

Curriculum vitae of Professor (Dr.) Vineet Kumar Rai

1. **Name:** Dr. Vineet Kumar Rai
2. **Designation:** Professor
3. **Date of Birth:** July 12, 1976
4. **Address (Office):** Dr. Vineet Kumar Rai
Professor
Department of Physics
Indian Institute of Technology (Indian School of Mines)
Dhanbad – 826004, India
Phone: +91-326-223 5282 (O)
E-MAIL: vineetkrrai@iitism.ac.in; vineetkrrai@yahoo.co.in

Google citations (as per the google scholar report)

Total no. of citations: > 8800

h-index: > 50

i-10 index: > 155

5. Academic Qualifications/Exam passed:

- Throughout First class from High School to M.Sc. (M.Sc. in Physics & Mathematics)
- Qualified NET (National Eligibility Test) in Physics- 2001, Council of Scientific & Industrial Research (CSIR), India
- Ph. D. (Physics), Banaras Hindu University (BHU), Varanasi

6. Professional record :(a) RET Fellowship, B. H. U., Varanasi, India (b) Senior Research Fellowship, C.S.I.R. India (c) Research Associate, C.S.I.R. India (d) Post Doctoral Fellow in CNPq, Departamento de Fisica, UFPE, 50670-901 Recife, PE - Brasil.

7. Awards and recognitions:

S. No.	Name of Award	Awarding agency	Year
1	Stanford University's Top 2% Most Influential Scientists	Stanford University	2024
2	Stanford University's Top 2% Most Influential Scientists	Stanford University	2023
3	Stanford University's Top 2% Most Influential Scientists	Stanford University	2022
4	Stanford University's Top 2% Most Influential Scientists	Stanford University	2021
5	Stanford University's Top 2% Most Influential Scientists	Stanford University	2020
6	Stanford University's Top 2% Most Influential Scientists	Stanford University	2019

7	India Top cited author award in 2019 by Methods Appl. Fluoresce (IOP publishing) for one of the top 1% most cited papers published over the period of 2016-2018. Paper title: $\text{Er}^{3+}\text{-Tm}^{3+}\text{-Yb}^{3+}\text{:CaMoO}_4$ phosphor as an outstanding upconversion based optical temperature sensor and optical heater, Methods and Applications in Fluorescence, 5 (2017) 015006.	IOP Publishing science first	2019
8	Upconversion based near white light emission, intrinsic optical bistability and temperature sensing in $\text{Er}^{3+}/\text{Tm}^{3+}/\text{Yb}^{3+}/\text{Li}^+:\text{NaZnPO}_4$ phosphors published in New Journal of Chemistry is in the top 10% of highly cited authors in General chemistry portfolio of journals	RSC	2019
9	Recorder of the Physical Sciences for 106 th and 107 th sessions	Indian Science Congress), Indian Science Congress Association, Kolkata; Section- Physical Science	2018-19 & 2019-
10	Honorary Rosalind Membership	London Journal Press	2020
11	Research Advisor (Certificate No.: 226-5-045).	Nan Yang Academy of Sciences, Singapore	2018
12	Canara Bank Research Publication Award	IIT (ISM), Dhanbad	2018
13	Canara Bank Research Publication Award	IIT (ISM), Dhanbad	2017
14	Inder Mohan Thapar Research (IMTR) Award given to my Ph.D. student for the best research work under my supervision	IMTR	2017
15	Canara Bank Research Publication Award	IIT (ISM), Dhanbad	2016
16	Canara Bank Research Publication Award	IIT (ISM), Dhanbad	2015
17	Recognized as an Outstanding JAP Author for the research Paper	American Institute of Physics (AIP)	2013
18	Bharat Shiksha Ratan Award-2013	GSHEG, New Delhi	2013
19	Journal of Applied Physics (JAP) by American Institute of Physics (AIP) has recognized as an Outstanding JAP Author in 2013 for the research (Paper) contribution entitled "Photoluminescence study of $\text{Y}_2\text{O}_3\text{-Er}^{3+}\text{-Eu}^{3+}\text{-Yb}^{3+}$ phosphor for lighting and sensing Applications".	AIP	2013

20	Awarded as Recognized Reviewer Status	Materials Research Bulletin	2014
21	Post Doctoral Fellow in CNPq	Departamento de Fisica, UFPE, 50670-901 Recife, PE - Brasil.	2006

8. Other recognitions

- Chairperson, Senate Postgraduate Committee (SPGC) at IIT(ISM) Dhanbad.
- Chairman, Health Centre Committee (HCC) & Health Centre Purchase Committee (HCPC). 8th October 2020 to 7th October 2022.
- Research Advisor of Nan Yang Academy of Sciences, Singapore w.e.f. 23rd October 2018 (Certificate No.: 226-5-045).
- Senate member, IIT(ISM) Dhanbad
- Member in National Advisory Committee of National conference on Functional materials and applications-2019 (NCFMA-2019), organized at Department of Physics, NIT Mizoram, 22-23 November, 2019
- Awarded as *Recognized Reviewer Status* by Materials Research Bulletin November 2014 in recognition of the review made for the journal.
- Certificate of outstanding contribution in reviewing by Journal of Industrial and Engineering Chemistry in recognition of the contributions made to the quality of the journal, Journal of Industrial and Engineering Chemistry, Elsevier ACS publications awards for ACS publications reviewing activity in 2016, American Chemical Society.
- Delivered several invited talks in National & International academic activities at different academic Institutions/Universities.

