



SHARDA
UNIVERSITY
Beyond Boundaries



CREATING
ACHIEVERS
IN BASIC SCIENCES
& RESEARCH

SHARDA SCHOOL OF
BASIC SCIENCES
& RESEARCH

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FIST LAB
Sponsored by
DST

28 YEARS OF AN UNPRECEDENTED JOURNEY OF EXCELLENCE.

Sharda Group is a multi-million dollar conglomerate with operations in India & Uzbekistan and plans to expand further to the other CIS countries and Africa. The Group is on a vertical tangent of growth spearheaded by **Mr. PK Gupta** who lives by the treatise - It takes a vision to change the game.



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SHARDA UNIVERSITY

Experience the joy of being a part of
India's truly global university

Sharda University over the years has become one of the leading centres of education, research and innovation in Delhi NCR region. Established through an act of the State Legislature of Uttar Pradesh (14 of 2009), Sharda University offers over 130+ UGC recognised programmes in various disciplines. Sharda University has recently been accredited A+ by NAAC which puts it among 5% of select higher education institutions in India.

Being the only global University in India that has seen students from 95+ countries experience world-class facilities, and having 259+ global academic partnerships. Sharda University offers a truly international learning environment & produces achievers across the globe. That's why it is said,

"The World is Here, Where are You?"



Accredited by



Awarded



Rated by



Rated in the GOLD BAND with A Grade
(Higher Educational Institution of Excellence)





Engineering Programmes
Accredited by **NBA**



ADVANCED E-LEAD CERTIFIED

E-Learning Excellence
for Academic Digitisation



INDIAN COLLEGE & UNIVERSITY RATINGS



ACCREDITATION SERVICE
for
INTERNATIONAL SCHOOLS,
COLLEGES & UNIVERSITIES

Continuing its legacy as a world-class institution,
Sharda University has earned Membership status with ASIC, UK
for its commendable areas of operation.



PROUD TO BE PLACED IN
EXCELLENT BAND



**ARIIA
RANKING 2021**



MoE's
INNOVATION CELL
(GOVERNMENT OF INDIA)

SHARDA-IIC
is listed among top 10 Universities
FOR THE NORTH REGION (NRO)
WITH 4-STAR RATING FOR THE YEAR 2020-21



SHARDA IS
RANKED 5TH
IN INDIA

in the number of patents granted

As per India Today issue dated 10th August, 2020



SHARDA SCHOOL OF BASIC SCIENCES & RESEARCH



Established with the aim of developing top scientists, the Sharda School of Basic Sciences & Research has evolved into one of the leading Schools for interdisciplinary science in Delhi-NCR. The School is committed to providing a transformative learning experience in a collaborative and diverse environment. The School's advanced laboratories; and focus on research and innovation gives students a feel of practical and immersive education.

Interdisciplinary research centre "Centre for Advanced Research in Applied Mathematics and Physics" established in the School and funded by an international company - **ISHAAT SALMAN AL-TERAIS CONTRACTING CO. RIYADH, SAUDI ARABIA (KSA).**

Glacio-hydro metrological process at Naradu Glacier, Fabrication of Soil & Photo-electrochemical solar cells, origin & development of filters, etc. are few of the current projects running in the campus.

KEY FACTS & FIGURES

- ◆ One of the leading Schools for Basic Science & Research in Delhi NCR.
- ◆ All faculties are Ph.D. holders from reputed institutions.
- ◆ Well equipped laboratories and research facilities.
- ◆ Research in areas like conducting polymers and device applications, thin film deposition, atmospheric aerosols, glaciology, remote sensing technology, nano-physics, Solar cells, Dye sensitized solar cells, Ferromagnetic materials, Super capacitors etc.
- ◆ Many research projects sponsored by various agencies like DST, DRDO, MSME, MOES, ISRO, USAID.
- ◆ Guidance for competitive examinations such as NET/GATE. A number of students have cleared such exams and have got admission in IITs/IISc/NITs.
- ◆ Separate library, laboratories, well-equipped classrooms, ICT enabled and workshops for hands-on training of the students.
- ◆ Alumni pursuing higher studies in Internationally acclaimed institutions such as Penn State University, University of Massachusetts, Sate University of New York among others.

Placement Partners



CENTRE OF EXCELLENCE

- ◆ Centre of Excellence in Artificial Intelligence in Medicine, Imaging & Forensics
- ◆ Centre of Excellence in Solar Cell & Renewable Energy
- ◆ Centre of Excellence in Virology & Immunology
- ◆ Bio-POSITIVE (Biological-Platform of Scientists, Innovators, and Technologists for Inventions for Vital Environment) Lab.
- ◆ Centre for Advanced Research in Applied Mathematics & Physics
- ◆ Central Instrumentation Facility (CIF)



Faculty *That's Truly Inspiring*

School of Basic Sciences & Research faculty comprises of Emeritus Professors, Professors and others who have been accorded prestigious national and international awards and fellowships in recognition of their outstanding scientific achievements. The School also regularly organises guest lectures to give new insights into new approaches to teaching.



“

“School of Basic Sciences & Research acts as a platform where the intellectual and creative attributes of future scientists are developed and enhanced. The School emphasizes upon the overall development of students so as to enable them to become effective leaders of tomorrow.”

