

<b>Name</b>	<b>Geetika Jain Saxena</b>	
<b>Designation</b>	<b>Associate Professor</b>	
<b>Address</b>	<b>Department of Electronics, Maharaja Agrasen College, University of Delhi, Vasundhara Enclave, New Delhi-110096, India</b>	
<b>Phone No Office</b>	<b>+91-11-22610565</b>	
<b>ORCID ID</b>	<a href="https://orcid.org/0000-0002-5828-8049">https://orcid.org/0000-0002-5828-8049</a>	
<b>Scopus Author ID:</b>	55779860500	
<b>Educational Qualifications</b>		
<b>Degree</b>	<b>Institution</b>	<b>Year</b>
Ph.D. Electronics	University of Delhi	2010
M. Sc. Electronics	University of Delhi	2000
B. Sc. (H) Electronics	University of Delhi	1998
<b>Career Profile: Total Teaching Experience : about 20 years in university of Delhi from August 2000 till date</b>		
<b>Courses Taught :</b> Network analysis and linear active circuits, Operational Amplifiers and Analog computation, Numerical analysis and Scientific computation, Optics and Optoelectronics, Analog Electronics, Signal and Systems, Digital Signal Processing		
<b>Area of Specialization:</b> Photonics, Optoelectronics, Digital Signal Processing and Machine Learning		
<b>Association With Professional Bodies</b>		
<p><b>Senior Member IEEE</b>  Treasurer – IEEE Signal Processing Society , Delhi chapter, India  Member-IEEE Photonics  Member – IEEE Signal Processing Society  Member-IEEE Women in Engineering  Member-IEEE Electron Devices Society  Life Member – Optical Society of India</p>		
<b>Reviewer of International Journals</b>		
<ul style="list-style-type: none"> <li>• Institute of Physics (IOP), Semiconductor Science and Technology</li> <li>• IEEE, Access</li> <li>• Review Editor in Nanoelectronics (specialty section of Frontiers in Nanotechnology)</li> </ul>		
<b>Publications Profile</b>		
<b>Research papers published in Refereed/Peer Reviewed Journals</b>		
<ol style="list-style-type: none"> <li>1. An Improved CNN Model For Classification Of Apple Leaf Disease And Visualization Using Weighted Gradient Class Activation Map, Dharmendra Kumar Mahato, Amit Pundir, <b>Geetika Jain Saxena</b>, ICTACT Journal on Image and Video Processing, 2022, Vol. No. 12-10, Pg no. 2615-2623, ISSN-0976-9102, (UGC care), DOI: 10.21917/ijivp.2022.0371</li> <li>2. An Improved Deep Convolutional Neural Network for Image-Based Apple Plant Leaf Disease Detection and Identification, Dharmendra Kumar Mahato, Amit Pundir &amp; <b>Geetika Jain Saxena</b>, J. Inst. Eng. India Ser. A, pp. 1-13, 2022.</li> <li>3. Cyber-Physical Systems Enabled Transport Networks in Smart Cities: Challenges and Enabling Technologies of the New Mobility Era, A. Pundir, S. Singh, M. Kumar, A. Bafila and <b>G. J. Saxena</b>, IEEE Access 2022 vol-10 pg no.16350-16364 ISSN-2169-3536, doi: 10.1109/ACCESS.2022.3147323</li> <li>4. SOI-based compact mode-and polarization-division multiplexer for on-chip optical interconnects: design and simulation, Jyoti Prasad Nath, Nikhil Dhingra, Enakshi K Sharma <b>Geetika J Saxena</b>, Applied Optics, Vol. 61, pp. 4195-4203, 2022</li> <li>5. Multilayer perceptron–random forest based hybrid machine learning–neural network model for GaN high electron mobility transistor's parameter estimations, Ashutosh Mishra, Samridhi Raut, Khushwant Sehra, Raghvendra Pratap Singh, Shweta Wadhera</li> </ol>		

