

CURRICULUM VITAE

NAME : PROF. ANIL KUMAR NIRALA

FATHER'S NAME: SHRI SHEONARAYAN PRASAD

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DATE OF BIRTH : 5Th January, 1965.

EDUCATIONAL RECORDS/QUALIFICATIONS:

- B.Sc. (Hons.) – Bhagalpur University- Session 1990-94- Physics (Hons), Chemistry and Mathematics-Marks 65.7%.
- M.Sc.(Physics)- I.I.T. Delhi, Session 1985-1987- CGPA 7.66/10.00.
- Ph.D.-I.I.T. Delhi, 1987-1995 (completed as part-time), CGPA-9.50/10.00.
-Title of Ph.D. thesis-“Laser speckle techniques for temperature profile measurement”.

EMPLOYMENT:

S.No .	Employer	Position held	Date of joining	Date of leaving	Experience (in year & month)	Pay with Scale of Pay (Rs.)
1	IIT(ISM) Dhanbad	Assistant Professor	24/6/2003	23/6/2009	03 Years.	Pay Band-37000, Grade Pay-9500
2	IIT(ISM) Dhanbad	Associate Professor	24/6/2006	23/6/2010	04 Years.	PB-4 (Rs.37,400- Rs.67,000/-), Grade Pay - Rs.9,500/-
3	IIT(ISM) Dhanbad	Professor	24/6/2010	29/03/2022	12 Years and 09 Months.	As per 7th CPC, Pay Scale- Rs 1, 59,100.00-Rs.2,20,200.00/-, Basic Pay-Rs 2,01,600.00/-, Academic Pay Level: 14A.
4	IIT(ISM) Dhanbad	Professor (HAG)	31/3/2022	Till date	02 years and 10 months.	As per 7th CPC, Pay Scale-₹1, 82,200.00-₹2,24,100.00/- , Academic Pay Level: 15.

RESEARCH PUBLICATIONS:

No. of research papers published in Referred International/National Journals :60
No. of research published in International Conference :46
No. of research papers published in National Conference :32

AREAS OF SPECIALISATION: Speckle metrology, interferometry, Image processing and Holography.

CURRENT AREA OF RESEARCH: Laser based measurements, Instrumentation, Optical Engineering, Holographic Optical Elements, Interferometry and Biomedical Optics.

AWARDS AND HONOURS :

- a) Inder Mohan Thapar Research (IMTR) Award for the year 2023: our research paper published in the Journal “Sustainable Energy Technologies and Assessments 52, 101964, (2022) by N Jabeen and A K Nirala” has been accepted as best publication in the Physics Department in the year 2022 and my student Ms. Nusrat Jabeen has been conferred IMTR award for this publication in 99th Foundation Day (9th Dec 2024) of IIT(ISM) Dhanbad.
- b) Best Poster Award-First in Poster Session-v: Our paper at 3rd International conference on Condensed Matter and Applied Physics (ICC 2019), held at Govt. Eng. College, Bikaner during Oct 14-15 2019 won best Poster Award-First in Poster Session-v, the paper was presented by my Scholar Ms. Nusrat Jabeen, Paper ID.-L-0084 on page no.-302.
- c) Best Poster Award- Our paper at international conference on “Advances in Spectroscopic Techniques and Materials (ASTM-2024)” organized by Dept. of Physics, IIT(ISM) Dhanbad during 18-20 January, 2024, won best Poster Award, the paper was presented by my Scholar Hemraj Bhai Patel, Paper no-pp13, on page-85.
- d) **Postdoctoral Visiting Researcher:** Optical Engineering Division of **Mechanical Engineering Lab.**, Agency of Industrial Science and Technology, Ministry of International Trade and Industry, Namiki 1-2, **Tsukuba 305, Japan.**
Host Researcher: Dr. Koji Tenjimabayashi, Director of Applied Physics & Information Science
Advisor: Dr. Kiyofumi Matsuda.
Topic: Optical distance and profile measurement with self calibrating environmental disturbances.
Duration: 11th October to 27th December, 1995.
Funding Agency: Agency of Industrial Science and Technology(AIST)
Fellowship of Japanese Government.
- e) **Postdoctoral Visiting Fellow :** Length Standard, N.P.L, New Delhi.

Host Researcher: Dr. Rina Sharma, Principal Scientist, Nanoscale Measurements, div of Quantum Phenomena and Applications

Topic: Development of high precision interferometer for measurement of optical path length using phase conjugate technique.