”

Prof. (Dr.) Shyamal Kumar Banerjee

Dean, SBSR and Professor (Mathematics)
Sharda School of Basic Sciences and Research
Ph.D.

Prof.(Dr.)Shyamal Kumar Banerjee has done Ph.D from BHU. Thereafter, Dr. Banerjee joined Inter University Centre for Astronomy and Astrophysics, Pune as a Post-Doctoral Fellow under the Homi Bhabha Professors Fellowship with Padma Vibhushan Prof. Jayant Vishnu Narlikar, the renowned astrophysicist and the Founder Director of IUCAA. He was awarded UGC sponsored Visiting Associate at IUCAA, Pune by the UGC in the year 2000 and he has been still continuing as the UGC sponsored visiting associate at IUCAA, Pune. Prof. Banerjee has done “Specialization Course on Virtual Teacher” from California University, Irvine.

Prof. Banerjee in his long professional career, has worked in various capacities as Prof. & Dean (Academic) in School of Engineering and Technology, Amity University; Senior Professor and Associate Dean (Academic Planning & Monitoring) at school level in UPES, Dehradun. Member, UPES Board of Management, Chairman, Library Steering Committee, Chairman, Time Table Committee, Chairman Examination Disciplinary Committee.

- 34 years of Research and Teaching Experience
- 24+ Research Publications and author of 6 books
- Received Post-Doctoral Fellowship under the highly prestigious Homi Bhabha Professor’s Fellowship, by BARC Mumbai
- Conferred with RASHTRIA SHIKSHA RATAN SAMMAN-2022 in 2022 on the occasion of Teachers’ Day
- BEST CITIZEN OF INDIA GOLD MEDAL AWARD in 2018
- “INDIRA GANDHI GOLD MEDAL AWARD” in 2016 for Outstanding Individual Achievement in Education & Research & National Development.



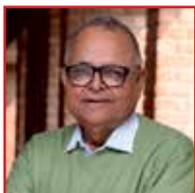
Prof. (Dr.) Seyed E. Hasnain (Distinguished Professor, Dept. of Life Sciences) Ph.D.

Prof. Hasnain is a Padma Shri awardee and recipient of Germany's Highest Civilian Award, equivalent of India's Bharat Ratna. He has a total of 42+ years of experience and has mentored 150 Ph.D./MD/Post-Doctoral students, four of whom received the prestigious INSA Young Scientist Medal.



Prof. (Dr.) Ashok Kumar (Dept. of Physics) M.Sc, Ph.D.

M.Sc. (Integrated) from IIT Kanpur and Ph.D. from Johns Hopkins University. Research experience at Massachusetts General Hospital, Harvard Medical School and at Stanford University. Heads the Sharda University Centre of Excellence for Artificial Intelligence in Medicine, Imaging & Forensics.



Prof. (Dr.) N.B. Singh (Dept. of Chemistry & Biochemistry) M.Sc, Ph.D.

Dr. Singh was an Alexander von Humboldt fellow and has worked at TH Aachen, University of Clausthal, University Kassel and TU Dortmund University, Germany. His Google scholar citations are 5500, h index 34 and iTen 127. He has over 50 years of teaching and research experience.



Prof. (Dr.) R. C. Singh

(Director, National & International Rankings) | Advisor, Learning Resource Center) **M.Sc, Ph.D.**

More than 34 years of experience. Published more than 70 research papers. Conferred Bharat Vidya Shiromani Award, Pride of International Education Excellence Award during Indo-Nepal Friendship Summit at Kathmandu and Albert Nelson Marquis Lifetime Achievement Award 2017.



Prof. (Dr.) Vinod Joshi (Dept. of Life Sciences) M.Sc, Ph.D.

44 years of Research, Administrative, Training and Teaching experience in Dengue, H1N1, Malaria, Breast Cancer, Hepatitis C virus, Dracunculiasis and Cutaneous Leishmaniasis. 50+ Publications in Journals of National & International repute, 1 patent and 8 book chapters. Received many grants from National & International funding agencies in DMRC, Jodhpur.



Prof. Satyawada Rama Rao (Professor, Head of the Department of Life Sciences), M.Sc., Ph.D.

Prof. Satyawada Rama Rao is a professor and head of the Department of Life Sciences at Sharda University. He received his Ph.D. in 1990 from the University of Jodhpur. His research interests include Cellular and Molecular Cytogenetics, Biodiversity and Phylogenetics.



Prof. (Dr.) Vinay K. Verma (Controller of Exams, Dept. of Chemistry & Biochemistry) M.Sc, Ph.D.

18 years of research and teaching experience. Published a number of research papers and book chapters in the Journals of International repute. Current research interest includes conceptual Density Functional theoretical calculations and experimental study.



Prof. (Dr.) Geeta Durga (Dept. of Chemistry & Biochemistry) M.Sc, NET (UGC-CSIR), Ph.D.

22 years of teaching and research experience. Published 3 book chapters and several research papers in reputed international Journals. Attended several short term courses, national/ international conferences, FDPs, etc. The research area include optoelectronic materials, biomaterials & fibre reinforced composites.