- Kasturi, **Geetika Jain Saxena**, Manoj Saxena, International Journal of RF and Microwave Computer-Aided Engineering, Vol. 32, pp. e23191, 2022.
6. Secure digital image watermarking using memristor-based hyperchaotic circuit, The Visual Computer, Sonam, Khushwant Sehra, Raghvendra Pratap Singh, Sharat Singh, Shweta Wadhwa, Poonam Kasturi, **Geetika Jain Saxena**, Manoj Saxena, pp. 1-27, 2022
  7. An Improved Decision Support System for Identification of Abnormal EEG Signals Using a 1D Convolutional Neural Network and Savitzky-Golay Filtering," in IEEE Access, U. Shukla, **G. J. Saxena**, M. Kumar, A. S. Bafila, A. Pundir and S. Singh, Vol. 9, pp. 163492-163503, 2021, doi: 10.1109/ACCESS.2021.3133326.
  8. Simulation, Design and Analysis of Different Types of Solar Based Charge Controllers on MATLAB/Simulink, Ashita Victor, D K Mahato , A Pundir and **G J Saxena**, International Journal of Engineering Research and Technology. ISSN 0974-3154, Volume 14, Number 2 (2021), pp. 180-197
  9. "Robust and Secure Digital Image Watermarking Technique Using Arnold Transform and Memristive Chaotic Oscillators," K Sehra; S Raut; A Mishra; P Kasturi; S Wadhwa; **G J Saxena**; M. Saxena, in IEEE Access, Vol. 9, pp. 72465-72483, 2021, DOI: 10.1109/ACCESS.2021.3079319
  10. Efficient strip to slot waveguide mode converter using fast quasi-adiabatic approach, N Dhingra, **GJ Saxena**, K Kishor, EK Sharma - Engineering Research Express, IOP 2020, July 2020 ,Volume 2, Number 3 Pg No. 035014, DOI: [10.1088/2631-8695/aba819](https://doi.org/10.1088/2631-8695/aba819)
  11. Compact Mode Division (de) Multiplexer Based on Collaterally Coupled SOI Waveguides, JP Nath, N Dhingra, **GJ Saxena**, EK Sharma, IEEE Photonics Technology Letters 32 (10), 595-598 May, 2020, DOI: [10.1109/LPT.2020.2985959](https://doi.org/10.1109/LPT.2020.2985959).
  12. Towards an immersive and safer driving experience using computer vision integrated with encoded vibro-tactile feedback, R Mukherjee, DK Mahato, S Yadav, A Pundir, **GJ Saxena**, International Journal of Vehicle Autonomous Systems 15 (2), 114-130, <https://doi.org/10.1504/IJVAS.2020.108406>, July 2020
  13. Design of a Compact Low-loss Phase Shifter based on Optical Phase Change Material, Nikhil Dhingra, Junchao Song, **Geetika Jain Saxena**, B M Rahman and Enakshi Khular Sharma, October 2019-IEEE Photonics Technology Letters PP(99):1-1, DOI: [10.1109/LPT.2019.2946187](https://doi.org/10.1109/LPT.2019.2946187)
  14. Design of the coaxial optical fiber for pulse repetition rate multiplication by Talbot effect, Nikhil Dhingra, Jyoti Anand, **Geetika Jain Saxena** and Enakshi Khular Sharma, Optical Fiber Technology, Volume 46, December 2018, Pages 248-257, DOI: [10.1016/j.yofte.2018.10.017](https://doi.org/10.1016/j.yofte.2018.10.017)
  15. Design and Modeling of Titanium Indiffused LiNbO<sub>3</sub> Waveguides for Optimum Coupling to Communication Grade Fiber, **Geetika Jain Saxena** and Enakshi K. Sharma, Journal of Computational and Theoretical Nanoscience, vol. 10 pp. 1326-1334, June 2013.
  16. Synthesis of Titanium Indiffused LiNbO<sub>3</sub> Waveguides for desired modal fields, **Geetika Jain Saxena** and Enakshi K. Sharma, Proc. SPIE 7597, Physics and Simulation of Optoelectronic Devices XVIII, 75970W (April 14, 2010); DOI: [10.1166/jctn.2013.2850](https://doi.org/10.1166/jctn.2013.2850)
  17. "ErLiNbO<sub>3</sub> Waveguide: Field approximation for simplified gain calculations in DWDM applications", **Geetika Jain**, Amita Kapoor, Enakshi Khular Sharma, Journal of Optical Society of America-B, Vol. 26, No. 3, 2009 <https://doi.org/10.1364/JOSAB.26.000633>
  18. "Simplified gain calculation in erbium-doped LiNbO<sub>3</sub> waveguides", Amita Kapoor, **Geetika Jain** and Enakshi Khular Sharma, Proceedings of SPIE Volume: 6468 Physics and Simulation of Optoelectronic Devices XII, February 2007 DOI: [10.1117/12.700001](https://doi.org/10.1117/12.700001)
  19. "Closed form modal field expressions in diffused channel waveguides ", **Geetika Jain**, Ashmeet K Taneja and Enakshi K. Sharma, Proceedings of SPIE Volume: 5349 Physics and Simulation of Optoelectronic Devices XII pp. 163-171, June 2004. DOI: [10.1117/12.528947](https://doi.org/10.1117/12.528947)
  20. "Gain calculations in Erbium Doped LiNbO<sub>3</sub> channel waveguide by defining a complex index profile", **Geetika Jain** and Enakshi K. Sharma, Optical Engineering, Vol. 43 (06), pp. 1454-1460, June 2004. <https://doi.org/10.1117/1.1715098>
  21. "Gain calculations in erbium-doped fibers using field approximations " Sunanda, **Geetika Jain** and Enakshi K. Sharma, Microwave and Optical Technology Letters (MOTL), Vol.29, No. 4,