Duration: 1st January to 31st March, 1998.

Funding Agency: Science and Engineering Research Council (SERC) Fellowship of Department of Science & Technology of Indian Government.

- f) **Postdoctoral Fellow :** Department of Assembly Technology and Factory Management, Institute for Machine Tools and Factory Management, Technical University Berlin, IWF, PTZ-2, Pascalstrasse 8-9, D-10587 Berlin, Germany.
- Host Researcher: Mr. Waldemar Grudzien
- Advisor: Prof. Dr.-Ing. Guenther Seliger
- Topic: Development of 3-D laser scanner.
- Duration: 22nd March 1999 to 24th Sept. 1999 (Six month).
- Funding Agency: Better Opportunity for Young Scientists in Chosen Areas of Science and Technology (BOYSCAST) Fellowship of Department of Science & Technology of India.
- g) **Visiting Professor:** Applied Optics Group, School of Physical Sciences, University of Kent at Canterbury, Canterbury, CT2 7NR, U.K.
- Host Researcher: Prof. A. Podoleanu
- Advisor: Prof. (Dr.) D. A. Jackson
- Topic: Resolution Improvement of Optical Coherence Tomography Images by incorporating Adaptive Optics.
- Duration: 14th Nov. 2003 to 14th May 2004 (Six month).
- Funding Agency: Commonwealth commission in United Kingdom, London (Commonwealth Scholarship, 2003).
- h) Junior Research Fellowship (JRF) and Senior Research Fellowship (SRF) of CSIR for doing Ph.D. at IIT Delhi in 1987.
- i) **National Merit Scholarship** from I.Sc. (1980) to Graduation (Hons.) (1984).

THESES (PH. D.) SUPERVISION :

S. No.	Name of Research Scholar	Year of Completion	Title of Theses	Co-guides (if any)	Mobile No	Email ID	Present employment
1	Chandra Shekhar Kumar, Regd no-11698/84	2005	Use of diffractive optical elements in speckle metrology and temperature measurement.	Nil	9835268448		Teacher at a Govt. High School Chandasi, Bihar.
2	Santosh Kumar Regd no-38241/1987	2007	Engineering application of holo-lenses in speckle based	Nil	8210633407 9431942513		Officer at DM Office Dumka, Jharkhand.

			measurement and localized temperature measurements.				
3	Sulekha Kumari, Reg No-613002/2004	2010	2018/DR/0045	Nil	9708546444 9431053872	sule_baij@yahoo.co.in	Assistant Professor, Graduate School College for Women, Kolhan University, Jharkhand.
4	Md Zaheer Ansari, 2018/DR/0045	2015	Dynamic Laser Speckle Techniques and Their Applications	Nil		mohamedzaheer1@gmail.com	PDF at CUSAT, Kerala
5	Preeti Deepika Minz 2011/DR/0019	2016	Biospeckle technique for analysis of some agricultural samples.	Nil	9934320685 6204261725	minz_preeti@yahoo.in	Assistant Professor, Department of Physics, Ranchi Women's College, Ranchi University.
6	Abhijit Ghosh 2012/DR/0116	2017	Design and fabrication of Holographic Optical Elements and their applications.	Nil	9434788093 9631515343	abhi.photonics@gmail.com or abhijit.ghosh@phy.nitdgp.ac.in	Asst. Prof. at NIT Durgapur
7	Subhashri Kumari 2013/DR/0268	03-12-2019	Optical imaging techniques for biomedical applications.	Nil	8340273335 7762841900	shri.shubha22@gmail.com	Assistant Professor of Physics at OP Jindal University, CG
8	Nusrat Jabeen 2014DR0188	03-05-2022	Digital Imaging Technique and its applications.	Nil	9123230282 8804549119	Nusratjabeen9@gmail.com	Asst Prof at Technical Institute Bakhtiyarpur, Near Panta
9	Chhanda Koley 16DR000242	26-06-2023.	Quality assessment of Bio Samples using Dynamic Speckle Imaging	Nil	9477466285 9852487759	chchhandakoley@gmail.com / chhanda.16dr000242@	Assistant Professor, Department of Physics,