Prof. (Dr.) Pramod K. Singh (HoD, Dept. of Physics & Environmental Science), M.Sc, Ph.D.

More than 30 years teaching/ research experience. Ph.D. from Banaras Hindu University, India and Post-Doctorate from South Korea, Norway and Turkey. Reviewers for more than 70 Scopus indexed research journals. Published more than 300 research papers in international journals. Working on one project on Material Science sponsored by Council of Science & Technology U.P.(CSTUP), Govt. of India.



Prof. (Dr.) Khurseed Alam (HoD Dept. of Mathematics), M.Sc, Ph.D.

Obtained M.Sc. and Ph.D. degree in Mathematics from Jamia Millia Islamia. Associated with Sharda group of institutions (SGI), since July 2006. He has more than 16 years of teaching experience and research. His research area is Fractals using Wavelet, Image Processing, Non-Linear Dynamical Systems and Chaos Theory.



Dr. B. K. Singh (Professor, Dept. of Mathematics) M.Sc., Ph.D.

Dr. Singh has received his Ph.D. from Dr. Ram Manohar Lohia University, Ayodhya Uttar Pradesh. His area of research is Tensor Analysis, Differential Geometry, Operation Research, Linear Algebra, Business Statistics, Operation Research and Discrete Mathematics.



Prof. (Dr.) Mohit Sahni (Professor of Physics, Associate Dean Research and Ph.D. Cell Head) M.Sc (IIT Roorkee), Ph.D (MNNIT, Allahabad)

19+ years of teaching and research experience. He has 50 research papers, 04 granted & 11 published patents. Presented research papers in India and abroad. Reviewer of 3 international journals. Research interests in ferromagnetic and ferroelectric.



Dr. Munendra Singh (Deputy COE, Dept. of Physics) M.Sc, M.Phil, Ph.D.

More than 20 years of teaching and research experience. Published 30 research papers in reputed journals and presented several research papers in international conferences. Areas of interests are Cosmic Rays and Space Physics, Solar influence on Earth's weather, Signal Analysis and Image Processing and Radio- medical Physics.



Dr. Anupam Agarwal (Associate Professor & HoD Dept. of Chemistry & Biochemistry) Ph.D., Postdoc

17 years of teaching & research Experience, 30+ research publication, authored 2 Books, Post Doctoral Fellowship from Western University, Canada. Reviewer of various journals of Elsevier and Springer. Research interest includes synthesis of bioadsorbents, nanomaterials and their applications.



Dr. R. K. Pavan Kumar Pannala (Associate Professor, Dept. of Mathematics) M.Sc., CSIR NET, Ph.D.

M.Sc. in Mathematics from IIT Kharagpur, CSIR NET qualified and Ph.D. from UPES, Dehradun. His specialization area is semi-analytical solution of Financial Mathematical PDE models. Now presently working on data envelopment analysis. He has more than 15 years of teaching experience.



Dr. Annette Angel (Associate Professor, Dept. of Life Sciences) M.Sc., Ph.D.

13 years of Research, Training, Teaching and Administrative experience. Expertise in the field of Dengue, H1N1 Viruses and Zoonotic diseases. Published 12 papers, 6 book chapters and 106 gene sequences of Dengue & H1N1 viruses. Member of World Society for Virology.



Dr. Bennet Angel (Associate Professor, Dept. of Life Sciences) M.Sc., Ph.D.

17 years of Research, Training, Teaching and Administrative experience. Published 18 papers, 6 book chapters and submitted more than 100 gene sequences in the NCBI database. Member of Indian Virology Society & World Virology Society. Reviewer in Journals and funding agencies.



Dr. Sweta Srivastav (Associate Professor, Dept. of Mathematics), M.Sc, Ph.D.

She has 9 years of teaching experience and taught many under-graduate and post graduate courses of Mathematics including Mathematical Software. She has published number of international and national research papers.



Dr. Soumi Sadhu (Associate Professor, Dept. of Life Sciences)

M.Sc, Ph.D.

12+ years of Research, Teaching and Administrative exp.; published papers in high impact factor journals; worked as Woman Scientist at ICMR. Member of Immunology Society and Flow Cytometry Society. Expertise in Immunology of infectious diseases, cancer and pediatric immunodeficiency diseases.



Dr. S. Shankara Narayanan, (Associate Professor, Dept. of Physics)

Ph.D.

Doctorate on 'Ultrafast spectroscopy and biocompatibility of nanocrystals from S N Bose National Centre for Basic Sciences. Awarded JRF and SRF from CSIR, India. Post doctoral research experience in the study of anisotropic nanocrystals such as gold nanorods and gold nanoprisms and nanoplasmonics.



Dr. Sangeeta Gupta (Associate Professor, Dept. of Mathematics)

M.Sc, Ph.D.

Obtained M.Sc. and Ph.D. Degree from Dr. B.R. Ambedkar University Agra. More than 17 years experience of teaching Mathematics at graduate and post graduate level. Her research area is Operations research and Optimization techniques.



Dr. Santosh Kumar Mishra (Associate Professor, Department of Life Sciences), M. Tech, Ph.D.

