




## Shivaji College Faculty Details Proforma

Title	First Name	Last Name	Photograph
Dr.	RAVINDRA	SINGH	
<b>Designation</b>	Assistant Professor		
<b>Address</b>	Department of Physics, Shivaji College (University of Delhi) New Delhi		
<b>Office Phone No.</b>	011-25116644		
<b>Residence</b>	Delhi		
<b>Mobile</b>			
<b>Email</b>	ravindrasingh@shivaji.du.ac.in		
<b>Web-Page</b>			
<b>Educational Qualifications</b>	B.Sc.(Hons.), M.Sc., M.Phil., Ph.D.		
<b>Degree</b>	<b>University/Institute</b>	<b>Year</b>	
<b>Ph.D.</b>	❖ Shri Venkateshwara University	2020	
<b>M.Phil./M.Tech.</b>	❖ Vinayaka Mission University Salem, Tamilnadu	2009	
<b>PG</b>	❖ Ramjas College, University of Delhi	2006	
<b>UG</b>	❖ Desh Bandhu College, University of Delhi	2004	
<b>Any Other Qualification</b>	❖ Qualified <b>JRF-NET</b> by CSIR ❖ Qualified <b>GATE</b> ❖ Certificate in <b>SCILAB</b> ❖ Certificate in <b>MATLAB</b> ❖ Certificate in <b>LATEX</b> ❖ Certificate in <b>PYTHON &amp; Powered Data Sci.</b>		

	<ul style="list-style-type: none"> <li>❖ Certificate in <b>Cyber Security &amp; Ethical Hacking</b></li> <li>❖ Certificate in <b>Web Development Using CMS</b></li> <li>❖ Certificate in <b>Data Mining in Cyber Crime</b> (Detecting Trends and Scams in Virtual World)</li> <li>❖ A certificate course in <b>MS-Word, MS-Excel, MS-DOS, Power Point, Internet Explorer and Email</b> etc. from <b>University of Delhi</b>.</li> </ul>	
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**Career Profile**

<ul style="list-style-type: none"> <li>❖ To work a challenging and dynamic environment to keep adding value to myself and simultaneously contribute to the growth and success of the organization or institute.</li> <li>❖ Worked as Assistant Professor in Hindu College, Hansraj College, DDU College.</li> <li>❖ Since 2013 in Shivaji College (University of Delhi).</li> <li>❖ Total Teaching Experience <b>16</b> years.</li> </ul>
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**Administrative Assignments**

<ul style="list-style-type: none"> <li>❖ <b>NAAC</b> accreditation</li> <li>❖ Time-table and workload committee</li> <li>❖ College development cell</li> <li>❖ Research cell</li> <li>❖ Physics Society</li> <li>❖ Canteen Committee</li> <li>❖ Organizing conferences</li> <li>❖ Admission Round duties</li> <li>❖ College Events Duties</li> <li>❖ Intra school events</li> <li>❖ Garden Committee</li> <li>❖ Attendance &amp; IA records &amp; Other Official works etc.</li> </ul>
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**Areas of Interest/Specialisation**

<ul style="list-style-type: none"> <li>❖ Physics/Applied Physics</li> <li>❖ Mathematical &amp; Computational Physics</li> <li>❖ Simulation &amp; Numerical Techniques</li> </ul>
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**Subjects Taught**

<ul style="list-style-type: none"> <li>❖ Mathematical Physics</li> <li>❖ Scilab and C++ programming</li> <li>❖ Mechanics</li> <li>❖ Electricity and Magnetism</li> <li>❖ Electromagnetic theory</li> <li>❖ Thermal Physics</li> <li>❖ Statistical Mechanics</li> <li>❖ Waves and Optics</li> </ul>
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- ❖ Modern Physics
- ❖ Superconductivity
- ❖ Solid state Physics
- ❖ Quantum mechanics
- ❖ Classical mechanics
- ❖ Atomic and Molecular physics
- ❖ Nuclear physics
- ❖ Digital Empowerment
- ❖ Electronics and Digital Electronics etc.