						ap.ism.ac.in	Supreme Knowledge Foundation Group of Institutions, Mankundu, Hooghly.
10.	Atul Kumar 17DR000470	22-02-2024	Digital imaging technique and its application	Nil	7369058118	atul.17dr000470@ap.ism.ac.in or iitd.atulkumar@gmail.com	PDF at IIT Delhi
11.	Navanit Kumar 19DR0094	On-going	Laser speckle techniques and their applications	Nil	8789148653	atul.17dr000470@ap.ism.ac.in or navanit1104@gmail.com	Teacher in a Govt. High School at Muzaffarpur
12	Hemraj Bhai Patel 20DR0051	On-going	Biospeckle Imaging Technique	Nil	7042009456	atul.17dr000470@ap.ism.ac.in or hemrajpatel46@gmail.com	
13	Ashwani verma 22dr0064	On-going	Digital imaging techniques and their applications	Nil	9839311366	22dr0064@iitism.ac.in	
14	Nitesh Yadav 23dr0097	On-going	Biospeckle techniques and its applications	Nil	7004046848	23DR0097@iitism.ac.in	
15	Anuradha Sinha 23dr0225	On-going		Nil		23dr0225@iitism.ac.in Open detailed view	

M. Phil. DISSERTATIONS:

S. No.	Name of Student	Year of Completion	Title of Theses	Co-guides (if any)	Email ID
1	Md Zaheer Ansari Admn No.- 613211.	May 2008	Recording and study of aberration in a two hololens imaging system.	Nil	mohamedzaheer1@gmail.com
2	Dolly Saha Admn No.- 2009MP -0011.	May 2010	Recording and reconstruction of holographic grating.	Nil	-

M. Sc. DISSERTATIONS :

S. No.	Name of Student	Year of Completion	Title of Theses	Co-guides (if any)	Mobile No	Email ID
1	Mithali Kumari Admn No.-9476.	2008	Image Plane Holography	Nil		-
2	Jyotiranjana Jena Admn No.-9390.	2008	HNDT of Building Materials	Nil		-
3	Manjori Mukherjee Admn No.-10030.	2009	Recording and Reconstruction of Transmission and Rainbow Hologram	Nil		-
4	Md. Rihan Haque Admn No.-2008MS0028	2010	Non Destructive Quality Evaluation of Apple by Speckle pattern recognition.	Nil		-
5	Biswajit Pathak Admn No-2009MS0065	2011	Evaluation of Activity through Dynamic laser speckle using IM and AVD Methods.	Nil		-
6	Sidheshwar Das Admn No-2009MS0063	2011	Modelling and simulation of Young's Type Interferometers and Mechelson Interferometer using Light Pipes	Nil		-
7	Devander Sethi Admn No-2010MS0082	2012	Temperature Effect on Apple Biospeckle activity using Generalised Difference method	Nil		-
8	Piyali Bag Admn No-2010MS0084	2012	Aberration measurement and compensation of Imaging Lenses using Deformable Mirror	Nil		-
9	Koushik Sen Admn No-2010MS0093	2012	Activity Evaluation of Different fruits during Shelf life using Fuji's Method	Nil		-
10	Subhashri Kumari Admn no-2011MS0105	2013	Measurement of Biospeckle size of Fruits during their shelf lives using Autocovariance.	Nil		-
11	Bhaskar Pattanayak Admn no-2011MS0114	2013	Digital Speckle Noise Reduction Technique	Nil		-
12	Arup Kumar Mandal Admn no-2012MS059	2013	Digital Holography and its applications	Nil		-
13	Arup Kumar Mandal Admn No-2013MS0059	2014	Digital Holography and its applications	Nil		-
14	Rajni Tirkey Admn No-2013MS0005	2015	Waveform Generation for laser ray tracing	Nil		-
15	Manish Kumar Mohanta Admn No-14MS00067	2016	Diffusivity studies of transparent liquid sugar solution using lensless Fourier transform using digital holographic interferometry	Nil		-
16	Shem Anurag Linda Admn No-	2016	Diffusivity studies of transparent liquid sugar solution using digital	Nil		-

