


Dr. Satish Kumar Jain

1. Personal Information			
(i)	Name	Satish Kumar Jain	
(ii)	Qualification	B.E., M.E., Ph.D.	
(iii)	Designation	Associate Professor	
(iv)	Email-id	satishjain.jain@gmail.com	
(v)	Employee No.	400262	
(vi)	Department	Electronics and Telecommunication Engineering	
(vii)	Experience	22 years	

2. Educational Qualification				
S. No.	Degree	Specialization	Year	University/Board
1	BE	Electronics & Instrumentation Engineering	1986-1991	Bhopal University, S.A.T.I. Vidisha (MP)
2	ME	Communication Systems	1992-1994	Rani Durgawati University, Govt. Engineering College Jabalpur (MP)
3	Ph.D.	RF & Microwave Communication	2008-2013	Indian Institute of Technology (I.I.T.) Roorkee (U.A.)

3. Research Interests
RF and Microwave domain- Microstrip patch antennas, Smart antennas, Defected Ground structures in microstrip antennas, Substrate integrated wave guide, Frequency selected surfaces, Metamaterial application in antennas, Softcomputing techniques application in antenna design etc.
Ph.D. Topic: Evolutionary Optimization Technique in Stacked Patch Antenna Analysis and Design.

4. Research Paper Publications
(I) International/National Journal Publications
<u>International Journal Publications</u>
(1) Satish K. Jain, “ <i>Optimization of dual resonance stacked patch resonator by neural</i>

hybridized bacteria foraging algorithm,” Microwave Optical Technology Letters, vol.57, No.5, pp. 1191-1199, 2015. (SCI Journal)

- (2) **Satish K. Jain**, “*Bandwidth enhancement of patch antennas using neural network dependent modified optimizer,*” International Journal of Microwave and Wireless technology, Cambridge University Press and the European Microwave Association, Vol.8, No. 7, pp. 1111-1119, April 10, 2015, DOI: <https://doi.org/10.1017/S1759078715000616> (SCI Journal)
- (3) **Satish K. Jain & Shobha Jain**, “*Performance analysis of coaxial fed stacked patch antennas,*” Frequenz Journal of RF-Engineering and Telecommunications, Vol. 68, pp.7-18, Oct. 01, 2014, DOI 10.1515/freq-2013-0073-frequenz 2014; aop (SCI Journal)
- (4) **Satish K. Jain & Shobha Jain**, “*Neurocomputational analysis of coaxial fed stacked patch antennas for satellite and WLAN applications,*” International Journal of Progress in Electromagnetic Research (PIERC), vol. 42, pp. 125-135, 2013(Indexed by SCOPUS) (SCI Journal)
- (5) **Satish K. Jain**, Amalendu Patnaik & Sachendra N. Sinha, “*Design of custom-made stacked patch antennas: A machine learning approach,*” International Journal of Machine Learning and Cybernetics (Springer), vol. 4, No. 3, pp. 189-194, 2013, DOI 10.1007/s13042-012-0084-x (SCI Journal)
- (6) **Satish K. Jain**, Chandresh Dhote, “*Circular microstrip patch antenna using Swine Influenza (H1N1) Model Based Optimization (SIMBO) technique,*” International Journal FERMAT (Forum for Electromagnetic Research Methods and Application Technology), vol. 24, No. 02, pp. 1-12, Nov.-Dec. 2017.
- (7) **Satish K. Jain**, Chandresh Dhote, Jaya Chakrawarty, “*Performance enhancement of inset-fed microstrip patch antenna by dielectric ellipsoidal lens loading,*” International Journal of Microwave and Optical Technology (IJMOT), vol. 12, No.5, pp. 382-388, Sept. 2017
- (8) Arti shrivastava, **Satish K. Jain & Shobha Jain**, “Graphene characterization based nano dipole antennas design for nano network wireless communication applications,” International Journal of Engineering Sciences, vol. 14, No.2, pp. 47-55, Oct. 2021, doi: <https://doi.org/10.36224/ijes.140202>.
- (9) **Satish K. Jain & Shobha Jain**, “Error and uncertainty estimation in gain measurement of double ridge horn antenna working for 1–18 GHz,” Int. J Syst. Assur. Eng. Manag (Springer), Dec. 01, 2021, <https://doi.org/10.1007/s13198-021-01493-1>.

National Journal Publications

- (i) **Satish K. Jain**, Jaya Chakrawarty, “*Thorough investigation of artificial neural network with applied back propagation algorithm in aperture coupled microstrip patch antenna design application,*” The IUP Journal of Telecommunications, vol. IX, No. 4, pp.52-72, Nov. 2017.

