

Vijay Shanker Chaudhary

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Colony, Post- Purani Basti, District-
Basti, Uttar Pradesh-272002

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Experience

11 Years of Teaching Experience at Reputed Engineering Institutes

College of Engineering and Technology (Currently IFTM University)

Lecturer (ECE) • Moradabad, Uttar Pradesh, **04 years** 08/2006 - 08/2010

Kothiwal Institute of Technology & Professional Studies

Assistant Professor (ECE) • Moradabad, Uttar Pradesh, **06 years** 09/2010 - 06/2016

Madan Mohan Malaviya University of Technology (Formerly Madan Mohan Malaviya Engineering College)

Guest Faculty (ECE) • Gorakhpur, Uttar Pradesh, **01 years** 07/2018 - 05/2019

Education

- **Ph.D. (Pursuing, Full Time)**, Madan Mohan Malaviya University of Technology, Gorakhpur, U.P., India.
Broad Area of Specialization: Photonics
Current Status: Pre-thesis submission presentation done
Thesis is about to be submitted July 2019-till date
- **M.Tech. (Communication Engineering)**, Madan Mohan Malaviya University of Technology, Gorakhpur, U.P., India.
8.06 CGPA, First Division (Honours) 2016-2018
- **B.Tech. (Electronics & Communication Engineering)**, Moradabad Institute of Technology, Moradabad, U.P., India.
First Division 2000-2004
- **Intermediate (10+2)**, D. N. Inter College, Gorakhpur (U.P.Board).
Secured 59%, Second Division 1998
- **High School (10th)**, D. A. V. Inter College, Gorakhpur (U.P. Board).
Secured 61%, First Division 1996

Achievements

- **GATE-2009**, Qualified with **86.89 percentile**
- **GATE-2011**, Qualified with **Gate Score 316**
- **GATE-2016**, Qualified with **Gate Score 365**
- **Top cited paper** in: Microwave and Optical Technology Letters, **WILEY**, 2020-2021.
- Institute of Promotion of Mathematical Sciences Scholarship Examination, **3rd Position**

Research Area

- Photonic Crystal Fiber-Based Physical and Biochemical Sensors.
- Optical Properties of Photonic Crystal Fiber.
- Optical Communication Devices Based on Photonic Crystal Fiber.

Research Publications

International Journals Published [SCI-08, Scopus-02]

1. **Vijay Shanker Chaudhary**, D. Kumar, G. P. Mishra, "S. Sharma and S. Kumar, "Plasmonic Biosensor with Gold and Titanium Dioxide Immobilized on Photonic Crystal Fiber for Blood Composition Detection," in *IEEE Sensors Journal*, doi: 10.1109/JSEN.2022.3160482, 2022
IEEE Sensors Journal [SCI, Impact Factor: 3.301]
2. **Vijay Shanker Chaudhary**, D.Kumar and S.Kumar, "SPR-Assisted Photonic Crystal Fiber-Based Dual-Wavelength Single Polarizing Filter With Improved Performance," in *IEEE Transactions on Plasma Science*, vol.49, no.12, pp.3803-3810, 2021
IEEE Transactions on Plasma Science [SCI, Impact Factor: 1.222]
3. **Vijay Shanker Chaudhary**, D.Kumar and S.Kumar, "Gold-immobilized Photonic Crystal Fiber-based SPR Biosensor for Detection of Malaria Disease in Human Body," in *IEEE Sensors Journal*, vol.21, no.16, pp.17800-17807, 2021
IEEE Sensors Journal [SCI, Impact Factor: 3.301]
4. G.P.Mishra, D.Kumar, **Vijay Shanker Chaudhary**, and S.Kumar, "Design and Sensitivity Improvement of Microstructured-Core Photonic Crystal Fiber Based Sensor for Methane and Hydrogen Fluoride Detection," in *IEEE Sensors Journal*, vol. 22, no.2, pp.1265-1272, 2022
IEEE Sensors Journal [SCI, Impact Factor: 3.301]
5. **Vijay Shanker Chaudhary** and D.Kumar, "TOPAS based porous core photonic crystal fiber for terahertz chemical sensor," in *Optik*, vol.223, p.165562, 2020
Optik - International Journal for Light and Electron Optics, Elsevier [SCI, Impact Factor: 2.443]
6. **Vijay Shanker Chaudhary**, D.Kumar, R.Mishra, and S.Sharma, "Hybrid dual core photonic crystal fiber as hydrostatic pressure sensor," in *Optik*, vol.210, p.164497, 2020
Optik - International Journal for Light and Electron Optics, Elsevier [SCI, Impact Factor: 2.443]
7. G.P.Mishra, D.Kumar, **Vijay Shanker Chaudhary**, and G.Murmu, "Cancer cell detection by a heart-shaped dual-core photonic crystal fiber sensor," in *Applied Optics*, vol.59, no.33, pp. 10321-10329, 2020
Applied Optics, OSA [SCI, Impact Factor: 1.980]
8. G.P.Mishra, D.Kumar, **Vijay Shanker Chaudhary**, and S.Sharma, "Terahertz refractive index sensor with high sensitivity based on two-core photonic crystal fiber," in *Microwave and Optical Technology Letters*, vol.63, no.1, pp.24–31, 2020
Microwave and Optical Technology Letters, Wiley [SCI, Impact Factor: 1.392]