Dr. Santosh Kumar Mishra completed his M. Tech. in Biotechnology from the IET, Lucknow (U.P.) and his Ph.D. from the Indian Institute of Technology, Roorkee. Dr. Mishra's research focuses on Bioprocessing.



Dr. Varun Mohan (Associate Professor, Dept. of Mathematics)

M.Sc, MBA (HR), Ph.D (Mathematics)

Ph.D. from Dr. Bhim Rao Ambedkar University, Agra 2016. His main research field is in Mathematical study of fluid flow. He has many publications in UGC approved national journals, and conference papers to his credit. He has attended many FDPs, Conferences, seminars and workshops.



Dr. Ratna Banerjee (Associate Professor, Dept. of Mathematics)

M.Sc., Ph.D.

Dr. Banerjee has done Post graduate diploma in Computer Application. She has done executive course in data Science and machine learning from IIM Bangalore, IIT Roorkee and IIM Kolkata, She has more than 20 years of Teaching, Research, and administrative experience.



Dr. Maheshwar Pathak (Associate Professor, Dept. of Mathematics)

M.Sc, Ph.D.

Dr. Pathak has completed his Ph.D. from MNNIT Allahabad (NIT, Allahabad) in 2010. He has 13+ years of teaching and research experience. Dr. Pathak is a research-focused faculty and he has published more than 20 research papers in highly reputed journals.



Dr. Archana Chauhan (Associate Professor, Dept. of Mathematics)

M.Sc., Ph.D.

Dr. Chauhan is an IIT Kanpur post graduate and completed her PhD in Mathematics from Motilal Nehru National Institute of Technology, Allahabad in 2013. Her area of research is "Fractional Differential Equation." She has published 8 research papers in SCI/Scopus journals.



Dr. Rashmi Prabha Singh (Associate Professor, Department of Life Sciences)

Dr. Rashmi Prabha Singh earned her Ph.D. in Biophysics from AllMS, New Delhi. She qualified CSIR-NET-JRF in 2007 and 2008, as well as GATE examination in 2008. Her research focused on Protein Purification, Protein Crystallization, Biochemical Characterization of Proteins, Molecular Biology, and Macromolecular X-ray Crystallography.



Dr. Subhabarat Kar (Associate Professor, Department of Life Sciences), M.Sc., Ph.D.

Dr. Subhabarat Kar holds a M.Sc. in biochemistry from C.S. University, U.P., and a Ph.D. in Biotechnology from the National Institute of Pharmaceutical Education & Research (NIPER), Mohali.



Dr. Preeti Jain (Associate Professor, Dept. of Chemistry & Biochemistry)

M.Sc, M.Tech, NET-JRF, GATE qualified, Ph.D.

Ph.D. in Coordination Chemistry from Gautam Buddha University and M.Tech. in Chemical Analysis from IIT Delhi. Her research interest involves the "Development of novel Chemotherapeutics and their theoretical and experimental investigations".



Dr. Vivek Srivastava (Associate Professor of Biochemistry)

M.Sc, Ph.D.

6 years of teaching experience in Biochemistry, 4 years of Postdoctoral research in areas of Cancer biology, Epigenetics, Post-translation modifications of proteins, DNA damage response & DNA repair mechanism, 10 research papers in peer reviewed International journals with high impact factor.



Dr. Sonia Khanna (Asst. Professor, Dept. of Chemistry & Biochemistry)

MSc, JRF(CSIR), LS, Ph.D., BEd., PGDCA

MSc (Chem) and PhD from Guru Nanak Dev University, Amritsar. 14+ years of teaching and research experience. Qualified JRF(CSIR), LS and GATE examinations. Published 19 research articles, 7 book chapters, 6 national patents and one copyright. Co-principal investigator in ISRO sponsored project and seed money projects. Guiding PhD and MSc students.



Dr. Sunil Chauhan (Associate Professor, Dept. of Physics)

M.Sc, M.Tech, Ph.D.

Published 55 research papers in International Journal of repute and has expertise in Multiferroic Materials. His publications have received more than 1296 citations and 18 h-index & 26 i10-index.



Dr. Sanjay Kumar (Associate Professor, Dept. of Life Sciences), M.Sc, Ph.D.

Worked as Scientist in IVF laboratory, Al Ain, UAE, established IVF in animal model. Worked as PDF Fellow at Mayo Clinic, Rochester, US. Expertise in clinical biomarker and assay development and cell-signaling with particular interest in cancers and kidney disease. Experience of six and half years post PhD.



Dr. Meenal Gupta (Associate Professor, Dept. of Physics)

D.Phil, Post Doctorate from Raman Research Institute, Bangalore

16 years' teaching and research experience, Published 23 research papers in international journal, 5 book chapters. Lifetime membership of International Liquid Crystal Society. Editor of SCIREA journal of Materials.



Dr. Abhilasha S Mathuriya (Associate Professor, Dept. of Life Sciences)

M.Tech., Ph.D.

18 years of research, teaching and administration experience. BRICS Young Scientist Alumni (2017). 26 high impact factor paper publications, 18 books/book chapters, filed 18 patents, in which 1 is granted. Handling nationally and internationally funded research projects.