(II) International/National Conference Publications

International Conference Publications

- (1) **Satish K. Jain**, Mohit Khamele, “**Analysis and Design of Quadrifilar Antenna for Spacecraft applications**” 14th International Conference i.e. ATMS-2022, Virtual / Hybrid Mode, 21st- 23rd July, 2022, Indore (M.P.).
- (2) **Satish K. Jain**, Rakesh Singhai, “**Computational High Frequency Techniques to Handle Antenna Radiation and Scattering Issues on Satellite Platform: A Review**,” 14th International Conference i.e. ATMS-2022, Virtual / Hybrid Mode, 21st - 23rd July, 2022, Indore (M.P.)
- (3) **Satish K. Jain**, Mohit Khamele, and Yashpal Singh, “**Performance Evaluation of Wideband Microstrip Spiral Antenna**,” 14th International Conference i.e. ATMS-2022, Virtual / Hybrid Mode, 21st - 23rd July, 2022, Indore (M.P.)
- (4) S. T. Ali, **Satish K. Jain**, Y.K. Jain, “Mutual Coupling Reduction in MIMO Antenna using Microstrip Resonating Isolator,” 14th International Conference i.e. ATMS-2022, Virtual / Hybrid Mode, 21st - 23rd July, 2022, Indore (M.P.)
- (5) Arti Shrivastava, **Satish K. Jain** & Shobha Jain, “Analysis and design of graphene-based terahertz nano dipole antennas,” Proceedings of 6th World Congress on Engineering and Applications (WCEA – 2021), Singapore, pp. 514-519, December, 17-19, 2021.
- (6) Arti Shrivastava, **Satish K. Jain** & Shobha Jain, “Performance Evaluation of Graphene Based Terahertz Nano Antennas with Different Substrate Material,” 5th International Conference on Emerging Technologies: Micro To Nano (ETMN-2021), Jointly Organized by Manipal University Jaipur, India & University of Quebec Outaouais, Canada India Oct. 8-9, 2021.
- (7) Purshottam Singh Rathore, **Satish K. Jain**, Anjana Jain, “Recent Trend of Research in Smart Antenna Technology” Proceedings of 12Th International Conference of Antenna Test and Measurement Society, India, pp. 114-118, July 25-28, 2019 .
- (8) **Satish K. Jain**, Amit Naik, “Design & Development of Antenna Subsystem Component for Student NanoSatellite ” Proceedings of 12Th International Conference of Antenna Test and Measurement Society, India, pp. 102-107, July 25-28, 2019.
- (9) Jamila Kuresi, **Satish K. Jain**, and Gopi Krashnan, , “Demonstration of Reconfigurable Concept through Design and Development of Reconfigurable Antennas ” Proceedings of 12Th International Conference of Antenna Test and Measurement Society, India, pp., 129-133, July 25-28, 2019.
- (10) Mamta Sood, **Satish K. Jain**, “A Survey Report on Reconfigurable Planar Antennas for

Wireless Communication Applications” Proceedings of 12th International Conference of Antenna Test and Measurement Society, India, pp. 160-164, July 25-28, 2019 .

- (11) Neetu Sharma, **Satish K. Jain** and S.V. Charhate, “*Trend of Very Small Satellites Design and Development in Indian Prospective*,” in proc. ATMS-2018 (11th Annual International Conference), pp. 1-7, Pune, India, Feb. 05-07, 2018.
- (12) Satish K. Jain, Shubham Dhanotia, Hajra Qureshi, Afsha Gulsher, “*Shaped Reflector Antenna Analysis using Artificial Neural Network for Space Applications*,” in proc. ATMS-2018 (11th Annual International Conference), pp. 1-6, Pune, India, Feb. 05-07, 2018.
- (13) Satish K. Jain, Nilesh Baviskar, Nikita Golait, Shubha Jain, “*Design of Wearable Antennas for Various Applications*,” in proc. ATMS-2018 (11th Annual International Conference), pp. 1-5, Pune, India, Feb. 05-07, 2018.
- (14) Satish K. Jain, Mamta Sood, Shubha Jain, “*Design and Development of Frequency Reconfigurable Antennas*,” in proc. ATMS-2018 (11th Annual International Conference), pp. 1-5, Pune, India, Feb. 05-07, 2018.
- (15) Ashok Parmar, Karamveer Yadav, Pankaj Chouvisiya, **S.K. Jain**, Chandresh Dhote, Jaya Chakraworty, “*Design of circularly polarized microstrip patch antennas for wireless communication*,” in proc. IEEE, International Conference on Information, Communication, Instrumentation and Control (ICICIC – 2017), pp. 301-307, MEDI-CAPS University, Indore (MP) India, Aug 17-19, 2017.
- (16) Aniket Puranik, Swapnajeet Nayak, Atul Agnihotri, Abhay Visoriya, Shubham Chouhan, **S. K. Jain**, Chandresh Dhote, “*Design of Microstrip patch antennas using Method Of Moment (MOM) based matlab codes*,” in proc. IEEE, International Conference on Information, Communication, Instrumentation and Control (ICICIC – 2017), pp. 308-314, MEDI-CAPS University, Indore (MP) India, Aug 17-19, 2017.
- (17) Priya Badera, **S. K. Jain**, Arun Parikh, “*[Condition monitoring of pharmaceutical autoclave germs removal using artificial neural network](https://doi.org/10.1109/ICIINFS.2016.8263025)*,” in Proc. 11th IEEE International Conference on Industrial and Information Systems (ICIIS2016), December 3-4, 2016 , I.I.T. Roorkee (UA) India, pp. 683-687, Dec. 2016, DOI: [10.1109/ICIINFS.2016.8263025](https://doi.org/10.1109/ICIINFS.2016.8263025)
- (18) **S. K. Jain**, Shailendra Pawar, “*Characterization of log periodic planar dipole array antenna*,” in Proc. 11th IEEE International Conference on Industrial and Information Systems (ICIIS2016), December 3-4, 2016, I.I.T. Roorkee (UA) India, pp. 43-48, Dec. 2016, DOI: [10.1109/ICIINFS.2016.8262905](https://doi.org/10.1109/ICIINFS.2016.8262905)
- (19) Chandresh Dhote, **Satish K. Jain**, Amit Naik, “*Swine influenza based optimization technique applied to antenna design*,” in Proc. 11th Annual International Conference i.e. Antenna Test & Measurement Society (ATMS-2017), Hyderabad, India pp. 160-165, Feb. 7-8,

