

# MAHARAJA AGRASEN COLLEGE

# University of Delhi VASUNDHARA ENCLAVE, DELHI-110096

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# **Curriculum Vitae of Faculty Members**

Name	Geetika Jain Saxena
Designation	Associate Professor
Address	Department of Electronics
	Maharaja Agrasen College
	University of Delhi
	Vasundhara Enclave, New Delhi-110096, India
Phone No Office	+91-11-22610565
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	gsaxena@ieee.org

**Educational Qualifications** 

Degree	Institution	Year
Ph.D. Electronics	University of Delhi	2010
M. Sc. Electronics	University of Delhi	2000
B. Sc. (H) Electronics	University of Delhi	1998

### **Career Profile**

Name of the Institute	Position Held	From	To
Shaheed Rajguru College of Applied Science,(University of Delhi)	Ad-Hoc Lecturer	August 2000 December 2002	
Maharaja Agrasen College (University of Delhi)	Permanent Lecturer	26 <sup>th</sup> December, 2002	31 <sup>st</sup> December 2005
Maharaja Agrasen College (University of Delhi)	Assistant Professor (Lecturer)	01 <sup>st</sup> January 2006	23 <sup>rd</sup> November, 2006
Maharaja Agrasen College (University of Delhi)	Assistant Professor (Senior Lecturer)	23 <sup>rd</sup> November, 2006	19 <sup>th</sup> January 2010
Maharaja Agrasen College (University of Delhi)	Reader	19 <sup>th</sup> January 2010	19 <sup>th</sup> January 2013
Maharaja Agrasen College (University of Delhi)	Associate Professor	19 <sup>th</sup> January 2013	Till Date

#### **Association With Professional Bodies**

Life Member – Optical Society of India

Member – IEEE Photonics Society

Member – IEEE Signal Processing Society

Member-IEEE Women in Engineering

#### **Publications Profile**

### Research papers published in Refereed/Peer Reviewed Journals

- 1. 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
- 2. 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.
- 3. 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
- 4. 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,nDOI: 10.1109/LPT.2019.2946187
- 5. Design of the coaxial optical fiber for pulse repetition rate multiplication by Talbot effect, Nikhil Dhingraa, Jyoti Anand, Geetika JainSaxena and Enakshi Khular Sharma, **Optical Fiber Technology**, Volume 46, December 2018, Pages 248-257, doi.org/10.1016/j.yofte.2018.10.017
- 6. Pulse repetition rate multiplication by Talbot effect in a coaxial fiber, Nikhil Dhingra, Geetika Jain Saxena; Jyoti Anand; Enakshi K. Sharma; **Proceedings of SPIE 10526, USA, Physics and Simulation of Optoelectronic Devices XXVI, 105262L**(5 March 2018); doi: 10.1117/12.2291439; https://doi.org/10.1117/12.2291439
- 7. Design and Modeling of Titanium Indiffused LiNbO3 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.
- 8. Synthesis of Titanium Indiffused LiNbO3 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:10.1117/12.843278
- 9. "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
- 10. "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

- 11. "Closed form field expressions for Titanium-Diffused LiNbO<sub>3</sub> 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.
- 12. "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.
- 13. "Gain calculations in EDFA: Comparison of Field Approximations" Sunanda, Geetika Jain and Enakshi K. Sharma, **Microwave and Optical Technology Letters (MOTL)**, Vol.29, No. 4, 20<sup>TH</sup> May 2001, pp. 256- 259, 2001.

#### Research papers published in International Conferences

- "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
- 2. "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.
- 3. "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.
- 4. "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.
- 5. "Germanium Telluride Phase Change Material based 1×2 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.
- 6. "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.
- 7. '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 CONECCT) 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)
- 8. 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/CIACT.2018.8480089, ISBN Information: Electronic ISBN: 978-1-5386-0886-9, Print on Demand(PoD) ISBN: 978-1-5386-0887-6
- 9. '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
- 10. "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 March2017, 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
- 11. "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
- 12. "Er-LiNbO3 waveguide: Field Approximation for Simplified gain Calculations in DWDM application", Geetika Jain, Amita Kapoor, Enakshi K. Sharma, **PHOTONICS 2008**, December 2008, Delhi, India
- 13. "Er-LiNbO3 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].
- 14. "Simplified gain calculation in erbium-doped LiNbO3 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.
- 15. "Simplified Modeling of Titanium Indiffused LiNbO3 Waveguide Amplifiers", Geetika Jain, Amita Kapoor, Enakshi K. Sharma, Eighth International Conference, **PHOTONICS 2006**, December 13 16, 2006, Hyderabad, India.
- 16. "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.
- 17. "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
- 18. "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
- 19. "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**, December 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. ISBN 978-81-930724-0-0
- "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

