

## Curriculum Vitae

**Shailendra Kumar Sharma**

Professor  
Department of Physics  
Indian Institute of Technology  
(Indian School of Mines)  
Dhanbad-826004 Jharkhand  
Email: sksharma@iitism.ac.in  
Mobile: 9431121600



**Date of Birth:** 23.08.1975

**Category:** General

**Research Interest:** Optical & Luminescence studies

Applications of luminescent materials in LED, display devices & solar cells

**Educational qualification:** M.Sc. M.Phil. Ph.D.

Examination	Branch/ Specialization	College/University /Institute	Year	Percentage /Grade	Class/ Division
10 <sup>th</sup>	Science, Math, Biology, Hindi, English, S. Science	S.D. Inter College, Muzaffarnagar (U. P. Board, Allahabad)	1990	66.1	1 <sup>st</sup>
12 <sup>th</sup>	Physics, Chemistry, Math, Hindi, English	S.D. Inter College, Muzaffarnagar (U. P. Board, Allahabad)	1992	65	1 <sup>st</sup>
B.Sc.	Physics, Chemistry, Math	S.D. College, Muzaffarnagar (Ch. Charan Singh University, Meerut, U.P.)	1995	62.3	1 <sup>st</sup>
M.Sc.	Physics	S.D. College, Muzaffarnagar (Ch. Charan Singh University, Meerut, U.P.)	1997	70.6	1 <sup>st</sup>
M.Phil.	Applied Physics	IIT (ISM), Dhanbad	2002	OGPA 5/5	1 <sup>st</sup>
Ph.D.	Applied Physics	IIT (ISM), Dhanbad	2006	-	-

**Journal publications:** 117 (Details are given in the List of Publications)

**Students guided for project/dissertation:**

**Ph.D.** : 10 (as Sole guide)

: 04 (as Principal guide)

: 01 (as Co-guide)

**M.Phil.:** 05

**M.Sc.:** 40

**Experience:**

More than 23 years (excluding Ph.D.)

Sl. No.	Employer	Position held	Date of joining/leaving
1.	Proof & Experimental Establishment, DRDO Lab, Chandipur (Orissa)	JRF SRF	31.12.97 to 30.12.99 31.12.99 to 04.04.01 (3 years 3 months)
2.	University of Petroleum & Energy Studies, Dehradun	Lecturer	23.08.04 to 26.07.06 (2 years)
3.	North-Eastern Regional Institute of Science & Technology, Itanagar	Lecturer	31.07.06 to 28.02.07 (7 months)
4.	IIT (ISM), Dhanbad	Assistant Professor	02.03.07 to 01.03.10 (3 years)
5.	IIT (ISM), Dhanbad	Associate Professor	02.03.10 to 11.07.24 (14 years 4 months)
6.	IIT (ISM), Dhanbad	Professor	12.07.24 to till date

**Details of Ph.Ds. supervised as Sole guide:**

Sl. No.	Name of Student	Title of thesis	Name of scheme/project	Year of Award
1.	Mr. Anjani Choubey	Structural and luminescence studies of undoped and doped mixed sulphate phosphors	IIT (ISM)-JRF	2012
2.	Mr. Sudipta Som	Swift heavy ion induced structural and luminescence studies of rare earth doped yttrium oxide nanophosphors	UGC Project-JRF	2014
3.	Ms. Somrita Dutta	Optical spectroscopic studies of rare earth doped molybdate phosphors	DST Project-JRF	2015
4.	Ms. Mitali Chowdhury	Synthesis and characterization of SnO <sub>2</sub> based nanocomposites for optoelectronic applications	IIT (ISM) JRF	2016
5.	Mr. Arup Kumar Kunti	Development of oxide based hybrid thin films for optoelectronic applications	UGC-DAE Project JRF	2017
6.	Mr. Navneet Kumar	Development and characterization of Schiff base compounds for optoelectronic devices	CSIR (NET) JRF	2020
7.	Ms. Akta Verma	Development of phosphors for solar cell and led applications	IIT (ISM) JRF	2020
8.	Ms. Jyoti Priya	Studies on optoelectronic properties of lanthanide based beta diketone complexes	IIT (ISM) JRF	2021
9.	Mr. Amit Kumar Ambast	Structural and optical properties of undoped and doped tungstate phosphors	External Candidate	2021
10.	Mr. Birendra Kumar Rajwar	Synthesis & characterization of metal chalcogenide compounds for photovoltaic application	Rajeev Gandhi National Fellowship of UGC New Delhi	2021