2017.

- (20)Jaya Chakrawarty, **S.K. Jain**, S. Sharma, “*Artificial neural network applied to aperture coupled microstrip patch antenna analysis,*” in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2017), Jodhpur, Rajasthan, India, pp. 204-208, February 15-17, 2017.
- (21)Jaya Chakrawarty, **S.K. Jain**, S. Sharma, “*Review on artificial neural network applied to RF and microwave domain,*” in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2017), Jodhpur, Rajasthan, India. pp. 51-56, February 15-17, 2017.
- (22)**Satish K. Jain**, Amarnath Tripathi, “*Miniaturization of patch antenna using complementary horse-shoe DGS,*” in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2015), Jodhpur, Rajasthan, India, pp. 322-325, December, 15-17, 2015.
- (23)**Satish K. Jain**, S.V. Charhate, “*Stacked patch antennas design: latest trend in research,*” in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2015), Jodhpur, Rajasthan, India, pp. 238-244, December 15-17, 2015.
- (24)**Satish K. Jain**, “*Analysis of multivariable patch antenna using artificial neural network,*” in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2014), Jodhpur, Rajasthan, India, pp. 251-254, December 15-17, 2015.
- (25)**S. K. Jain**, “*Multivariable patch antenna design using particle swarm optimizer,*” in Proc. ICMOCE-2015 International Conference on Microwave, Optical and Communication Engineering, School of Electrical Sciences, IIT Bhubaneswar, Odisha, India, December 18-20, 2015.
- (26)**D.P. Kshirsagar**, **S. K. Jain**, and S.S. Sharma, “*Review on multiple input multiple output (MIMO) antenna systems design,*” in Proc. ICMOCE-2015 International Conference on Microwave, Optical and Communication Engineering, School of Electrical Sciences, IIT Bhubaneswar, Odisha, India, December 18-20, 2015.
- (27)**Satish K. Jain**, Ayush Shrivastava, and G. Shrivastava, “*Miniaturization of microstrip patch antenna using metamaterial loaded with SRR,*” in Proc. International Conference on Electromagnetic Advanced Applications (ICEAA-IEEE APWC-2015), Torino, Italy. pp. 1224-1226, Sep. 07-11, 2015.
- (28)**Satish K. Jain**, “*Geometrical parameter determination of dual-band satellite antenna using genetic algorithm,*” in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2014), Jodhpur, Rajasthan, India, pp. 226-231, Dec. 09-12, 2014.

