BIO-DATA

1. Name and full correspondence address:

Dr. Dharmendra Kumar (Associate Professor)

Department of Electronics and Communication Engineering, Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur, (C.G.), India, 495009

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Web page: https://sites.google.com/view/dkumar-mmmut/home

 $| \ \underline{Web\ of\ Science}|\ \underline{Scopus}\ |\ \underline{ORCID}\ |\ \underline{Google\ Scholar}\ |\ \underline{ResearchGate}\ |\ \underline{LinkedIn}\ |\ \underline{Vidwan\text{-}ID}\ | \underline{Web}\ \underline{Page}\ |\ \underline{Loop}\ |$

3. **Institution**: Guru Ghasidas Vishwavidyalaya, Koni, Bilaspur, (C.G.), India, 495009; **DOJ:17**th **December 2024**

4. **Date of Birth**: 13th June 1985

5. Gender (M/F/T): Male

6. Whether differently abled(Yes/No): No

8. Academic Qualification (Undergraduate Onwards)

S.No.	Degree	Year	Subject	University	% of marks
01	Bachelor of	2009	Electronics and	IET MJP Rohilkhand	69.38%
	Technology (B. Tech)		Communication	University Bareilly, UP	
			Engineering		
02	Master of Technology	2011	Electronics and	IIT(ISM) Dhanbad	83.1%
	(M. Tech)		Communication		
			Engineering		
03	Ph. D	2016	Electronics	IIT(ISM) Dhanbad	NA
			Engineering		

9. Ph. D thesis Title, Guide's Name, Institute/Organization/University, Year of Award.

Title: "Semiconductor Quantum Dots and their Applications in Optoelectronic Devices"

Guide Name: Prof. J. Kumar Institute: IIT(ISM) Dhanbad Year of PhD Award: January 2016.

10. Work experience (in chronological order):

S.No.	Positions held	Name of the institute	From	To	Pay Scale
01	Associate Professor	Guru Ghasidas	17 th	Till Date	1,31,400-2,17,100,
	(Level-13A)	Vishwavidyalaya, Koni,	December		AGP:9000/-
		Bilaspur, (C.G.), India,	2024		
		495009			
02	Assistant Professor	MMM University of	23 rd June,	16th	79,800-2,11,500,
	(Level-12)	Technology, Gorakhpur	2024	December	AGP:8000/-
		(UP)-273010		2024	
03	Assistant Professor	MMM University of	23 rd June,	22 nd June,	68900-205500,
	(Level-11)	Technology, Gorakhpur	2020	2024	AGP:7000/-
		(UP)-273010			
04	Assistant Professor	MMM University of	23 rd June,	22 nd June,	57,700-182400, (Pay
	(Level-10)	Technology, Gorakhpur	2016	2020	band 10 in 7 th pay)
		(UP)-273010			
05	Guest Faculty	MNNIT Allahabad,	3 rd August	31st May, 2016	Fixed
	•	Prayagraj	2015	·	

11. Professional Recognition/ honor and Award/ Prize/ Certificate, Fellowship received by the applicant:

S.No.	Name of Award	Awarding Agency	Year
1	Premier and	MMMUT Gorakhpur	April 7, 2025
	Commendable Research		
	Award 2025		
2	GATE Qualified	MHRD	2009
3	Senior Member	IEEE (Member ID-92283934)	Till date
4	Senior Member	Optical Society of America (OPTICA) (Member	Till date
		ID-1097649)	
5	Executive Member	SPIE(Member ID-3555881)	Till date

12. Research work and funding from external/internal agencies:

S.No.	Title of Project	Name of PI/Co-PI	Funding Agency	Amount of Grant (in Rs.)	Duration	Status
1	Design and Analysis of Optical Waveguide for Biosensing Application	Dharmendra	CRS scheme Under TEQIP-III	11 lakhs	1 Year [Extended 1 year]	Completed
2	Theoretical Investigation of Electronic and Optical Properties of Semiconductor Quantum Dots	Dr. Dharmendra	Research Initiation Grant Under TEQIP-III	2 lakhs	2 Years	Completed
3.	Flood Detection System using Internet of Thing (IOT)	Mentor	CST UP Engineering Students Project Grant (2018- 2019)	(0.2 Lakhs)	1 Years	Completed

13. List of PhD Thesis supervised (Awarded)

Sl. No.	Title of Dissertation	Department/ Institute	Name of student[s]	Co- Supervisor[s], if any	Month & Year of Defense
1	Theoretical Modelling and Investigation of Core- Shell Quantum Dot for Optoelectronic Devices	ECED, MMMUT Gorakhpur	Sri. Anupam Sahu	No	August 9, 2021
2.	Design and Sensitivity Improvement of Different types of Photonic Crystal Fiber for Refractive Index and Gas Sensor	ECED, MMMUT Gorakhpur	Sri. Gyan Prakash Mishra	No	December 26, 2022
3.	Development of Surface Plasmon Resonance Based Photonic Crystal Fiber for Physical and Biochemical Sensing Application	ECED, MMMUT Gorakhpur	Sri. Vijay Shanker Chaudhary	No	February 24, 2023
4.	Design and Development of Dual Polarized and Circularly Polarized Dielectric Resonator Antenna for MIMO Applications	ECED, MMMUT Gorakhpur	Sri. Gagandeep Bharti	Prof. A. K. Gautam	January 20, 2022

14. List of PhD Students (Ongoing)

Sl. No.	Title of Dissertation	Department/ Institute	Name of student[s]	Co- Supervisor[s], if any	Month & Year of Defense
1	Broad Area: Photonics	ECED, MMMUT Gorakhpur	Ram Pravesh (Part-Time)	Dr .B P Pandey	Thesis submitted
2	Broad Area: Photonics	ECED, MMMUT Gorakhpur	Afroj Kazmi (Part-Time)	Dr .B P Pandey	Ongoing (2022)
3	Broad Area: Nano photonics	ECED, MMMUT Gorakhpur	Subham Gupta (Part-Time)	Dr .B P Pandey	Ongoing (2022)
4	Broad Area: Nano photonics	ECED, MMMUT Gorakhpur	Shivangni (Full-Time)	Dr .Anupam sahu	Ongoing (2022)
5	Broad Area: Photonics	ECED, MMMUT Gorakhpur	Ms. Shristi Singh (Full-Time)	NA	Ongoing (2023)
6	Broad Area: Photonics	ECED, MMMUT Gorakhpur	Mr. Premanand patel (Part-Time)	NA	Ongoing (2023)

15. List of M. Tech Thesis supervised: 19

16. International/National Patents:

Sl. No.	Title of the Patent	Level of Patent	Patent Number	Date of Award
1	Fingerprint Analysis Device with Integrated Digital Microscope	International	6356755	Apr 11, 2024
2	Real-time surveillance camera device	International	6367026	Jun 4, 2024
3	AI and ML Based Smart Drone for Emergency Medical Delivery	<u>National</u>	417128-001	March 27, 2025

17. Area of Research: Photonic crystal Fiber based sensor, Nanoelectronics, Materials, Photonics and Optoelectronic Devices.