9. **Vijay Shanker Chaudhary**, D.Kumar, R.Mishra, and S.Sharma, "Twin core photonic crystal fiber for temperature sensing," in *Materials Today: Proceedings*, vol.33, no. 5, pp. 2289-2292, 2020
Materials Today: Proceedings, Elsevier [Scopus]
10. S.Sharma, **Vijay Shanker Chaudhary**, and D.Kumar, "Design of chemical sensor based on dual core photonic crystal fiber," in *Materials Today: Proceedings*, vol.33, no.5, pp.2122–2124, 2020
Materials Today: Proceedings, Elsevier [Scopus]

Books Chapter Published [01]

1. **Vijay Shanker Chaudhary**, D.Kumar, and S.Sharma, "Design of high birefringence with two zero dispersion wavelength and highly nonlinear hybrid photonic crystal fiber," in *Optical and Wireless Technologies*, Lecture Notes in Electrical Engineering, vol. 546, pp.301–306, 2020
Optical and Wireless Technologies [Springer Nature Singapore Pte Ltd]

International Conferences Published [08]

1. **Vijay Shanker Chaudhary**, V.Chaudhary, and D.Kumar, "Highly Negative Dispersion Compensating Dual Core Photonic Crystal Fiber" In Buddha Institute of Technology, GIDA, Gorakhpur, UP, India, pp.552-555, 2018
International Conference on Recent Innovations in Science and Engineering (ICRISE-18)
2. A.Singh, V.Chaudhary, **Vijay Shanker Chaudhary**, D.Kumar "Design of Dual Core Photonic Crystal Fiber (DC-PCF) Based Temperature Sensor with Rectangular Lattice Structure," In Jointly Organized by Madan Mohan Malaviya University of Technology, Gorakhpur, UP, India & University of the Ryukyus, Okinawa, Japan, pp.1-4, 2018
5th International Conference on Electrical, Electronics and Computer Engineering (UPCON-2018), IEEE
3. A.S.Yadav, A.Singh, **Vijay Shanker Chaudhary**, "Ultra-Flat Dispersion with High Nonlinearity Hexagonal Photonic Crystal Fiber," In Jointly Organized by Madan Mohan Malaviya University of Technology, Gorakhpur, UP, India & University of the Ryukyus, Okinawa, Japan, pp. 1-3, 2018
5th International Conference on Electrical, Electronics and Computer Engineering (UPCON-2018), IEEE
4. Km.S.Chaudhary, A.S.Yadav, **Vijay Shanker Chaudhary**, and D. Kumar, "Decagonal Chalcogenide Photonic Crystal Fiber for the application of Supercontinuum Generation," In MNNIT, Allahabad, UP, India, pp. 1-4, 2020
6th Students' Conference on Engineering & Systems (SCES), IEEE
5. S.Sharma, G.P. Mishra, **Vijay Shanker Chaudhary**, and D.Kumar, "Design and Analysis of Chalcogenide Based Photonic Crystal Fiber for Non-linear Optical Applications," In Jointly Organized by Madan Mohan Malaviya University of Technology, Gorakhpur, UP, India & North Dakota State University, Fargo, USA, pp.580-582, 2020
International Conference on Electrical and Electronics Eng. (ICE3), IEEE
6. A.S.Yadav, **Vijay Shanker Chaudhary**, D.Kumar, and S. Sharma, "Design of Hexagonal Photonic Crystal Fiber with High Nonlinearity and Low Confinement

Loss for Optical Coherence Tomography Application," In Galgotias University, Greater Noida, India, pp.154- 156. 2019

International Conference on Computing, Power and Comm. Technologies (GUCON), IEEE

7. G.P.Mishra, **Vijay Shanker Chaudhary**, and D.Kumar, "Study of optical properties for five ring hexagonal photonic crystal fiber," vol. 5, no.1, pp.28–33, 2019

International Journal of Composite and Constituent Materials (IJCCM), Journals Pub

8. A.S.Yadav, **Vijay Shanker Chaudhary**, and D.Kumar, "Highly Birefringence and Flattened Dispersion Photonic Crystal Fiber for Polarization Maintaining," vol.5, no.1, pp.22–27, 2019

International Journal of Composite and Constituent Materials (IJCCM), Journals Pub

Attended SDP/Workshops/Industrial Training

1. **Research Scholars' Day-2019 (RSD-19)**, TEQIPIII, MMMUT, Gorakhpur, UP, India, Dec.2019.
2. **4th Malaviya Research Conclave-2020 (MRC-2020)**, Volunteer, TEQIPIII, MMMUT, Gorakhpur, UP, India, Feb.2020.
3. **Short Term Course (STC)** on "Advanced Modeling of Microwave and Photonics Devices (AMMPD-2018)," TEQIPIII, MMMUT, Gorakhpur, UP, India, March 2018.
4. **Staff Development Program (SDP)** on "Analysis of Interaction Structures for Wideband Travelling-Wave Tubes" CET Moradabad, UP, India, June 2010.
5. **Short Term Training Program (STTP)** on "MATLAB and its applications" MIT, Moradabad, UP, India, Aug.2008.

Administrative Responsibilities

- Center Controller in UPSEE
- External Observer in University Examination
- Assistant Center Superintendent in University Examination

Subjects Taught

- Network Analysis and Synthesis
- Signals and Systems
- Analog and Digital Communication
- Electromagnetic Field Theory
- Electronic Devices and Circuits

- Control System
- Digital Electronics

Skills

- Microsoft office
- Excel
- Matlab Software
- COMSOL Muliphysics Software

References

- **Dr. Dharmendra Kumar**
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Department of Electronics and Communication Engineering,
Madan Mohan Malaviya University of Technology, Gorakhpur, UP-273010, India
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Declaration

I hereby declare that the above information is true to the best of my knowledge.

(Vijay Shanker Chaudhary)