- (29) Satish K. Jain, Amarnath Upadhyay, “*Microstrip patch antennas with defected ground structures: A present trend,*” in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2014), Jodhpur, Rajasthan, India, pp. 286-291, Dec. 09-12, 2014
- (30) Satish K. Jain, “*Design optimization of microstrip patch antenna array for satellite application*”, in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2014), Jodhpur, Rajasthan, India, pp. 196-200, Dec. 09-12, 2014.
- (31) Satish K. Jain, Rajkumar Jatav, “*Design of a substrate integrated waveguide multiband antenna*”, in Proc. International Conference on Microwaves, Antenna Propagation and Remote Sensing (ICMARS-2014), Jodhpur, Rajasthan, India, pp. 292-294, Dec. 09-12, 2014.
- (32) Satish K. Jain & Shailesh Mohine, “*Performance evaluation of machine learning algorithm in microwave component design,*” in Proc. IEEE workshop on computational intelligence theories, applications and future Directions, organized by IIT Kanpur India / IEEE computational intelligence society, pp. 98-103, July 2013.
- (33) Shailesh Mohine & Satish K. Jain, “*Neural Network analysis of WLAN dual band miniaturized stacked patch antenna,*” in Proc. IEEE workshop on computational intelligence theories, applications and future Directions, organized by I.I.T. Kanpur India / IEEE computational intelligence society, pp.18-22, July 2013.
- (34) Satish K. Jain, Amalendu Patnaik & Sachendra N. Sinha, “*Stacked patch antenna design using ANN based BFO,*” in Proc. IEEE International Symposium on Antennas and Propagation, organized by 2011 IEEE AEMC Indian Antenna Week, AP MTTT Calcutta, India, pp. 1-4, Dec. 2011, 978-1-4577-1099-5- 2011 IEEE
- (35) Satish K. Jain, Amalendu Patnaik & Sachendra N. sinha, “*Neural network based particle swarm optimizer for design of dual resonance X-Ku band stacked patch antenna,*” in Proc. IEEE International Symposium on Antennas and Propagation, organized by AP-S & USNC / URSI National Radio Science at the Spokane Washington (USA), pp. 2932-2935, July 2011.
- (36) Satish K. Jain, Sachendra N. Sinha, & Amalendu Patnaik, “*Analysis of coaxial fed dual patch multilayer X/Ku band antenna using artificial neural networks,*” in Proc. International Symposium on Biologically Inspired Computing and Applications (BICA 09)’, Bhubaneswar (Orissa) India, pp.1111-1114, Dec. 2009.
- (37) Satish K. Jain & Amit Naik, “*Performance analysis of broadband rectangular microstrip antenna,*” in Proc. International Conference on Advanced Communication Systems ICACS 2007, Organized by Govt. College of Technology Coimbatore (T) India, pp. 43-48, Jan. 2007.

National Conference Publications

- (1) Adarsh Mishra, Sana Naaz, **S. K. Jain**, “*Smart antenna technology in modern antenna design applied for wireless communication*,” in Proc. Two Days National Conference on Recent Trends in Microwave Engineering (Under TEQIP Phase-II), Department of Electronic, Madhav Institute of Technology and Science (MITS), Gwalior (M.P.), **pp. 1-3**, India, 30th Sept. – 01st Oct., 2016.
- (2) Aneesh Singh, Shivani Gurung, **S. K. Jain**, “*Helical antenna design for wireless communication*,” in Proc. Two Days National Conference on Recent Trends in Microwave Engineering (Under TEQIP Phase-II), Department of Electronic, Madhav Institute of Technology and Science (MITS), Gwalior (M.P.), **pp.6-9**, India, 30th Sept. – 01st Oct., 2016.
- (3) D.P. Kshirsagar, **S. K. Jain**, “*Mutual coupling reduction in MIMO antenna system*,” in Proc. of 2nd URSI Regional conference on Radio Science (URSIRCRS 2015), Jawaharlal Nehru University, New Delhi India, pp. 45-46 , November 16-19, 2015.
- (4) **S. K. Jain**, Ayush Shrivastava , “*Performance evaluation of microstrip patch antenna using dielectric ellipsoidal lens*,” in Proc. of 2nd URSI Regional conference on Radio Science (URSIRCRS 2015), Jawaharlal Nehru University, New Delhi India, pp. 44 , November 16-19, 2015.
- (5) **Satish K. Jain**, Gautam Shrivastava, “*Searching of antenna array defective elements using ANN*,” in Proc. 2015 National conference on Recent Advances in Microwave Engineering, Department of Electronic, Madhav Institute of Technology and Science (MITS), Gwalior (M.P.), India, pp. 15-18, February 21-22, 2015.
- (6) **Satish K. Jain**, “*Size reduction of stacked patch antenna using neural network based swarm optimizer*,” in Proc. National Conference on Recent Advances in Electronics and Computer Engineering (NCRAECE) , Department of Electronics and Communication Engineering, Indian Institute of Technology (I.I.T.) Roorkee (U.A.), India, pp. 170 , February 13-15, 2015.
- (7) **Satish K. Jain**, Gautam Shrivastava, “*Characterization of DGS based patch antenna using ANN*,” in Proc. National Conference on Recent Advances in Electronics and Computer Engineering (NCRAECE), “Department of Electronics and Communication Engineering, Indian Institute of Technology (I.I.T.) Roorkee (U.A.), pp. 47-49 , February 13-15, 2015.
- (8) **Satish K. Jain**, “*Application of neural networks in RF and microwave*,” National Conference on Emerging Trends in Information Technology, Organized by S.G.S.I.T.S. Indore (M.P.) India, pp. 1-6, Dec. 2007.
- (9) **Satish K. Jain & P.D. Ashok**, “*An overview of microstrip antenna characteristics*,” in Proc. National Conference on Trends in Telecommunication Transmission, Organized by K.J.

Somaiya College of Engineering Bombay (M.S.) India, pp. 103-108, March 2006.