	14MS000064		holographic interferometry			
17	M/s Jyoti Kumari Admn No-15MS000253	2017	Design and Fabrication of Holo-Beam splitter	Nil		-
18	Ajay Kumar Yadav Admn No-15MS000177	2017	A non-destructive technique to evaluate the effect of impacts on fruits using Intensity Based Algorithms	Nil		-
19	Manish Kumar Sharma Admn No-16MS000334	2018	Monitoring of heat conduction process in glass using digital holographic interferometry	Nil		-
20	Sandip Kumar Ghosh 17MS000479	2019	Digital holographic interferometry for temperature measurement of flame	Nil		--
21	Debpriya Das Admn No-17MS000434	2019	Laser bio-speckle technique to compare Bruised Region on Sapodilla (Manilkara Zapota) caused by Different Impact Energies using Intensity based algorithms.	Nil		-
22	Rittik Das Admn No-18MS0064	2020	Biospeckle technique to study some post-harvest disease on different parts of plants	Nil		rittikdas832@gmail.com
23	Purushotam Kumar Admn No-19MS0082	2021	laser speckle technique for qualitative and quantitative analyses of biological as well as non-biological objects	Nil		purushotam.19ms0082@ap.iitism.ac.in
24	Subhamay Barman Admn no-19MS0119	2021	Image processing algorithms for laser speckle analysis	Nil		subhamaybarman98@gmail.com
25	Mayuri Das, Addm. No:21MS0080	2023	Detection of changes in Red Blood Cells and Onion cells with different temperature and surrounding concentration using Digital Holographic Microscopy	Nil		21ms0080@phy.iitism.ac.in
26	Reema Rose Indw Addm. No :21MS0110	2023	Statistical Methods in Bio Speckle Imaging And Intensity Highlighter	Nil		9471311708/ 21ms0110@phy.iitism.ac.in
27	Mr. Gaurav Tiwari, Admn. No:21MS0057	2023	Material characterization through Digital Holographic Microscopy	Nil		21ms0057@phy.iitism.ac.in
28	Babita Khatua, (Admn No. 22MS0035	2024	Detection of Fuel Adulteration Using Dynamic Laser Speckle Technique	Nil		22ms0035@iitism.ac.in

B. Tech (EP) DISSERTATION:

S. No.	Name of Student	Year of Completion	Title of Theses	Co-guides (if any)	Mobile No	Email ID
1	Aditya Admn. No.-15JE001787	2019	Bio-speckle Technique for Non-Destructive Differentiation of Mild-Vein and Lamina Region of Torn Leaf of Betel (Piper Betel) Plant.	Nil	8708306261	adityasinghiitis@gmail.com
2	Rahul Kedia, Admn. No-18JE0646	2022	Assessment of dynamic speckle activity of Fevicol with time.	Nil	8409250577	rahul.19ms0083@ap.iitism.ac.in , kediarahul1011.18je0646@ap.iitism.ac.in
3	Niket Kumar, Admn. No-18JE0537	2022	Quality assessment of lemon using laser Biospeckle technique	Nil	7667578570 , 9036383978	niket620535.18je0537@ap.iitism.ac.in
4	Gauri Kumari 19JE0328	2024	Analysis of apple juice dilution using DLST	Nil	9060320984	gauri.19je0328@ap.iitism.ac.in
5	Iliyan Noorani, 21JE0412	2025	To be uploaded		8238058508	21je0412@iitism.ac.in
6	Siddhartha Kumar, 21JE0920	2025	To be uploaded		8051555937	21je0920@iitism.ac.in

SPONSORED PROJECTS UNDERTAKEN:

S.No.	Period	Sponsoring Organization	Title of Project	Amount of Grant (Rs)
1	1/8/2001 to 31/7/2004	UGC New Delhi	Measurement of localized and overall temperature profile of an axisymmetric flame using laser speckle photography.	06.72 Lakh
2	3/12/2007 to 2/12/2010.	DST New Delhi	Ultra High resolution Retinal imaging of Living Eye through Adaptive Optics.	41.47 Lakh
3	7/2/2011 To 6/2/2014	UGC New Delhi	Temperature sensor based on upconversion of the embedded emitters	8.17 Lakh
4	1/4/2014 To 1/4/2019	DST New Delhi	FIST Programme -2013.	210.0 Lakh
5	1/3/2015 To	UGC New Delhi	Hartmann-Shack technique for measurement of higher order dynamic aberrations of eye over wide	13.70 Lakh

	1/3/2018		field of view	
6	30/10/2015 To 23/09/2021	MHRD New Delhi	Faculty Development Center (FDC) under aegis of Pandit Madan Mohan Malviya National Mission on Teachers and Teaching, (a flagship programme by present Prime Minister) at IIT(ISM) Dhanbad. It is a multidisciplinary project which includes funds for Research work, Building construction and FDPs.	07.56 Crore
7	4/12/2020 To 3/12/2023	DST New Delhi	Laser Biospeckle techniques for optimum utilization of irrigation water by monitoring in-situ plant water stress.	38.38 Lakh

INDUSTRIAL EXPERIENCE WITH POST & RESPONSIBILITIES:

S No.	Date	Institute	Post/responsibility
1	22-03-1999 to 24-09/1999	Institute for Machine Tools and Factory Management in Production Technology Centre, Berlin (PTZ), Department of Assembly Technology and Factory Management Technical University Berlin, Germany.	Worked as a Postdoctoral Scholar on the development of 3-D laser scanner which was to be used as an eye of a Robot for obtaining exact length, width, height, distances, orientations etc of different component of machines to be disassembled automatically by the robot.