2003	Secretary - Member - National Symposium on Recent Advances in Microwaves and Light Waves (NSAML'03) University of Delhi South Campus, New Delhi, October 2003.		
2004	Member – Program Committee - 16 <sup>th</sup> Asia-Pacific Microwave Conference (APMC'2004), University of Delhi, December 15 - 18, 2004, New Delhi, India		
2006	Member – Local organizing committee -National Conference on Mathematical Techniques:		

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	Emerging Paradigms for Electronics and IT Industries (MATEIT-2006) from 22 <sup>nd</sup> March – 25 <sup>th</sup> March 2006, New Delhi, India
2008	<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
2009	Co-Convener – National Seminar and Workshop on Integrating Multiple Technologies to Support Teaching and Learning, September 24-26, 2009 organized by Department of Electronics, Maharaja Agarasen College, University of Delhi and sponsored by UGC, Govt. of India
2009	<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
2009	<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
2010	<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 Chapterheld during October 22-23, 2010 and October 29-30, 2010
2011	Member – Local organizing committee -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
2014	Convener- 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.
2014	Co-Convener - 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
2015	Member- Organizing committee-National Seminar 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
2015	Member – Organizing committee -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
2015	Member- Organizing committee-Annual National Student Academic Congress 2015 on 13-14 February 2015, organized by Maharaja Agrasen College, University of Delhi
	Co-Convener - 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

2016	Member – Organizing committee -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
2017	Member – Organizing committee -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
2018	<i>Member – Organizing committee</i> -National conference on "Biodiversity and Climate Change , February 7-9, 2018, organized by Maharaja Agrasen College, University of Delhi
2018	Member and Resource person-Workshop on Image Processing using OPENCV and Python, February 16-17, 2018 organized by Department of Electronics, Maharaja Agrasen College, University of Delhi
2018	Co-Convener - Workshop on recent developments in technology and its industrial applications, March, 15, 2018 organized by Department of Electronics, Maharaja Agrasen College, University of Delhi
2020	Organized- <b>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 youtube channel <a href="https://www.youtube.com/channel/UCNQWWGPD2tySyB5lSo1erLQ/featured">https://www.youtube.com/channel/UCNQWWGPD2tySyB5lSo1erLQ/featured</a>
2020	Co-Convenor-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

# **Other Activities**

# Workshop/ Seminars/ Conferences Attended:

1999	Workshop on "Contemporary Topics in Fiber and Integrated Optics", Indian Institute of			
	Technology (IIT) Delhi, December 1999.			
2000	National Symposium on recent advances in microwaves and light waves (NSAML'00)			
	University of Delhi South Campus, New Delhi, 2000.			
2001	Seminar on "Long period gratings by Vikram Bhatia, Corning, USA" at Indian Institute of			
	Technology (IIT) Delhi, 2001.			
2002				
	Indian Institute of Technology (IIT) Delhi, 4 <sup>th</sup> – 6 <sup>th</sup> , January 2002.			
2003	B Department of Science and Technology (DST), Govt. of India sponsored SERC School on			
	Coherent optics and Applications, $8^{th} - 27^{th}$ December 2003, Faculty of Technology and			
	Engineering, MS University of Baroda, Vadodara.			
•••				
2005	Workshop on Very High Speed Integrated circuits Hardware Description Language from 22 <sup>nd</sup> December – 9 <sup>th</sup> January 2005 held at Shaheed Rajguru college of Applied sciences, University			
	of Delhi.			