**Research papers published in International Conferences**

1. "Predictive Analysis based on Feature Relevance Estimation for Survival Rate Post Heart Failure using Ensemble Learners", Kunal Sharma, Rahul Chawla, Unmesh Shukla, Nitisha Aggarwal, Anil Singh Bafila, Sanjeev Singh, Amit Pundir, **Geetika Jain Saxena**, 2022 IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE)
2. "Design, Simulation and Comparative Analysis of Different Types of Solar Charge Controllers for Optimized Efficiency," 2019, A. Victor, D. K. Mahato, A. Pundir and **G. J. Saxena**, Women Institute of Technology Conference on Electrical and Computer Engineering (WITCON ECE), Dehradun Uttarakhand, India, 2019, pp. 17-21, doi: 10.1109/WITCONECE48374.2019.9092912WITCON-19
3. "Design of a Compact Silicon Based Co-directional Coupler for Mode Division Multiplexing", J. P. Nath, N. Dhingra, **G. J. Saxena**, and E. K. Sharma, INOS Manipal 2019, January 11-14, 2019, Manipal Academy of Higher Education (MAHE), India.
4. "Germanium Telluride Based Compact Electro-Optic Switch with High Extinction Ratio," N. Dhingra, J. C. Song, **G. J. Saxena**, E. K. Sharma, and B. M. A. Rahman, presented in The International Conference on Fiber Optics and Photonics, December 12-15, 2018, IIT Delhi, India.
5. "Compact Mode Division Multiplexed On-Chip Interconnect based on Evanescently Coupled SOI Waveguides," J. P. Nath, N. Dhingra, **G. J. Saxena**, and E. K. Sharma, presented in The International Conference on Fiber Optics and Photonics, December 12-15, 2018, IIT Delhi, India.
6. "Germanium Telluride Phase Change Material based 1x2 Electro-Optic Switch" N. Dhingra, J. C. Song, **G. J. Saxena**, E. K. Sharma, and B. M. A. Rahman presented in International Workshop on Optical Wave & Waveguide Theory and Numerical Modelling, April 13-14, 2018, Bad Sassendorf, Germany.
7. "Pulse repetition rate multiplication by Talbot effect in a coaxial fiber" N. Dhingra, J. Anand, **G. J. Saxena**, and E. K. Sharma, in SPIE Photonics West, January 27 – February 1, 2018, The Moscone Center San Francisco, California, United States.
8. 'Multilayer vehicle classification integrated with single frame optimized object detection framework using CNN based deep learning architecture' Chaya N Aishwarya, Rajshekhar Mukherjee, Dharmendra Mahato, Amit Pundir and **Geetika Jain Saxena**, 2018 International Conference on Electronics, Computing and Communication Technologies (IEEE CONECTT) organized by IEEE Bangalore Section held at MSR Hotel and Spa, Bangalore, India during 16-17 March, IEEE-connect Proceedings-2018, 978-1-5386-1112-8/18/\$31.00 ©2018 IEEE, (to be published in IEEE Xplore)
9. Image Processing and IoT Based Innovative Energy Conservation Technique, Dharmendra Mahato, Sangeeta Yadav, Rajshekhar Mukherjee, **Geetika Jain Saxena** and Amit Pundir, The International Conference on Computational intelligence and communication technology (CICT-2018), (Sponsored by IEEE-UP Section) organized by ABES college of Engineering, Ghaziabad, UP, India during 09-10th Feb, 2018. Published by IEEE, DOI: 10.1109/CICT.2018.8480089, ISBN Information: Electronic ISBN: 978-1-5386-0886-9, Print on Demand(PoD) ISBN: 978-1-5386-0887-6
10. 'Three Stage Robust Attendance Recording and Monitoring Using Social Media Platform, Image Processing and Cloud Computing", **Geetika Jain Saxena**, Rajshekhar Mukherjee, Dharmendra Kumar Mahato, Nikhil Sharma, Haris Ahmed, Mohd. Azharuddin, Mohd. Nauman and Amit Pundir, 4th International conference on 'Signal Processing, Computing and Control (ISPCC-2017), sponsored by IEEE Delhi section (Record No # 40546) , 21st

