



# RANCHI UNIVERSITY, RANCHI

## Faculty Profile

- **Name of the Faculty Member:** Dr. Raj Kumar Singh
- **Department:** University Deptt. of Physics
- **Designation:** Assistant Professor
- **Level of Guidance & Teaching:** Post Graduation and Research
- **Qualification:** M.Sc (Physics), Ph.D

### *Academic Qualifications :*

Examination	Board/University	Subject	Year of Passing	Division/Class	% of Marks
Ph.D	RU, Ranchi	Physics	2013	....	.....
POST DOCTORAL	Erasmus Mundus Heritage PDF, POLITO, ITALY	Physics	2014	....	.....

### *Career Profile*

<i>Teaching experience in years</i>	<i>Area of Specialization</i>	
	<i>Teaching</i>	<i>Research</i>
15 years	Quantum Physics, Nuclear Physics, MOOCs, E-content	Spintronics, Electromagnetic, Antenna

**Research Guidance : M.Phil/Ph.D. /D.Sc. /D. Litt (May 2017 to till date):**

Name of Research Scholar	Registration No. & Date	Topic of research work	Present Status (No. of Ph.D. awarded /ongoing)
Narendra Kumar Ram	2017	Study of memristive system due to spin polarization of current	Ongoing
Kali Krishna Giri	2019	Study of wideband antenna for wireless communication	Ongoing

**Books authored/Edited/Co-Author Chapter in Book (May 2017 to till date)**

Name of Books	Subject	Sole or Co-Author	ISBN	Date of Publication	Name of Publishers
Concepts of Electromagnetic Theory	Electromagnetic Theory	Co-Author	9788194867630	Jan 2021	I. K. International Publishing House Pvt. Ltd.
Method of Moment based study of directivity and efficiency of nano antennas	Nanotechnology	Co-Author	978-81-86845-85-2	Sept. 2012	I.D. Publisher

**Number of Research papers published in Journals/Periodical (May 2017 to till date)**

Sr. No	Title with page Nos.	ISSN	Name of Journal	Date of Publication
1.	Multiband Antenna Design for modern wireless communication system	Multi-ISSN	IEEE Xplore (WoS/Scopus Indexed)	2022 (Accepted)
2.	Effect of symmetrical shaped slot on patch antenna design and performance for 10GHz 5G application	2070-0237 (P) 2070-0245 (E)	Journal of Scientific Research (UGC CARE LIST Group II)	May 2022(Accepted)
3.	On spin polarization current induced signature property of memristive system realizable from domain wall growth	1819-6608	ARNP Journal of Engg. And Applied Sciences (Scopus Indexed)	April 2022 (Accepted)
4.	Inset feed semicircular slot compact microstrip antenna for 10 GHz Mobile Application	2367-3370(P) 2367-3389 (E)	LNNS, Springer Nature (Scopus Indexed)	April 2022 (Accepted)

5.	Frequency Reconfigurable mm-wave antenna design for 5G application	2249-0558	International Journal of Management, IT & Engg (Scopus Indexed)	April 2019
6.	Memristive Behaviour in Magnetic Elements Separated by Thin Non-Magnetic Spacer Layer	2277-3878	International Journal of Recent Tech. & Engg (Scopus Indexed)	November 2019
7.	Design and Development of Microstrip Patch Antenna for Millimeter Wave Application	1876-1100	LNEE, Springer Nature (Scopus Indexed)	July 2018
8.	Analysis of Reconfigurable Polarization Antenna as an EMI Sensor	2231-0843	British J. of Applied Science & Technology (Peer Reviewed Referred)	June 2017

***No. of seminars/conferences/workshop attended/organized (May 2017 to till date):***

Seminar/Conference	Date of Participation	National/International
<i>An overview of compact band structures in solids</i> Innovations and Excellence in Physics Teaching and Research	Oct 29-31, 2018	National
<i>Analysis of memristive element restricted to low order harmonics</i> Innovations and Excellence in Physics Teaching and Research	Oct 29-31, 2018	National
<i>An overview of design and development of microstrip antenna</i> Innovations and Excellence in Physics Teaching and Research	Oct 29-31, 2018	National
<i>Millimeter wave antenna design for 5G cellular technology</i> Innovations and Excellence in Physics Teaching and Research	Oct 29-31, 2018	National
<i>Radiation Hazards: From Cell to Cell</i> National seminar on "Green Chemistry & Green Technology	Feb 28-March 31, 2018	National

***No. of FIP/refresher courses/summer trainings attended/organised (May 2017 to till date):***

Title	Period	Venue
Refresher Course in Environmental Science and Disaster Management	Dec 4-17, 2020	UGC-HRDC, Ranchi University, Ranchi
Refresher Course in Research Methodology	Jan 7-27, 2019	UGC-HRDC, Ranchi University, Ranchi

FDP to Design, Develop and Deliver MOOC Courses	Aug 5-10, 2019	National University of Educational Planning and Administration (NIEPA), New Delhi.
Professional Development Programme on Teaching, Learning with Technology using Moodle MOOC Platform	July 10-12, 2017	National University of Educational Planning and Administration (NIEPA), New Delhi.