2008	International Conference on Fiber Optics and Photonics (PHOTONICS-2008), December 14-			
	17, 2008, IIT Delhi, New Delhi, India			
2009	Workshop on (a) Optical Fiber Communication, (b) Embedded System and Robotics and (c) Data Acquisition and Signal Processing using LABVIEW held during Emerging trends in Electronics, ELECTRAWORK-2009 organized by Acharya Narendra Dev College, University of Delhi, New Delhi, India during June 01-12, 2009			
2010	National Conference on 'Sustainable Management of E-Waste' being held on 14-15 December, 2010 organized by Bhaskaracharya College of Applied Sciences (University of Delhi), Dwarka, New Delhi			
2011	Workshop on SCILAB and its Applications jointly organized by Acharya Narendra Dev College, University of Delhi, New Delhi, India and IIT Mumbai during March 10-11, 2011			
2013	Workshop on recent advances in photonics WRAP-2013 during 17-18 December 2013, IIT Delhi			
2014	ESRC conference on Robotics , April 2014, IIT Mumbai			
2015	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.			
2015	Engineering Education and research seminar by National Instruments, India on 22 <sup>nd</sup> September, 2015			
2016	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			
2017	Second national Conference on Recent Developments in Electronics, NCRDE-2017, Jointly organized by IEEE EDS Delhi chapter and Department of Electronics, University of Delhi, South campus, New Delhi			
2017	National conference on "Biodiversity and Climate Change-Conserving heritage: natural resources and cultural wealth", February 16-17, 2016, organized by Maharaja Agrasen College, University of Delhi			
2017	Lecture Workshop on Women in Science: A career in Science, August10-11, 2017 organized by Deen Dayal Upadhayaya College, University of Delhi			
2017	Third Lecture Workshop on Trans-disciplinary Areas of research and teaching by Shanti Swaroop Bhatnagar Awardees, September 15-16 2017, Sponsored by Department of Science and Technology, Government of India and organized by Deen Dayal Upadhayaya College, University of Delhi			
2018	NASI's Conference on Technological Empowerment of Women, March 08-09, 2018 at Vigyan Bhawan, New Delhi			
2019	Nominated by NASI's Delhi chapter to attend NASI's The 5th National Brainstorming on safe Water and Sanitation organized by The NASI-Bhopal Chapter at Bhopal in collaboration with the MPCOST, Bhopal during Sept. 19-21, 2019			

2020	Attended the 2020 Conference on Lasers and Electro-Optics ("CLEO"), presented in an all-
	virtual, web conference format, from 11 – 15 May 2020. Registration Number: 1409257, CLEO
	is co-sponsored by the American Physical Society's (APS) Laser Science Division, the IEEE
	Photonics Society, and The Optical Society (OSA).

#### **Refresher Course/FDP Attended:**

- Participated in **Refresher course in Physics and Electronics** organized by CPDHE, University of Delhi from March 12, 2007 to March 31, 2007
- Participated in **Refresher course in Physics and Electronics** organized by CPDHE, University of Delhi from March 09, 2010 to March 30, 2010
- Participated in **Refresher course in Physics and Electronics** organized by CPDHE, University of Delhi from December 23, 2010 to January 13, 2011
- Attended **Short term course on Pattern Recognition and its Applications** sponsored by **AICTE** and organized by Department of Computer Science and Engineering, IIITDM, Jabalpur, Madhya Pradesh from October 12, 2017 to October 16, 2017
- Attended **SERB, DST** sponsored one week **FDP on Deep Learning Algorithms for Medical Image Processing** from 20<sup>th</sup> January to 24<sup>th</sup> January, 2020 at IGDTUW, Delhi.
- Attended the **Online Workshop on 'Deep Learning for Computer Vision'** conducted by the Electronics and ICT Academy, PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur, during August 17-22, 2020.

#### **Online Certificate Course**

- Completed an online course on **'Fundamentals of Digital Image and Video Processing'** authorized from Northwestern University through Coursera (21/07/2017-RPNPN69AFJMJ)
- Completed an online course on 'AI for Medical Diagnosis' authorized from deeplearning.ai (Stanford University) through Coursera (05/07/2020- RDVBMVXDQCTD)

#### Appreciation/Awards

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

#### Research Guidance/ Supervision

**Joint Supervision** 

S.	No.	Title	Candidate's name and Affiliation	Year	Status
	1.	Surface Plasmonic	Mr. Nikhil, Research Scholar, UGC-NET	July-2015	On-
		waveguides	–JRF Department of Electronic Science,	-	Going
			University of Delhi South Campus, New		
			Delhi.		
	2.	Surface Plasmonic	Mr. Jyotiprasad Nath, Research Scholar,	August-	On-
		optical waveguides	DST-Inspire Fellow Department of	2017	Going
			Electronic Science, University of Delhi		_
			South Campus, New Delhi.		
			_		
	3.	Digital Image	Mr. Dharmendra Mahato, UGC-NET -	August-	On-
		Processing and Pattern	JRF Department of Electronic Science,	2017	Going

	Classification	University of Delhi South Campus, New Delhi.	

### 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 (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)		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

### **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
- 2. Innovation Project Code: MAC-309, Project Title: Content Syndication and catalogues for Undergraduate Science courses awarded by University of Delhi in year 2013 2015-Completed

I certify	that	the	information	given	above	is	correct	and	factual	to	the	best	of	my
knowledg	je.													

Date:	Signature
Date:	Signature