September to 23rd September, 2017 organized by Department of Electronics and Communication Engineering, Jaypee University of Information Technology, Waknaghat, India. Published by IEEE, INSPEC Accession Number: 17556976, DOI: 10.1109/ISPCC.2017.8269674, ISBN Information: Electronic ISBN: 978-1-5090-5838-9, Print on Demand(PoD) ISBN: 978-1-5090-5839-6

11. "A Robust Algorithm for Morphological, Spatial Image-Filtering and Character Feature Extraction and Mapping Employed for Vehicle Number Plate Recognition", Rajshekhar Mukherjee, Amit Pundir, Dharmendra Mahato, Gaurav Bhandari and **Geetika Jain Saxena**, IEEE International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET 2017), 22-24 March 2017, Department of Electronics and Communication Engineering SSN College of Engineering, Chennai. ) Published by IEEE, INSPEC Accession Number: 17598579, ISBN Information: Electronic ISBN: 978-1-5090-4442-9, DVD ISBN: 978-1-5090-4439-9, Print on Demand (PoD) ISBN: 978-1-5090-4443-6, DOI: 10.1109/WiSPNET.2017.8299884
12. "Propagation of a Periodic Sequence of Gaussian Pulses through Coaxial Fiber for Pulse Repetition Rate Multiplication" Nikhil, **Geetika Jain Saxena**, Jyoti Anand, Enakshi K. Sharma, IEEE Workshop on Recent Advances in PHOTONICS 2015, December 2015, IISc Bangalore, India. Advances in Photonics (WRAP), Published in IEEE Xplore, Electronic ISBN: 978-1-5090-3921-0, Print ISBN:978-1-5090-3922-7
13. "Er-LiNbO<sub>3</sub> waveguide : Field Approximation for Simplified gain Calculations in DWDM application", **Geetika Jain**, Amita Kapoor, Enakshi K. Sharma, PHOTONICS 2008, December 2008, Delhi, India
14. "Er-LiNbO<sub>3</sub> waveguide : Simplified gain Calculations for DWDM application", Amita Kapoor, **Geetika Jain**, Enakshi K. Sharma, Japan-Indo Workshop on Microwaves, Photonics and Communication Systems July 6, 2007, Kyushu University, Fukoka, Japan. Workshop Digest, [113-118].
15. "Simplified gain calculation in erbium-doped LiNbO<sub>3</sub> waveguides", Amita Kapoor, **Geetika Jain**, Enakshi Khullar Sharma, PHOTONICS West 2007, Optoelectronics 2007, 22-25 January 2007, San Jose Convention Center, San Jose, California USA.
16. "Simplified Modeling of Titanium Indiffused LiNbO<sub>3</sub> Waveguide Amplifiers", **Geetika Jain**, Amita Kapoor, Enakshi K. Sharma, Eighth International Conference, PHOTONICS 2006, December 13 – 16, 2006, Hyderabad, India.
17. "Fabrication parameters of titanium in diffused LiNbO<sub>3</sub> waveguides with desired modal fields", **Geetika Jain** and Enakshi K. Sharma, 16<sup>TH</sup> Asia Pacific Microwave Conference (APMC-2004), December 15-18, 2004.
18. "Synthesis of Titanium Indiffused LiNbO<sub>3</sub> Waveguides with Desired Modal Fields", **Geetika Jain** and Enakshi K. Sharma, Seventh International Conference on Optoelectronics, Fiber Optics and Photonics, PHOTONICS 2004, 9-11 December 2004, Cochin, India
19. "Closed form modal field expressions in diffused channel waveguides", **Geetika Jain** and Enakshi K. Sharma, PHOTONICS West 2004, pp. 5349-23, 24-29 January 2004, San Jose Convention Center, San Jose, California USA
20. "Gain calculations in Erbium Doped LiNbO<sub>3</sub> channel waveguide by defining a complex index profile", **Geetika Jain** and Enakshi K. Sharma, Sixth International conference on Optoelectronics, Fiber Optics and Photonics, PHOTONICS 2002, Dec 2002, Mumbai, India.

