

ADITI THAKUR

Mrs. Aditi Thakur

Asst. Prof. (ECE)

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Akal College of Engineering & Technology,

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OBJECTIVE

An effective **Research & Teaching** professional with the methodical approach to solving problems, reach independent decisions, enthusiastic with blend management skills. To evolve and manage challenging research and development and academic with Electrical and Electronics Engineering.

PROFESSIONAL EXPERIENCE

I have been teaching for 12 years with experience in following institutions:

- I have worked as Asst. Prof. in the Department of ECE in Akal College of Engineering & Technology, Eternal University, Baru Sahib, H. P. from 26th December 2009 to 31st July 2021.
- I have also worked as Sr. Lect. in the Department of ECE in K. C. College of Engineering & IT, District- Nawanshahr, Punjab from 15th July 2008 to December 2009.

PROFESSIONAL AFFILIATIONS

Google Scholar Citation

Total-372, h-index - 8, i10-index - 7.

(<https://scholar.google.com/citations?user=sbnfRYEAAAJ&hl=en>)

Research Gate Citation

Total - 303, h-index - 7

(<https://www.researchgate.net/profile/Aditi-Sharma-Thakur>)

Scopus Author ID

57201887234

Orchid ID

0000-0002-9304-2618

Professional Membership

IAENG Member ID: 216048.

TECHNICAL SKILLS

Operating Systems

Windows-based all operating systems

Editing & Designing Tool Microsoft office, Origin

Packages

Languages

C, C++, Assembly Languages: (8051, 8085/86)

IDE and Simulation Tools

CST Microwave Studio, MATLAB, HFSS, ADS,

Turbo C/C++, SCAPS-1D

PCB Designing Tools

Multisim, Proteus, OrCAD

PROFESSIONAL QUALIFICATION

- **Ph.D.** pursuing in Electronics & Telecommunication Engineering from Eternal University, Baru Sahib. (Enrolled in August 2019)
- **M.Tech. (Optical and Wireless Communication Technology)** From Jaypee University of Information Technology (JUIT), Wahnaghat, Solan (H.P) with **9 CGPA** in the year **2008**.
- **M. Sc. (Electronics)** From Jiwaji University, Gwalior (M.P) with **65%** marks in the Year **2006**.

EDUCATIONAL QUALIFICATION

- **B.Sc. (Non-Medical)** From Himachal Pradesh University in 2004 with 65% marks.
- **Intermediate(10 + 2)** From H. P. Board, Himachal Pradesh in 2001 with 71% marks.
- **High School (10th)** From H. P. Board, Himachal Pradesh in 1999 with 81% marks.

Project Work

- **Major Project** (4 Months) during M. Sc. on **“Wire-line Communication”**, from Himachal Futuristic Communication Limited (HFCL), Solan, Himachal Pradesh.
- **Major Project** (1 Year) during M. Tech. on **“Design Considerations for Microstrip Patch Antenna at THz Frequencies”** from Jaypee University of Information Technology, Wahnaghat, Solan, Himachal Pradesh.

Students Guided

Name	Title of Thesis	Course	Awarded	Year
Harmandeep Kaur	Design Analysis of Patch Antenna Backed by EBG Structures	M. Tech.	Yes	2018

Courses Taught (B. Tech. & M. Tech.)

- | | |
|------------------------------|--------------------------------------|
| ➤ Digital Electronics | ➤ Signals and System |
| ➤ Analog Communication | ➤ Cellular & Satellite Communication |
| ➤ Digital Communication | ➤ Radar & Navigational Aids |
| ➤ Electromagnetic Theory | ➤ Optical Fiber Communication |
| ➤ Antenna & Wave Propagation | ➤ Mobile Communication |
| ➤ Circuit theory | ➤ Microwave Engineering |

References

Dr. Ghanshyam Singh

Professor, Department of Electronics & Communications Engineering, University of Johannesburg, South Africa. Contact: +27-629617050. drghanshyam.singh@yahoo.com

Dr. Pardeep Kumar

Senior Lecturer, Howard College Campus, Discipline of Electronic Engineering, University of KwaZulu-Natal, Durban-4041, South Africa. Contact: +27-629796946, +91-8894178994. kumarp@ukzn.ac.za

Personal Details:

Gender : Female

Marital Status : Married
Date of birth : 13th October 1983
Language Known : English, Hindi

Date:

Place: Mohali, Punjab.