**Details of Ph.Ds. supervision of external candidates:**

1.	Mr. Suresh Kumar	Development of ZnCdS Nanocrystalline Film using Chemical Bath Deposition	<b>External Guide &amp; Co-guide:</b> Prof. S.R. Kumar, NIAMT Ranchi Prof. D. Roy, NIAMT Ranchi	2018
2.	Mr. Nagesh Sharma	Synthesis and characterization of thin films for Micro-electro-mechanical-system devices	<b>External Guide:</b> Dr. M. Hooda Semi-Conductor Laboratory S.A.S Nagar (Punjab)	2020
3.	Ms. Soni	Development of hard, optically transparent, hydrophobic nanocomposite coatings by magnetron sputtering	<b>External Guide:</b> Dr. Suman Kumari Mishra (Retd.) NML Jamshedpur	2021
4.	Mr. Asheesh Mishra	A comparative study of radon-22 and gamma level variation in the environment around uranium and copper industries of Singhbhum region of Jharkhand	<b>Co-guide:</b> Prof. D C Panigrahi (Retd.) IIT (ISM) Dhanbad <b>External Guide:</b> Dr. A. K. Sarangi (Retd.) UCIL Jaduguda	2021

**Details of Ph.Ds. supervised as Co-guide:**

1.	Ms. Chandni Kumari	Development and investigation of structural and optical properties of rare-earth doped antimonate phosphors	<b>Guide &amp; Co-guide:</b> Prof. J. Manam (Guide, IIT (ISM) Dhanbad) & Prof. S. K. Sharma (Co-Guide)	2024
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**Details of Sponsored R & D projects completed:**

Sl. No.	PROJECTS	Funding Agency	Duration	Amount	Present Status
1.	<b>PI:</b> Structural & luminescence properties of rare earth doped Y <sub>2</sub> O <sub>3</sub> nanophosphors induced by swift heavy ions.	UGC, New Delhi	01.02.2010 to 31.01.2013 (3 years)	Rs 7.43 lacs	Completed
2.	<b>PI:</b> Optical spectroscopic studies of rare earth doped molybdate phosphors.	DST, New Delhi	2011-2014 (for 3 years)	Rs 20.94 lacs	Completed
3.	<b>PI:</b> Synthesis and characterization of nanocomposite thin films for optoelectronic applications.	UGC-DAE, Indore	2013-2017 (for 3 years)	Rs 7.38 lacs	Completed
4.	<b>Co-PI:</b> Development of multicolour long lasting phosphors based on colour conversion process.	SERB (DST), New Delhi	2014-2017 (for 3 years)	Rs 44.25 lacs	Completed
5.	<b>Co-PI:</b> Development of near infrared long persistent phosphors for defence and security applications.	SERB (DST), New Delhi	2019-2022 (for 3 years)	Rs 46.23 lacs	Completed

**Department Level Project:**

1.	<b>Deputy Coordinator:</b> UGC-Special Assistance Programme (SAP) Thrust area- Materials Science	UGC, New Delhi	2009-2014 (for 5 years)	Rs 68.5 lacs	Completed
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**Details of Seminars & Conferences organized:**

Sl. No.	Title	Role	Dates of Conference/Seminar	Role of other faculty members
1.	National Seminar on “Nanomaterials & their applications”(NANOMAT-2011)	Co-convener	9-10 February, 2011	Convener- Prof. J. Manam Organizing Secretary: Prof. A. K. Kar
2.	International Conference on “Structural & Physical properties of solids” (SPPS-2013)	Convener	18-20 November, 2013	Co-convener: Prof. P. K. Sharma Organizing Secretary: Prof. R. Thangavel

**Details of Training Programme organized:**

Sl. No.	Title	Role	Dates & Venue	Role of other faculty members
1.	Faculty Development Programme on “Advanced Materials Characterization Techniques”	Coordinator	19-24 March, 2018 at Dept. of Physics, IIT (ISM) Dhanbad	Co-coordinators: Prof. Kaushal Kumar & Prof. A.K. Nirala
2.	DST-STUTI Training Programme on “Nanostructured Materials and Devices: Fabrication, Characterization and Applications”	Coordinator	22-28 July, 2022 at Dept. of Physics, BIT Mesra, Ranchi	Co-coordinator: Prof. Kaushal Kumar
3.	DST-STUTI Training Programme on “Fabrication and Characterization of Advanced Photovoltaic Devices”	Coordinator	12-18 December, 2022 at Dept. of Physics, IEST Shibpur Howrah	Co-coordinator: Prof. R. Thangavel

**Details of Foreign visits :**

Sl. No.	Place visited	Duration	Purpose
1.	Universidad de Sonora, Hermosillo, Mexico	2 – 10 October, 2010	To present research paper in the International Conference on Luminescence
2.	University of the Free State (UFS), Bloemfontein, South Africa	4-16 February, 2016	Lab visit & scientific interaction for joint research work. MOU was signed between IIT (ISM) & UFS South Africa.
3.	University of Brest, Brest, France	June 17-24, 2018	To present research paper & Co-chaired one technical session of the International Symposium on Luminescence Spectrometry

**Awards/Honors received:**

<b>Year</b>	<b>Name of Award/Honor</b>	<b>Name of Organization</b>
1997	Gold medal for getting first position in M.Sc. Physics	Ch. Charan Singh University, Meerut (U.P.).
1997-2001	DRDO fellowship to work on DRDO project	DRDO, New Delhi