#### ***Research papers published in National Conferences***

1. "Real-time Face Recognition Using OpenCV and Convolutional Neural Network", Aswanth T, Dharmendra Kumar Mahato, **Geetika Jain Saxena**, presented in Inter college Science Festival-Turiyojas, Deen Dayal Upadhyaya College, University of Delhi, March 11-14, 2019.
2. "System and method for registering and analysis of real-time attendance and response

tracking for enhanced learning”, Nikhil Sharma, Haris Ahmed, Mohd. Azharuddin, Mohd. Nauman, Mr. Dharamendra Mahato Dr. **Geetika Jain Saxena**, 2nd National Conference on Recent Developments in Electronics (NCRDE 2017), 16-18 February 2017, Jointly Organized by IEEE EDS Delhi Chapter and Department of Electronic Science, University of Delhi, New Delhi, 2017

3. “System for object tracking and gesture recognition using MATLAB”, Mayank, Ashutosh, Athira, Ankita, Dr. **Geetika Jain Saxena**, Rajshekhar Mukherjee, 2nd National Conference on Recent Developments in Electronics (NCRDE 2017), 16-18 February 2017, Jointly Organized by IEEE EDS Delhi Chapter and Department of Electronic Science, University of Delhi, New Delhi, 2017
4. “Enhancing the Learning Experience of Undergraduate Students Through designing mobile-APPS”, **Geetika Jain Saxena** and Amit Pundir, National conference on “Recent Trends in Instrumentation and Electronics” (RTIE 2015), January 5-6, 2015, organized by Shaheed Rajguru college of Applied Sciences for Women, University of Delhi. ISBN978-81-930724-0-0
5. "Fabrication parameters of titanium in diffused LiNbO<sub>3</sub> waveguides with desired modal fields: Variational Approach", **Geetika Jain** and Enakshi K. Sharma, National Conference on Mathematical Techniques: Emerging Paradigms for Electronics and IT Industries (MATEIT-2006), 22<sup>nd</sup> – 25<sup>th</sup> March 2006, Deen Dayal Upadhyaya College, University of Delhi, New Delhi, India.
6. "Optimization of Fiber to Waveguide Coupling", **Geetika Jain** and Enakshi K. Sharma, National Symposium on Advances in Microwaves and Lightwaves (NSAML), University of Delhi South Campus, October 13-14, 2003, New Delhi.
7. “Closed form field expressions for Titanium-Diffused LiNbO<sub>3</sub> waveguides”, **Geetika Jain** and Enakshi K. Sharma, XXVIII National Conference of the Optical Society of India on Optics and Photonics in Engineering held in January 6-8, 2003, Netaji Subhash Institute of Technology (NSIT), New Delhi.