Expert Lectures Delivered:

- Delivered an expert lecture on the topic "Photonic Crystal Fibers and its Applications", scheduled on April 02, 2025, at the Department of Electronics and Communication Engineering, I.E.T., Dr. Rammanohar Lohia Avadh University, Ayodhya
- Delivered an expert lecture in TEQIP-III Sponsored Short-Term Course entitled "Advanced Modelling of Microwave and Photonics Devices (AMMPD-2018)" during 6-12 March 2018, at Madan Mohan Malaviya University of Technology, Gorakhpur

University/Department Level Assignments (at GGV):

- 1. Member of GGV Shiksha Mitra Sanskar Yojana (GGV SMS) from 29th Jan 2025 to till date
- 2. Member of Departmental Advisory Committee from 25th Jan 2025 to till date
- 3. NBA Coordinator from 25th Jan 2025 to till date
- 4. IEEE student chapter Co-Coordinator from 25th Jan 2025 to till date
- 5. Coordinator Departmental research Related activity from 25th Jan 2025 to till date
- 6. Lab in Charge of various laboratories such as: L-1, L-5, from 25th Jan 2025 to till date

18. University Level Administrative Assignments (at MMMUT):

- 1. Admission Cell, Member (1st January 2024 to 16th December 2024)
- 2. Associate Dean, Undergraduate Studies (1st January 2024 to 16th December 2024)
- 3. Assistant Dean, Undergraduate Studies and Entrepreneurship (7th December 2021 to 31 December 2023)
- 4. *O/C Timetable* (24 May 2021 to 16th December 2024)
- 5. Co-Coordinator of Criteria V, NAAC-AQAR (10 November 2023 to 16th December 2024)
- 6. Nodal Officer of NAAC, ECED (20 August 2020 to 10 November 2023)
- 7. Warden of Ambedkar Bhawan Hostel (Boys) (10 July 2020 to 16th December 2024)

- 8. Faculty InCharge Technical Sub Council (14 February 2020 to 22 September 2022)
- 9. Member of AISHE All India Survey on Higher Education (February 2020 to 16th December 2024)
- 10. Warden of Saraswati Bhawan (Girls) Hostel (February 2020 to December 2020)
- 11. Faculty In-charge of NSS (ECED) (December 2022 to 16th December 2024)
- 12. Warden of Vishveshwaraya Bhawan (December 2016 to June 2018)
- 13. Member of anti-ragging squad

Departmental Level Administrative Assignments (at MMMUT)

- 1. Faculty In-charge of Communication Lab (Since June 2016 to 16^{th} December 2024)
- 2. O/C of B. Tech Project (Since September 2017 to 16th December 2024)

19. Conferences Organized (International/National)

- 1. **Dr Dharmendra Kumar** has Organized the **International Conference on VLSI & Microwave and Wireless Technologies (ICVMWT-2024)** at Madan Mohan Malaviya University of Technology, Gorakhpur, from May 17-18,2024, sponsored by **Springer**
- 2. **Dr Dharmendra Kumar** has organized the **International Conference on VLSI & Microwave and Wireless Technologies (ICVMWT-2021)** Jointly with Madan Mohan Malaviya University of Technology Gorakhpur, J.K. Institute of Applied Physics and Technology, University of Allahabad and Manipal University Jaipur from March 20-21,2021. sponsored by **Springer.**
- 3. **Dr Dharmendra Kumar** has organized Two-day National Conference on Recent Trends in Devices, Circuits and Communication (RTDC2-2019) at Department of Electronics & Communication Engineering, Madan Mohan Malaviya University of Technology, Gorakhpur (U.P.) INDIA from April 15-16, 2019.

20. Events Organized (STTP/FDP/STC/Summer Training)

- 1. Organized International Online Short-Term Course on "Next-Gen Wireless Technologies: 5G and Its Impact on Smart Systems" at GGV Bilaspur from 07–12 April 2025 (Course Coordinator)
- 2. **Dr Dharmendra Kumar** has organized one-weekShort Term Training Programme sponsored by TEQIP III on "Recent trends in Optical Engineering (RTOE 2020)". Jointly organized by Department of Electronics and Communication Engineering, S. V. National Institute of Technology, Surat and Madan Mohan Malaviya University of Technology, Gorakhpur (U.P) during October 19- 23, 2020.
- 3. **Dr Dharmendra Kumar** has Organized TEQIP-III Sponsored Short-Term Course entitled "Advanced Modelling of Microwave and Photonics Devices (AMMPD-2018)" during 6-12 March 2018, at Madan Mohan Malaviya University of Technology, Gorakhpur.
- 4. **Dr Dharmendra Kumar** has Organized TEQIP-III Sponsored "Research Scholar's Day-2018 (RSD-2018) on 16th December 2018 at Madan Mohan Malaviya University of Technology, Gorakhpur.
- 5. **Dr Dharmendra Kumar** has Organized Two Month Summer Internship Program in Electronics & Communication Engineering from 19 May 2018 to 20 July 2018
- 6. **Dr Dharmendra Kumar** has Organized workshop on Internet of Things sponsored by APTRON at MMMUT Gorakhpur28th September 2016

21. Significant Outreach Institute Activities

- 1. Dr Dharmendra Kumar, Faculty In charge technical sub council was organized annual National Level technical event "**Techsrijan-22**" under Council of Student Activities (CSA) MMMUT Gorakhpur during May 14-16, 2022 (**University Level**).
- 2. Dr Dharmendra Kumar, Faculty In charge technical sub council was organized annual National Level technical event "Techsrijan-21" as a faculty in charge Technical Sub Council under Council of Student Activities (CSA) MMMUT Gorakhpur during March 12-14 March 2021 (online Mode) (University Level).
- 3. Dr Dharmendra Kumar, Faculty In charge technical sub council MMMUT Gorakhpur was organized 'Synergia-2020', National level Robotics event from 12th July 2020-08th August 2020 for students across the nation under CSA.
- 4. Dr Dharmendra Kumar, Faculty In charge technical sub council MMMUT Gorakhpur was organized "Engineer's Week" from September 9-15, 2020, under Robotics Club.
- 5. Organized Annual National Level technical event "**Robomania-2018**" MMMUT Gorakhpur during March 16-18, 2018 (**University Level**)
- 6. Organized Annual National Level technical event "**Robomania-2019**" MMMUT Gorakhpur during March 7-10, 2019 (**University Level**)

LIST OF PUBLICATIONS:

International Journals (SCI/SCIE)

