

Curriculum Vitae

Yogendra Kumar Prajapati

B.E., M. Tech. (Research), Ph.D.

Present Affiliation: Assistant Professor,
Department of Electronics and Communication
Engineering,

Motilal Nehru National Institute of Technology,
Allahabad-211004, U.P., India

Phone No.: +91-532-227-1469(O)
+91-532-227-1816(R)

E-mail: yogendrapra@mnnit.ac.in,
yogendrapra@gmail.com



Objective: A position that will capitalize on acquired expertise and experience with career growth potential. Exceptionally well organized, strong work ethics and willingness to work hard to achieve employer objectives.

Area of Specialization:

- Theoretical and numerical characterization of optical communication devices
- Design, fabrication, and characterization of Optical sensors
- High speed optical communication

Patent

➤ **Title:** Method to determine beam width of a dip in surface plasmon resonance sensor and its application thereof

Inventors: J.B. Maurya; Yogendra Kumar Prajapati

Application No.:201611005417A,

Indian Patent Journal No. 23/2016, Publication Date: 03/06/2016

➤ **Title:** Integrated health-monitoring device and a method of real time transfer of health condition data collected thereof

Inventors: Yogendra Kumar Prajapati; Piyus Sil; Piyus

Application No.: 201611025089 A

Indian Patent Journal No.: 54/2016, Publication Date: 30/12/2016

Funded Research Projects

1. "Role of graphene and MoS₂ on performance of surface plasmon resonance based sensors: An application to biosensing," funded by Board of Research in Nuclear Sciences (BRNS), Rs. 24 Lakhs, (Project Sanction Number: 34/14/19/2017-BRNS) (**Ongoing**)

2. A project proposal for setup a Optical Communication of the department prepared, and presented at Ministry of Science & Technology, Department of Science & Technology, titled as " Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST) Program – 2016" for amount of Rs. 1.15 Crore. **(Ongoing)**
3. "Design and Study of Sensitivity of optical biosensors having Metamaterials" (Project Ref.No.SB/FTP/ETA-0478/2012) funded by Science and Engineering Research Board, Department of Science & Technology, New Delhi, India under Start-Up Research Grant (Young Scientists),Rs. 23.39 Lakh **(Completed)**
4. "Design an optical sensor using graphene/MoS2 for biomedical application" Project (Ref.No.15/R&C/2016-16 dated on 13/04/2016) funded by Motilal Nehru National Institute of Technology (MNNIT), Allahabad, India under Design and innovation centre (DIC) of the Institute. Rs.0.50 Lakh **(Completed)**
5. "Design of biosensors using metal clad for sensing application" Project (Ref.No.146/R&C/13-14 dated on 02/09/2013) funded by Motilal Nehru National Institute of Technology (MNNIT), Allahabad, India under TEQIP-II of the Institute for faculty. Rs.3.00 Lakh **(Completed)**
6. "Simulation and numerical analysis of optical microstructure fibers: Dispersion characteristic" Project (Ref.No.134/R&C/13-14 dated on 23/08/2013&Ref. No. 360/R & C/13-14, dated 07/03/2014) funded by Motilal Nehru National Institute of Technology (MNNIT), Allahabad, India under plan grant of the Institute for new faculty. Rs.2.00 Lakh **(Completed)**

Consultancy:

- Veekay Connectors(P) Ltd., Naini, Allahabad for Confirmatory tests of fiber optical splitter with microlens chip (As a member)

MOU:

- MOU signed with Veekay Connectors(P) Ltd., Naini, Allahabad

Teaching Experience: 14 Years

- Theory Courses taught: UG/PG level
- P.G. Theses supervised: 12
- Ph.D. Theses completed:02(Regular) +02 (Part-Time)
- Ph.D. Theses in progress:04(Regular) +01 (Part-Time)

Awards, Membership and Fellowships

1. Sir Visvesvaraya Young Faculty Research Fellowship Award 2016, Ministry of Electronics and Information Technology, New Delhi, India
2. Young Scientist Research Grant, Sept. 2014, DST, SERB, New Delhi
3. Teacher fellowship received from U.P. Technical University, Lucknow, India, during 07 July 2007 to 16 December 2007.