***Any other academic, administrative and socially relevant contributions/consultancy and awards :***

### **COURSE CO-ORDINATED/LECTURES DELIVERED**

1. Course Co-ordinator, UGC-HRDC, RU, Refresher Course in MOOCs Development and Delivery during 15.09.2021 to 28.09.2021
2. Course Co-ordinator, UGC-HRDC, RU, Refresher Course in Information Technology during 01.07.2021 to 20.01.2021
3. Course Co-ordinator, UGC-HRDC, RU, Short Term Course in E-content Development during 25.11.2020 to 1/12/2020
4. Course Co-ordinator, UGC-HRDC, RU, Short Term Course in MOOCs Development and Delivery during 25.08.2020 to 31.08.2020
5. Course Co-ordinator, UGC-HRDC, RU, Refresher Course in Information Technology during 12.11.2019 to 25.11.2019
6. Course Co-ordinator, UGC-HRDC, RU, Refresher Course in Information Technology during 09.01.2018 to 29.01.2018
7. Organizing Secretary, *National Symposium on Innovations and Excellence in Physics Teaching and Research*, October 29-31, 2018, Organized by University Department of Physics, RU in collaboration with Indian Association of Physics Teachers (IAPT).
8. Course Co-ordinator, Refresher Course in ICT, organized by UGC-HRDC, RU, Ranchi, during Jan 9-29, 2018.

### **INVITED LECTURES DELIVERED/RESOURCE PERSON**

1. GURU DAKSHTA 8<sup>th</sup> Faculty Induction Programme organized by UGC-HRDC, RU, Ranchi during 04.01.2022 to 27.01.2022
2. Refresher Course in MOOCs Development and Delivery Organized by UGC-HRDC, RU, Ranchi during 15.09.2021 to 28.09.2021 on 25.09.2021 and 27.09.2021.
3. Refresher Course in Commerce & Management organized by UGC-HRDC, RU, Ranchi during 05.09.2021 to 18.09.2021 on 10.09.2021.
4. Refresher Course in Research Methodology and Statistical Analysis organized by UGC-HRDC, RU, Ranchi during 05.08.2021 to 18.08.2021, on 14.08.2021
5. GURU DAKSHTA 7<sup>th</sup> Faculty Induction Programme organized by UGC-HRDC, RU, Ranchi during 03.12.2021 to 30.12.2021, on 17.12.2021
6. GURU DAKSHTA 3<sup>rd</sup> Faculty Induction Programme organized by UGC-HRDC, RU, Ranchi during 01.02.2021 to 28.02.2021, on 10.02.2021 and 27.02.2021
7. GURU DAKSHTA 2<sup>nd</sup> Faculty Induction Programme organized by UGC-HRDC, RU, Ranchi during 04.01.2021 to 31.01.2021, on 05.01.2021 and 06.01.2021
8. Refresher Course in MOOCs Development and Delivery Organized by UGC-HRDC, RU, Ranchi during 25.08.2020 to 31.08.2020 on 30.08.2020.

9. Refresher Course in Commerce & Management organized by UGC-HRDC, RU, Ranchi during 16.09.2020 to 29.09.2020 on 25.09.2020.
10. GURU DAKSHTA 1st Faculty Induction Programme organized by UGC-HRDC, RU, Ranchi during 26.11.2020 to 23.12.2020, on 03.12.2020 and 12.12.2020
11. Refresher Course in Information Technology organized by UGC-HRDC, RU, Ranchi during 12.11.2019 to 25.11.2019.
12. At Faculty Development Programme in Sarala Birla University, Ranchi on Jan 7, 2019
13. At Orientation cum Workshop on Teaching through MOOCS, Feb 14-15, 2019, Central University of Sikkim, Gangtok, Sikkim.
14. At UGC-HRDC, RU, Ranchi, during Refresher Course in IT, Jan 4-24, 2019.
15. At UGC-HRDC, RU, Ranchi, during Summer School in Social Science, February 2019
16. At UGC-HRDC, RU, Ranchi, during 98<sup>th</sup> Orientation Programme, Dec 2019
17. At UGC-HRDC, RU, Ranchi, during 96<sup>th</sup> Orientation Programme, June 2019
18. At UGC-HRDC, RU, Ranchi, during 95<sup>th</sup> Orientation Programme, June 2019
19. At UGC-HRDC, RU, Ranchi, during 94<sup>th</sup> Orientation Programme, March-April 2019
20. At UGC-HRDC, RU, Ranchi, during Orientation Programme, Nov 20-Dec 17, 2018.
21. At UGC-HRDC, RU, Ranchi, during Refresher Course in Life Science, Aug 8-28, 2018.
22. At National University of Study and Research in Law, Ranchi organized by UGC-HRDC, RU, Ranchi, during Short-term Course in MOOCS, July 24-30, 2018.
23. At UGC-HRDC, RU, Ranchi, during Orientation Programme, Nov-Dec 2018.
24. At UGC-HRDC, RU, Ranchi, during Orientation Programme, July 4-31, 2017.
25. At UGC-HRDC, RU, Ranchi, during Summer School, June 5-25, 2017.
26. At UGC-HRDC, RU, Ranchi, during Orientation Programme, Nov 1-28, 2017.