- (10) **Satish K. Jain & Basant Agarwal**, “*Electromagnetic compatibility in electromechanical systems*,” in Proc. National Conference on Echo Friendly Technologies and Challenges for Mechanical Engineers, Organized by S.G.S.I.T.S.Indore (M.P.)India, pp. 41-43, Jan. 2006
- (11) **Satish K. Jain & A. Jain**, “*Smart antenna for 3G mobile communication network*,” in Proc. National Conference on Broadband Communication, Organized by St. Joseph College of Engineering Chennai (T) India, pp. 66-70, July 2005.
- (12) **Satish K. Jain & S.V. Charhate**, “*Broadband power line carrier communication*,” in Proc. First National Conference On Advances in Electronics and Telecommunication Engineering, Organized by College of Engineering Osmanabad (M.S.) India, pp. 543-547, Feb. 2005.

5. List of Conferences/Workshops/Seminars Organized

- (1) Two weeks **Faculty Development Programme (FDP)** entitled **Recent Advances in Microwave Communication (RAMC-19)** by AICTE New Delhi, Dec. 02- Dec. 13, 2019.
- (2) One Week AICTE-ISTE Induction/Refresher Programme On **Design Development Fabrication Measurement Techniques for Next Generation Antennas [DDFMT-2018]** Nov. 30-Dec.01, 2018, Dec. 03-Dec. 06, 2018
- (3) One week Short term course (STC) entitled ‘**Recent Advances in Software Defined Radio (SDR) and Multiple Input Multiple Outputs (MIMO) Communication Systems**’, organized by Electronics and Telecommunication Engineering Department, S.G.S. Institute of Technology and Science (S.G.S.I.T.S.) Indore (M.P.) India and Coordinated by me during Nov.30, 2015-Dec.04, 2015
- (4) One week Short term course (STC) entitled ‘**Softcomputing techniques in RF and Microwave (STRM)**’, organized by Electronics and Telecommunication Engineering Department, S.G.S. Institute of Technology and Science (S.G.S.I.T.S.) Indore (M.P.) India and Coordinated by me during December 02-06, 2013
- (5) 2-days Short term course (STC) entitled ‘**Academic Institute satellite and launching (AISL)**’, organized by Electronics and Telecommunication Engineering Department, S.G.S. Institute of Technology and Science (S.G.S.I.T.S.) Indore (M.P.) India and Coordinated during 17th & 18th February 2017.

6. Invited Lectures/Expert Talks/Chairmanships at Conferences

Webinar Coordinated

- (1) Webinar entitled '**Recent Advances in Antennas and Microwave**' June 1-2, 2020, Organized By department of Electronics and Telecommunication Engineering, Shri G.S. Institute of Technology and Science, Indore (M.P.) 452003
- (2) Webinar entitled '**Microwave Imaging**' June 12, 2020, Organized By department of Electronics and Telecommunication Engineering, Shri G.S. Institute of Technology and Science, Indore (M.P.) 452003

Invited Lectures/Expert Talks Delivered

- (1) Expert talks Entitled '**Nanosatellite and its Application in Remote Sensing**' in GIS and Remote sensing – Application and Techniques, organized by AICTE RGPV joint Teachers Training Programme by Department of civil Engineering, Acropolis Institute of , Feb. 26, 2021.
- (2) Expert talks Entitled '**Indigenous Terahertz Technology Implementation for Fabrication and Experimental Measurement of Graphene based Nano Antennae**' at 13th International Conference (ATMS–2021 Virtual Platform) ATMS India, Feb 20, 2021.
- (3) Expert talk Entitled "**Design approach of textile based antennas antennas**" In the Two weeks **Faculty Development Programme (FDP)** entitled **Recent Advances in Microwave Communication (RAMC-19)** at SGSITS Indore (MP) Dec. 02- Dec. 13, 2019.
- (4) Expert talk Entitled "**Design of Wearable Antenna for various Applications**" In the Acropolis Technical Campus Indore (MP) during Sept. 05, 2018.
- (5) Expert talk Entitled "**Radar Antenna Analysis and Design using Machine learning algorithm**" In the one week GIAN course on **Advanced Radar System Design and Signal Processing** during 18th – 22nd December 2017 at Indian Institute of Technology Indore (MP)
- (6) Expert talk Entitled '**Satellite antenna payload design strategy**' In the Two week CEP course) entitled 'Spacecraft and payload pointing and control' organized at I.I.T. Indore (MP) India during May 15-26, 2017.
- (7) Experts talk Entitled '**Antennas for spacecrafts**' in Department of Computer Science Engineering, S.A. T. I. Vidisha (MP) on April 27, 2017.
- (8) Experts talk Entitled '**Fundamental on antenna Arrays**' in Acropolis Technical Campus Indore (MP) on 24/11/ 2016.
- (9) Experts talk Entitled '**Antennas for wireless applications**' in Medicaps University Indore (MP) on 23/11/ 2016.
- (10) Experts talk Entitled '**Advances on smart antennas**' in MPCST Bhopal (MP) Sponsored National Seminar at IES College of Technology Bhopal (MP) on 24/09/ 2016.