#### **Innovation Project/Research Projects (Major Grants/Research Collaboration)**

#### **Publications Profile (Research Papers/Books)**

- ❖ **Ravindra Singh**, Ashok Kumar Shukla, Polly Biswas, Omwati Rana, Shiv Shankar Gaur, Amit Pratap Singh, “Effect of magnetic field on radially polarized laser induced electron acceleration in vacuum”, *AIP Conference Proceedings* **2754**, **100017** (2023) <https://doi.org/10.1063/5.0161072> ISSN:0094-243X ISBN: 978-0-7354-4634-2
- ❖ Jyoti Rajput, Ashok Kumar Pramanik, Pramod Kumar, Shiv Shankar Gaur, **Ravindra Singh** & Niti Kant, “Comparative study of electron acceleration by linearly and circularly polarized Hermite-cosh-Gaussian laser pulse in a vacuum”, *Journal of Optics*, Nov. 2022, pp 642-647, vol 52, issue 2, June 2023. <https://doi.org/10.1007/s12596-022-01000-0>
- ❖ **Ravindra Singh et al** 2022, “Computational Treatment for The Solution of a Set of Coupled Differential Equations for any Physical System Using Scilab and Generating Scilab Codes”, *Journal of Physics.: Conf. Ser.* **2223** (2022) 012002 ICIAS-2021, doi:10.1088/1742-6596/2223/1/012002. <https://iopscience.iop.org/issue/1742-6596/2223/1>
- ❖ **Ravindra Singh et al** 2022, “The Study of A System of Non-Homogeneous Equations Using Matrix Exponential Method and Analysis with Scilab Software 6.1.1”, *Journal of Physics.: Conf. Ser.* **2223** (2022) 012001 ICIAS-2021, doi:10.1088/1742-6596/2223/1/012001. <https://iopscience.iop.org/issue/1742-6596/2223/1>
- ❖ **R. Singh**, A. K. Shukla, S. S. Gaur, P. Verma, P. Biswas and O. Rana, “COMPARISON OF THE RESULTS OF DIFFERENTIAL EQUATION BY ORDINARY METHOD AND EULER’S METHOD USING SCILAB”, *Vidyabharati International Interdisciplinary Research Journal (Special Issue)*, pp.126-128 August, 2021, ISSN 2319-4979.
- ❖ **Dr. Ravindra Singh**, Dr. Ashok Kumar Shukla, Dr. Shiv Shankar Gaur, Dr. Priyanka Verma, Polly Biswas, Dr. Omwati Rana, “The Matrix Formulations and Algebraic Equations Using Scilab”, *National Journal of Environmental and Scientific Research*, Vol-2, Issue-7, pp. 56-71, July 2021, E-ISSN-2582-5836. DOI - 10.53571/NJESR.2021.2.7.56-71
- ❖ Polly Biswas, Dr. Ashok Kumar Shukla, **Dr. Ravindra Singh**, “Mathematical Treatment Using Runge-Kutta (Rk-4) Method For Hermite Gaussian (H-G) Laser Pulse In Vacuum For Circularly Polarized Laser Pulse & Linearly Polarized Laser Pulse, and Effects of Decentre Parameter & Electron Energy Gain Versus Laser Intensity Parameter”, *Bull. Cal. Math. Soc.*, **113**, (3) 189-194, **2021**