Dr. Preeti Rani (Asst. Professor, Dept. of Physics)

M.Sc, Ph.D.

PhD (Delhi Technological University), Published more than 25 research papers in International Journals and international conference proceedings. Expertise in the field of Photonic crystals, nonlinear optics, fiber bragg grating etc. Member of SPIE, Optica (Formerly OSA) and INCAS.



Dr. Richa Tomar (Asst. Professor, Dept. of Chemistry & Biochemistry), M.Sc, NET-JRF, Ph.D.

Ph.D from Delhi University in Materials Science having 25+ research publications in SCOPUS/SCI indexed reputed journals, 1 granted and 4 published patents and 8 published book chapters. Research interest includes synthesis and characterization of materials for water remediation and energy storage applications.



Mr. Paratpar Sarkar (Asst. Professor, Dept. of Chemistry & Biochemistry)

M.Sc, CSIR-UGC NET(Life Sciences), Ph. D (Pursuing)
Experience of 16+ years in teaching membrane biochemistry, enzymology and enzyme technology, genetics, immunology, biomolecules, metabolism of carbohydrates and lipids. Research areas are silico studies on natural product and their nano-conjugates for the application on cancer cell lines.



Dr. Ashish Kumar Chalana (Asst. Professor, Dept. of Chemistry & Biochemistry)

Ph.D.
Integrated BS-MS from IISER-TVM (Inspire fellow), Ph.D from Shiv Nadar University, NET (UGC-CSIR), Post-doctoral fellow from IIT Delhi. His research interest includes synthesis of novel small molecules, nanoparticles which has application towards heavy metal detoxification & detection of various metal ions.



Dr. Alpana Mishra (Asst. Professor, Dept. of Mathematics)

M.Sc, Ph.D.
Done B.Sc. and M.Sc. in Mathematics from Dr. B.R. Ambedkar University, Agra and obtained her Ph.D. degree in the field of "Mathematical Modelling" with a scholarship from DST. Total teaching experience of more than 9 years.



Dr. Amit K. Das (Asst. Professor, Dept. of Life Sciences), M.Sc., Ph.D.

10+ years of experience in academic and industrial R&D. Expertise in extraction & analytical sciences of bioactive molecules, developing and commercializing value added products and Quality Assurance. He has publications in form of research papers and book chapters to his credit with international publishers of repute.



Dr. Shashank Sharma (Asst. Professor, Dept. of Chemistry & Biochemistry)

Ph.D.
12 years of teaching and research experience, published nearly 30 research papers in national & international journals, 01 book, 05 book chapters, articles in reputed newspapers. Research area includes electrochemistry & environmental chemistry.



Dr. Piyush Kumar Gupta (Asst. Professor, Dept. of Life Sciences)

Ph.D.
Works in the area of nanomaterials, drug delivery and tissue engineering. Inventor of 2 international and 2 national patents and published 16 research papers and 3 review articles in peer-reviewed international journals. Editorial member of journal of human physiology.



Dr. Kanu Priya (Asst. Professor, Dept. of Life Sciences)

Ph.D.
More than five years of teaching and research experience. Major specialization is in pharmacology and toxicology, cytotoxicity, and molecular biology. Several research articles have been published in renowned journals.



Dr. Savita Rani (Asst. Professor, Dept. of Life Sciences)

Ph.D.
Her present area of interest includes healthy foods and cereal science. She has authored and co-authored several articles in reputed journals and also works as reviewer for various journals.



Dr. Mohd. Shahid Baboo (Asst. Professor, Dept. of Mathematics)

M.Sc, Ph.D.
He has joined Sharda group of institutions in 2007. He did M. Sc in Mathematics from Jamia Millia Islamia, New Delhi. He qualified CSIR-NET. Recently, he has been awarded Ph. D degree in Mathematics from Jamia Millia Islamia.



Dr. Soumya Pandit (Associate Professor, Dept. of Life Sciences)

Ph.D.
Post-PhD worked as PBC fellow at the Zuckerberg Institute for Water Research (ZIWR), Ben-Gurion University of the Negev, Israel. Recipient of North West University (South Africa) Post-doctoral fellowship. Published 3 Indian patents.



Dr. Sharad Agrawal (Asst. Professor, Dept. of Life Sciences)

M.Sc, Ph.D.
Completed his M.Sc. and Ph.D. in Biotechnology. Has expertise in enzyme production via SSF/SmF, protein purification, enzyme characterization etc.



Dr. Vineeta Yadav (Asst. Professor, Dept. of Life Sciences)

M.Sc., Ph.D.
Research work on whole genome sequencing, molecular characterization, and in-silico analysis of whole genome. She has published research articles in reputed journals. She has more than 10 years of teaching experience.



Dr. Sujata Pandit Sharma (Asst. Professor, Dept. of Life Sciences)

Ph.D.
Experience of 11+ years in the field of Food Safety, Food Science/Food Technology and Nutrition. Served as Research Head for 7 years in R&D industry. Handled more than 12 projects of National and International agencies.



Dr. Subhasree Ray (Asst. Professor, Dept. of Life Sciences), M.Sc., Ph.D.