Details of Ph.D. Theses supervised/on-going

Ph.D. Theses supervised: 04

Ph.D. Theses supervision on going: 04

Work Experience:

Sl. No.	Period		Position Held	Organization	Nature of work
	From	To			
1.	23-10-2012	Continue	Assistant professor	MNNIT, Allahabad	Teaching and Research
2.	25-05-2016	07-06-2016	As a Visiting Scientist	Multimedia University, Malaysia	Research
3.	17-12-2007	22-10-2012	Assistant professor	BIET, Jhansi, (U.P. Govt. Institute)	Teaching and Research
4.	07-07-2007	16-07-2007	As a Lecturer in Teacher fellow scheme GBTU, Lucknow	BIET, Jhansi, (U.P. Govt. Institute)	Teaching and Research
5.	08 - 09-2003	30 -06-2007	Lecturer	VCE, Bijnor, (U.P)	Teaching and Research
6.	01-08-2002	7-09-2003	Lecturer	BBIET& RC, Bulandshahr	Teaching
7.	24-05-2016	07-06-2016	As a Visiting Scientist	Multimedia University, Malaysia	Research

Administrative Works:

Sl. No.	Designation	Period	Nature of Responsibility	Organization
1.	Deputy Dean R&C	May 19, 2017 to continue	To look after the Research and Consultancy work of the Institute	MNNIT, Allahabad

2.	Hostel(Raman) Warden	February 10, 2017 to continue	To look after the Hostel work of the Institute	MNNIT, Allahabad
3.	Technical member of Centre for Promoting Innovation (CPI)	22August, 2014 to continue	Promote for Innovative research	MNNIT, Allahabad
4.	Faculty in charge of Electrical maintenance (EMSW)	12 Sept.,2013 to 26 Dec.2015	To look after the Electrical maintenance of Institute	MNNIT, Allahabad
5.	Member of Institutional Research & Consultancy Committee	23 March 2013 to continue	Research & Consultancy Cell	MNNIT, Allahabad
6.	Hostel Warden	25, July 2012 to 22, Oct.2012	To look after the Hostel work of Institute	BIET, Jhansi
7.	Dy. O/C Examination	25 Sept.2012 to 22 Oct.2012	To look after the Examination related work of Institute	BIET, Jhansi
8.	Officer in charge of Electrical maintenance	02, July 2009 to 25, July 2012	To look after the Electrical maintenance of Institute	BIET, Jhansi
9.	Student counselor	31, July 2010 to 22, Oct.2012	Academic and non-academic matters of department students	BIET, Jhansi
10.	Officer in charge of FEE Department	03, June 2008 to 22, Oct.2012	Organizing students activity	BIET, Jhansi

Professional Activity

- Member of Institute of Electrical and Electronics Engineers (IEEE Member Number: 92205868), USA.
- Member of Optical Society of America (Member Number: 1058070)
- Reviewer of International journal of Sensors & Actuators: B. Chemical, Elsevier publication.
- Reviewer of International journal of Silicon, Springer publication
- Reviewer of International journal of Optical Fiber Technology, Elsevier publication
- Reviewer of International journal of Optics Communications, Elsevier publication.
- Reviewer of International journal of Journal of Optics. IOP publication
- Reviewer of International journal of Optics Letters, Optical Society of America.
- Reviewer of International journal of Progress in Electromagnetic Research, USA.
- Reviewer of International journal of Infrared Physics & Technology, Elsevier publication.

- Reviewer of International journal of Physica Scripta, IOP.
- Reviewer of International journal of Engineering, Science and Technology, Nigeria.
- Member of International Association of computer Science and Information technology (IACSIT), Singapore

Workshops Attended

- Workshop on Distributed control system (DCS) Simulator with dynamic simulation models, during October 15-16, 2005 at BIET, Jhansi (U.P) India.
- Programme on Pedagogical Training in Engineering Education, during November 03-15, 2008 at Engineering Staff College of India, Hyderabad (A.P) India.
- QIP short term course on Optical Communication Networks, during June22-July 03, 2009 at ECE department, IIT, Kharagpur (W.B), India.
- Workshop on Recent Trends in Space Physics, Atmospheric Physics & Astrophysics, during March 12-17, 2012, BHU, Varanasi (U.P).
- ISTE Workshop on Signals and Systems conducted by IIT Kharagpur under the National Mission on education through ICT (MHRD, Govt. of India) during January 02-12, 2014.