ADMINISTRATIVE EXPERIENCE/POST(S) & RESPONSIBILITIES HELD:

S No.	Post	Organization/ University	Duration		Experience (In Years and Months)
			From (Date)	To (Date)	
1.	Head of the Department of Physics	IIT(ISM) Dhanbad	27/6/2013	26/7/2019	06 years 01 month (i.e. 02 terms)
2.	Chairman, Board of Studies	IIT(ISM) Dhanbad	27/6/2013	26/7/2019	06 years.
3.	Member of Academic Council	IIT(ISM) Dhanbad	2013	2017	04 years
4.	Chief Vigilance Officer (CVO)	IIT(ISM) Dhanbad	02/02/2015.	03/06/2019.	4 years and 4 months.
5.	Professor-In-Charge CRF (Central Research Facility), IIT(ISM) Dhanbad	IIT(ISM) Dhanbad	11/ 11/ 2014.	06/09/2018.	3 years and 10 months.
6.	Coordinator-cum-Incharge of Faculty Development Centre IIT(ISM) Dhanbad under aegis of Pandit Madan Mohan Malviya National Mission on Teachers and Teaching, (a flagship programme by present Prime Minister), (PMMMNTT) MHRD	IIT(ISM) Dhanbad	30/09/ 2015.	23/09/2021.	6 Years.

	New Delhi.				
7.	Chairman of interview board for selection of JRF of Physics Dept.	IIT(ISM) Dhanbad	2013	2019	6 years.
8.	Chairman of committee for Project Dissertation and Comprehensive viva-voce of M Sc and B Tech (EP) of Physics Dept.	IIT(ISM) Dhanbad	2013	2019	6 years.
9.	Chairman of Departmental Advisory Committee (DAC) of Physics Department.	IIT(ISM) Dhanbad	2013	2019	6 years.
10.	Incharge of Computer Department	Kisan College, Sohsarai (Nalanda) Bihar	06/01/2000	04/02/2001	1 Year and 1 month.

COURSES TAUGHT:

Theory (PG/UG):

Optics and Optical Instrumentation, Biomedical Physics, Classical Mechanics, Physics of Rocks and Minerals, Quantum Mechanics, Atomic and Molecular spectroscopy, Mathematical Physics, Laser and Holography, Lasers, Holography & Non-linear optics, Applied Optics, Mechanics and Electricity and Magnetism

Laboratory practical Classes (PG/UG)

- B Tech (Common), B Tech (EP) and M Sc. (Physics).

CHAIRING OF CONFERENCES:

(A) DETAILS OF CHAIRING OF TECHNICAL SESSION IN INTERNATIONAL CONFERENCES /SEMINARS:

- On 18th Nov 2013 (12.10 PM –1.30PM), CHAIRED the Session-II (Dept of Management Studies) in **International** conference on “Structural and Physical Properties of Solids (SPPS- 2013) with a focal theme of Smart materials at Nano and Micro scale”, organized by Dept of Applied Physics, during 18th -20th November 2013 at ISM Dhanbad, India.
- On 15th Dec 2013 (10.45 AM –1.30PM), CHAIRED the Sesseion-8B (Optoelectronics Materials and Devices-II at Golden Jubilee Lecture Theatre) in “**International** conference on Microwave and Photonics (ICMAP-2013)”, organized by Dept of Electronics Engineering, during 13th -15th December 2013 at ISM Dhanbad, India.
- On 7th September 2016, CHAIRED Day 1, Session-A, Oral presentation on “Optical Sources, Detection and Materials” (GJLT, 3:30AM-04:30 PM) in **International OSA** Network of Students (**IONS Dhanbad 2016**) which was organized by ISM OSA Student Chapter, from 7-10 September 2016 at ISM Dhanbad, India.