Ph.D. from CSIR-IGIB. 2 years of postdoctoral research experience from University of Seoul and Yeungnam University, South Korea. Published a total of 13 research publications (Scopus/Sci/Peer reviewed). Her research interest includes production of biopolymers and biohydrogen from waste biomass, and fungal toxin analysis from fermented food.



Dr. Mohini Singh (Asst. Professor, Dept. of Life Sciences)

M.Sc., Ph.D.
M.Sc. Genomics from Madurai Kamaraj University (DBT-IPLS), Ph.D. from Department of Microbiology and Cell Biology, Indian Institute of Science, Bangalore. Qualified CSIR-UGC NET. Has expertise in protein purification and RNA-protein interaction.



Dr. Shruti Singh (Asst. Professor, Dept. of Environmental Sciences)

Ph.D.
Ph.D. in Glaciology. 3 research projects on Himalayan glaciers as Co-PI. The projects are funded by renowned National/International agencies like SAC, ISRO and MoES, Govt. of India and the United States Agency for International Development (USAID), University of Colorado, U.S.A.



Dr. Suman (Asst. Professor, Dept. of Environmental Sciences)

M.Sc, Ph.D.
Ph.D. Indian School of Mines. (IIT-Dhanbad), M.Sc. (BHU, Varanasi). 11years of experience in Teaching and Industry. Published several research papers in journals of International repute.



Dr. Km. Rachna (Asst. Professor, Dept. of Environmental Sciences), M.Sc., M.Tech.

Ph.D from Sharda University, Published 17 research articles in reputed journals (Scopus/SCI-indexed). Her research interest is Synthesis and application of Nanomaterial's and Polymer Nanocomposite as adsorbent for waste water treatment and Development of soft actuators based ionic polymer blend membrane.



Dr. Sushmita Banarjee (Asst. Professor, Dept. of Environmental Sciences) Ph.D.

M.Sc. from the University of Allahabad. D.Phil. research on synthesis of nanoparticles and its application in water purification. Postdoctoral research on synthesis and application of bimetallic nanoparticles as a potential catalyst for wastewater treatment and biodiesel production.



Dr. Jitin Rahul (Asst. Professor, Dept. of Environmental Sciences), M.Sc., M.Phil., Ph.D.

Ph.D. from IIT (ISM) Dhanbad. Published 20 research papers in journals of International/National repute. His specialization areas include Atmospheric Pollution, Climate Change, Ecology, Biodiversity, Phytoremediation, Ecorestoration, Heavy Metal Pollution (Dust & Soil), and Plant Taxonomy. He has more than 7 years of teaching and 2 years of research experience.



Dr. Garima Nagpal (Asst. Professor, Dept. of Environmental Sciences) M.Sc., M.Tech., UGC-NET-JRF, Ph.D.

M.Sc. and M.Tech. from Guru Jambheshwar University, Hisar (Haryana). 13 years of experience in teaching and research. Her research interest includes development of nanomaterials, carbon quantum dots, membranes and low cost adsorbents for wastewater treatment.



Dr. Mansi Sharma (Asst. Professor, Dept. of Environmental Sciences), M.Sc. Gold Medalist, UGC-NET (JRF/SRF), Ph.D.

Ph.D. in Environment Studies from Panjab University, Chandigarh. Published several research articles/reviews in journals of International/National repute (All Scopus/SCI-indexed). Her research interests include Ecophysiology, Stress Physiology Environmental Remediation Sustainable Agriculture.



Dr. Har Mohan Singh (Asst. Professor, Dept. of Environmental Sciences) M.Tech., Ph.D.

Research interests include Bioenergy and Biofuels, Waste to Energy Conversion, Algal Biomass Production/Applications and Carbon Sequestration.



Dr. Krishna Kumar Pandey (Asst. Professor, Dept. of Physics), M.Sc, Ph.D.

20 years of teaching experience. Published several Research Papers in National and International Journals. Research interests are Acoustics and Ultrasonics, Ultrasonic Characterizations of different Materials, Study of molecular interactions in different liquid mixtures, Solid Polymer Electrolytes and its applications in energy storage devices.



Dr. Mridula Guin (Asst. Professor, Dept. of Chemistry & Biochemistry) M.Sc, Ph.D.

Obtained her M.Sc. from Burdwan University and Ph.D. from IIT Bombay. She has more than 6 years of teaching experience, published 14 research papers in journals of international repute. Her research area is focused on computational studies on weak intermolecular interactions and energy systems.



Dr. Surya Kant Pal (Assistant Professor, Dept. of Mathematics) M. Sc, M.Phil, Ph. D.

M.Phil. & Ph.D. in Statistics from Vikram University, Ujjain. He has 8+ years teaching and research experience. He is an expert of Statistics, Regression Analysis, Predictive Analytics and Multivariate Analysis. He has published 70+ research papers in Journals of National & International repute.



Dr. Noopur Srivastava (Asst. Professor, Dept. of Chemistry & Biochemistry), M.Sc, Ph.D.

14 years of teaching experience in Chemistry and 2 years of industrial experience in Synthetic Organic/Medicinal Chemistry. M.Sc. University of Lucknow, Ph.D. (CDRI, CSIR), NET(CSIR-UGC). Expertise in the design and synthesis of new chemical entities (NCEs), lead identification and optimization. Published 12 research papers and 4 book chapters.



