2010.
6. **Aman Kumari**, Arun Kumar, Deepti Deshwal, Neelam ohlan, “A Review on Substrate Integrated Waveguide (SIW) and its Microstrip Transitions,” National conference on Advancement in Microwave and Photonic Devices for Electronic communication Systems, RKGIT, Ghaziabad, March 29-31, 2017.
7. **Aman Kumari**, Dharendra Kumar, Arun Kumar, “A Compact E-Shaped Microstrip Bandstop Filter for Wireless Communications,” National conference on Advancement in Microwave and Photonic Devices for Electronic communication Systems, RKGIT, Ghaziabad, March 29-31, 2017.
8. **Aman Kumari**, Manpreet Sandhu, Bhargavi Rohil, Priyanka Dogra, Arun Kumar,” A Low Loss Substrate Integrated Waveguide (SIW) Structure designed for Wireless Communication Systems,” National conference on Advancement in Microwave and Photonic Devices for Electronic communication Systems, RKGIT, Ghaziabad, March 29-31, 2017.
9. **Aman Kumari**, Dharendra Kumar, “E-Shaped Microstrip Bandstop Filter,” Advances in VLSI, Embedded & Communication(AVEC-2010), AFSET, Faridabad, 10<sup>th</sup> August, 2010.
10. **Aman Kumari**, “Micro Electronics,” National Conference on Information Technology: Setting Trends in Modern Era, N.C. College of Engineering and Technology, Israna, Panipat, March 18-20, 2006.

#### **Awards and Recognitions:**

1. **Received Research Excellence Award** for valuable contribution in research publications in Science citation Indexed (SCIE) journal on Annual Day 2023 at MSIT.
2. **Received Research Excellence Award** for valuable contribution in completing IEEE Research Project by Maharaja Surajmal Institute of Technology on annual day in January 2020.

3. Awarded “**certificate of Excellence**” for best lecture presentation in National level seminar held on 24<sup>th</sup> March, 2006 at N.C. College of Engineering, Israna, Panipat.
4. **College Topper** during B.E. Degree Programme.
5. Got **distinction** in **B.E** and **M.Tech**.
6. **School Topper** in Matriculation.

#### **Patent/Copyright:**

1. **Dr. Aman Dahiya**, et.al. has published Patent on “Antenna Development for optimized Radiation” in December 2020.
2. **Dr. Aman Dahiya**, et.al. has granted Patent on “Artificial intelligence based smart detection of Lung disease from chest X-Ray” in March 2021.
3. **Dr. Aman Dahiya**, et.al. has granted Patent on “IOT based smart wearable suit for self health assessment in post COVID era” in July 2021.

#### **Sponsored Project/Consultancy:**

1. Completed successfully **IEEE MTT-S** sponsored research project (2014-2019) of USD 1500 on “Reconfigurable smart Antenna for wireless Communication Devices.”
2. Adopted “Tihar Village” (2018-2021) for its transformational change for its development under Unnat Bharat Abhiyaan (UBA), a flagship program of the Ministry of Education (MHRD), Government of India.

#### **Book Chapter/Books published:**

1. **Dr. Aman Dahiya**, Designing and Feeding Techniques of Microstrip Patch Antenna, Advance Academic Publisher, 2019. (ISBN no. 978-93-87396-22-7)
2. **Dahiya A.,** Deshwal D. (2021) Design Fundamentals: Iris Waveguide Filters Versus Substrate Integrated Waveguide (SIW) Bandpass Filters. In Advances in Intelligent Systems and Computing, vol 1164. Springer, Singapore.

**Memberships of Professional bodies:** Life member ISTE

#### **Key Contributions:**

- Served as **Faculty Representative (2020-2022)** in **Board of Governors** of Maharaja Surajmal Institute of Technology.
- Successfully organized 7<sup>th</sup> National conference on Advances in Metrology **AdMet-2021** on March 5<sup>th</sup>-6<sup>th</sup>, 2021 successfully in association with CSIR-National Physical Laboratory (CSIR-NPL), Metrology Society of India (MSI) and National Accreditation Board for Testing & Calibration Laboratories (NABL) India in the capacity of the **Co-convener**.
- Hosted a special issue on “Advances in Sensors and Measurements for Metrological Applications” in capacity of **guest editor of MAPAN (SCIE Indexed)**, July 2021.
- Edited springer book series on “Lecture Notes in Electrical Engineering” for **AdMet-2021** proceedings (**SCOPUS Indexed**), 2021.

- **Coordinator** of short term course on “Modelling & simulation using MATLAB” conducted by NITTTR, Chandigarh from 21<sup>st</sup> -25<sup>th</sup> March 2018 . [one week]
- Organized ENVA-2020 (Environmental Fest of MSIT) as **Co-convener**.
- **Chaired special session** in an International symposium on 11<sup>th</sup>-12<sup>th</sup> Nov. 2021 organized by Sikkim Manipal University.
- As **convener of Media cell**, playing a key role in branding and perception building of the Institute.