- Chaired Technical SE2:session-E on “Optical Metrology” alongwith co-chair Dr. O.P. Naraniya from 3 PM to 3:30PM on 15/12/2018 in the **International** conference on “Photonics2018” during 12-15 Dec 2018 which was held at IIT Delhi.
- Chaired Technical 1 at GJLT alongwith co-chair Prof. Sudeshna Sen from 11.00AM to 1:00PM on 18/01/2024 in the "International conference on Advances in Spectroscopic Techniques and Materials (ASTM-2024)” from 18-20 January, 2024, Dept. of Physics, IIT(ISM) Dhanbad during 12-15 Dec 2018.

(B) DETAILS OF CHAIRING OF TECHNICAL SESSION IN NATIONAL CONFERENCES /SEMINARS:

- On 11th January 2016, CHAIRED Session - 6.2 (Parallel) (SAP 11:30-12:00) in Topical Conference on Charged Particle Collisions and Electronic Processes in Atoms, Molecules and Materials (**q-PaCE-2016**), organized by Dept. of Applied Physics in association with Indian Society of Atomic and Molecular Physics, during 9th -11th January 2016 at ISM Dhanbad, India.
- On 28th March 2016, CHAIRED Session-1 (Parallel) (GJLT, 12:00AM-01:30PM) in National Conference on Recent Advances in Science and Engineering (**RASE-2016**), organized by Faculty Development Centre under the Scheme of Pandit Madan Mohan Malviya National Missions on Teachers and Teaching (PMMMNM-TT) between 28-29th March 2016 at ISM Dhanbad.
- On 8th December 2016, CHAIRED Day 2, Technical Session-IV at GJLT from 11.00 AM to 11.25 AM of National Conference of Liquid Crystals (**NCLC-2016**) which was organized by Department of Applied Physics, IIT(ISM) Dhanbad in association with Indian Liquid Crystal Society from 07 to 09 December 2016.
- On 19th January 2018, CHAIRED Day 1, Technical Session-II (alongwith Dr. Ghanshyam, BIT Sindri) at P.K. Roy Memorial College, Dhanbad from 2.30 PM to 5.30 PM of National Seminar on Recent Advances in Physical Sciences (**RAPS-2018**) which was organized from January 19-20, 2018 by Department of Physics, P.K. Roy Memorial College, Dhanbad.
- On 14th March 2018, CHAIRED Day 2, Technical Session-VI at GJLT from 2.00 PM to 4.30 PM of National Conference on Advances in Spectroscopic Techniques and Materials (**ASTM-2018**) which was organized from March 14-16, 2018 by Department of Physics, Indian Institute of Technology (Indian School of Mines), Dhanbad.

- On 3rd Nov 2009 (2.30 PM –4.00PM), CO-CHAired the Sesseion-IVA (TPO Conference Hall of BIT Sindri) with Prof A K S Chaudhary, BIT Sindri as Chairman in National Seminar on “Recent Trends in Emerging Frontiers of Physical Sciences (**RTEFPS-09**)”, organized by Sindri College Sindri jointly with BIT Sindri between 2-3 Nov, 2009.

CONFERENCES ORGANIZED:

a. As Chairman of Organizing Committee

- Worked as Chairman of “International conference on “Structural and Physical Properties of Solids (SPPS) 2013 with a focal theme of Smart materials at Nano and Micro scale”, organized by Dept of Applied Physics, during 18th-20th November 2013 at ISM Dhanbad, India. Funding Agency-DST, CSIR, DAE, Conveners-JM, SKS, PKS.
- Worked as Chairman of “Topical Conference on Charged Particle Collisions and Electronic Processes in Atoms, Molecules and Materials (**q-PaCE-2016**)”, organized by Dept. of Applied Physics in association with Indian Society of Atomic and Molecular Physics (ISAMP), during 9th-11th January 2016 at GJLT, ISM Dhanbad, India. Funding Agency-DST, CSIR, BRNS, ISRO, DRDO, Conveners-Prof B K Antony
- Worked as Chairman of “23rd National Conference on Liquid Crystals (NCLC-2016)”, organized jointly by Dept. of Applied Physics, IIT(ISM) Dhanbad in association with Indian Liquid Crystal Society (ILCS), during 7th -9th December 2016 at GJLT, IIT(ISM) Dhanbad, India. Conveners- Prof P. Mishra, Co-Conveners-Prof V K Rai , Organizing Secretary-Prof K Kumar
- Worked as Chairman of National Conference on Advances in Spectroscopic Techniques and Materials (ASTM-2018) which was organized from March 14-16, 2018 by Department of Physics, Indian Institute of Technology (Indian School of Mines), Dhanbad. Conveners-Prof V K Rai, Co-Conveners-Prof P. Mishra, Organizing Secretary-Prof K Kumar

