

Bharat Lal Meena

Assistant Professor,

Department of Physics, University of Rajasthan, Jaipur, Rajasthan, India

&

Research Scholar,

Department of Physics, Indian Institute of Technology Kanpur, UP, India

Mobile: (+91) 9680533545/ 9670859211

Email: bharatmeenaphy@gmail.com/ bharatm@iitk.ac.in

Education:

- Pursuing Ph. D.: IIT Kanpur (Since July, 2010)
- M. Sc. (Physics): University of Delhi (2010)
- B. Sc.: Maharaja College, University of Rajasthan, Jaipur (2008)

Awards / Achievements:

1. **Best Paper Presentation Award (3rd Price):** International Conference on Fight Against Cancer (**FAC Con-2017**), October 5-7, 2017 organized at Chhatrapati Shahu Ji Maharaj University, Kanpur, UP, India.
2. **Gandhian Young Technological Innovation Award (GYTI) 2016:** March 13, 2016 during the Festival of Innovation, Rastrapati Bhawan, Delhi (**grant of 15 Lakh INR**).
3. **Best Poster Award (1st Price):** International Conference on Light Quanta: Modern Perspectives & Applications (**ICLQMPA**), December 14-16, 2015 organized at Allahabad University, Allahabad, India.
4. **CSIR Junior Research Fellow:** 2010-2012.
5. **CSIR Senior Research Fellow:** 2012-2013.
6. **Graduate Aptitude Test in Engineering (GATE)-2010.**
7. **Joint Entrance Screening Test (JEST):** 2010

Area of specialization and interests:

Biophotonics, diagnosis of cancer at early stage.

Research work:

My research interests have been in the area of Biophotonics, attempting to understand tissue fluorescence and light scattering in human tissue environment and to evaluate its use for diagnosis of pre-cancers. Recent focus lies in the development of portable device for detection of cervical cancer at early stage, using polarized light.

Ph. D.: Indian Institute of Technology Kanpur, Kanpur, India (Pursuing).

Ph. D. Advisor:

1. Dr. Asima Pradhan (Professor, Department of Physics & CELP, IIT Kanpur, India)
2. Dr. Kiran Pandey (Professor, Department of Obstetrics & Gynecology, G.S.V.M. Medical College, Kanpur, India)

Employment experience:

Duration	Position and Organization	Nature of Job	Areas
Dec. 2013 - present	Assistant Professor, University of Rajasthan, Jaipur, India	Academic/ Research	Physics/ Biophysics

Other experiences:

1. Teaching Assistant:

Duration	Course	Organization
2012 – 2013	M. Sc. Physics Lab (PHY 461), Department of Physics	IIT Kanpur, India
2010 – 2012	Engineering Physics I year Lab (PHY 101), Department of Physics	IIT Kanpur, India

2. Research Assistant:

Duration	Course	Organization
2011 – 2016	Assisted Four M. Tech. students in their M. Tech. Thesis project during Ph. D.	IIT Kanpur, India

Patents and Transfer of Technology:

1. **Title:** “System method and device for diagnosis of cancer based on polarized fluorescence”

Patent number: 3052/ DEL/2015 (September 24, 2015).

Publications:

Refereed journal:

1. Bharat Lal Meena, Pankaj Singh, Amar Nath Sah, Kiran Pandey, Asha Agarwal, Chayanika Pantola, Asima Pradhan, "Intrinsic fluorescence for cervical precancer detection using polarized light based in-house fabricated portable device," J. Biomed. Opt. 23(1) 015005 (16 January 2018).
2. Guneeta Mehta, Kiran Pandey, Asima Pradhan, Amarveer Singh Mehta, Ajay Bhagoliwal, Bharat Lal Meena, Asha Agarwal, “A comparative study of conventional techniques and hand held probe based on polarized fluorescence spectroscopy in detection of cervical precancerous and cancerous lesions”, International Journal of Scientific Research, Volume : 5 | Issue : 11 | November 2016

Conferences/ Symposium Attended:

1. SPIE BiOS, January 27 to February 1, 2018, Organised at The Moscone Centre San Francisco, California United States (**Poster presentation**).
2. National Seminar on Cancer Prevention and Treatment Strategies, December 22-23, 2017 organised at University of Rajasthan, Jaipur, Rajasthan, India (**Invited talk**)
3. International Conference on Fight Against Cancer (FAC Con-2017), October 5-7, 2017 organized at Chhatrapati Shahu Ji Maharaj University, Kanpur, UP, India (**Oral presentation**).
4. International Symposium: Physical, Biological and Clinical aspects of Hypofractionated Radiotherapy (PBCHRT 2K17), April 2, 2017, organized at Department of Radiological Physics, SMS Medical College, Jaipur, Rajasthan, India (**Participated**).
5. DAE-BRNS National Laser Symposium-25 (NLS-25), December 20 - 23, 2016, organized at Department of Physics, School of Applied Sciences KIIT University, Bhubaneswar - 751024, Odisha, India (**Poster presentation**).
6. Rastriya Hindi Vigyan Sammelan (RHVS), December 16 – 17, 2017, organized at Center for Conversing Technology (CCT), University of Rajasthan, Jaipur, India (**Oral presentation**).
7. XIIIth International Conference on Fiber Optics and Photonics (PHOTONICS-2016), December 4 - 8, 2016, organized at Indian Institute of Technology Kanpur, Kanpur – 208016, India (**Participated**).
8. International Conference on Light Quanta: Modern Perspectives & Applications (ICLQMPA), December 14-16, 2015 organized at Allahabad University, Allahabad, UP, India (**Poster presentation**).
9. International Year of Light, October 10, 2015, organized at CELP, IIT Kanpur, India (**Poster presentation**).
10. Research Scholars Day, February 7, 2015, organized at Department of Physics, IIT Kanpur, India (**Poster presentation**).
11. DAE-BRNS National Laser Symposium-22 (NLS-22), January 8 - 11, 2014, organized at Department of Atomic and Molecular Physics, MIT, Manipal University, Manipal- 576104, Karnataka, India (**Poster presentation**).

Schools/ Workshops Attended:

1. SERC School, on laser Physics & technology, March 5 - 23, 2012 organized at RRCAT, Indore, India.

Orientation courses/ Refresher Courses Attended:

1. Orientation Programme, July 4 - 30, 2016 organised at UGC- Human Resource Development Centre, University of Rajasthan, Jaipur, Rajasthan, India.
2. Refresher Course, November 20 2017 to December 10 2017, organised at UGC- Human Resource Development Centre, Saurashtra University, Rajkot, Gujarat, India.

Membership of technical societies:

1. Optical Society of America (OSA).
2. Society of Photo-Optical Instrumentation Engineers (SPIE)

Sponsored projects:

Period	Organization	Title of Project	Amount (INR)	Status
2016 – 2018	SRISTI (GYTI award 2016)	Development of portable device based on polarized fluorescence for detection of cervical pre-cancer.	15.0 Lakhs	On going

Courses Taught at University of Rajasthan, Jaipur:

Duration	Course
Dec. 2013 – Present	PHY 302: Statistical Mechanics (M. Sc.) Optics (B. Sc.; General) Mechanics (B. Sc.; General) Physics of Materials (B. Sc.; Honours) Spectroscopy Lab (M. Sc.) B. Sc. 1 st year practical lab (General) B. Sc. 2 nd year lab (Honours & General)

Place: Jaipur

Date: 20 February 2018