Invited Lecture delivered

- Delivered an expert talk on “Introduction to Bragg waveguide” in the Faculty Development Program on Advanced in Microwave communication at B.I.E.T., Jhansi, during Dec.07-08, 2007.
- Delivered an expert talk on “Metamaterials and its application in Optical Networks & Sensors” in the National workshop on “Advances in Wireless and Optical Networks (AWON-2014)” during 2nd to 7th June-2014 at M.N.N.I.T Allahabad.
- Delivered an expert talk on “Metamaterials and its application in Optical devices” in the National workshop on “recent trends in Optical and Wireless Networks” during 3rd to 7th November 2014 at Sam Higginbottom Institute of Agriculture, Technology & Sciences, Naini, Allahabad.
- Delivered an expert talk on “Innovative photonic for communication and sensing application” in the 6th International Conference on “Technology Innovation & Management for Sustainable Development (TiMS-16) during 11-13 February 2016 at ITM University, Gwalior, M.P.

- Delivered an expert talk on “Role of Materials in SPR Sensing” in STC on “Emerging Trends in Materials Science (STCETMS-2017 during March 23-29, 2017 at Madan Mohan Malaviya University of Technology, Gorakhpur, UP.
- Delivered an expert talk on “Laser for Optical Communication and Sensors” in STC on “Laser and its Applications-LAP 2017 during March 27-31, 2017 at M.N.N.I.T Allahabad.

Short-term courses/National Workshop/Conference Organized

- As a Co-coordinator organized “National workshop on Advances in Wireless and Optical Networks (AWON-2014)” during 2nd to 7th June-2014 at Motilal Nehru National Institute of Technology (MNNIT), Allahabad, Uttar Pradesh, India.
- As an organizing secretary organized Students’ Conference on Engineering and Systems (SCES2014)”, from May, 28-30, 2014, at Motilal Nehru National Institute of Technology (MNNIT), Allahabad, Uttar Pradesh, India.
- As a Co-coordinator organized “Mobile, Ad hoc and Vehicular Communication MAVECOM-2013” at MNNIT, Allahabad, during July 22-27, 2013.
- As a Coordinator organized “3G Wireless Networks, MIMO Systems and Antenna Design” at MNNIT, Allahabad, during July 08-13, 2013.
- As a convener organized “Techzion-12” at B.I.E.T., Jhansi, during 6-7, April 2012.

Research Publication:

Research Article:	SCI Journals	36 (Published/ Accepted)
	Non-SCI Journals	08 (Published)
	International Conference	18
	National Conference	05
	SCI Article under review	15

Published/Accepted SCI Research papers

1. J. B. Maurya, A. François, **Y.K. Prajapati***, “Two-Dimensional Layered Nanomaterial Based One-Dimensional Photonic Crystal Refractive Index Sensor” IEEE sensors letters (Accepted Sept. 2017).
2. **Y.K. Prajapati***, Sarika Pal, J.P.Saini, “Effect of Metamaterial and Silicon layers on Surface Plasmon Resonance Biosensor, Journal of Silicon (Accepted Sept. 2017). (Impact factor: 0.829)