- 1. Shivangani, Anupam Sahu, **Dharmendra Kumar**, Sudhanshu Verma, Sudakar Singh Chauhan, Rohit Kumar Tiwari, and Santosh Kumar, "Design and Analysis of Surface Plasmon Resonance Sensor Utilizing Silver, Nickel, and Black Phosphorous for Various Cancer Detection" *Plasmonics* (2025). https://doi.org/10.1007/s11468-025-02961-1, (SCI) <u>Impact Factor: 3.3</u>
- 2. Ram Pravesh, Dharmendra Kumar, Bramha Prasad Pandey, Vijay Shanker Chaudhary, Santosh Kumar, "D-shaped dual-core photonic crystal fiber based sensor for detection of fluid analytes" *Journal of Optics* (IOPscience), DOI:10.1088/2040-8986/adc280 (2025) (SCI) Impact Factor: 2.00 [Corresponding Author]
- 3. Shivangani, Anupam Sahu, **Dharmendra Kumar**, Sudhanshu Verma, Sudakar Singh Chauhan & Santosh Kumar, "Sensitivity Enhancement of SPR Sensor with Si/Perovskite heterostructure for Early Detection of Malaria" *Plasmonics* (2025). https://doi.org/10.1007/s11468-025-02823-w, (SCI) Impact Factor: 3.3
- **4.** Srishti Singh, **Dharmendra Kumar**, Anupam Sahu, Vijay Shanker Chaudhary, Ghanshyam Singh, Santosh Kumar "Photonic Crystal Fiber Based Sensors for Various Cancer Detection in Human Body A Review" **IEEE Sensors Journal**, DOI: 10.1109/JSEN.2024.3524325 (**2025**) (SCI) Impact Factor: 4.30 [Corresponding Author]
- 5. Sushma Sawraj, **Dharmendra Kumar**, Ram Pravesh, Vijay Shanker Chaudhary, Bramha Prasad Pandey, Sneha Sharma, Santosh Kumar, "PCF-based Sensors for Biomedical Applications: A Review" **IEEE Transactions on NanoBioscience**, VOL.24, NO.2, (2025) **DOI:** 10.1109/TNB.2024.3462748 [Corresponding Author]
- **6.** Ram Pravesh, **Dharmendra Kumar**, Bramha Prasad Pandey, Vijay Shanker chaudhary, Santosh Kumar, "Highly sensitive photonic crystal fiber biosensor for early malaria detection via RBC variation monitoring" <u>Journal of Optics</u>, 26 (2024) 115301 (9pp), **DOI** 10.1088/2040-8986/ad7965 [Corresponding Author]
- 7. Vishal Chaudhary; Sonal Singh; Vijay Shanker Chaudhary; **Dharmendra Kumar**, "Design and Optimization of Terahertz-Based D-Shaped Photonic Crystal Fiber for Blood Component Detection" IEEE Sensors Journal, VOL. 24, NO. 18, 2024.

- 8. Shivangani, Anupam Sahu, **Dharmendra Kumar**, "Design and analysis of SPR based Refractive Index sensor with enhanced sensitivity based on Graphene/BP Heterostructure" **Optical and Quantum Electronics**, (2024) Optical and Quantum Electronics (2024) 56:1323https://doi.org/10.1007/s11082-024-06933-3 (SCI)Impact Factor: 3.00.
- **9.** Ram Pravesh, **Dharmendra Kumar**, Bramha P Pandey, Vijay Shanker Chaudhary, Santosh Kumar, "Design and Analysis of a Double D-shaped Dual Core PCF Sensor for Detecting Biomolecules in the Human Body" **IEEE Sensors Journal**, DOI: 10.1109/JSEN.2024.3380095 (2024) (SCI) Impact Factor: 4.30 [Corresponding Author].
- **10.** S N Jaiswal, Bramha P Pandey, **Dharmendra Kumar**, Neha Mishra, V K Tomar and Santosh Kumar, "Improved gas sensing properties of copper-doped MoSe2 monolayers: a first-principles study on CO2 and NO2 adsorption" *Phys. Scr.* **99** 125907, **DOI** 10.1088/1402-4896/ad8a03 (2024)
- **11.** Ram Pravesh, **Dharmendra Kumar**, Bramha P Pandey, Vijay Shanker Chaudhary, D S Singh, Santosh Kumar "Advanced refractive index sensor based on photonic crystal fiber with elliptically split cores" **Optical and Quantum Electronics**, DOI:10.1007/s11082-023-05516-y (2023), <u>Impact Factor:</u> 3. [Corresponding Author].
- **12.** Gagandeep Bharti, Bittu Kumar, **Dharmendra Kumar**, and Anand Sharma. "Dual port asymmetrical dumbbell-shaped dielectric resonator-based MIMO antenna with pattern diversity for wideband applications." **Electromagnetics** 43, no. 7 (2023): 523-537. (SCI) <u>Impact Factor: 1.099.</u>
- **13.** Mayank Srivastava, Bramha P. Pandey , Neha Mishra, **Dharmendra Kumar**, Santosh Kumar "Investigating the performance of N-type janus 2D WSSe monolayer photo-detectors by enhancing its optoelectronic properties" Computational Condensed Matter, https://doi.org/10.1016/j.cocom.2023.e00844, (2023) (ESCI and Scopus) Impact Factor: 2.1.
- **14.** S. N. Jaiswal, Bramha P. Pandey, Neha Mishra, **Dharmendra Kumar**, V. K. Tomar and Santosh Kumar, "External electric field impact on electronic properties of CO2-adsorbed 2D MoSe2 monolayer" **Pramana J. Phys**. (2023) 97:140, https://doi.org/10.1007/s12043-023-02613-1(SCI) Impact Factor: 2.8.
- **15.** Mayank Srivastava, Bramha P Pandey, Neha Mishra, **Dharmendra Kumar**, VK Tomar, Santosh Kumar, "Optical properties of 2D pristine and doped Janus WSSe using first principles study". *Nanomaterials and Energy*, vol. 11, pp.1-7 (2023) (https://doi.org/10.1680/jnaen.22.00028) (ESCI and Scopus)
- **16.** Vijay Shanker Chaudhary, **Dharmendra Kumar**, Bramha P Pandey and Santosh Kumar "Advances in Photonic Crystal Fiber-based Sensor for Detection of Physical and Biochemical Parameters A Review" **IEEE Sensors Journal, DOI:** 10.1109/JSEN.2022.3222969 **(2022) (SCI) Impact Factor: 4.30** [Corresponding Author]
- 17. Vijay Shanker Chaudhary, **Dharmendra Kumar**, Santosh Kumar "Au-TiO2 Coated Photonic Crystal Fiber based SPR Refractometric Sensor for Detection of Cancerous Cells" **IEEE Transactions on NanoBioscience**, Vol. xx (2022) **DOI:**10.1109/TNB.2022.3219104. (SCI)<u>Impact Factor:</u> 3.206[Corresponding Author]
- **18.** Neha Mishra, Bramha Pandey, **Dharmendra Kumar**, Vinay Tomar, Avirup Kumar, Santosh Kumar "Investigating the Infrared (IR) Absorption and Optoelectronic Properties of Mn-doped MoSe2 ML by Adsorption of NOx Gas Molecules" **IEEE Sensors Journal, DOI:** (**2022**) (**SCI**) <u>Impact Factor:</u> **4.30**
- **19.** Anupam Sahu and **Dharmendra Kumar**, Core-Shell Quantum Dots: A review on classification, materials, application, and theoretical modeling, *Journal of Alloys and Compounds*, Vol. 924, 166508,doi:https://doi.org/10.1016/j.jallcom.2022.166508, (2022) (SCI)Impact Factor: 6.37
- **20.** Vijay Shanker Chaudhary, **Dharmendra Kumar**, Gyan Prakash Mishra, Sneha Sharma, Santosh Kumar "Plasmonic Biosensor with Gold and Titanium Dioxide Immobilized on Photonic Crystal Fiber for Blood Composition Detection" **IEEE Sensors Journal, DOI:**10.1109/JSEN.2022.3160482 (**2022**) (**SCI)**Impact Factor: **4.30** [Corresponding Author]