Dr. Vikas Dutt (Assistant Prof. Department of Life Science)

He has completed my Ph.D. in Biotechnology from Kurukshetra University in 2019. His area of expertise is skeletal muscle atrophy and its cure by using multiple plant-based compounds having anti-inflammatory and anti-oxidative properties and to analyse their regulatory effects on skeletal muscle mass.



Dr. Nupur (Assistant Professor, Department of Life Sciences)

Dr Nupur obtained her Ph.D. from the CSIR Institute of Microbial Technology in Chandigarh affiliated to JNU, New Delhi in 2016. She worked as a post-doctoral fellow at the Czech Academy of Sciences from 2017 to 2021.



Dr. Ranjana Pande (Assistant Professor, Department of Life Sciences)

Dr. Ranjana Pande earned her Ph.D. in Food Science and Processing from the IIT Kharagpur, India. She is a member of the Association of Food Scientists and Technologies (India), an honorary member of the 3E Innovation Foundation in New Delhi. Dr. Pande also served as a Professional Scientific Advisory Committee Member at Phytoelixir Pvt. Ltd., a Biotech Startup in Nashik, India.



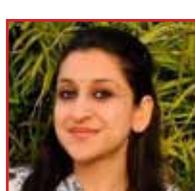
Dr. Shikha Singh (Assistant Professor, Department of Life Sciences)

Dr. Shikha Singh is currently working as Assistant Professor at Sharda University, Greater Noida, U.P., India. She has completed her Ph.D. in Zoology from Central University of Allahabad. She has six years of research experience in the biochemistry laboratory, University of Allahabad.



Dr. Mohit (Assistant Professor, Department of Life Sciences)

Dr. Mohit is an active researcher and academician whose work focuses on Bio-nanotechnology and Biomaterials. He has a Ph.D. in Biotechnology from National Institute of Technology, Raipur (Chhattisgarh), India. He has published around 08 research articles and 02 book chapters in reputable journals.



Dr. Divyani Panwar (Assistant Professor, Department of Life Sciences)

Dr. Divyani Panwar earned her Ph.D. in Food Engineering and Technology from Sant Longowal Institute of Engineering and Technology. Her research interests include food waste valorisation, food technology, and green extraction techniques. She is a life-member of the Association of Food Scientists and Technologists (India).



Dr Smita Jain (Assistant Professor, Department of Life Sciences) M.Sc., CSIR-NET JRF-SRF, PhD

Dr. Smita Jain earned PhD in Biochemistry at Delhi University and has more than seven years of UG/PG teaching experience. Her area of specialization is exploring neurodegenerative changes and altered protein expression in clinical disorders, such as migraine and headache-related neuronal disorders.



Dr. Ashwini Kumar (Assistant Professor, Department of Life Sciences), M. Tech., Ph.D.

Dr. Ashwini Kumar earned his PhD in Biotechnology from NIT Raipur (Chhattisgarh) India. The central component of his research is biomaterial science specifically in the field of novel drug delivery systems.



Dr. Deepika Kandoi (Assistant Professor, Department of Life Science)

Dr. Deepika Kandoi earned her PhD in Biotechnology from Jawaharlal Nehru University, New Delhi, India. She represented India at the BRICS Summit organized by the Ministry of South Africa, held in Durban, South Africa, in 2018, for contribution to Indian women in science. She is actively working on the genetic transformation of C3 plants (i.e., Arabidopsis and rice) into single-cell C4 plants to induce various characteristic benefits.



Dr. Preeti Patidar (Assistant Professor, Dept. of Mathematics) M.Sc., Ph.D.

Dr. Preeti Patidar has doctorate degree in Statistics from Vikram University Ujjain on the topic "Development of Some Improved Randomized Response Techniques". She is gold Medallist during her post-graduation program.



Dr. Pankaj Kumar Tripathi, M.Sc. Ph.D. (Physics)

Dr. Tripathi has completed his Ph.D. from Lucknow University. Postdoctoral research experience from Banaras Hindu University and Konkuk University, South Korea. Reviewer of more than 10 International research journals. Published more than 50 research papers in international journals. His research interests are Soft Matter, 2D materials, Nanomaterials, Liquid Crystals, Ferroelectric materials, & Thermoelectric materials, for Electro-optical, Photovoltaics, & Energy storage applications.



Dr. Sangeeta Rawal, Ph.D., M.Tech. (IIT Delhi), M.Sc.

Dr. Sangeeta Rawal is working as Assistant Professor in Department of Physics, SSBSR, Sharda University. Her academic qualifications include Doctorate from Department of Applied Physics, Gautam Buddha University and M.Tech. from Indian Institute of Technology, Delhi, India. She has also qualified GATE twice in physics. She has teaching & research experience of 10 years & industry experience of 4 years. She has published many research papers in reputed international journals.