3. J.B.Maurya, **Y.K.Prajapati***, “A Novel Method to Calculate Beam Width of SPR Reflectance Curve: A Comparative Analysis,” *IEEE Sensor letters*, Vol. 1, issue 4, pp. 1-4, DOI: 10.1109/LSSENS.2017.2709549, August 2017.
4. J. B.Maurya, **Y.K.Prajapati***, “Influence of Dielectric Coating of Metal Layer in Surface Plasmon Resonance Sensor,” *Journal of Plasmonics*, 12 (4), pp. 1121-1130, August 2017. **(Impact factor: 2.146)**
5. Sajal Agarwal, **Y.K.Prajapati***, “Analysis of Metamaterial based Absorber for Thermo-photovoltaic Cell Applications,” *IET Optoelectronics*, DOI: 10.1049/iet-opt.2016.0169, June 2017. **(Impact factor: 1.165)**
6. Sajal Agarwal, Pushpa Giri, **Y. K. Prajapati***, P. Chakrabarti “Ti/Ag coated Thin Film Optical SPR Sensor for Sucrose detection: Fabrication, Experimental and Simulation Study,” *IEEE Sensors Journals*, Vol. 16, No. 24, pp. 8865 – 8873, December ,2016, **(Impact factor: 1.889)**.
7. Sajal Agarwal, **Y. K. Prajapati***, and Vivek Singh, “Influence of Metal Roughness on SPR Sensor Performance,” *Optics Communications*, 383(15), pp. 113–118, January 2017. **(Impact factor: 1.449)**
8. Sajal Agarwal, **Y. K. Prajapati***, J.B.Maurya “Effect of Metallic Adhesion Layer Thickness on the Sensor Performance,” *IEEE Photonics Technology Letters*, 28(21), pp. 2415-2418, Nov. 2016. DOI: 10.1109/LPT.2016.2597856 **(Impact factor: 1.945)**
9. J.B.Maurya, **Y.K.Prajapati***, and Rajeev Tripathi, “Effect of Molybdenum Disulfide Layer on Surface Plasmon Resonance Biosensor for the Detection of Bacteria,” First Online: 13 August 2016, DOI: 10.1007/s12633-016-9431-y, *Journal of Silicon*, Springer publication, **(Impact factor: 0.860)**
10. Sajal Agarwal, **Y.K.Prajapati***, “Broadband and Polarization Insensitive Helix Metamaterial Absorber using Graphene for Terahertz Region,” *Applied Physics A.*, 122(6), 1-9, June 2016. **(Impact factor: 1.444)**
11. J.B.Maurya,**Y.K.Prajapati***, “A Comparative Study of Different Metal and Prism in the Surface Plasmon Resonance Biosensor having MoS₂-Graphene,” *Optical and Quantum Electronics*, 48(5), pp. 1-12, May 2016. DOI: 10.1007/s11082-016-0562-6. **(Impact factor:0.987)**.
12. Anurag Upadhyay,**Y.K.Prajapati***, Rajeev Tripathi, Vivek Singh and J.P. Saini “Analysis of metal clad waveguide sensor having metamaterial as a guiding layer,” *Opto-Electronics Review*, Vol.24(2), pp. 47–57, April 2016. **(Impact factor: 1.667)**
13. Sarika Pal, **Y.K.Prajapati***, J.P.Sainiand V. Singh, “Sensitivity enhancement of Metamaterial based Surface Plasmon Resonance Biosensor for near infrared,” *Journal of Optica Applicata*, Vol. 46, issue 1,pp.131-143, Feb.2016.**(Impact factor: 0. 55)**.

14. J.B.Maurya, **Y.K.Prajapati***, Vivek Singh, J. P. Saini, and Rajeev Tripathi “Improved Performance of the Surface Plasmon Resonance Biosensor Based on graphene or MoS₂ using Silicon,” *Optics Communications*, Vol. 359, pp. 426–434, January 2016. **(Impact factor: 1.449).**
15. Sajal Agarwal, **Y. K. Prajapati***, and Vivekanand Mishra, “Thinned Fiber Bragg Grating as a Fuel Adulteration Sensor: Simulation and Experimental,” *Opto- Electronics Review*, Vol. 23, issue 4, Pages 231–238, Dec. 2015. **(Impact factor: 1.667)**
16. Sajal Agarwal, **Y.K.Prajapati***, Vivek Singh, J. P. Saini, “Polarization Independent Broadband Metamaterial Absorber Based on Tapered Helical Structure,” *Optics Communications*, Volume 356, December 2015, Pages 565-570, ISSN 0030-4018, <http://dx.doi.org/10.1016/j.optcom.2015.08.055>. *Elsevier Publication* **(Impact factor: 1.449)**
17. Anurag Upadhyay, **Y.K.Prajapati***, Rajeev Tripathi, Vivek Singh and J.P. Saini, “Metal Clad Waveguide Sensor with Metamaterial Layer for Refractometric Sensing Application,” *J. Nanoelectron. Optoelectron.* 10, 749-754 Dec. (2015), American Scientific Publishers. **(Impact factor: 0.369)**
18. V.K.Srivastava, **Y.K.Prajapati***, Vivek Singh, J.P. Saini, “Enhancement of Effective Area of Bragg Waveguide using Plasma for Communication Systems” *Microwave and Optical Technology Letters*, Wiley Publication, 57 (11), pp. 2491-2496, Nov. 2015. **(Impact factor: 0.568).**
19. J.B.Maurya, **Y.K.Prajapati***, Vivek Singh, J. P. Saini, “Sensitivity Enhancement of Surface Plasmon Resonance Sensor Based on Graphene-MoS₂ Hybrid Structure with TiO₂-SiO₂ Composite Layer,” *Applied Physics A-Materials Science & Processing*, Vol. 121, Issue 2, pp 525-533, Nov. 2015., DOI 10.1007/s00339-015-9442-3, Springer publication (Online published). **(Impact factor: 1.704).**
20. J.B.Maurya, **Y.K.Prajapati***, Vivek Singh, J. P. Saini and Rajeev Tripathi, “Performance of Graphene-MoS₂ based Surface Plasmon Resonance Sensor using Silicon layer,” *Optical and Quantum Electronics*, Springer publication, Volume 47, issue 11, pp. 3599-3611, Nov. 2015, DOI 10.1007/s11082-015-0233-z., **(Impact factor: 0.987).**
21. Anurag Upadhyay, **Y.K. Prajapati***, Vivek Singh and J.P. Saini, “Sensitivity estimation of metamaterial loaded planar waveguide,” *Optical and Quantum Electronics*, Volume 47, Issue 7, Page 2277-2287, July 2015. Springer publication. **(Impact factor: 0.987)**
22. Sarika Pal, **Y.K. Prajapati***, J.P. Saini, Vivek Singh, “Sensitivity enhancement of metal clad planar waveguide sensor using metamaterial layer as a guiding layer,” *Optik - International Journal for Light and Electron Optics*, Volume 126, Issue 14, July 2015, Pages 1372-1376. *Elsevier Publication Germany.* **(Impact factor: 0.677)**