- (11) Expert talk Entitled '**Antennas design using simulink**' on Two week ISET-TEQIP-II, STTP on MATLAB and SIMULINK, Learning by Doing, organized by Electrical Engineering Department, Government College of Engineering, Karad (M.S.) India during June 6-18, 2016.
- (12) Expert talk Entitled '**Application of ANN in antenna analysis and design**', In the one week Short term course (STC) entitled 'Recent Advances in Microwave Engineering', Dec. 0712, 2015, at MITS, Gwalior (M.P.) India Dec. 2015
- (13) Expert talk Entitled '**MIMO array antenna design**', In the One week Short term course (STC) entitled Recent Advances in Software Defined Radio (SDR) and Multiple Input Multiple Outputs (MIMO) Communication Systems, during Nov. 30- Dec. 04, 2016, organized by Electronics and Telecommunication Engineering Department, S.G.S.Institute of Technology and Science (S.G.S.I.T.S.) Indore (M.P.) India Oct. 2015
- (14) Expert talk Entitled '**Miniaturization techniques of the microstrip patch antennas**' In the symposia under IET Chapter Mandasaur (MP) India, Oct.10, 2015 at Mandasaur Institute of technology Mandasaur (M.P.) India
- (15) Expert talk Entitled '**Metamaterial and its application in Engineering**', In the symposia under ISTE Chapter Bhopal (MP) India, August 22, 2015, at RKDF Institute of Science and Technology (M.P.) India
- (16) Expert talk Entitled '**Antenna Design using softcomputing techniques**', In the two week Short term course (STC) entitled 'Recent Advances in Microwave Engineering', March 16-27, 2015, at MITS, Gwalior (M.P.) India.
- (17) Expert talk Entitled '**Microstrip patch antennas analysis and design** ', at Truba Institute of Engineering and Information Technology Bhopal (M.P.) India, dated Feb.19, 2015
- (18) Expert talk Entitled '**Microstrip antennas: A Planar Technology**', at Acropolis institute of Technology Indore (M.P.) India, dated March 31, 2014
- (19) Experts talk Entitled '**Antennas for all wireless communication applications**', in the National conference on **Advancement in Research and Development in Science and Technology**, during Feb. 7 - 8, 2014 , at RKDF Institute of Science and Technology (M.P.) India
- (20) Expert talk Entitled '**Stacked patch antenna analysis and design using softcomputing techniques**' In the One week Short term course (STC) entitled Softcomputing techniques in RF and Microwave (STRM), December 02-06, 2013, at S.G.S.Institute of Technology and Science (S.G.S.I.T.S.) Indore (M.P.) India Dec. 2013
- (21) Expert talk Entitled '**Patch antenna analysis and design**', In the One week Short

term course (STC) entitled Softcomputing techniques in RF and Microwave (STRM), December 02-06, 2013, at S.G.S. Institute of Technology and Science (S.G.S.I.T.S.) Indore (M.P.) India

Short term courses/Workshops Attended

- (1) One week short term course on “**Finite Element Method: Variation Methods to Computer Application**” Nov. 02-06, 2020. Organized by IIT Guwahati.
- (2) One week workshop on “**Advanced Design in RF**” Nov. 16-20, 2020, organized by HMR Institute of Technology and Management (HMRITM), Delhi
- (3) Eight week course on “**Microwave Integrated circuits**” Jan-March 2020, organized by IIT Bombay.
- (4) One week **Professional Development Training Programme**, Nov. 23-27, 2020, organized by Indian Institute of Management (IIM) Kozhikode, Kerala, India.
- (5) One week Faculty Development Programme on “**Teaching an Learning**” June 04- June 08, 2018, organized by I.I.T. Madras.
- (6) One week Workshop on “**Practical /RF Microwave Active Circuits Design**” Jan. 02- Jan. 06, 2019, Organized by BITS-Pilani Hyderabad Campus.
- (7) Two week GIAN Course on “**Evolution of wireless Communication Towards 5 G**” May 07- May 17, 2018 Organized by Institute of Technology – Kharagpur (W.B.)
- (8) One week Course on “**Radar System Design and signal processing** ” Dec. 18-22, 2017, Organized by Institute of Technology - Indore MP 453 552
- (9) Two week Course on “**Spacecraft and Payload Pointing and Control**” May 15-26, 2017 Organized by Institute of Technology - Indore MP 453 552
- (10) One week Training program on “**Advanced Instrumentation methods** ” August 30- Sept. 03,2016, Organized by Madhya Pradesh Council of Science and Technology Bhopal (MP) 462 003
- (11) One Day Seminar on Communication and Cryptography: Shannon’s Centenary Year Celebration Electronics and Telecommunication Engineering Dept. S.G.S.I.T.S. Indore (M.P.) India, April 30, 2016 May 2016.
- (12) Four Week AICTE approved Faculty Development Program on “**Use of ICT in Education for Online and Blended Learning**”, organized by I.I.T. Bombay (M.S.) India during May 02 to July 10, 2016 June 2016.
- (13) Two Week ISTE-TEQIP Short Term Training Programme on “**MATLAB and SIMULINK, Learning by Doing**”, organized by Electrical Engineering Department, Government College of Engineering, Karad (M.S.) India during June 6-18, 2016
- (14) Two week short term course on **Introduction to Design of Algorithm**, organized by