- **21.** Xuecheng Liu, Muyang Li, Ragini Singh, Yiran Wang, YiyanXie, XiancuiSu, Feilong Gao, Guoru Li, **Dharmendra Kumar**, Bingyuan Zhang, Santosh Kumar, "Feasibility analysis of SMS-/MSM-/SMSMS-based optical fiber sensor structure" **Applied Optics**, Vol. 61, Issue 9, pp. 2327-2332 (**2022**) (SCI) **Impact Factor: 1.98**
- 22. Gyan Prakash Mishra, **Dharmendra Kumar**, Vijay Shanker Chaudhary, Santosh Kumar "Design and Sensitivity Improvement of Microstructured-Core Photonic Crystal Fiber based Sensor for Methane and Hydrogen Fluoride Detection" **IEEE Sensors Journal**, **DOI**:10.1109/JSEN.2021.3131694(**2021**) (**SCI)Impact Factor**: **4.3** [Corresponding Author]
- 23. Vijay Shanker Chaudhary, **Dharmendra Kumar**, Santosh Kumar "SPR Assisted Photonic Crystal Fiber Based Dual-Wavelength Single Polarizing Filter with Improved Performance" **IEEE Transactions on Plasma Science**, Vol. 49, No. 12, 3803-3810 (2021), DOI:10.1109/TPS.2021.3126671(SCI) Impact Factor:1.368[Corresponding Author]
- **24.** Anupam Sahu, **Dharmendra Kumar**, "Theoretical investigation of intersubband optical properties of 'giant' colloidal core-shell quantum dot with alloyed interfacial layer" **Journal of Nanophononics**, **15**(4), 046004 (**2021**), doi: 10.1117/1.JNP.15.046004(**SCIE**) **Impact Factor:1.494**
- 25. Vijay Shanker Chaudhary, Dharmendra Kumar, Santosh Kumar "Gold-immobilized Photonic Crystal Fiber-based SPR Biosensor for Detection of Malaria Disease in Human Body" IEEE Sensors Journal, Vol. 21, No. 16, 17800-17807(2021) DOI: 10.1109/JSEN.2021.3085829. (SCI) Impact Factor: 4.3 [Corresponding Author]
- 26. Anupam Sahu, **Dharmendra Kumar**, "Theoretical modeling of a "giant" colloidal core-shell quantum dot with an alloyed interfacial layer for solar cell applications" **Journal of the Optical Society of America B (JOSA B),** Vol. 38, No. 3, 842-849 (2021)DOI:https://doi.org/10.1364/JOSAB.414664(SCI)Impact Factor: 2.106
- **27.** Gyan Prakash Mishra, **Dharmendra Kumar**, Vijay Shanker Chaudhary, Govind Murmu, "Cancer cell detection by a heart-shaped dual-core photonic crystal fiber sensor" **Applied Optics**, Vol. 59, No. 33, 10321-10329, (**2020**)(**SCI)Impact Factor: 1.98** [Corresponding Author]
- 28. Vijay Shanker Chaudhary, Dharmendra Kumar "TOPAS Based Porous Core Photonic Crystal Fiber for Terahertz Chemical Sensor" Optik International Journal for Light and Electron Optics, Vol. 223, 165562 (2020),(SCI)Impact Factor: 2.84. [Corresponding Author]
- **29.** Gagandeep Bharti, **Dharmendra Kumar**, Anil Kumar Gautam, Anand Sharma "Two Port Dual Band Circularly Polarized DR Based MIMO Antenna with Polarization Diversity" **Electromagnetics** (2020), Vol 40, 463-478 DOI: 10.1080/02726343.2020.1821330 (SCI) Impact Factor: 1.099
- **30.** Gyan Prakash Mishra, **Dharmendra Kumar**, Vijay Shanker Chaudhary, Sneha Sharma, "Terahertz refractive index sensor with high sensitivity based on two-core photonic crystal fiber", '**Microwave and Optical Technology Letters**'Vol. 63,24-31 2020,<u>DOI: 10.1002/mop.32573(**SCIE**)</u><u>Impact Factor:1.392 [Corresponding Author]</u>
- **31.** Anupam Sahu, **Dharmendra Kumar**, "Effect of Confinement Strength on the Conversion Efficiency of Strained Core-Shell Quantum Dot Solar Cell" **Optics and Spectroscopy** (**Springer**),vol. 128, issue 10, 1649-1657 (**2020**)**DOI:**10.21883/OS.2020.10.50027.1026-20(**SCI)Impact Factor:0.891.**
- **32.** Anupam Sahu, **Dharmendra Kumar** "Computation of intersubband transition energy and absorption spectra of binary capped GaAs/Al0.42Ga0.58As core-shell quantum dot" **Journal of Nanophononics**, vol.14, 026003 (**2020**) (**SCIE**) **Impact Factor:1.494**
- **33.** Vijay Shanker Chaudhary, **Dharmendra Kumar**, Rajan Mishra, Sneha Sharma "Hybrid Dual Core Photonic Crystal Fiber as Hydrostatic Pressure Sensor" **Optik International Journal for Light and Electron Optics**, Volume 210, 16449, (**2020**), (**SCI)Impact Factor: 2.84** [Corresponding Author]
- **34.** Gagandeep Bharti, **Dharmendra Kumar**, Anil K Gautam, Anand Sharma, "Two-port ring-shaped dielectric resonator-based diversity radiator with dual-band and dual-polarized features" **Microwave and Optical Technology Letters'**vol.62, 581-588 (2020), (**SCIE**) **Impact Factor:1.311**
- **35.** C. M. S. Negi, **Dharmendra Kumar** and Jitendra Kumar "Analysis of polarized light generation in anisotropic strained quantum dots," **Journal of Computational Electronics (Springer)**, vol. 16,