#### Conference/Workshop Organized

<b>2003</b>	Secretary - Member - National Symposium on Recent Advances in Microwaves and Light Waves (NSAML'03) University of Delhi South Campus, New Delhi, October 2003.
<b>2004</b>	Member – Program Committee - 16 <sup>th</sup> Asia-Pacific Microwave Conference (APMC'2004), University of Delhi, December 15 - 18, 2004, New Delhi, India
<b>2006</b>	<i>Member – Local organizing committee</i> -National Conference on Mathematical Techniques: Emerging Paradigms for Electronics and IT Industries (MATEIT-2006) from 22 <sup>nd</sup> March – 25 <sup>th</sup> March 2006, New Delhi, India
<b>2008</b>	<i>Member – Local organizing committee</i> -National Conference on Mathematical Techniques: Emerging Paradigms for Electronics and IT Industries (MATEIT-2008), 26 <sup>th</sup> – 28 <sup>th</sup> March 2008, New Delhi, India
<b>2009</b>	<i>Co-Convenor</i> – National Seminar and Workshop on Integrating Multiple Technologies to Support Teaching and Learning, September 24-26, 2009 organized by Department of Electronics, Maharaja Agrasen College, University of Delhi and sponsored by UGC, Govt. of India
<b>2009</b>	<i>Member – Local organizing committee</i> - National Conference on Mathematical Techniques: Emerging Paradigms for Electronics and IT Industries (MATEIT-2010) organized during January 30-31, 2010, New Delhi, India
<b>2009</b>	<i>Member – Local Organizing Committee</i> - International Symposium on Microwave and Optical Technology (ISMOT)-2009, December 16-19, 2009 in Hotel Ashok, New Delhi, India
<b>2010</b>	<i>Member – Local organizing committee</i> - Second National Workshop On Quantum Mechanics: Theory and Application Organized By FiDAS, Deen Dayal Upadhyaya College, University of Delhi, Sponsored By CSIR, Supported By IEEE EDS Delhi Chapter, New Delhi and The National Academy of Sciences, India, - Delhi Chapter held during October 22-23,

	2010 and October 29-30, 2010
<b>2011</b>	<i>Member –organizing committee-</i> Three Day Joint Academies Lecture Workshop on Frontier in Physics, January 21-23, 2011, INDIAN ACADEMY OF SCIENCES, BANGALORE INDIAN NATIONAL SCIENCE ACADEMY, NEW DELHI AND THE NATIONAL ACADEMY OF SCIENCES, INDIA, ALLAHABAD ,Forum for Interdisciplinary Applications in Sciences (FiDAS) Deen Dayal Upadhyaya College, University of Delhi, New Delhi and IEEE EDS Delhi Chapter, New Delhi
<b>2011</b>	<i>Member – Local organizing committee -</i> First National Workshop On Numerical Methods and Differential Equations in Computational Science (NUMDECS-2011), February 01-05, 2011 Organized by FIDAS, DDU College, Sponsored and Supported by University Grants Commission (UGC), Govt. of India
<b>2014</b>	<i>Convener-</i> National Workshop on Basic Optics, Fiber Optics and Optical Communication during 8 - 10 March 2014. organized by Department of Electronics, Maharaja Agrasen College, University of Delhi, sponsored by UGC, Govt. of India, National Academy of Sciences of India, CSIR, Optical Society of India and IEEE EDS Delhi Chapter.
<b>2014</b>	<i>Co-Convener -</i> National Conference on “Striving & Thriving towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning” on 16 - 17 October 2014, organized by Department of Electronics, Maharaja Agrasen College, University of Delhi and sponsored by UGC, Govt. of India
<b>2015</b>	<i>Member- Organizing committee-National Seminar</i> on “Basic Electromagnetic Theory, RF/Microwave Technologies and Applications” during March 10-11, 2015. organized by Department of Electronics, Maharaja Agrasen College, University of Delhi and sponsored by UGC, Govt. of India
<b>2015</b>	<i>Member – Organizing committee -</i> National conference on “Recent Trends in Instrumentation and Electronics” (RTIE 2015), January 5-6, 2015, organized by Shaheed Rajguru college of Applied Sciences for Women, University of Delhi. Sponsored and Supported by University Grants Commission (UGC), Govt. of India
<b>2015</b>	<i>Member- Organizing committee-</i> Annual National Student Academic Congress 2015 on 13-14 February 2015, organized by Maharaja Agrasen College, University of Delhi
<b>2015</b>	<i>Co-Convener -</i> Student-driven Research for Inspired Learning” (NCIL 2015) on 16 - 17 October 2015, organized by Department of Electronics, Maharaja Agrasen College, University of Delhi and sponsored by UGC, Govt. of India
<b>2016</b>	<i>Member – Organizing committee -</i> National conference on “Recent Trends in Instrumentation and Electronics” (RTIE 2016), October 5-6, 2016, organized by Shaheed Rajguru college of Applied Sciences for Women, University of Delhi. Sponsored and Supported by University Grants Commission (UGC), Govt. of India
<b>2017</b>	<i>Member – Organizing committee -</i> National conference on “ Biodiversity and Climate Change-Conserving heritage: natural resources and cultural wealth ” , February 16-17, 2017, organized by Maharaja Agrasen College, University of Delhi
<b>2018</b>	<i>Member – Organizing committee -</i> National conference on “ Biodiversity and Climate Change , February 7-9, 2018, organized by Maharaja Agrasen College, University of Delhi
<b>2018</b>	<i>Member and Resource person-</i> Workshop on Image Processing using OPENCV and Python, February 16-17, 2018 organized by Department of Electronics, Maharaja Agrasen College, University of Delhi
<b>2018</b>	<i>Co-Convener -</i> Workshop on recent developments in technology and its industrial applications, March, 15, 2018 organized by Department of Electronics, Maharaja Agrasen College, University of Delhi
<b>2020</b>	<i>Coordinator-</i> Virtual Symposium on Emerging Areas of Photonics organized by The National Academy of Science, India (NASI) - Delhi Chapter to Celebrate International Day of Light on May 16, 2020
<b>2020</b>	<b>Organized-Webinar Series by Distinguished Experts</b> jointly organized by The National