(Aditi Thakur)

WORKSHOPS/SHORT TERM COURSES

1. Attended a Webinar on "World's **Largest Drug Awareness Webinar**", on 26th June, 2020, organized by Kalgidhar society, BaruSahib, H. P.
2. Participated in a Webinar "**Numerical Techniques: An Introduction application**", on 9th July, 2020, organized by the Department of Applied sciences, Chitkara University, Punjab.
3. Participated in FDP on "**Antenna Design Using Microwave Studio**" from 27th April to 1st May, 2020, organized by Department of Electronics & Communication Engineering, Chitkara University, Punjab.
4. Attended 3-days Faculty Development Program on "**Universal Human Values for Student Induction**" held on November 21st to 23rd, 2019 at Eternal University Baru Sahib (HP).
5. Participated in the workshop on "One day Python workshop for teachers" organized by the Teaching Learning Centre (ICT) at IIT Bombay on 22nd June, 2019
6. Participated in 2-day workshop on "**Intellectual Property Rights: Issues and Challenges (IPRIC-2019)**" during 28-3-19 to 29-3-19 organized by IPR Cell, Eternal University, Baru Sahib, in association with Himachal Pradesh Patent Information Center (HPPIC) and Himachal Pradesh Council for Science, Technology, and Environment, Shimla, H.P., India.
7. Attended Short Term Course (STC) organized by NITTTR Chandigarh on "**4G and 5G**" through ICT (Information & Communication Technology) between 17th-21st September 2018 at Eternal University, Baru Sahib (H.P), India.
8. Attended short term course organized by NITTTR Chandigarh on "**VLSI Design**" through ICT between 24th-28thSeptember 2018 at Eternal University, Baru Sahib (H.P), India.
9. Member of organizingcommittee of National Workshop on "**Solar and Smart Energy Systems for Sustainable Environment**" 6th -7thApril, 2018, Eternal University, Baru Sahib.
10. Member of organizing committee of DST sponsored two days National Workshop on "**Real Time Applications Using Next Generation IoT Technology**" 20th -21stApril, 2018, Eternal University, Baru Sahib.
11. Workshop attended on "**Entrepreneurship Development**" by National Entrepreneurship Development Cell (NEDC), New Delhi, 19thAugust, 2017.
12. Participated in faculty development program on "**Goods and Service Tax**", 29thApril, 2017, Eternal University, Baru Sahib.

13. Short term course organized by ITTTR Chandigarh on “**Power Electronics for Renewable Systems**”, through ICT, 14th-18th April 2017, Eternal University, Baru Sahib.
14. Member of organizing committee of DST sponsored International Conference on “**Innovative Research in Engineering, Science, and Technology (IREST-2017)**” 7th -8th April, held at Eternal University, Baru Sahib.

DESIGN AND UTILITY PATENTS

1. Himanshu Jindal, Dhawan Singh, Abinash Singh, and **Aditi Thakur**, “Access Controlled Smart Irrigation Module”, Application no. UTI0252, P290, Submitted on 6/7/22.
2. Dhawan Singh, Abinash Singh, Himanshu Jindal, and **Aditi Thakur**, “Access Controlled Smart Irrigation System”, Application: DSGN/IN/1682, Application no. 364247-001, Submitted on 16/5/22.
3. Dhawan Singh, Abinash Singh, Himanshu Jindal, **Aditi Thakur**, and Geetanjali, “Water Purifier and Control Method Thereof”, Application no. **202211012826**, Date of filing: **Feb 07, 2022**.
4. Dhawan Singh, Abinash Singh, Himanshu Jindal, **Aditi Thakur**, and Sumit, “Enhanced Water Purifier”, Date of filing: **Feb 25, 2022**, Application: DSGN/IN/1478, Application No. 359406-001
5. Dhawan Singh, Abinash Singh, Himanshu Jindal, **Aditi Thakur**, Solar-powered Touchless Garbage Bin, Application No. **354758-001** Date of filing: **Dec 11, 2021**.