Department of Computer Engineering, SGSITS INDORE (National Mission on Education through ICT (MHRD, Govt. of India)) IIT Kharagpur, India during May 26-30, 2015 Nov. 2014

- (15) One week short term course on **ANN and optimization techniques and their applications**, organized by NITTTR Chandigarh (U.T.) India during Nov. 17-21, 2014 July 2014
- (8) Two day workshop entitled '**Recent Trends in Teacher-Society Relations: Challenges and Opportunities**' organized by S.G.S.Institute of Technology and Science (S.G.S.I.T.S.) Indore (M.P.) India during July 11-12, 2014 June 2014.
- (9)Two week International workshop entitled '**Machine learning algorithm and data analytics**', organized by Thapar University Patiala (Punjab) India during June3-13, 2014 Jan. 2013.
- (10)Two week workshop entitled '**Signal and Systems**', organized by I.I.T. Bombay (M.S.) India during Jan. 02-10, 2013 August 2012.
- (11)One week workshop entitled '**Antenna and microwave learning through experimentation**', organized by N.I.T.T.T.R. Chandigarh (U.T.) India during Aug. 27-31, 2012.
- (12)Two days ISTE Workshop entitled '**Aakash Tablet**' organized by I.I.T. Bombay (M.S.) India during Nov. 10-11, 2012 June 2012.
- (13)One week workshop entitled '**Recent advances in genetic algorithm and their applications in engineering design**', organized by I.I.T. Roorkee (U.A.) India during June 25-29, 2012 Oct. 2005.
- (14)One day workshop entitled '**PG Projects Initiative**' organized by Electronics and Telecommunication Engineering dept. S.G.S.I.T.S. Indore (M.P.) India, Nov. 25, 2005 March 2005.
- (15)One week workshop entitled '**Image Processing**', organized by N.I.T.T.T.R. Chandigarh (U.T.) India during March 14-18, 2005 March 2005.
- (16)One week workshop entitled '**Application of ANN to Antenna and Microwave**', organized by NITTTR Chandigarh (U.T.) India during March 21-25, 2005 Nov. 2005.
- (17)Two week workshop entitled '**Computational Electromagnetics**', organized by I.I.T. Bombay (M.S.) India during November 21-25, 2005 May 2003.
- (18)Two week short term course entitled '**Advanced Course on Telecommunication**', organized by Scientech Technology Indore (M.P.) India during May 20-30, 2003 Feb. 2002
- (19)One week short term course entitled '**Teaching Methodology**', organized by T.T.T.I. Bhopal (M.P.) India during Feb. 04-08, 2002 July 2002.
- (20)Two week workshop entitled '**Electronics Maintenance**', organized by N.T.T.F. Bangalore (K) India during July 01-12, 2002 April 2002
- (21)One day workshop entitled '**Decision System Forecasting**', organized by S.G.S.I.T.S. Indore

(M.P.) India during April 06, 2002 Aug. 2001.

(22) Two week workshop entitled '**Digital Communication: A Problem Solving Approach**', organized by I.I.T. Bombay (M.S.) India during August 27- September 06, 2001 April. 2016

(23) One Day Seminar On **Communication and Cryptography: Shannon's Centenary Year Celebration** Electronics and Telecommunication Engineering dept. S.G.S.I.T.S. Indore (M.P.) India, April 30, 2016 May 2016

(24) Four Week AICTE approved Faculty Development Program on "**Use of ICT in Education for Online and Blended Learning**", organized by I.I.T. Bombay (M.S.) India during May 02 to July 10, 2016

Awards & Distinctions

Name of the Award / Fellowship	Name of the organization	Year
International Traveling Grant	Department of Science and Technology (DST) New Delhi	2015
International Traveling Grant	M.P. Council of Science and Technology Bhopal (MP)	2015
Best research paper award	IEEE workshop entitled 'Computational Intelligence Theories, Applications and Future Directions' organized by I.I.T. Kanpur (U.P.) India	2013
Alumni International Traveling Grant	I.I.T. Roorkee (U.A.)	2013
International Traveling Grant	U.G.C. New Delhi, India	2012
Ph.D. Fellowship	A.I.C.T.E./M.H.R.D. New Delhi	2008-2012
G.A.T.E. Scholarship	A.I.C.T.E./M.H.R.D. New Delhi	1992-1994
National Merit Scholarship	Govt of M.P.	1986-1991
Best research paper award	IEEE workshop entitled 'Computational Intelligence Theories, Applications and Future Directions' organized by I.I.T. Kanpur (U.P.) India	2013

Chairmanships at Conferences

- (1) Appointed as **chair in International conferences** 14th International Conference i.e. ATMS-2022, Virtual / Hybrid Mode, 21st- 23rd July, 2022, Indore (M.P.).
- (2) Appointed as **Session chair in International conferences** 14th International Conference i.e. ATMS-2022, Virtual / Hybrid Mode, 21st- 23rd July, 2022, Indore (M.P.).
- (3) Appointed as **Reviewer and Session Chair** "Antenna Engineering" in IEEE, International Conference on Information, Communication, Instrumentation and Control (ICICIC – 2017), MEDI-CAPS University, Indore (MP) India, Aug 17-19, 2017.
- (4) Appointed as **Reviewer for**. ATMS-2018 (11th Annual International Conference, Antenna

Test and Measurement Society India), Pune, India, Feb. 05-07, 2018.