23. **Y.Prajapati***, J.B.Maurya, Vivek Singh, J. P. Saini, “Modal Analysis and Dispersion Curves of an Elliptical W-type Single Mode Fiber”, *Optics and spectroscopy*, Vol. 118, No. 5, pp. 821–828, May 2015, Springer publication. (**Impact factor: 0.723**)
24. AnuragUpadhyay, **Y. K. Prajapati***, Vivek Singh and J.P. Saini, “Comprehensive study of reverse index waveguide based sensor with metamaterial core,” *Optics Communication*, Vol. 348, pp.71–76, March 2015. (**Impact factor: 1.449**)
25. PoojaLohia,**Y.Prajapati***, J.P. Saini and B.S. Rai, “Enhancement of single mode operation in Coaxial Optical waveguide using DB boundary conditions”, *Infrared Physics and Technology*, Vol.67, pp. 462–466, Sept. 2014, *Elsevier Publication*. (**Impact factor: 1.460**)
26. **Y.Prajapati***, Vivek Singh, and J. P. Saini, “Computing Eigenvalue equation and modal dispersion characteristics of an Elliptical Bragg waveguide” *International Journal for Light and Electron Optics (OPTIK)*, volume-125, pp. 5461–5466, Oct.2014,*Elsevier Publication Germany*.(**Impact factor: 0.677**)
27. **Y.Prajapati***, J. P. Saini, D.S.Chauhan and Vivek Singh, “Effect of Plasma on Modal Dispersion Characteristic of Elliptical Bragg Waveguide” *Optoelectronics Review*, Vol. 22, no. 1, pp.16–23, March 2014, Springer publication.(**Impact factor: 1.667**)
28. **Y.Prajapati***, Vivek Singh and J. P. Saini, “Analysis of dispersion relation of the elliptical dielectric waveguides having M-type refractive index profile” *International Journal for Light and Electron Optics (OPTIK)*, volume-124, pp.1736-1740, July 2013,*Elsevier Publication Germany*.(**Impact factor: 0.677**)
29. **Y.Prajapati***, A.Yadav, V. Singh and J.P.Saini, “Effect of Metamaterial layer on optical surface plasmon resonance Sensor” *International Journal for Light and Electron Optics*, Vol.124, issue-18, pp.3607-3610, September 2013,*Elsevier Publication Germany*.(**Impact factor: 0.677**)
30. J.B.Maurya, **Y.Prajapati***, Vivek Singh, J. P. Saini, “Effect of cladding layers on the mode of circular optical waveguides” *International Journal for Light and Electron Optics (OPTIK)*, volume-124, issue-11, pp.1066-1069, June-2013, *Elsevier Publication Germany*.(**Impact factor: 0.677**)
31. D.Sharma, A.Verma**Y. Prajapati***, V. Singh and J.P.Saini, “Forward and Backward wave propagation in multilayer planar waveguide using Metamaterials layer” *Optical and Quantum Electronics*, Volume-45, pp. 105–114, 2013, Springer publication. (**Impact factor: 0.987**)
32. **Y.Prajapati***, J. P. Saini, D.S.Chauhan and Vivek Singh, “Analytical solution of the scalar wave equation for slightly deformed optical Bragg waveguide” *Journal of Russian Laser Research*, volume-34, number-2, pp.110-116, March 2013, Springer publication. (**Impact factor: 0.546**)