- pp.805–813, DOI 10.1007/s10825-017-1021-8 (2017). (SCI), <u>Impact Factor: 1.807</u>[Corresponding Author]
- **36. Dharmendra Kumar**, Jitendra Kumar "Effect of size and temperature on optical gain of quantum dots" **Journal of Nanoelectronics and Optoelectronics (JNO)**, Vol. **9**, 520-524, (2014). (**SCIE**), **Impact Factor: 1.069**[Corresponding Author]
- **37. Dharmendra Kumar**, C. M. S. Negi, Saral K. Gupta and Jitendra Kumar "Effect of shape Anisotropy and Size on Electronic Structure of CdSe/ZnSe Quantum Dots," **IEEE Transactions on Nanotechnology**, vol. **12**, No. 6, pp. 925-930 (2013). (**SCI**), **Impact Factor: 2.967**[Corresponding Author]
- **38.** C. M. S. Negi, **Dharmendra Kumar**, Saral K. Gupta and Jitendra Kumar "Theoretical Analysis of Resonant Cavity p-type In_xGa_{1-x}As Quantum Dot Infrared Photodetector" **IEEE Journal of Quantum Electronics**, vol. **49**, no. 10, pp. 839-845 (2013). (**SCI**), <u>Impact Factor: 2.52</u>
- **39.** C. M. S. Negi, Saral K. Gupta, **Dharmendra Kumar**, and Jitendra Kumar "Nonlinear optical absorption and refraction in a strained anisotropic multi-level quantum dot system," **Superlattices and Microstructures (Elsevier)**, Vol. **60**, pp.462-474, (2013). (**SCI)**, **Impact Factor: 2.658**
- **40.** Sneha Sharma, Vijay Shanker Chaudhary, **Dharmendra Kumar**, "Design of chemical sensor based on dual core photonic crystal fiber" **Materials Today: Proceedings** Vol. 33, 2122–2124, https://doi.org/10.1016/j.matpr.2020.02.889 (2020) (**SCI-Mago and Scopus**) [Corresponding Author]
- **41.** Vijay Shanker Chaudhary, **Dharmendra Kumar**, Rajan Mishra, Sneha Sharma "Twin core photonic crystal fiber for temperature sensing", **Materials Today: Proceedings** Vol. 33, 2289–2292, https://doi.org/10.1016/j.matpr.2020.04.197 (2020) (**SCI-Mago and Scopus**) [Corresponding Author]

International Conferences:

- 1. Ruchi Devlal, Praveena Rajput, Manoj Gupta, Sudakar Singh Chauhan, Priyanka Gupta, Dharmendra Kumar, "A Comprehensive Review of Sn-based Perovskite Solar Cell: Structure, Optical Properties, Design and Stability" 3rd IEEE International Conference on Device Intelligence, Computing, and Communication Technologies (DICCT-2025) organised by the Department of Electronics and Communication Engineering, Graphic Era (Deemed to be University), Dehradun, India held on 21-22 March, 2025.
- 2. Shubham Sahu, Sudakar Singh Chauhan, Ruchi Devlal, **Dharmendra Kumar**, Vasista Rohanth Peela, A. M. Surya, "A Comprehensive Overview of HEMT Structure and Fabrication Techniques" 3rd IEEE International Conference on Device Intelligence, Computing, and Communication Technologies (DICCT-2025) organised by the Department of Electronics and Communication Engineering, Graphic Era (Deemed to be University), Dehradun, India held on 21-22 March, 2025.
- 3. Ram Pravesh, **Dharmendra Kumar**, Bramha P Pandey, Vijay Shanker Chaudhary, Santosh Kumar "design of two core photonic crystal fiber with circular-elliptical lattice structure based temperature sensor", ICCET-2023 @ NIT Patna during July 14-15, 2023, Patna
- **4.** Shreya Gupta, **Dharmendra Kumar**, Vijay Shanker Chaudhary and Sneha Sharma "Double core photonic crystal fiber for liquid sensing detection" VCAS 2022 Organized by **MNNIT Allahabad Prayagraj**. During October 14-16, 2022
- **5.** Shreya Gupta, **Dharmendra Kumar**, Vijay Shanker Chaudhary and Sneha Sharma "Numerical Investigation of Highly Nonlinear and Low Confinement Loss Chalcogenide Photonic Crystal Fiber" IATMSI-2022, Organized by **IIIT Gwalior** during December 21-23,2022
- 6. Sneha Sharma, Vijay Shanker Chaudhary, Dharmendra Kumar, "Dual core photonic crystal fiberbased carbon dioxide gas sensor" 5th IEEE Workshop on Recent Advances in Photonics (WRAP). Date: 4-6 March 2022. Venue: IIT Bombay.DOI: 10.1109/WRAP54064.2022.9758309