- ❖ Polly Biswas, Dr. Ashok Kumar Shukla, **Dr. Ravindra Singh**, “The Study of Partition Function, Occupation Number, Internal Energy and Entropy Using Scilab”, ***International Journal of Research In Computer Applications And Robotics***, Vol. 9 Issue 6, pp. 1-6, June 2021, ISSN 2320-7345
- ❖ Polly Biswas, Dr. Ashok Kumar Shukla, **Dr. Ravindra Singh**, Dr. Shiv Shankar Gaur. “The Study of Fermi-Dirac, Bose-Einstein and Maxwell-Boltzmann Distribution with Energy At Different Temperatures with Scilab Software”, ***National Journal of Environmental and Scientific Research***, Vol-2, Issue-6, pp. 53-59, June 2021, E-ISSN-2582-5836.
- ❖ Polly Biswas, Dr. Ashok Kumar Shukla, **Dr. Ravindra Singh**, “Weighted Least Square Fitting Through Matrix Form Using Scilab Programming”, ***International Research Journal of Humanities and Interdisciplinary Studies***, Vol. 2, Issue 6, pp. 259-264, June 2021, ISSN 2582-8568. DOI Link- <https://doi-ds.org/doilink/06.2021-79778634/IRJHIS2106033>
- ❖ **Ravindra Singh**, Sandeep & Jaspreet Kaur, “Electron Injection for Direct Acceleration by A Gaussian Laser Field Under the Influence of Azimuth Magnetic Field”, ***Journal of Atomic, Molecular, Condensate & Nano Physics***, Vol. 6, No. 3, pp. 153–164, Dec. 2019, ISSN-2349-2716 DOI:10.26713.v6i3.1320
- ❖ **Ravindra Singh**, Sandeep & Jaspreet Kaur, “Electron Acceleration by a Chirped Short Intense Laser Pulse in Presence of an External Axial Magnetic Field in Vacuum With Different Phase Values”, ***Journal of Atomic, Molecular, Condensate & Nano Physics***, Vol. 6, No. 2, pp. 81–91, August 2019, ISSN 2349-2716, DOI: 10.26713/ jamcnp.v6i2.1279
- ❖ **Ravindra Singh** & Shiv Shankar Gaur, “Electron Acceleration by a Radially Polarized Laser Pulse in an Azimuthal Magnetic Field”, ***Journal of Atomic, Molecular, Condensate & Nano Physics***, Vol. 5, No. 2, pp. 149–157, March 2018, ISSN 2349-2716 DOI: 10.26713/jamcnp.v5i2.810
- ❖ **Ravindra Singh**, “Electron Energy Enhancement by Comparison of Linearly and Circularly Polarized Laser Pulse in Vacuum Using Different Values of Magnetic Fields”, ***Journal of Atomic, Molecular, Condensate & Nano Physics***, Vol. 5, No. 2, pp. 123-131, July 2018, ISSN 2349-2716, DOI: 10.26713/jamcnp.v5i2.914.
- ❖ **Ravindra Singh**, Dharmendra Kumar, Shiv Shankar Gaur & Sandeep, “Effect of Laser Pulse Parameters and Initial Phase on the Acceleration of Electrons by a Circularly Polarized Gaussian Laser Beam under the Influence of Azimuth Magnetic Field”, ***International Journal of Advanced Scientific Research and Management***, Special Issue II, Oct 2018, ISSN 2455-6378.
- ❖ **Ravindra Singh**, Dharmendra Kumar, Shiv Shankar Gaur & Sandeep, “The Study of a Chirped Short Intense Laser Pulse In Vacuum in External Magnetic Field and The Variation of Field & Phase”, KIET IJCE KIET ***International Journal of Communications & Electronics***, Vol. 6, Issue No. 1, Jan-June 2018, ISSN 2320-8996.