33. **Y.Prajapati**, Vivek Singh and J. P. Saini, “Modal characteristic equation and dispersion characteristics for an elliptical Bragg waveguide with a small number of claddings” *Microwave and optical Technology Letters*, ISSN: 1098-2760, Wiley publication, Volume 53, Issue 4, April 2011, Pages: 932–938, (**Impact factor: 0.568**).
34. **Y. Prajapati**, Vivek Singh and J. P. Saini, “Modal Analysis of a Super Elliptical Bragg Waveguide With a Small Number of Periodic Cladding Layers Based on a Very Simple Analytical Technology,” *International Journal for Light and Electron Optics (OPTIK)*, volume-120, issue-1, pp.14-19, January 2009, Elsevier Publication Germany. (**Impact factor: 0.677**)
35. **Y. Prajapati**, Vivek Singh, and J. P. Saini, “Modal Analysis and Dispersion Curves of a Bragg Fiber Having Asymmetric loop boundary” *International Journal of Progress In Electromagnetics Research*, U.S.A., ISSN: 1559-8985, E-ISSN: 1070-4698, vol. 87, pp. 117–130, 2008. (**Impact factor: 1.229**)
36. Vivek Singh, **Y. Prajapati** and J. P. Saini, “Modal Analysis and Dispersion Curves of a New Unconventional Bragg Waveguide Using a Very Simple Method,” *International Journal of Progress In Electromagnetics Research*, U.S.A., ISSN: 1559-8985, E-ISSN: 1070-4698, vol. 64, pp. 191–204, 2006. (**Impact factor: 1.229**)

Published non- SCI but reputed Research papers (Scopus)

37. Divya Sharma, Y. K. Prajapati, “Analytical study of DWDM optical long haul network with symmetrical dispersion compensation,” *Indian Journal of Science and Technology*, (Accepted, 2017).
38. Anurag Upadhyay, **Y.K. Prajapati***, Rajeev Tripathi, “Analytical study of planar waveguide sensor having metamaterial as a guiding layer,” *Photonic Sensors* (Accepted 2017)
39. Pooja Lohia, **Y.K.Prajapati***, J.P. Saini and B.S. Rai, “Analytical investigation of dispersion characteristics of elliptically cored multilayer waveguides with two different refractive index profile,” *Journal of optics*, DOI 10.1007/s12596-017-0414-1, 2017, in press Springer Publication.
40. Divya Sharma, **Y.K. Prajapati***, “Performance analysis of DWDM system for different modulation schemes using variations in channel spacing,” *Optical Communications*, ISSN (Online) 2191-6322, ISSN (Print) 0173-4911, DOI: 10.1515/joc-2016-0011, March 2016. (**Scopus Index**).
41. Pooja Lohia, **Y.K. Prajapati***, J.P. Saini and B.S. Rai, “Effect of Chirality on Dispersion Characteristics of Uniaxial Anisotropic Chiral Elliptical Waveguide,” *Optical Communications*, DOI: 10.1515/joc-2015-0104, February 2016. (**Scopus Index**)

42. Sarika Pal, **Y.K. Prajapati***, J.P.Saini and V. Singh, "Resolution enhancement of optical SPR sensor using Metamaterial," *Photonics Sensors*, pp.1-9, DOI: 10.1007/s13320-015-0269-5, Sept. 2015. Springer publication. (**Scopus Index**).
43. **Y.Prajapati***, Vivek Singh and J. P. Saini, "Dispersion characteristics of radially Asymmetric Bragg fiber" *Journal of Engineering, Science and Technology*, Vol. 2, No. 12, 2010, pp. 36-41, 2010. ISSN: 2141-2839 (Online), ISSN 2141-2820 (Print), (Indexed in AJOL and DOAJ).
44. **Y.Prajapati***, Vivek Singh and J. P. Saini, "Modal Analysis and Dispersion Curves of Unconventional Bragg Waveguide" *Journal of Telecommunications*, U.K, ISSN: 2042-8839, volume-5, issue-1, pp. 22-25 (2010) (Indexed in SCIRUS, Scientific Commons and Google Scholar).