	Academy of Science, India (NASI) - Delhi Chapter and MHRD-Institution Innovation Council (IIC), Deen Dayal Upadhyaya College, University of Delhi. Watch the recordings of some of the webinars on youtube channel <a href="https://www.youtube.com/channel/UCNQWWGPD2tySyB5ISo1erLQ/featured">https://www.youtube.com/channel/UCNQWWGPD2tySyB5ISo1erLQ/featured</a>
<b>2020</b>	Co- <i>Convenor</i> -Online Summer School on Advances in Signal Processing and Machine Learning organized By NASI, Delhi Chapter and Department of Electronics, University of Delhi during 20 <sup>th</sup> July to 26 <sup>th</sup> July, 2020 <a href="https://www.youtube.com/channel/UCNQWWGPD2tySyB5ISo1erLQ/featured">https://www.youtube.com/channel/UCNQWWGPD2tySyB5ISo1erLQ/featured</a>
<b>2021</b>	Convenor-Online IEEE distinguished Lecture talk on “CMOS Scaling: Negative Capacitance and Challenges Ahead” Merlyne De Souza, Full Professor in Electronics at The University of Sheffield, 3 <sup>rd</sup> Dec. 2021, organised by IEEE Electron Device Society & Department of Electronic, Maharaja Agrasen College, DU
<b>2021</b>	Convenor-Online Technical talk on “5G- Be ready for the future” By Ms. Rekha Jain, Team Leader Centre For Development of Telematics(C-DOT), 4 <sup>th</sup> Dec. 2021, organised by IEEE Electron Device Society & Department of Electronic, Maharaja Agrasen College, DU
<b>2022</b>	Secretary-Online Symposium To celebrate the 60th Anniversary of the Fiber Laser, 22 <sup>nd</sup> – 23 <sup>rd</sup> Jan. 2022, organised by NASI, Delhi Chapter and DDU College, University of Delhi
<b>2022</b>	2022 IEEE SPS Seasonal School on AI for Optimisation in Signal Processing, 11 <sup>th</sup> – 15 <sup>th</sup> July 2022, organised by IEEE-Signal Processing Society, Delhi chapter
<b>2022</b>	Cyber-Physical Systems Distinguished Lecture Series (CPS – DLS) organized by Institute of Informatics and Communications (IIC), University of Delhi, and IEEE Signal Processing Society-Delhi chapter, ongoing , IEEE-Signal Processing Society and IIC, DU