**BOOK CHAPTER/PAPER**

- ❖ **Dr. Ravindra Singh**, Dr. Omwati Rana, Polly Biswas and Dr. Shiv Shankar Gaur, “Fourier Coefficients and Analysis of Generation of Square Wave Function, Triangle Wave Function & Sawtooth Wave Function Using Scilab”, **Wisdom of the Scientific Research International Book of Multidisciplinary Studies** Published By: Rubicon Publications 4/4A Bloomsbury Square, Bloomsbury Square, **London, WC1A 2RP, England**, Chapter 5, pp.31-39 Edition: 1<sup>st</sup> Publication Year: 2021 E-Book ISBN: 978-1-913482-30-5 Paperback ISBN: 978-1-913482-29-9 Book DOI:<https://doi.org/10.33545/rp.book.31>
- ❖ **Dr. Ravindra Singh**, Dr. Omwati Rana, Polly Biswas & Dr. Shiv Shankar Gaur, “Generating Multiple Waves and Addition of Multiple Waves Using Scilab X-Cos”, **Research Trends In Multidisciplinary Subjects, Volume-4, RED'SHINE Publication Pvt. Ltd** 88-90 REDMAC, Navamuvada, Lunawada, Gujarat-389230 Website: [www.redshine.co.in](http://www.redshine.co.in) , Chapter 8, pp.78-97, November, **2021** (First Edition), ISBN: 978-93-91479-24-4, ISBN-10: 9-39-147924-3, DIP: 18.10.9391479243, DOI: 10.25215/9391479243. Available on kindle amazon.
- ❖ Polly Biswas & **Dr. Ravindra Singh**, “The Important Techniques of Plotting Graphs Using Scilab”, **International Book Chapter on Multidisciplinary Subjects For Research-VIII, Volume-2, RED'SHINE PUBLICATION PVT. LTD** 232, Bilton road, Perivale, Greenford, Passcode: UB6 7HL London, UK. Website: [www.redshine.uk](http://www.redshine.uk), Chapter 20, pp.109-116, **2021**, ISBN: 978-1-300-70823-0 (Paperback), ISBN-A: 10.1300708239, DIP: 18.10.1300708239, DOI: 10.25215/1300708239 Available at- DIP: 18.10.1300708239.020 OR go to link <https://redshine.co.in/978-1-300-71032-5>
- ❖ Polly Biswas & **Dr. Ravindra Singh**, “Solution of Four Linear Ordinary Differential Equations of Ist Order Using for Loop in a Single Program with the Initial Conditions in Scilab Software 5.5.2”, **International Book Chapter on Multidisciplinary Subjects For Research-VIII, Volume-1, RED'SHINE PUBLICATION PVT. LTD** 232, Bilton road, Perivale, Greenford, Passcode: UB6 7HL London, UK. Website: [www.redshine.uk](http://www.redshine.uk), Chapter 17, pp. 82-85, **2021**, ISBN: 978-1-300-71032-5 (Paperback), ISBN-A:10.1300710322, **DIP:** 18.10.1300710322, **DOI:** 10.25215/1300710322 Available at- DIP: 18.10.1300710322.017 OR go to link <https://redshine.co.in/978-1-300-71032-5>
- ❖ Polly Biswas, Dr. Ashok Kumar Shukla & **Dr. Ravindra Singh**, “The Equations of Motion of The Electron Under Certain Conditions with An Electric Field & Path Comparison”, **Exploring The Scientific Research (Volume-2) International Book of Multidisciplinary Studies, AkiNik Publications**, Chapter 5, pp. 41-50, **2021** ISBN:

78-93-91216-06-1, **E-Book ISBN:** 978-93-91216-18-4, **Book DOI:**  
<https://doi.org/10.22271/ed.book.1215>

**Conference/Seminar/Faculty Development Programme/Workshop**

**FACULTY DEVELOPMENT PROGRAMS**

- ❖ **04 week Faculty Induction/Orientation Program** for “**Faculty in Universities/Colleges/Institutes of Higher Education**” from Teaching Learning Centre Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNMTT**) with Grade “**A+**” from 22 January-20 February, 2024.
- ❖ **Faculty Induction Programme on NEP: PEDAGOGICAL IMPERATIVES OF HIGHER EDUCATION** organized by **University of Delhi** on Friday, December 01, 2023.
- ❖ **01 week Faculty Development Program** on “**Cyber Security**” conducted by **ICT Academy** on 03 Jul 2023 to 07 Jul 2023 at **University of Delhi**.
- ❖ **02 week Refresher Course in PHYSICS** from Teaching Learning Centre Ramanujan College, University of Delhi in collaboration with K.L.E Societys S.K. Arts College and H.S.K. Science Institute, Vidyanagar Hubballi, Karnataka under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNMTT**) with Grade “**A+**” from 10-24 April.
- ❖ **02 week Faculty Development Program** on “**ICT Based New Paradigm of E-Teaching and E-Learning: Digital Pedagogy**” under the aegis of MHRD, Department of Computer Science, Mata Sundri College for Women (University of Delhi) in collaboration with Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNMTT**) with Grade “**A**” from Sept 15-Sept 30, 2020.
- ❖ **02 week Faculty Development Program** on “**RESEARCH METHODOLOGY**” from Teaching Learning Centre Ramanujan College, University of Delhi sponsored by Ministry of Human Resources Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNMTT**) with Grade “**A+**” from Oct. 01- Oct. 15, 2020.
- ❖ **01 week Faculty Development Program** on “**Python 3.4.3**”, organized by Department of Physics & IQAC, Barnagar College, Sorbhog, Barpeta, Assam in association with Spoken Tutorial, IIT Bombay under **PMMMNMTT** Scheme from August 27<sup>th</sup> to 2<sup>nd</sup> September, 2020.