- 7. Pooja Singh, Vijay Shanker Chaudhary, Gyan Prakash Mishra, **Dharmendra Kumar**. "Design and Analysis of Elliptical-Core Photonic Crystal Fiber-Based Gas Sensor" in International Conference on VLSI & Microwave and Wireless Technologies (ICVMWT-2021) Jointly organized by Madan Mohan Malaviya University of Technology Gorakhpur, J.K. Institute of Applied Physics and Technology, University of Allahabad and Manipal University Jaipur from March 20-21,2021.
- 8. Anupam Sahu, Dharmendra Kumar, 'Tuning of white colour gamut using strain adapting interfacial layer in 'giant' colloidal core-shell quantum dot', in International Conference on VLSI & Microwave and Wireless Technologies (ICVMWT-2021) Jointly organized by Madan Mohan Malaviya University of Technology Gorakhpur, J.K. Institute of Applied Physics and Technology, University of Allahabad and Manipal University Jaipur from March 20-21,2021.
- **9.** Rukmani Singh, Ritu Raj Singh, **Dharmendra Kumar**, Vishnu Priye, "Guiding and confinement analysis in PIC-based curved slot waveguide," Proc. SPIE 10921, Integrated Optics: Devices, Materials, and Technologies XXIII, 109211P (4 March 2019); doi: 10.1117/12.2507357
- **10. Dharmendra Kumar**, C. M. S. Negi, Saral K. Gupta and Jitendra Kumar "Effect of shape Anisotropy and Size on Electronic Structure of CdSe/ZnSe Quantum Dots" Proceeding of 'nanocon12'2nd International Conference on Nanotechnology- Innovative Materials, Processes, Products and Applications, 18-19 October 2012, Pune, pp-134-143.
- 11. C. M. S. Negi, **Dharmendra Kumar**, Saral K. Gupta and Jitendra Kumar "Resonant Cavity Far Infrared Photo-detector based on Self-Assembled InAs/GaAs Quantum Dots" **IEEE 5**th **International Nanoelectronics Conference (INEC) 2013, Singapore.**
- **12. Dharmendra Kumar**, C. M. S. Negi, Jitendra Kumar and Saral K. Gupta "Study of Gain Characteristics of GaAs/GaAlAs Self Assembled Quantum Dots" **IEEE 1**st **international conference on microwave and photonics (ICMAP 2013)**, December 13-15, 2013, ISM, Dhanbad. 978-1-4799-2174-4/13/\$31.00 © 2013 IEEE
- **13.** C. M. S. Negi, **Dharmendra Kumar**, Jitendra Kumar and Saral K. Gupta "Performance investigations of multicolour, Broadband quantum dot infrared photodetector" **IEEE 1**st **international conference on microwave and photonics (ICMAP 2013),** December 13-15, 2103, ISM, Dhanbad. 978-1-4799-2174-4/13/\$31.00 © 2013 IEEE.
- **14. Dharmendra Kumar**, C. M. S. Negi, Jitendra Kumar "Effect of Temperature on optical gain of CdSe/ZnSe quantum dots" **International conference on Opto Electronics and Applied Optics2014 (IEM OPTRONIX-2014)**, December 17-18, 2014.
- **15.** C. M. S. Negi, **Dharmendra Kumar** Jitendra Kumar "Characteristics of II-VI Quantum Dot Infrared Photo- detectors" **International conference on Opto-Electronics and Applied Optics2014** (**IEM OPTRONIX-2014**), December 17-18, 2014.
- **16. Dharmendra Kumar**, et al., "Light Emission Polarisation Control in Quantum Dot Vertical Cavity Surface emitting Laser (QD VCSELs)", **International Conference on Nanotechnology: Ideas, Innovations and Initiatives (ICN:3I-2017**), scheduled to be held from December 06 08, 2017 at IIT Roorkee, Uttarakhand, India
- **17.** Sneha Sharma, **Dharmendra Kumar**, Jitendra Kumar, "Wavelength-tunable ultrashort soliton generation in gas filled kagome hollow core photonic crystal fiber" **IEEE Iinternational conference on microwave and photonics (ICMAP 2018)**, February 09-11, 2018, IIT(ISM), Dhanbad.
- 18. Vijay Shanker Chaudhary, Dharmendra Kumar, Sneha Sharma"Design of high birefringence with two zero dispersion wavelength and highly nonlinear hybrid photonic crystal fiber" International Conference on Optical & Wireless Technologies (OWT 2018) held at MNIT Jaipur on February 09-11, 2018
- **19.** Vishal Chaudhary, Dharmendra Kumar "Design and analysis of Refractive index sensor based on Dual Core Photonic crystal fiber (DC-PCF) with rectangular air hole lattice structure" **International**

- Conference on Optical & Wireless Technologies (OWT 2018) held at MNIT Jaipur on February 09-11, 2018
- 20. Vijay Shanker Chaudhary, Vishal Chaudhary, Dharmendra Kumar "Highly Negative Dispersion Compensating Dual Core Photonic Crystal Fiber" International Conference on Recent Innovations in Science and Engineering (ICRISE-18) held at Buddha Institute of Technology GIDA, Gorakhpur (India) on 1st 2nd April 2018
- 21. Arpit Singh Yadav, Aparna Singh, Vijay Shanker Chaudhary, **Dharmendra Kumar**, Ultra-Flat Dispersion with High Nonlinearity Hexagonal Photonic Crystal Fiber" 2018 **5th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)** DOI: 10.1109/UPCON.2018.8597148
- 22. Aparna Singh, Vishal Chaudhary, Vijay Shanker Chaudhary, **Dharmendra Kumar**, Design of Dual Core Photonic Crystal Fiber (DC-PCF) Based Temperature Sensor with Rectangular Lattice Structure, 2018 **5th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)**,DOI: 10.1109/UPCON.2018.859716.
- 23. Arpit Singh Yadav, Vijay Shanker Chaudhary, **Dharmendra Kumar**, Design of Hexagonal Photonic Crystal Fiber with High nonlinearity and Low Confinement Loss For optical coherence tomography Application"2019 International Conference on Computing, Power and Communication Technologies (GUCON), NCR New Delhi, India, 2019, pp. 154-156..
- 24. Shivam Singh, Dharmendra Kumar, G.S.Tripathi "Compact Multiband Antenna With Symmetrical I- and S-shaped Slots for Wireless Application", International Conference On Innovationa In Informations, Embedded And Communication System, March 2017, IEEE Madras Section, India
- **25.** Gyan Prakash Mishra, Yadav PreetiRammilan, **Dharmendra Kumar**," Design and Analysis of Optical Properties for Circular and Defected Core PCF," International Conference on Energy, Environment & Material Sciences (ICE2M-2019).
- **26.** Sneha Sharma, Gyan Prakash Mishra, Vijay Shanker Chaudhary, **Dharmendra Kumar**, "Design and Analysis of Chalcogenide Based Photonic Crystal Fiber for Non-linear Optical Applications", 2020 International Conference on Electrical and Electronics Engineering (ICE3), 580-582, 2020/2/14 (IEEE Xplore)
- **27.** Km. Shweta Chaudhary, AS Yadav, Vijay Shanker Chaudhary, **Dharmendra Kumar**, "Decagonal Chalcogenide Photonic Crystal Fiber for the application of Supercontinuum Generation," 2020 IEEE Students Conference on Engineering & Systems (SCES), Prayagraj, India, 2020, pp. 1-4, doi: 10.1109/SCES50439.2020.9236710.
- **28.** Km. Shweta Chaudhary, Vijay Shanker Chaudhary, **Dharmendra Kumar**, "Highly Nonlinear Chalcogenide Decagonal Photonic Crystal Fiber for Mid-Infrared Supercontinuum Generation", International Conference on Advanced Nanomaterials (ICAN2020)", 27th -29th February 2020.
- **29.** Yadav PreetiRammilan, Vijay Shanker Chaudhary, **Dharmendra Kumar**, "Highly sensitive hexagonal dual core photonic crystal fiber as refractive index sensor", International Conference on Advanced Nanomaterials (ICAN2020)", 27th -29th February 2020.
- **30.** Priyanka Kumari, Rukmani Singh, **Dharmendra Kumar**, "Sensitivity Analysis of Planar and Non-Planar Optical Waveguides in Bio-sensing Applications", Optical & Wireless Technologies 2020 (OWT2020) (Accepted)

BOOK CHAPTERS:

- 1. Shreya Gupta, **Dharmendra Kumar**, Vijay Shanker Chaudhary and Sneha Sharma "Double core photonic crystal fiber for liquid sensing detection" VCAS 2022 Organized by **MNNIT Allahabad Prayagraj**. During October 14-16, 2022, https://doi.org/10.1007/978-981-99-0973-5
- 2. Rukmani Singh, Rupam Srivastava, YK Prajapati, **Dharmendra Kumar** "Silicon on Insulator-Based <u>Ultra-Small Micro-Ring Resonator for Temperature Sensing</u>" VLSI, Microwave and Wireless Technologies Springer, Singapore, PP 747-756, 2023,