***Corresponding Author**

Paper Publications in International Conferences

1. **Y. Prajapati**, Vivek Singh and J. P. Saini, "Analysis of elliptical optical waveguide by Galerkin methods", International conference on Signals, Systems and Communication (ICSSC), CEG Campus, Anna University, Chennai, 21-23 Dec. 2009.
2. **Y.K.Prajapati**, Vivek Singh, J.P. Saini and Alka Verma, "Modal Dispersion Characteristics of Different cross sectional Optical Waveguide" International Conference PIER 2010, ISSN: 1559-9450, Cambridge (U.S.A), July 5-8, 2010.
3. Shrish Bajpai, Jitu Sharma, Alka Verma, **Y. K. Prajapati**, J.P.Saini, "Modeling of microstructure optical fiber," International Conference on Recent Trends in Engineering, Technology and Management (ICRTETM), BIET, Jhansi, 26-27, Feb. 2011, (ISBN: 978-93-80697-69-7).
4. **Y. K Prajapati**, U. K. Yadav, Alka Verma, , Vivek Singh, J.P.Saini, "Modal analysis and Characteristics equation of plasma filled Multilayer optical waveguide," International Conference on innovative science and Engineering Technology (ICSET-2011) organized by V.V.P. Engineering College, Rajkot, India, 08-09, April 2011. (ISBN: 978-81-906377-5-6).
5. D.Sharma, **Y. Prajapati**, V. Singh and J.P. Saini, "Dispersion Characteristics of metamaterial based planar waveguide", International Conference on International Conference On Communications & Electronics (ICCE-2012) organized by Krishna Institute of Engineering and Technology (KIET), Ghaziabad, India, 19-20, October 2012.
6. Shrish Bajpai, **Y. Prajapati**, V. Singh and J.P.Saini, "Optical losses in the Multilayered Optical Fiber having hollow core," International Conference on International Conference

On Communications & Electronics (ICCE-2012) organized by Krishna Institute of Engineering and Technology (KIET), Ghaziabad, India, 19-20, October 2012.

7. Archana Yadav, **Y. Prajapati**, V. Singh and J.P.Saini, "Metamaterial based optical Surface plasmon resonance sensor," International Conference on International Conference On Communications & Electronics (ICCE-2012) organized by Krishna Institute of Engineering and Technology (KIET), Ghaziabad, India, 19-20, October 2012.
8. J.B. Maurya, **Y. Prajapati**, V. Singh and J.P. Saini, "Shifting of modes for M- type triple- clad fiber," International Conference on International Conference On Communications & Electronics (ICCE-2012) organized by Krishna Institute of Engineering and Technology (KIET), Ghaziabad, India, 19-20, October 2012.
9. Shrish Bajpai, **Y. Prajapati**, V. Singh and J.P.Saini, "Dispersion characteristics Analysis of Wave Propagation in Hollow Clad Elliptical Waveguide," IEEE International Conference on Emerging Technology Trends in Electronics, Communication and Networking (ET2ECN-2012) organized by SardarVallabhbhai National Institute of Technology, Surat, India, 19-21, Dec.2012, (Paper ID :067C32)
10. **Y.Prajapati**, J.B.Maurya, V. Singh and J.P.Saini, "Effect of Eccentricity on dispersion of W-type Elliptical Fibers," IEEE International Conference on Microwave and Photonics (ICMAP2013), organized by Indian School of Mines, Dhanbad, India, 13-15, Dec.2013, 978-1-4799-2174-4/13/\$31.00@2013IEEE.
11. J.B. Maurya, **Y.K. Prajapati**, Vivek Singh, J.P. Saini, "Field confinement of stacked multilayer slab waveguide using grapheme," by 12th International Conference on Fiber Optics and Photonics (Photonics-2014), December 13-16, 2014, IIT, Kharagpur, India.
<http://www.opticsinfobase.org/abstract.cfm?URI=Photonics-2014-M4A.25>.
12. **Y.K. Prajapati**, M. Raviteja, Sajal Agarwal, AlkaVerma, "Design of Broadband and Polarization-independent Metamaterial Absorber Using N Helix," 9 th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2015 Oxford, pp. 141-143, ISBN 978-88-941141-0-2 United Kingdom, 7-12 September 2015.
13. Divya Sharma, J.B. Maurya, **Y.K. Prajapati**, "Effect of noise on constellation diagram of 100 Gbps DP-QPSK systems under influence of different digital filters," IEEE International Conference onMicrowave and Photonics (ICMAP2015), organized by Indian School of Mines, Dhanbad, India, 13-15, Dec.2015,978-1-4673-6898-8/15/\$31.00 ©2015 IEEE
14. Sajal Agarwal, **Y. K. Prajapati**, "Optimization of Top and Additive Layer Thickness of SPR Sensor for Sucrose Detection"International Conference on Advances in Computing, Control and Communication Technology, (IAC3T2016), organized by Allahabad University, Allahabad, India, 25-27, March 2016, pp. 102–106 (2016), ISBN: 978-93-85926-20-4.
15. Divya Sharma, **Y.K. Prajapati**, "Comparative aspect of different multi-channel DWDM optical network," International Conference on Computing, Control and Communication