- (5) Appointed as **Session chair in National conferences** Advances in Research and development in science and Technology, Feb. 7-8, 2014, organized by RKDF Bhopal (MP).

Journal Paper /Book chapters reviewed

- (1)Appointed as a reviewer for the **Frequenz Journal of RF-Engineering and Telecommunications**, dated August 14 2015
- (2)Appointed as a reviewer for **the International Journal of Microwave and Optical Technology**, USA (IJMOT), dated April 14 2015
- (3)Appointed as a reviewer for the **International Journal of Progress in Electromagnetic Research (PIER)** dated Jan, 22, 2014
- (4)Appointed as a reviewer for the **International Journal of Electronics and Electrical Engineering (IJEET)** dated Aug. 28, 2014
- (5)Appointed as a reviewer for the **International Journal of microwave and wireless technology (Cambridge University Press)**, dated Aug. 28, 2014
- (6)Appointed as a reviewer for the **Journal of the Institution of Engineers (IE,India): Series B (Springer)** dated Feb. 22, 2013
- (7) Appointed as a reviewer for the **Journal of Computational Design and Engineering (Elsewhere)**
- (8) Appointed as a reviewer for the **IEEE Transaction on Antenna and Wave Propagation**.
- (9) Appointed as a reviewer for the **IEEE International Conference on Information Communication, instrumentation and control (ICICIEEE 2017)**, organized by Medicaps University Indore (MP) India during Aug. 17-19, 2017.
- (10) Appointed as a reviewer for the **International journal of the Advances in the Microwave Techniques (IJMAT), I.I.T. BHU India**.
- (11)Appointed as a Reviewer for the book '**Engineering Electromagnetic**' W.H. Hayt and J.A. Buck 8th edition- by McGraw-Hill Education (India)

Responsibilities at Institutional administration and development works

- (1)Nodal officer of EDUROAM ERNET (under AICTE)
- (2) Coordinator CRSST
- (3) Examination subcommittee member at department level
- (4) Department NBA coordinator
- (5) Coordinator of NABL of ATML laboratory
- (6) Department core research committee member
- (7) Institute core research committee member

Patent

S.No.	Brief Description of Patents/IPR	Patent Registration No.	Remarks
1	Novel and Optimized Defected Ground Structures (DGS) for Radiator Miniaturization	Patent Application No-201721033915 Permanent Application No.- 201721033915 Docket No. 33956	First reply filled. Dated, Feb. 2022

Research Project**Sanctioned, Approved and Completed**

S.N.	Position	Title of Project, sponsored agency and scheme	Ref. No.	Sanctioned amount of the project (Rs)
1.	Principal Investigator (PI)	Set up of Advanced RF and Microwave Laboratory (AICTE New Delhi, India modernization and removal of obsolescence (MODROB))	9-53/RIFD/MODROB /Policy-1/2016-17	25,00,000=00 (for 2017-2018)

Membership OF Professional Bodies

S.No.	Name of Society	Membership No.	Current Status of Membership	Year of Commencement
1	IEEE (Institute of Electrical and Electronics Engineering)	92615444	Running Applied for	31 Dec. 20013 31Dec. 2014 2017
2	Institute of Engineer (IE) India	M-148784-6	Life membership	March 2014
3	CSI (Computer Society of India)	00068420	Life membership	2001
4	BES India (Broadcast Engineering Society of India)	LM-1554	Life membership	2001
5	ISOI (Instrumentation Society of India)	LM-1004	Life membership	2001
6	ISTE (Indian Society for Technical Education)	LM31253	Life membership	2001
7	ISCA (Indian Science Congress Association)	L-9603	Life membership	2001

8	IETE (Institute of Electronics and Telecommunication Engineering)	M-141755	Life membership	2001
9	ATMS (Antenna Test and Measurement Society)	00253	life membership:	2011
10	Indian Society for Remote Sensing (ISRS)	-	life membership:	2018

Book chapter published

S.N.	Chapter title	Book Title	Publisher
1	Artificial intelligence applied to multi-and broadband antenna design	Artificial Intelligence for Signal Processing and Wireless Communication	Walter de Gruyter GmbH Genthiner Str. 13· 10785 Berlin· Deutschland

Dr. Satish Kumar Jain
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Department of Electronics and Telecommunication Engineering