- ❖ **02 week Faculty Development Program** on “**ICT Tools for Teaching, Learning Process and Institute**” from 10<sup>th</sup> - 21<sup>th</sup> August, 2020. Under the “Scheme of Financial assistance for setting of Electronics and ICT Academics” of the **Ministry of Electronics and Information Technology (MeitY), Government of India**.
- ❖ **04 week Faculty Induction/Orientation Program** for “**Faculty in Universities/Colleges/Institutes of Higher Education**” from Teaching Learning Centre Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNMTT**) with Grade “**A+**” from June 04-July 01, 2020.
- ❖ **01 week Faculty Development Program** on “**LaTeX**”, organized by CMR Engineering College in association with Spoken Tutorial, IIT Bombay, funded by Nation Mission of Education through ICT, MHRD, Govt. of India from June 01-June 06, 2020.
- ❖ **02 week Faculty Development Program** on “Managing online classes and co-creating MOOCS: 2.0” from Teaching Learning Centre Ramanujan College, University of Delhi sponsored by Ministry of Human Resources Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (**PMMMNMTT**) from May 18-June 03, 2020.

#### **RESOURCE PERSON & ORGANIZER**

- ❖ **Organizer** of annual fest “**QUANTA 24**” held on 19<sup>th</sup> March, 2024 organized by Department of Physics, **Shivaji College (University of Delhi)**.
- ❖ **Organizer** of annual festival of the cell “**SRIJAN -2023**” held on April 3<sup>rd</sup>, 2023 organized by College Research and Innovation Cell, **Shivaji College (University of Delhi)**.
- ❖ **Organizer** of annual fest “**QUANTA 23**” held on 27<sup>th</sup> March, 2023 organized by Department of Physics, **Shivaji College (University of Delhi)**.
- ❖ **Expert Panel** for conducting presentations of Minor Research Projects under the Intramural Research Scheme of the College “**SRIJAN -2023**” held on April 3<sup>rd</sup>, 2023, **Shivaji College (University of Delhi)**.
- ❖ **Organizer** of one day workshop entitled “**Strengthening Research Cell**” held on November 10, 2022 organized by College Research and Innovation Cell, **Shivaji College (University of Delhi)**.
- ❖ **Organizer** of one day “**Nanomaterials Virtual Lab Training and Applications (Module-1)**” under **NEAT** Program jointly organized by Bhagini Nivedita College, Shivaji College, Motilal Nehru College and Bhaskaracharya College of Applied Sciences held on October 27<sup>th</sup>, 2022.
- ❖ **Organizer** of webinar “**Mass Spectroscopy: The Expanding Horizons**” held on February 22<sup>nd</sup>, 2022 organized by Physics Society, Department of Physics, **Shivaji College (University of Delhi)**.
- ❖ **Organizer** in the “**INTELLECTUAL PROPERTY RIGHTS AWARENESS PROGRAM**” Under **National Intellectual Property Awareness Mission** held on January 6<sup>th</sup>, 2022; Organized by **Shivaji College (University of Delhi)** in collaboration with Intellectual Property India-

Department for Promotion of Industry and Internal Trade Ministry of Commerce and Industry Government of India.