- **3.** Anupam Sahu, **Dharmendra Kumar**, 'Tuning of white colour gamut using strain adapting interfacial layer in 'giant' colloidal core-shell quantum dot', VLSI, Microwave and Wireless Technologies Springer, Singapore, PP 783-789, 2023.
- **4.** Smita Kumari, **Dharmendra Kumar**, "Revolution of Titanium Dioxide in Biomedical and Applications in Environmental Remediation", Nova Science Publishers, ISBN: 978-1-68507-457-9 (2022) [DOI: https://doi.org/10.52305/SUWN8331]
- 5. Manish Kumar Yadav, Bramha P Pandey, **Dharmendra Kumar**, "Theoretical Study of Transmission Coefficient and IV Characteristic of Double Barrier GaAs/Ga1-xAlxAs Heterostructure at Different Composition 'x'" Optical and Wireless Technologies, 289-297 (2020) Springer, Singapore.
- 6. Vijay Shanker Chaudhary, Dharmendra Kumar, Sneha Sharma"Design of high birefringence with two zero dispersion wavelength and highly nonlinear hybrid photonic crystal fiber" Optical & Wireless Technologies (OWT 2018) held at MNIT Jaipur on February 09-11, 2018
- 7. Vishal Chaudhary, Dharmendra Kumar "Design and analysis of Refractive index sensor based on Dual Core Photonic crystal fiber (DC-PCF) with rectangular air hole lattice structure" Optical and Wireless Technologies: Proceedings of OWT 2018, Vol.546, p.207, (2019) Springer, Singapore
- **8. Dharmendra Kumar**, C. M. S. Negi, Jitendra Kumar "Effect of Temperature on optical gain of CdSe/ZnSe quantum dots" **International conference on Opto Electronics and Applied Optics2014 (IEM OPTRONIX-2014)**, December 17-18, 2014.
- 9. C. M. S. Negi, **Dharmendra Kumar** Jitendra Kumar "Characteristics of II-VI Quantum Dot Infrared Photo- detectors" **International conference on Opto-Electronics and Applied Optics2014** (**IEM OPTRONIX-2014**), December 17-18, 2014.

Professional Development Programme (STTP/FDP/STC) attended:

In Year 2024:

1. **Dr. Dharmendra Kumar** has participated & completed successfully one-week Online Faculty Development Program (FDP) on "**International workshop on Photonics and Optoelectronics devices (IWPOD-2024)**" from **26**th **to 30**th **January 2024** organized by IIIT Ranchi.

In Year 2023:

2. Dr. Dharmendra Kumar has participated & completed successfully one-week Online Faculty Development Program (FDP) on "Research methodology and IPR)" from 9th to 13th September 2023 organized by IIIT ranchi.

In Year 2022:

- **3. Dr. Dharmendra Kumar** has participated & completed successfully one-week Online Faculty Development Program (FDP) on "**Recent advances in control system (RACS-2022)**" from **25**th **to 29**th **November 2022** jointly organized by AICTE, New Delhi and Madan Mohan Malaviya University of Technology, Gorakhpur.
- **4. Dr. Dharmendra Kumar** has participated & completed successfully one-week Online Faculty Development Program (FDP) on "**Artificial intelligence using tensor flow(AITF-2022**)" from **21**st **to 25**th **November 2022** jointly organized by AICTE, New Delhi and Madan Mohan Malaviya University of Technology, Gorakhpur.
- 5. Dr. Dharmendra Kumar has participated & completed successfully one-week Online Faculty Development Program (FDP) on "EXAMINATION REFORMS" from 26th to 30th March

2022 jointly organized by AICTE, New Delhi and Madan Mohan Malaviya University of Technology, Gorakhpur.

In Year 2021:

- 1. **Dr. Dharmendra Kumar** has participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Photonics" from 2021-2-1 to 2021-2-5 at National Institute of Technology Karnataka.
- 2. **Dr. Dharmendra Kumar** has participated & completed successfully AICTE Training And Learning (**ATAL**) Academy **Online** FDP on "**Photonics**" from **2021-2-8** to **2021-2-12** at KKR & KSR Institute Of Technology And Sciences, Vinjanampadu, Guntur
- 3. **Dr. Dharmendra Kumar** has participated in a **Two-week Online Faculty Development Programme** on "**Advanced Communication and Antennas**" jointly organized by Electronics and ICT Academies held from **15 26 Feb, 2021**under the "Scheme of financial assistance for setting up of Electronics and ICT Academies" of the Ministry of Electronics and Information Technology (MeitY), Government of India.
- 4. **Dr. Dharmendra Kumar** has participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online** FDP on "**Photonics Technology: A New Era of Communication**" from 21/09/2021 to 25/09/2021 at Indian Institute of Information Technology Ranchi.
- 5. **Dr. Dharmendra Kumar** has participated & completed successfully AICTE Training And Learning (**ATAL**) Academy **Online** FDP on "**Silicon Photonics: Future of Integrated Circuits**" from 20/12/2021 to 24/12/2021 at VNIT Nagpur.

In Year 2020:

- 1. Dr. Dharmendra Kumar has participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Photonics" from 2020-11-3 to 2020-11-7 at Indian Institute of Information Technology Ranchi.
- 2. Dr. Dharmendra Kumar has participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Advanced Optical Access Networks and its Role in Smart Cities" from 2020-11-23 to 2020-11-27 at Indian Institute of Information Technology, Kota (MNIT Campus Jaipur).
- 3. Dr Dharmendra Kumar has participated in program on "Malaviya Research Conclave-2020" at Madan Mohan Malaviya University of Technology, Gorakhpur during February 22-24, 2020,
- **4. Dr Dharmendra Kumar** has participated in Webinar on "Modeling and Design of Low-Cost Group IV based Photo Detector" held on **16th May 2020** organized by VAAGDEVI ENGINEERING COLLEGE, Warangal Urban (Dist.), Telangana, India
- 5. Dr Dharmendra Kumar has participated and completed the Faculty Development Programme on "MATLAB & Its applications in AI & ML" organized by Department of ECE, NIT Patna held from 19th 26th May 2020 (online mode)
- **6. Dr Dharmendra Kumar** has participated in a Faculty Development Programme on Engineering Technologies in Recent Scenario, Department of PG Studies, Dhanalakshmi Srinivasan Engineering College, Perambalur from **06.06.2020 to 08.06.2020**
- 7. Dr Dharmendra Kumar has participated in a Two-week Online Faculty Development Programme on "ICT Tools for Teaching, Learning Process and Institute" jointly organized by Electronics and ICT Academies held from 10th 21st August, 2020 under the "Scheme of financial assistance for setting up of Electronics and ICT Academies" of the Ministry of Electronics and Information Technology (MeitY), Government of India.
- 8. Dr. Dharmendra Kumar has participated in a Two-week Online Faculty Development Programme on "Demystifying 5G RF ASICs" jointly organized by Electronics and ICT Academies held from 24 August to 04 September, 2020 under the "Scheme of financial assistance for setting up of Electronics and ICT Academies" of the Ministry of Electronics and Information Technology (MeitY), Government of India