#### Invited Talk

- Delivered 2 invited talks on Thursday, September 17 and 18, 2020, in ‘Learning Physics with conceptual and problem based approach ‘on “Electronics” organized by National Academy of Sciences, Delhi chapter. The lecture has been uploaded on the youtube channel of “NASI Delhi Chapter” (<https://www.youtube.com/watch?v=Ix3xWCl6cBE>)
- Delivered an invited talk in ‘Challenges of teaching Physics laboratory in online mode’ organized by Kalindi College, University of Delhi in association with National Academy of Sciences, Delhi chapter on 23<sup>rd</sup> January 2021.
- Resource person in National workshop on Challenges of teaching physics laboratory courses in online mode, 3-1-2021
- Invited talk(s) at an 11-week Course-“Learning Physics with Conceptual and Problem based Approach” organized by National Academy of Sciences India, Delhi Chapter, invited talk of 1.5 Hr duration on, September 17 and 18, 2020, on “Electronics”

#### Other Activities

##### Appreciation/Awards

- IInd Rank holder in B.Sc (H)Electronics, University of Delhi
- Awarded Delhi University Post Graduate Merit Scholarship
- Certificate of Appreciation for Best Display, Theme– Digital World, Antardhvani 2015, University of Delhi, for the Innovation project
- Second Prize in e-Yantra Robotics Teacher Competition 2013, IIT Mumbai

##### Project Completed/On-Going

- Innovation Project Code:** MAC-210, Project Title: Development of University Applications (du-apps) for mobile platforms awarded by University of Delhi in year 2013 – 2015- Completed
- Innovation Project Code:** MAC-309, Project Title: Content Syndication and catalogues for Undergraduate Science courses awarded by University of Delhi in year 2015 – 2016- Completed

3. **Minor Research Grant Project Title:** Vulnerability Assessment (VA) and Management of ICT Architecture in Higher Education under faculty research program from Institute of Eminence, University of Delhi, India in December-Completed
4. **Minor Research Grant Project Title:** Deep Neural Networks-based multi-model ensemble method for disease prediction under faculty research program from Institute of Eminence, University of Delhi, India in December, 2021 (Ongoing)

### Research Guidance/ Supervision

#### Joint Supervision

S. No.	Title	Candidate's name and Affiliation	Year	Status
1.	Design and Analysis of Coupled Mode Photonic Devices	Mr. Nikhil Dhingra, Research Scholar, UGC-NET -JRF Department of Electronic Science, University of Delhi South Campus, New Delhi.	2021	<b>Awarded</b>
2.	Guided Wave Photonic Devices and Application	Mr. Jyotiprasad Nath, Research Scholar, DST-Inspire Fellow, Department of Electronic Science, University of Delhi South Campus, New Delhi.	August-2017	<b>On-Going</b>
3.	Mr. Sushant Jain, Institute of Informatics and Communication, University of Delhi South Campus		2021	<b>On-Going</b>

#### Project Guidance/ Supervision - At National Level

*(Summer Research Fellowship Sponsored by Indian Academy of Sciences (IAS), National Academy of Sciences, India (NASI) & Indian National Science Academy (INSA))*

S. No.	Title	Candidate's name and Affiliation	Duration	Status
1.	Study and optimization of WDM systems through experiments and simulations	Mr. Abhishek Banerjee, B. Tech, University of Delhi (ENGS5612)	May-July2016	Completed
2.	Autonomous security and Surveillance System using Image Processing and Machine Learning	Ms. Chaya N Aishwarya (III BTech) P.E.S. University, Bengaluru, India (ENGS2463)	May-July2017	Completed
3.	Biometric Surveillance System with Face and Gait Recognition using Image Processing and Machine Learning	Ms. Anisha Swain (II BTech) College of Engineering & Technology, Bhubaneswar, India (ENGS5431)	May-July2017	Completed
4.	Face recognition using OpenCV and Deep Learning	Mr. Aswanth T (III BTech) National Institute of Technology, Calicut, India (ENGS3675)	May-July2018	Completed
5.	Design and analysis of different types of Solar charge controllers	Ashita Viktor (II BTech) Ramaiah Institute of technology, Bengaluru, India	May-July2019	Completed
6.	Application of Machine Learning Techniques on	Nammi Akash Application ID: ENGS3659	June-August	Completed



	DaTSCAN Images for the Detection of Parkinson's Disease	Department of Electronics and Communication Engineering RGUKT, Srikakulam	2022	
7.	Analysis of phonocardiogram signals for pathology and murmur detection using deep learning architectures	Diptadeep Bhattacharjee Application No. ENGS3881 National Institute of Technology, Silchar	June- August 2022	Completed