

RAJAN BHARTI

Contact Information	Senior Postgraduate Department of Physics Indian Institute of Technology Kharagpur Kharagpur, West Bengal 721302	email: rajanbharti189@kgpian.iitkgp.ac.in email: rajan.bharti_18@hinducollege.ac.in phone: +91 7500645740 Address: LBS, IIT Kharagpur
Research	Experimental Condensed Matter Physics, Nanoscience Engineering, Hetero Junction Semiconductors Interests	
Education	Indian Institute of Technology Kharagpur Masters in Science (Physics) 8.83 SGPA out of 10(till 1 st semester)	Aug'21 - Jun'23 (expected)
	Hindu College , University of Delhi Physics Honours 8.55 CGPA out of 10 Departmental Rank 8 out of 68 Students	Jul' 18 – Jul'21
Achievements and Experiences	<ul style="list-style-type: none">Completed a course on Scilab organized by Spoken tutorials , IIT BOMBAY in Collaboration with Hindu College and scored 2nd highest in the test thereafter organized.Completed a Bootcamp on Python and Machine Learning by ShapeAISelected for SIH Problem Solving Patent Competition through Hindu College which revolves around selecting problem statements and finding out a innovative idea to tackle it and get it patented.Completed a course on Cybersecurity by Cisco and scored full in the test thereafter organisedAttended Workshop on HR diagram with LCOAttended Workshop on Online Workshop on HPC in Astrophysics and Astronomy ,IIT KharagpurRanked in Top 0.4% in Joint Admission Test for Masters and 0.9% in GATE examination.Ranked in Top 1% in Central Board of Secondary Education Higher Secondary Examination 2018 1.18 million students as a result of which I get the INSPIRE fellowship.Ranked 2nd in the 6th Semester in Department, B.Sc (H) PhysicsReceived O(Outstanding) grade in 3 courses (awarded to top 1% students in a course) during B.Sc.Ranked in Top 1.12 % in IIT-JEE Advanced 2018 among more than 164,000 candidates for admission into Indian Institutes of Technology and in Top 0.02 % in IIT-JEE Mains 2018 among 1.25 million candidates.Ranked in Top 0.1 % in UPSEE (state engineering exam) 2018 among more than 140,000 candidates.Ranked in 0.6% in BHU UG 2018 Entrance Examination out of more than 100,000 candidates for admission in B.Sc at BHU	
Research Experience	<ul style="list-style-type: none">Currently Working on a project on Fabrication and characterization of GaN Templates which was later followed(Extension) by Fabrication (Using CVD and MBE methods)and Characterization(Low and Room Temperature Photoluminescence Spectroscopy, XRD, Raman Spectroscopy, Low and Room Temperature Hall Measurement etc) of AlGaN/GaN Samples to realise different recipes of Doping for p-type doping in the Samples and realizing Multiple Quantum Wells for Laser devices under Dr. Vikash Kumar Singh(1 year + at Solid State Physics Laboratory ,Defence Research & Development Organization).(Currently Working on a Research Paper)Currently Working on M.Sc. Thesis Project under Dr. Dipak Kumar Goswami at IIT Kharagpur on Fabrication and Characterization of Dielectric Gates for MOSFET Sensors doped with Nanomaterials. (6 Months+ at IIT KGP) (Currently Working on a Research Paper)Worked on Term Paper on Real Life Applications of Calculus of Variations under Dr. Tirtha Sankar Ray (Professor at IIT Kharagpur) and it was thereafter selected among the best term papers in batch	

- Worked on Term Paper on Fundamental Dilemma of B & H under Dr. Vishwanath Shukla (Professor at IIT Kharagpur).
- Worked on Literature review for fabrication of Optical Fibres at economic prices and joints of Metal and Ceramic bonds (Paid)(6 months)
- Done Reading Project on Magnetic Nanomaterials under Dr. Vivek Verma (Professor at Hindu College)
- Worked on Simulation of Fabrication of Organic Solar cells through SCAPS 1D under Dr. Lalit Kumar (Professor at Hindu College)
- Delivered Seminar on “Nanomaterials and its applications” at IIT KGP
- Delivered Seminar on “PMMA & its Fe (II) SCO Nanostructure Composite application” at IIT KGP.

Technical Skills

- Programming Languages: C++, HTML, FORTRAN
- Software Packages: Scilab, Jupyter, GNUPLOT, MATLAB, Mathematica, COMSOL
- Other Tools: Windows, Linux, MS Office, LATEX

Positions of Responsibility

- Academic Mentor, Counselling Service, Hindu College: Guided students during their first year in their academics; helped them to adjust to the new academic and social environment. Resolved their doubts by tutoring them in their subjects.
- Co-ordinator, Science Fest, Hindu College, Feb' 2020
- Co-ordinator, Mecca 2019(Annual Fest Hindu College), Hindu College, March, 2019
- Co-ordinator Quarks Feb' 2019 (Annual Physics Department Fest)
- Organised Departmental Freshers Aug' 2019

Extracurricular Activities

- Hobbies: Travelling, playing indoor games, reading books, exploring new tech
- Received 4 winning prizes in Inter School Science Exhibition and appeared for regional Science Exhibition twice at School Level
- Member of Aarambh (Dance Society at Hindu College) and Abstractions (Art Society at Hindu College) (9 Months)
- Member of Art Society (Spectra, IIT KGP)
- Won several Debates and quizzes at School Level
- Artwork Published twice in National Magazines (Champak)