



Shivaji College Faculty Details Proforma

Title	Ms.	First Name	Last Name	Photograph
		Bharti		
Designation		Associate Professor		
Address		C8/210, Sector 8, Rohini, Delhi-110085		
Office Phone No.				
Residence				
Mobile		9818999997		
Email		bhartibaniwal9@gmail.com		
Web-Page				
Educational Qualifications		MSc-NET-JRF		
Degree	University/Institute		Year	
Ph.D.	Mewar University, Rajasthan		Submitted, 2021	
M.Phil./M.Tech.				
PG	University of Delhi		2004	
UG	University of Delhi		2002	
Any Other Qualification	NET-JRF		2004	
Career Profile				
<p>Worked in Kalindi College as Assistant Professor (Ad Hoc) Physics from August 2005-25th June 2006.</p> <p>Worked in Shivaji college as Assistant Professor Physics from 26th June 2006 to 24 March 2021.</p> <p>Working in Shivaji College as Associate Professor Physics from 25 March 2021 onwards.</p>				

Administrative Assignments
<p>Worked as Teacher In-Charge, Physics Department, Shivaji College from April 2015-March 2016</p> <p>Worked as Teacher In-Charge, Physics Department, Shivaji College from May 2020-April 2021.</p> <p>Member of Various Staff Council Committees.</p>
Areas of Interest/Specialisation
<p>Condensed Matter Physics, Supercapacitors</p>
Subjects Taught
<p>Microprocessor and Computer Fundamentals, Electricity and Magnetism, Mathematical Physics, Statistical Mechanics, Electronics, Thermal Physics, C++, Numerical Analysis, Modern Physics and Mechanics</p>
Innovation Project/Research Projects (Major Grants/Research Collaboration)
<p>Innovation Project sponsored by University of Delhi in 2013-15 under the title "Experimental Investigations on Ion – Conducting Polymer Gel Electrolytes Suitable for Applications in Electrochemical Devices."</p>
Publications Profile (Research Papers/Books)
<ul style="list-style-type: none"> • Bioinspired synthesis of nickel oxide nanoparticles as electrode material for supercapacitor applications, Ionics, https://doi.org/10.1007/s11581-021-04245-0 • Bharti, Kumar, A., Ahmed, G., Gupta, M., Bocchetta, P., Adalati, R., Chandra, R. and Kumar, Y., "Theories and models of supercapacitors with recent advancements: Impact and interpretations", Nano Express. 2021; 2, 022004. • DFT computation of Quantum Capacitance of pure and doped niobium nitrides for supercapacitor applications, Ceramics International, 2021. • Determination of Quantum Capacitance of Niobium Nitrides Nb₂N and Nb₄N₃ for Supercapacitor applications, J. Compos. Sci. 2021, 5, 85. • Physical properties of heteroatom doped graphene monolayers in relation to supercapacitive performance, IJPAP, 2020, 58, 885-891.
Conference/Seminar/Faculty Development Programme/Workshop

- Attended the online National Science Day program organized by IUAC, Delhi on 28 Feb 2021
- Attended the online national workshop on Challenges of Teaching Physics Laboratory Courses in Online Mode organized by Kalindi College, DU in association with Department of Physics and Astrophysics and NASI on 23-25th January 2021
- Attended 2 week FDP on “Research Methodology” sponsored by MHRD-Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching/Teaching Learning Centre, Ramanujan College, University of Delhi from October 01- October 15, 2020.
- One week Online Faculty Development Programme on ICT Enhanced teaching learning and creating MOOCs sponsored by MHRD-Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching/Teaching Learning Centre, Ramanujan College, University of Delhi from August 18- August 25, 2020.
- Attended and gave oral presentation in the national conference “NSRP-22” held in JNU from 8-10 November, 2019.
- Short Term Course on MOOCs, E-Learning and ICT sponsored by CPDHE(UGC-HRDC), University of Delhi, Delhi from 15/06/2019 to 21/06/2019.
- One Week Course on Disaster Management sponsored by UGC-HRDC, Jamia Millia Islamia, New Delhi from 26/2/2019 to 5/3/2019.
- One Week Course on Research Methodology sponsored by UGC-HRDC, Jamia Millia Islamia, New Delhi from 4/2/2019 to 9/2/2019.
- Attended National Seminar on “New Trends in Nanotechnology and applications NTNA-2018” in ARSD College, DU from 27-28th September, 2018. Attended and gave oral presentation in International conference “Recent developments in interdisciplinary research” organized by Physics Department, Hansraj College, DU on 2nd July 2018.
- Presented a paper on 13th April 2018 in the National conference held in Shivaji College, University of Delhi
- Attended Summer School organized by Jamia Millia Islamia, Delhi from 26th May 2016 to 15th June 2016
- Attended Winter School organized by Jamia Millia Islamia, Delhi from 17th Dec 2014-8th Jan 2015
- Attended Workshop on Science and Life organized by University of Delhi in 2013
- Attended Workshop On Training in C++ organized by University of Delhi in 2010

Research Guidance (*Supervision of Doctoral Thesis/Dissertations*)

NA

Awards and Distinctions

Gold Medalist in MSc Physics 2004, University of Delhi

Memberships

NA

Other Academic Activities

- **Convenor of International Webinar on “Era of Optical Atomic Clock.” co-hosted by physics department shivaji college on December 4 2020.**
- **Convenor of International Webinar on “Recent Trends in Material Science” held on 9 October 2020**
- **Convenor of International Webinar on “Mechanical Properties of Thin films.” Held on 23 April 2020**
- **Convenor of national Webinar on “Piezoelectric Flexible Nanogenerator : A New and Renewable Energy Source.” Held on 22 April 2020.**
- **Convenor of the BSc (H) students Lab visit to SSPL, DRDO, Delhi on 27 February 2020**
- **Convenor of Lecture Series on “Isotopes – The Wonder Tools” and inter college PowerPoint presentation competition on September 30, 2019.**
- **Convenor of Lecture Series on ‘Elementary Physics’ and inter college poster making competition held on 1st November 2018.**
- **Convenor of Physics Workshop on “Astrophysics, Cosmology & Computation” held on February 12, 2016, organized by Physics Department, Shivaji College, University of Delhi**
- **Convenor of Physics Department’s participation in the „INSPIRE“ Program Organized by Shivaji College, University of Delhi in July 2015**

Cultural/Extracurricular Activities

- **Convenor of Physics Department’s Annual Fest “Invenio 2019”**
- **Convenor of Physics Department’s Annual Fest “Invenio 2015”**
- **Convenor of Physics Department’s Annual Fest “Invenio 2016”**

Signature of Faculty Member