- ❖ **Organizer** in the “**PHYSICS DEPARTMENT ONLINE INDUCTION PROGRAM**” held on November 18<sup>th</sup>, 2021 **Shivaji College (University of Delhi)**.
- ❖ **Organizer** in the “**ALUMNI TALK**” held on August 27<sup>th</sup>, 2021 at **Shivaji College (University of Delhi)**.
- ❖ **Organizer** of webinar “**National Education Policy 2020: Transforming the vision for Education in India**” held on October 4<sup>th</sup>, 2021 **Shivaji College (University of Delhi)**.
- ❖ **Resource Person (three times)** in **INSPIRE SCIENCE CAMP** (of 5 days in each year) by Department of Science and Technology **DST** from 2015-2018, held at **Shivaji College (University of Delhi)**.
- ❖ **Organizer** of “**National Conference on Current and Future Perspectives**” in Nanotechnology “**Nanoworld-2018**” held on 12-13 April, 2018 at Shivaji College.
- ❖ **Organizer** of workshop “**SPECTRUM-2018**”, held on 12 Feb, 2018 at Shivaji College.
- ❖ **Organizer** of “**INVENIO**” annual Departmental fest held on 30-31 March, 2017 at Shivaji College.
- ❖ **Organizer** of “**PRATIBIMB**” Departmental fest held on 31 January, 2017 at Shivaji College.
- ❖ **Organizer** of workshop on “**Astrophysics, Cosmology and Computation**” organized by Physics Department of Shivaji College on 12 February, 2016.

#### **TECHNICAL WORKSHOPS**

- ❖ Industrial Training Certificate on “**Industrial Training on Data Science & Artificial Intelligence**” held on 18.05.2023-19.05.2023 at Delhi University Computer Centre (DUCC).
- ❖ **Online Certificate Course Cum Workshop** of 32 hours on “**Python Powered Data Science**” organized by **Sanatan Dharma College, Ambala Cantt** from **21st Oct. 2023 to 30th Oct. 2023** and awarded with “**A+**” Grade.
- ❖ **Online Certificate Course Cum Workshop** of 32 hours on “**Technical Writing With LaTeX**” organized by **Sanatan Dharma College, Ambala Cantt** from **11th Sept 2023 to 20th Sept 2023** and awarded with “**A+**” Grade.
- ❖ **Online Certificate Course Cum Workshop** of 32 hours on “**Open Source Tools For Research**” organized by **Sanatan Dharma College, Ambala Cantt** from **11th March 2022 to 20th March 2022** and awarded with “**A+**” Grade.
- ❖ **Online Certificate Course Cum Workshop** of 10 days (32 hours) on “**Designing Captivating Presentations with PowerPoint**” organized by **Department of Computer Science & Applications** in Collaboration with **Career Guidance Cell, Sanatan Dharma College, Ambala Cantt, Kurukshetra University, Kurukshetra** from **21st November 2021 to 30th November 2021**.



- ❖ **Online Certificate Course Cum Workshop of 32 hours on “Technical Writing With LaTeX”** organized by **Sanatan Dharma College, Ambala Cantt** from **1st Feb 2022 to 10th Feb 2022** and awarded with **“A” Grade**.
- ❖ **Two Weeks** Hands-on Online Workshop Series on **MATLAB** for Engineering & Science. 12 - 25, July 2021 organized jointly by the ELIXIR Educational Services, Chhattisgarh and The PRIME ACADEMY, Tamil Nadu, India.
- ❖ Workshop in **“Web Development Using CMS”** conducted on 18.10.2020.
- ❖ A certificate in **“Data Mining in Cyber Crime (Detecting Trends and Scams in Virtual World)”** from IFO Forensic Standards & Research P. Ltd. on 02.10.2020.
- ❖ 10 Days online certificate course on **“Cyber Security & Cyber Ethical Hacking”**, IQAC cell **Hansraj College (University of Delhi)** from 10<sup>th</sup> - 21<sup>st</sup> August, 2020.
- ❖ **24** days **ILLL** workshop from **Delhi University** in 2010 at **DDUC**.
- ❖ One day workshop on **“Cyber Security & Cyber Ethical Hacking”** at CETPA Infotech Pvt. Ltd. held on 15 September, 2018.
- ❖ Two days **SCILAB** Workshop of **DBT** at Hansraj College (**University of Delhi**) on 22 & 23 Sept, 2017.