Technology (IAC3T 2016), organized by Allahabad University, Allahabad, India, 25-27, March 2016, pp. 155–160 (2016), ISBN: 978-93-85926-20-4.

16. A. Singh, D. Sharma, and **Y. K. Prajapati**, "Comparison of DPSK and QAM modulation schemes in Passive optical network," in *13th International Conference on Fiber Optics and Photonics*, OSA Technical Digest (online) (Optical Society of America, 2016), paper Tu4A.56. December 04-08, 2016, IIT Kanpur.
17. J. Maurya and **Y. K. Prajapati**, "Sensitivity Improvement of Graphene-Silicon Based One-Dimensional Photonic Crystal Biosensor," in *13th International Conference on Fiber Optics and Photonics*, OSA Technical Digest (online) (Optical Society of America, 2016), paper W3A.22, December 04-08, 2016, IIT Kanpur.
18. Sajal Agarwal and **Yogendra Kumar Prajapati**, "Application of TMDs in Nano-Absorbers: An Impression," Conference on Lasers and Electro-Optics, CLEO: QELS_Fundamental Science 2017, San Jose, California United States, paper JTh2A.10, 14–19 May 2017, ISBN: 978-1-943580-27-9
19. **Y. K. Prajapati**, Vineet Jaiswal, D. Sharma, "Performance Optimization of RZ-DQPSK Modulation by enhanced carving signal" IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS-2017)

Paper publications in National Conferences

1. **Y. Prajapati**, Vivek Singh and J. P. Saini, "LP mode field intensity of optical waveguide with different closed loop cross section boundaries" Optical and wireless communication, (DAVIET, Jalandhar) 27-28 November- 2008, Punjab, (ISBN: 978-81-907196-6-7).
2. **Y. Prajapati**, Vivek Singh and J. P. Saini, "Modal characteristics of optical Bragg waveguide with alternating cladding layers," Recent trends in Electronics & communication ,pp. 281–284, Tangori (Mohali), 10-11 April- 2008, Punjab.
3. Alkaverma, **Y. Prajapati**, Vivek Singh and J. P. Saini, "Modal dispersion of 1-D photonic waveguide," National conference on Electronics, Computers and Communication (NCECC-2010), Gwalior, 06-07 march 2010.
4. Babita Singh, Alka Verma, **Y. Prajapati**, J.P. Saini, and Vivek Singh "Birefringence effect of Elliptical 1-D photonic waveguide," National Conference on Electronic Materials and Applications (NCEMA-11), 10 - 11 June, 2011, Gwalior.
5. **Y. Prajapati**, J. P. Saini, D.S. Chauhan, and Vivek Singh, "Electromagnetic wave propagation in an optical fiber with a core slightly flattened on one side using Galerkin method," National Conference of advances in computer communication and Embedded systems (ACCES – 2012), Gorakhpur (U.P), 12-13, April- 2012.