DETAILS OF OUTREACH PROGRAMS (PDPS/MDPS/CONFERENCE/SEMINARS) ORGANIZED:

Sl. No.	Title	External Funding Received in ₹ (Lakh)	Funding Agency	Role (CI/ Co-CI)	No. of Co-CI	Duration	Status
1	Orientation Programme	10.00	MHRD, New Delhi	Coordinator-cum-Incharge	06	February 09 – 29, 2016.	Completed
2	Refresher Programme in Microwave Devices and Antennas	5.30	MHRD, New Delhi	Coordinator-cum-Incharge	06	Dec. 26, 2016 – Jan. 15, 2017.	Completed
3	Refresher Programme in Mathematical Sciences	13.59	MHRD, New Delhi	Coordinator-cum-Incharge	06	May 16 – June 05, 2017	Completed
4	Refresher Programme in Physics with special focus on Nano-Biotechnology	13.50	MHRD, New Delhi	Coordinator-cum-Incharge	06	May 25 – June 14, 2017.	Completed
5	Refresher Programme in Chemistry with special focus on Material Chemistry	13.10	MHRD, New Delhi	Coordinator-cum-Incharge	06	June 01 – June 21, 2017.	Completed
6	National Training Programme on Mineral Processing	3.45	MHRD, New Delhi	Coordinator-cum-Incharge	06	June 26 – July 01, 2017.	Completed

7	N.T.P. on Scientific Computing with Mathematica	4.09	MHRD, New Delhi	Coordinator-cum-Incharge	06	December 04 – 09, 2017.	Completed
8	N.T.P. on Wireless Sensor Networks	9.79	MHRD, New Delhi	Coordinator-cum-Incharge	06	December 18 – 22, 2017.	Completed
9	N.T.P. on Research Methodology	5.79	MHRD, New Delhi	Coordinator-cum-Incharge	06	December 18 – 23, 2017.	Completed
10	Induction Training/ Orientation Programme	19.42	MHRD, New Delhi	Coordinator-cum-Incharge	06	Dec. 28, 2017 – Jan. 25, 2018.	Completed
11	N.T.P. on Advanced Material Characterization Techniques	4.47	MHRD, New Delhi	Coordinator-cum-Incharge	06	March 18 – 24, 2018	Completed

12	Refresher Programme in Physics with special focus on Bio-Photonics	17.50	MHRD, New Delhi	Coordinator-cum-Incharge	06	May 29 – June 18, 2018.	Completed
13	Refresher Programme in Chemistry	13.20	MHRD, New Delhi	Coordinator-cum-Incharge	06	June 08 – June 28, 2018.	Completed
14	Induction Training/ Orientation Programme	14.00	MHRD, New Delhi	Coordinator-cum-Incharge	06	Nov. 15, - Dec. 12, 2019.	Completed

VIGILANCE AWARENESS WEEKS ORGANIZED AS CVO:

- Organized vigilance awareness week-2015 (from 26th Oct. to 31st Oct. 2016) as C.V.O.-cum-Coordinator. It included Oath taking by faculty members of all the departments/centers, organizing a debate on “Need of vigilance awareness week at IIT(ISM) Dhanbad and a talk on “value, ethics and corruption at educational Institution in contemporary environment” on 30/10/2015 at Management Hall of the institute. The talk was delivered by Prof Jose Nandhikkara, Adjunct Prof, HSS Dept. of IITISM Dhanbad, and Director IIT(ISM) Dhanbad including myself on 30th Sept 2015.
- Organized vigilance awareness week-2016 (from 31st October to 5th November 2016) as C.V.O.-cum-Coordinator. It included Oath taking by faculty members of all the departments/centers, organizing a debate on “Active participation will eradicate corruption” and a talk on “Public participation in promoting Integrity and eradicating corruption” on 04/11/2016 Management Hall, IIT(ISM) Dhanbad. The talk was delivered by Shri P K Manjhi, SP, ACB, CBI Dhanbad (Chief Guest of the function), Director (CD), IIT(ISM) Dhanbad including myself.
- Organized vigilance awareness week-2017 (from 30th October to 4th November 2017) as C.V.O.-cum-Coordinator. Oath taking was organized by faculty members of all the departments/centers of IIT (ISM) Dhanbad. A debate was organizing on 31-10-2017 at Situation Room of Department of Applied Physics on the topic “My vision: Corruption free India”. The three cash prizes of Rs1500/-, Rs1000/- and Rs500/- was distributed to the winners of the debate.
- Organized vigilance awareness week-2018 (from 29th October to 3rd November 2018) as C.V.O.-cum-Coordinator. Oath taking was organized by faculty members of all the departments/centers of IIT (ISM) Dhanbad. A debate was organizing on 30-10-2018 in on “Eradicate Corruption-Build a New India”. The six cash prizes of Rs1500/-, Rs1000/- and Rs500/-each for two and Rs 400/- each for two was distributed to the winners of the debate. A talk “Eradicate Corruption-Build a New India” was delivered by Shri Nagendra Prasad, SP, ACB, CBI Dhanbad (Chief Guest of the function), Deputy Director, IIT(ISM) Dhanbad including myself on 31st October 2018 in the Management Hall.