BOOK CHAPTERS

6. Dhawan Singh, **Aditi Thakur**, Rajeev Kumar, and Geetanjali, “Design and Analyses of Dual-band Microstrip Patch Antennas for Wireless Communications,” Book chapter on “Microstrip Antenna Design for Wireless Application” with CRC Press, Taylor and Francis Group, ISBN: 9780367554385, Published November 30, 2021 by CRC Press 352 Pages 161, UINC: 205508059CCAE, <https://doi.org/10.1201/9781003093558-9>

JOURNALS

7. Dhawan Singh, **Aditi Thakur**, Maninder Singh, and Amanpreet Sandhu “IoT Implementation Strategies amid COVID-19 Pandemic”, *International Journal of Computer Applications in Technology*, August 2021 Vol.65 No.4, pp. 389 – 398. 10.1504/IJCAT.2021.117303 IJCAT-304700.
8. Dhawan Singh, Amanpreet Sandhu, **Aditi Thakur**, and Nikhil Priyank, “An Overview of IoT Hardware Development Platforms”, *International Journal on Emerging Technologies*, vol. 11, no. 5, pp. 155-163, Aug 2020.
9. Dhawan Singh, **Aditi Thakur**, and Viranjay M. Srivastava, “Miniaturization and Gain Enhancement of Microstrip Patch Antenna with Defected Ground and EBG”, *Journal of Communication (JOCM)*, vol. 13, no. 12, pp. 730-736, December 2018, [Doi:10.12720/jcm.13.12.730-736](https://doi.org/10.12720/jcm.13.12.730-736).
10. Harmandeep Kaur, **Aditi Sharma**, and Dhawan Singh, “Design analysis of patch antenna using EBG structure”, *International Journal of Emerging Technologies and Innovative Research (JETIR)*, vol. 5, no. 4, pp. 916-921, April 2018. [DOI.one/10.1729/IJCRT.17507](https://doi.org/10.1729/IJCRT.17507), ISSN: 2349-5162.

11. **Aditi Thakur** and Dhawan Singh, “Reliable and Fast Future Communications with Millimeter Waves: A Review”, *International Journal for Research in Applied Science and Engineering Technology (IJRASET)*, vol. 6, no. 3, pp. 2320-2326, March 2018, ISSN: 2321-9653.
12. Harmandeep Kaur and **Aditi Sharma**, “Microstrip Patch Antennas using Metamaterials: A Review”, *International Journal of Electronics, Electrical and Computational System (IJECS)*, vol. 6, Issue 7, June 2017, ISSN (Online): 2347-2820.
13. Dhawan S. Thakur and **Aditi Sharma**, “Voice Recognition Wireless Home Automation System Based on Zigbee,” *Journal of Electronics and Communication Engineering (IOSR-JECE)*, vol. 6, no. 1, pp. 65-75, June 2013, ISSN (Online): 2278-2834.
14. Dhawan S. Thakur, **Aditi Sharma**, and Dileep Kumar Sharma, “A Low-Cost Design & Monitoring of Automatic Irrigation System Based on ZigBee Technology,” *International Journal of Engineering Research and Technology*, vol. 2, no.5, pp. 1112-1121, May 2013, ISSN (Online): 2278-018.
15. **Aditi Sharma** and G. Singh, “Single pin shorted ultra-broadband rectangular microstrip patch antenna for THz communication”, *International Journal of Microwave and Optical Technology (IJMOT)*, vol. 5, no. 1, January 2009. ISSN: 1553-0396.
16. **Aditi Sharma** and G. Singh, “THz electromagnetic radiation-potential application areas”, *Electronics for You Magazine*, vol. 41, no. 1, pp. 50-56, January 2009.
17. **Aditi Sharma** and G. Singh, “Rectangular microstrip patch antenna design at THz frequency for short distance communication systems”, *Journal of Infrared, Millimeter and Terahertz Waves*, vol. 30, no. 1, pp. 1-7, January 2009. [DOI.org/10.1007/s10762-008-9416-z](https://doi.org/10.1007/s10762-008-9416-z)
18. **Aditi Sharma** and G. Singh, “Design of short-range ultra-broadband rectangular microstrip patch antenna for THz communications”, *International Journal of Computer and System Engineering*, vol. 1, no. 2, December 2008.
19. **A. Sharma** and G. Singh, “Design of single pin shorted three-dielectric-layered substrates rectangular patch antenna for communication systems”, *Progress in Electromagnetic Research Letters*, vol. 2, pp. 157-165, 2008. [DOI:10.2528/PIERL08010703](https://doi.org/10.2528/PIERL08010703)