9. Membership of Professional Societies: (1) Indian Science Congress Association, Kolkata; Section- Physical Science; Life member- L30124. (2) Indian Association of Physics Teachers Association (Regd. No. K1448 Under section XXI of Societies Act 1860, Life member (Life membership number 10995 L7139). (3) Laser and Spectroscopy Society of India (LASSI), Life member- Membership No. 247 (4) Global Society for Health & Educational Growth (GSHEG)-2013.

10. Editorial Board: Editorial Board Member

1. International Journal of Applied and Natural Sciences (IJANS); ISSN (Print): 2319-4014; ISSN(Online): 2319-4022 ; Impact Factor(JCC): 7.1738.
2. Methods and Applications in Fluorescence (IOP).
3. Guest Editor of Fluorescence Research in India (<https://iopscience.iop.org/journal/2050-6120/page/Fluorescence-Research-in-India>).
4. Review Editor in Frontiers in Chemistry - Analytical Chemistry, since 07.09.2022.

11. Thesis guided: (i). Dissertation: M. Phil. (02) & M.Sc. (25), B. Tech-03 (ii) Ph.D.-15

12. Conference organized:

Four (04)

(i) **Convener** of the Conference: “National conference on advances in lasers and spectroscopy (ALS-2012)” during 01-03 November, 2012 held at Department of Applied Physics, IIT(ISM), Dhanbad.

(ii) **Organizing secretary:** National Conference on Liquid Crystals, during 07-09 December 2016 held at Department of Applied Physics, IIT(ISM), Dhanbad.

(iii) **Convener** of the Conference: “National conference on advances in spectroscopic techniques and materials (ASTM-2018)” during 14-16 March, 2018 held at Department of Applied Physics, IIT(ISM), Dhanbad.

13. (iv) **Convener** of the Conference: “International conference on advances in spectroscopic techniques and materials (ASTM-2024)” during 18-20 January, 2024 held at Department of Physics, IIT(ISM), Dhanbad.

14. **Details of Training Program/Course work organized:** 03 (Three)

15. **Research & teaching experience**

(i) **Three years** of research & teaching at the level of Assistant Professor (since 20-06-2008 to 20-06-2011) at IIT(ISM), Dhanbad.

(ii) **More than Seven years** of research & teaching at the level of Associate Professor (since 20-06-2011) IIT(ISM), Dhanbad.

(iii) Working as Professor since 06/06/2019 at Department of Physics, IIT(ISM), Dhanbad

16. **Research Expertise/interest:** Frequency Upconversion, Spectroscopic studies of lanthanides doped materials and their applications, photovoltaics, solid state lighting, Optical thermometry, Laser Spectroscopy.

17. **Publications**

(i) Research papers published in reputed international SCI journals: 180

(ii) Publications in National/International Conference Proceedings: 33

(iii) Contributions to National/International/workshop/conferences: 93

(iv) Publication of Book chapters/Review articles: 13

(v) Editor of the conference proceedings (01): Conference proceedings of National conference on Advances in lasers and Spectroscopy (ALS-2012). ISBN 978-81-8424-806-7; Allied Publishers Pvt. Ltd., New Delhi, India. Edited by Vineet Kumar Rai, Pankaj Mishra and Kaushal Kumar.

(vi) Editor of book Book (01), Title: Upconverting nanoparticles- from fundamentals to applications, Wiley-VCH GmbH, Print ISBN:9783527349654, Online ISBN:9783527834884.

A. Research papers published in reputed journals: Total number: 175

B. Books/Reports/Chapters/General articles etc.:

Books: 01 (one)

Book Title: Upconverting nanoparticles- From fundamentals to applications, Editor: Vineet K. Rai, Published by WILEY- VCH, ISBN: 978-3-527-83487-7 (e-book); ISBN 978-3-527-34965-4 (Print); ISBN: 978-3-527-83488-4 (O-book), First published 11 May 2022. DOI:10.1002/9783527834884.

Editor of the conference proceedings: (01) One

Edited one conference proceedings of National conference on Advances in lasers and Spectroscopy (ALS-2012). ISBN 978-81-8424-806-7; Allied Publishers Pvt. Ltd., New Delhi, India. Edited by Vineet Kumar Rai, Pankaj Mishra and Kaushal Kumar.

Vineet Kumar Rai