TALKS ORGANISED:

- ✚ Organised National Science Day on 28th Feb 2017 with a debate competition and a talk by Prof S.C. Lakhotia was held in management Hall, IIT(ISM) Dhanbad.
- ✚ Organised Research Scholars’ meet (RSM-2014) on national Science Day alongwith Scholars of Applied Chemistry and Applied Maths.

TOOK PART IN THE FOLLOWING ACADEMIC ACTIVITIES:

- No. of Board of Study (BOS) for revision/upgradation/introduction of course structures and syllabi-
Attended as an expert [Outside IIT(ISM) Dhanbad] -- 16 (Fifteen)
- No. of Expert of Interview for Faculty Selection [Outside IIT(ISM) Dhanbad] -- 07 (Seven)

- No. of Expert for Ph. D. Viva -Voce/Ph. D. thesis examination [Outside IIT(ISM) Dhanbad] -- 11 (Eleven)
- No. of Workshop attended: -- 12(Twelve)
- Member of Improvement Group (for suggesting new/modification of ideas etc to the administration), IIT(ISM) Dhanbad - From 2012 -2015.

INVITED TALKS ATTENDED:

- Co-Chaired session-IVA on 3/11/2009 with Prof A K S Chaudhary and delivered an invited talk on “Engineering Applications of TD-OCT” in the same session at BIT Sindri in National Seminar on Recent Trends in Emerging Frontiers of Science and Technology from 2-3 Nov 2009.
- In international webinar of 60 Years of lasers organized by Dept. of Physics and IQAC, Jamshedpur Women's College on 26th June 2020 at 11:30AM in online mode. Nearly 660 participants registered for this online webinar and 240 participants were issued certificates. Other resource person was Dr. Nirmalendu Deo, Director, Semiconductor Device Research and Product Development, Next Generation Technology Inc. (Chicago USA), Chief Organizer was-Prof Shukla Mohanty former VC Kolhan University Chaibasa and Principal Women's College.
- Delivered an invited talk on "Laser speckle techniques and its applications", organized by Institute of Engineering and Technology, Devi Ahilya University Indore in SERB sponsored PDF in Biophotonics on 7/3/2021 from 10 to 11:30 AM.
- Delivered an invited talk in National Webinar on "3D Imaging" under "Some Advanced Technology" organised by Indian Association of Physics Teachers (IAPT), RC-20 in collaboration with Department of Physics, Ram Lakhan Singh Yadav College, Ranchi on 17/10/2020 from 2:30 pm.

BOOK CHAPTER DETAILS:

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Chapter-9:

Topic-Laser Speckle Imaging Reveals Drying Dynamics of Adhesive

By M. Z. Ansari, A. K. Nirala

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GUEST EDITOR OF AJP: AN INTERNATIONAL JOURNAL OF PEER REVIEWED RESEARCH JOURNAL

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Membership of Professional/Academic Bodies:

• SPIE Membership, #ID415185	:2009- 2010	Start date-10/09/2009-09/09/2010 https://spie.org/membership
• Indian Physics Association, GEN/LM/13064	: Life member	Start date-20/08/2014 https://www.tifr.res.in/~ipa1970/
• Indian Association Physics Teachers 10184, L6424	: Life member	Start date-17/10/2013 https://www.indapt.org/
• Indian Science Congress Association, L13254	: Life member	Start date-19/05/2008 https://sciencecongress.nic.in/

Membership of Societies:

• Indian Physical Society, LM-1140	: Life member	Start date-14/06/2019 http://iacs.res.in/indian-physical-society.html
• Optical Society of India, L206	: Life member	Start date-1988 https://www.osiindia.org/