CONFERENCES ATTENDED

20. **A. Thakur**, D. Singh and S. K. Gill, "Comparative Performance Analysis and Modelling of Tin based Planar Perovskite Solar Cell," *2022 International Conference on Intelligent Controller and Computing for Smart Power (ICICCSP)*, 2022, pp. 1-5, doi: 10.1109/ICICCSP53532.2022.9862399.
21. **Aditi Thakur**, Dhawan Singh, and Satnderjit Kaur Gill “Numerical Simulations of 26.11% Efficient Planar CH₃NH₃PbI₃ Perovskite n-i-p Solar Cell”, *World Engineering Conference on Contemporary Technologies 2022*, Rajpura, Punjab, India, May 20-21, 2022.
22. Ankita Sharma and **Aditi Thakur**, “Smart domestic refuse management in villages using IoT”, *3rd Himachal Pradesh Science Congress*, H.P, India, 22-23 October, 2018 , pp.1.

23. Dhawan Singh and **Aditi Thakur**, “Designing of Smart Drip Irrigation System for Remote hilly Areas”, *IEEE 5th International Conference on Parallel, Distributed and Grid Computing(PDGC)*, H.P, India, 20-22 December, 2018 , pp.1-5, DOI: [10.1109/PDGC.2018.8745934](https://doi.org/10.1109/PDGC.2018.8745934)
24. Dhawan S. Thakur and **Aditi Sharma**, “Wireless Solar Irradiance Meter”, *International Conference on Renewable Energy*, H.P, India, 5-6 May 2012, pp. 1-9.
25. Dhawan Singh and **Aditi Sharma**, “Microcontroller Based Digital Solar Insolation Meter”, *International Conference on Recent Advances in Electronics and Computer Engineering*, H.P, India, 17-18 December 2011, pp. 1-7.
26. **Aditi Sharma**, Vivek K. Dwivedi and G. Singh, “THz rectangular microstrip patch antenna on multilayered substrate for advanced wireless communication systems”, *Progress in Electromagnetic Research Symposium (PIERS-2009)*, 23-27 March 2009, Beijing, China, pp. 627-631.
27. **Aditi Sharma**, Vivek. K. Dwivedi and G. Singh, “THz Rectangular Patch Microstrip Antenna Design Using Photonic Crystal as Substrate”, *Progress in Electromagnetic Research Symposium*, PIER 2008, July 2-6, 2008, Cambridge, USA, pp. 161-165.
28. **Aditi Sharma** and G. Singh, “Concept of surface plasmons for development of nanoscale optical antennas”, *International Conference on Microwave and Optoelectronics (ICMO 2007)*, pp. 228-236, 17-20 December 2007, Aurangabad, India.
29. **A. Sharma**, G. Singh and D. S. Chauhan, “Design considerations to improve the performance of a rectangular microstrip patch antenna at THz frequency”, *33rd International Conference on Infrared, Millimeter, and Terahertz Waves*, 15-19 September 2008, California, USA, pp. 1-2. DOI:10.1109/ICIMW.2008.4665717
30. **Aditi Sharma** and G. Singh “Microstrip-line fed single pin shorted rectangular patch antenna for broadband communication”, *National Conference on Wireless and Optical Communication (WOC-2007)*, PEC Chandigarh, India, pp. 195-198.

PAPERS COMMUNICATED IN JOURNALS

31. **Aditi Thakur**, Dhawan Singh, and Dileep Kumar Sharma, Design Modelling and Performance Analyses of Impressive Tin Based Perovskite Cell, *Int. J. of Materials and Product Technology*, Inderscience Publication, Under review: IJMPT-104970
32. **Aditi Thakur**, Dhawan Singh, and Satinderjit Kaur Gill, “A Numerical Simulation Approach to Enhanced the Effectiveness of Lead-Free Tin Based Perovskite Solar Cells”, *Solar energy materials and solar cells*, Elsevier (Submitted on 2nd April, 2022)