#### **WORKSHOPS/SEMINARS/CONFERENCES**

- ❖ **National workshop** on **NEP-2020: Model Curriculum and Content in Chemistry** at Department of Chemistry, University of Delhi in collaboration with **Vidya Bharati Shiksha Sansthan**.
- ❖ **National workshop** on **NEP-2020: Model Curriculum in PHYSICS** at National Institute of Technical Teachers Training and Research (**NITTTR**), Chandigarh on 8 February and 9 February 2024.
- ❖ **International Conference** on **Resurgent Bharat on the Global Canvas** organized by **Shaikshik Foundation in collaboration with NCPST & Shivaji College (University of Delhi)** held on 25-26 February, 2024.
- ❖ **National workshop** on **“Research Methodology & Skill Development”** organized by Shri Venkateshwara University held from Feb. 3<sup>rd</sup> to 9<sup>th</sup>, 2020 in association with Indian Association For Management Development (IAMD).
- ❖ **International Seminar** on Science, Environment and Spirituality (ISSES 2019) held on September 13, 2019 at **Shivaji College (University of Delhi)**.
- ❖ Two days **International E-Summit** organized by The Enterpreneuership Development Cell held on 14-15 February, 2019 at **Shivaji College (University of Delhi)**.
- ❖ Two days **National Seminar** on **“New Trends in Nanotechnology and Applications”** NTNA-2018 held on 27-28 September, 2018 at ARSD college (**University of Delhi**).
- ❖ Two days **National Conference** on “Material and Devices” held on 31-01 August, 2018 in Sharda University, Greater Noida.

- ❖ Two days **International Conference** on “**Frontiers of Science & Technology-2018**” IGFT-18 held on 21-22 July, 2018 at Department of Applied Sciences KIET Group of Institutions, Ghaziabad, U.P.

#### **WEBINARS/E-CONFERENCES**

- ❖ Webinar on “**Challenges in Implementation of NEP 2020**” organized by the Committee of Implementation of National Education Policy, Shivaji College on October 22, 2021.
- ❖ Webinar on “**National Education Policy 2020: Transforming the vision for Education in India**” organised by Department of Commerce, in collaboration with Department of Physics and Department of Mathematics, Shivaji College, University of Delhi on 4th October, 2021.
- ❖ **National Level Webinar** entitled “**Art of Academic Writing: A systematic approach**” organized by Research Cell, Shivaji College (University of Delhi) on September 4, 2021.
- ❖ **Three days National workshop** on “**PROGRAMMING AND SOFTWARE TOOLS FOR UG COURSES**” organized by Department of Physics and Electronics, under the aegis of IQAC Rajdhani College, University of Delhi held from 19<sup>th</sup> March – 21<sup>st</sup> March 2021.
- ❖ **Three days National workshop** on “**Challenging of Teaching Physics Laboratory Course in Online Mode**” organized by Department of Physics under the aegis of IQAC Kalindi College in association with Department of Physics and Astrophysics, University of Delhi and the National Academy of Sciences India (NASI), Delhi Chapter on 23-25 January, 2021.
- ❖ **International webinar** on Recent Trends in Material Science organised by Department of Physics, Shivaji College on Oct. 9, 2020.
- ❖ **International webinar (e-conference)** on the theme “**Prospective of Interdisciplinary Research in Science and Technology in the Present Scenario**” held on May 15-16, 2020. Chaudhary Charan Singh University Meerut, Uttar Pradesh, India
- ❖ **National Webinar** on “**Emerging out a Winner in Lockdown**” organized by Department of Physics, Kalindi College on May 14, 2020.
- ❖ **National Webinar** on “**Science, Society and Exponential Change: Reimagining the Future**” organized by Department of Physics, Kalindi College, on May 13, 2020.
- ❖ **National Webinar** on “**AN INTRODUCTION TO MEASUREMENT OF LIGHT**” Department of Physics, Department of Physics, Kalindi College, University of Delhi has University of Delhi held on 13<sup>th</sup> May, 2020.
- ❖ **National webinar** on “**What is Light : Evolution of Quantum Theory**”, organized by Department of Physics, Kalindi College, on May 12, 2020.
- ❖ Webinar on “**Material Science, Technology & Society (MSTS 2020)**”, on 8-9 May 2020 at JNU.
- ❖ **Five Days online National Research STTP** on How to Write a Research Paper organized by Matterhere on 21 - 25 October, 2020.