- 9. Dr. Dharmendra Kumar has participated in One Week Faculty Development Programme on Recent Advances in Material Science and Research Ethics organized by Department of Physics & Material Science, MMMUT, Gorakhpur from 21-25 September 2020.
- 10. Dr. Dharmendra Kumar has participated in 5 days FDP on "Internet of Things: Applications in Emerging Technology" jointly organized by ECED MMMUT Gorakhpur and SV NIT Surat from 24th Sept. 2020 to 28th Sept. 2020.
- 11. Dr. Dharmendra Kumar has participated in One Week Faculty Development Programme on power electronics for electric vehicle and energy system jointly organized by ECED MMMUT Gorakhpur and SV NIT Surat from 28 September to 3rd October 2020
- **12. Dr. Dharmendra Kumar** has participated as participated in the CEP Course on Modern Trends and Development in Semiconductor Microelectronics conducted by IIT Patna during 09-11th October 2020
- **13.** Dr. Dharmendra Kumar has participated in 3 days National Faculty Development Program on "Design, Simulation & Measurement of Different Types of Antenna for 5G Applications Using HFSS" jointly organized by Department of Electronics and Communication Engineering in collaboration with Entuple Technologies, Bangalore as a Technical Partner at Meerut Institute of Engineering and Technology, Meerut in online mode during 2-4November, 2020.
- 14. Dr. Dharmendra Kumar has participated in the short-term course on Optoelectronics and Nanophononics conducted by Department of Electronics and Electrical Engineering, IIT Guwahati under the Quality Improvement Programme (QIP) sponsored by AICTE / Ministry of Human Resource Development, Government of India, during November 06-07 & 09-12, 2020.
- 15. Dr. Dharmendra Kumar has successfully completed the MHRD sponsored TEQIP assisted course on "Advance Digital Pedagogy and ICT Tools: Challenges and Opportunities in Online Teaching" from 18th to 22nd November 2020 organized by the IIT Roorkee

In Year 2019:

1. Dr. Dharmendra Kumar has participated in program on "Malaviya Research Conclave-2019" at Madan Mohan Malaviya University of Technology, Gorakhpur,

In Year 2018:

- **1. Dr. Dharmendra Kumar** has participated in program on "Malaviya Research Conclave-2018" at Madan Mohan Malaviya University of Technology, Gorakhpur,
- 2. Dr. Dharmendra Kumar has participated in Short Term Course (STC) on "Technological Innovations in IoT for 5G Applications" Oct. 24-29, 2018
- 3. Dr. Dharmendra Kumar has organized and participated in Short Term Course (STC) on "Advanced Modeling of Microwave and Photonics Devices (AMMPD-2018) March 06-12, 2018

In Year 2017:

- 1. **Dr. Dharmendra Kumar** has participated in program on "Malaviya Research Conclave-2017" at Madan Mohan Malaviya University of Technology, Gorakhpur, July 8-11, 2017.
- 2. **Dr. Dharmendra Kumar** has participated in Short Term Course on "Emerging Trends in Materials Science (STCETMS-2017)" at Madan Mohan Malaviya University of Technology, Gorakhpur, March 23-29, 2017.
- 3. **Dr. Dharmendra Kumar** has participated in Program on "Pedagogical Training for Effective Teaching in Technical Education" at Madan Mohan Malaviya University of Technology, Gorakhpur, March 21-23, 2017.
- 4. **Dr. Dharmendra Kumar** has participated in Short Term Course on "Advances in Computing Technology (ACT-2017)" at Madan Mohan Malaviya University of Technology, Gorakhpur, Fab. 23-March 01, 2017.

In Year 2016:

- 1. **Dr. Dharmendra Kumar** has participated in Short Term Course on "Modeling and Simulation of Microelectronics Devices and Circuits (MSMDC-2016)" at Madan Mohan Malaviya University of Technology, Gorakhpur, December 16-22, 2016.
- 2. **Dr. Dharmendra Kumar** has participated in Short Term Course on "Microwave Devices: Theory & Techniques (MDTT-2016)" at Madan Mohan Malaviya University of Technology, Gorakhpur, July 4-10, 2016

In Year 2013 and 2012:

- 1. **Dr. Dharmendra Kumar** has participated in Workshop on Application of Simulators in Photonics, Electronics and Communication Technology (ASPECT 2013) at Institute of Radio Physics and Electronics University of Calcutta, March 11 15, 2013.
- **2. Dr. Dharmendra Kumar** has participated in Certificate Course on "Soft Computing Methods (SCM 20113)", Department of Electronics Engineering, at Indian Institute of Technology (ISM), Dhanbad, March 20 24, 2013.
- **3. Dr. Dharmendra Kumar** has participated in Workshop on "Recent Advance in Photonics (WRAP 2013)", Department of physics, IIT Delhi, December 17- 18, 2013
- **4. Dr. Dharmendra Kumar** has participated in Workshop on INUP Familiarization Nanofabrication Technologies "Indian nanoelectronics user program center for nanoscience and engineering" at Indian Institute of Science (IISc), Bangalore, October 29-31, 2012.

Training Program attended (Industrial/Professional)

- 1. Dr Dharmendra Kumar has successfully completed Two weeks of Industrial training program on Basic Telecom from Aug 7-19, 2023 at BSNL Gorakhpur.
- 2. Dr Dharmendra Kumar has participated in One-week Pedagogical training program on curriculum design, delivery, and assessment for outcome-based education online webinar from May 11-16, 2020 at MMMUT Gorakhpur.
- 3. Dr Dharmendra Kumar has successfully completed, online Training Programme on Digital tools for Writing, Authoring & Reviewing Manuscripts jointly organized by Electronics & ICT Academies MNIT Jaipur, NIT Patna & IIT Guwahati from 21st September to 2nd October 2020
- **4. Dr Dharmendra Kumar** has completed the Online Industrial Training Program on "Design and Verification Using Verilog" from **28th Oct to 30th Nov 2020**.
- **5. Dr Dharmendra Kumar** has successfully completed Industrial Training of two-weeks in basic telecom at BSNL Gorakhpur from **16**th **to 28**th **November 2020**.
- **6. Dr Dharmendra Kumar** has completed in Seven-week summer training on "Chemical Etching of Optical fiber" From Central Glass & Ceramic Research Institute (CGCRI), Kolkata, May 17 to July 10, 2010.
- **7. Dr Dharmendra Kumar** has Participated in 45 days project comprising VHDL Implementation of 16 BIT ALU held at Semiconductor Technologies, "VEDANT" Lucknow. June 2nd to July 14, 2008.



(Dharmendra Kumar)