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

### Awards and Distinctions

- ❖ **National Level E-quiz** competition on “**Mathematics & Mathematicians**” organized by Department of Mathematics, Government Shyama Prasad Mukharjee College Sitapur, Chhatisgarh with 96% on 25.08.2020.
- ❖ **Entrance Test to M.Sc. PHYSICS** conducted by **University of Delhi** in 2004.
- ❖ **JRF-NET** conducted by **CSIR** in June 2008.
- ❖ **GATE** conducted by **IIT** in 2007.

### Memberships

- ❖ At present member of editorial Board of **National Journal of Environment and Scientific Research**, E-ISSN 2582-5836. <https://www.njesr.com/page/editorial-board>
- ❖ At present member of editorial Board of **High Rise Books** (High Rise Publications). <https://highrisebooks.com/about-hrb/>

### Other Academic Activities

#### **COORDINATOR**

- ❖ **Coordinator** of six months **Value Added Course (VAC)** entitled “**Differential Equations with Scientific Applications**” conducted by Department of Physics, Shivaji College (University of Delhi) from Nov 1<sup>st</sup> 2021-April 30<sup>th</sup> 2022.

#### **TECHNICAL QUALIFICATIONS**

- ❖ A certificate course in **MATLAB with Numerical Techniques** in **PHYSICS & MATHEMATICS** from an **ISO 9001:2008** certified company, NOIDA (U.P).
- ❖ Certificate in **SCILAB** programming with Numerical Techniques.
- ❖ Certificate in **PYTHON** programming with Numerical Techniques.
- ❖ Certificate in **LATEX**.
- ❖ Certificate in **Web Development Using CMS**
- ❖ Certificate in **Data Mining in Cyber Crime** (Detecting Trends and Scams in Virtual World)
- ❖ Certificate in **Cyber Security & Cyber Ethical Hacking**
- ❖ A certificate course in **MS-Word, MS-Excel, MS-DOS, Power Point, Internet Explorer and Email** etc. from **University of Delhi**.
- ❖ **PASCAL** Programming through Physics.
- ❖ **C, C+ and C++** programming through Physics.
- ❖ Special tips on **ANDROID** platform and **Ethical Hacking** etc.

### Cultural/Extracurricular Activities

**NAAC** accreditation, Time-table and workload committee, College development cell, Research cell, Canteen Committee, Garden Committee, Attendance record, Official work, Administrative work, Social work, Counselling to students at the time of admission, Revaluation, Practical exams, External and Internal examiner, Magazine and Newsletter, NSS/NCC/Scout guide activities, Student projects, Paper presentations, Intra school events, Seminars, Organizing conferences, Attending conferences, Workshops, Short term training programs, Faculty Development programs, Admission Round duty, Assignments, Term work, Invigilation, Paper Checking, Paper setting, Result analysis, Remedial classes, Planners, Discipline, Hospitality, Exhibitions, Student Clubs, Guest lectures, Annual sports, Traditional day, Annual gathering, Freshers party, Farewell party, Youth festival, Inter Collegiate Sports competitions, Parents meet, Publishing Books, Organizing Alumni meet, Staff meetings, Conducting Bridge courses, Documentation for various inspection Committees, Internal marks calculation, Board of Studies meetings, Other university meetings, Academic council meetings, Examination committee meetings. Loksabha election duty, Assembly election duty, NMCElection duty, Census duty etc.



**Signature of Faculty Member**