Dr. Babita Tripathi Ph.D., M.Sc., M. Ed

10 years of academic experience, working in area of nanomaterials, multiferroic materials, piezoelectric materials, photocatalytic materials and carbon-dots. 15+ Research Publications, 2 Granted patents, 2 published patents and 1 ongoing govt. project. The research area is include water purification & energy devices. She has 5 h-index; 3i10index & 71 Citations.



Dr. Jaidev Sharma

Ph.D in Physics from Udaipur Solar Observatory, Udaipur, a unit of Physical Research Laboratory, Ahmedabad (degree awarded by CCS University, Meerut). I have more than 11 years of teaching experience in various engineering colleges affiliated to AKTU, Lucknow.



Dr. Amit Kumar Attri (Associate Professor, Dept. of Mathematics); M.Sc., CSIR-NET, Ph.D.

Dr. Attri has a doctorate degree in Mathematics from CCS University, Meerut. He has published a number of research papers in reputed journals. He has good experience of teaching under-graduate and post graduate courses of Mathematics. He has published number of international and national research papers.



Dr. Santosh Kumar (Asst. Professor, Dept. of Mathematics) M.Sc, CSIR NET-JRF, GATE, Ph.D.

Ph.D. degree from Aligarh Muslim University, Aligarh in 2016. He has published many research papers in reputed Journal indexed in Scopus and have attended many conferences and workshops.



Dr. Utpal Dhar Das (Assistant Professor, Dept. of Mathematics), M.Sc., Ph.D., GATE

Dr. Das has doctorate degree in Statistics from Banaras Hindu University, Varanasi. Dr. Das has joined as an Assistant Professor in the Department of Mathematics. He is gold medalist in M.Sc. Statistics from Assam Central University, Silchar and has published more than 20 research papers among which most of are SCI, SCOPUS, WOS, UGC Care list index. He has approximately 5 years teaching experience.



Dr. Sonal Malik, (Assistant Professor, Department of Life Sciences)

Dr. Sonal Malik earned her Ph.D. in Plant Molecular Biology from Department of Botany, University of Delhi, post which she worked as the DST-Inspire Fellow. Her area of expertise include Plant Genetics & Molecular biology, Population Biology, Evolution Biology, Plant Taxonomy and Systematics, Cell Biology, Gene Annotation, Gene Ontology, and Plant reproductive Biology.



Dr. Anamika Mehta (Assistant Professor, Department of Life Science)

Dr. Anamika Mehta worked as an Assistant Professor in GSS DGS Khalsa College Patiala (Punjab) and Institute of Management studies, Ghaziabad (U.P) respectively before joining Sharda University. To her credit, she has 2 granted patents (granted in year 2020 and 2021) along with other publications.



Dr. Binayak Kumar (Assistant Professor, Department of Life Science), M.Sc., Ph.D.

Dr. Binayak has a M.Sc. in Biotechnology from University of Hyderabad, and Ph.D. in life sciences from Shiv Nadar University, Uttar Pradesh. His research focus on the topic of treatment resistance in several types of cancer, including colorectal, breast, and liver cancer, using genomes and proteomics.



Dr. Monika Srivastava Ph.D., M.Tech, NET-JRF, GATE, M.Sc

Dr. Monika has 10 years of teaching and Research experience, Doctorate from Sharda University, Post-graduation (M.Sc.-Physics) from Deendayal Upadhyaya Gorakhpur University, M.Tech from IIT Kanpur. She has works in the field of Photovoltaics, polymer electrolyte, Optimization of electrodes, lead free Perovskite Solar Cells, 1 Granted patent in the field of Perovskite Solar Cells.



Dr. Pawan Singh Dhapola, Ph.D., M.Tech, B.Tech.

Dr. Pawan Singh Dhapola completed his Ph.D. thesis on entitled "Studies on the Application of Carbon-Based Materials as Electrodes" and gained experience in this area. In addition, he is working on the conversion of solid waste plastic and petroleum waste etc. into graphene and other value-added products for sustainable applications. He has 12 h index, 18 i10 index and 500 citations.



Dr. Shalu, Postdoc., Ph.D., M.Sc.

Dr. Shalu has made important advancements in the field of rechargeable batteries throughout her academic career. She has produced more than 25 research papers (the majority in Q1 journals) and 2 book chapters in reputable scientific journals, showcasing her skills in fields like battery design, materials characterization, electrochemical analysis, and performance optimization. She has an h-index of 19 and total citations of 1346.



Dr. Milan Srivastava (Assistant Professor, Dept. of Mathematics) M.Sc., CSIR-UGC-NET-JRF, GATE, Ph.D.

Dr. Srivastava has a doctorate degree in Applied Mathematics from Delhi Technological University, Delhi. Her research area is "General Theory of Relativity and Cosmology". The title of the thesis is "Dark Energy Phenomena in Cosmology" and is available on shodhganga-Inflibnet and the University library.



Dr. Arun Kumar (Assistant Professor, Dept. of Mathematics), M.Sc., GATE, Ph.D.

Dr. Arun has a doctorate degree from Aligarh Muslim University, Aligarh. He has good experience of teaching under-graduate and post graduate courses of Mathematics. He has published number of international and national research papers.



Dr. Nidhi Sahni (Asst. Professor, Dept. of Mathematics) M.Sc, Ph.D.

M.Sc. and Ph.D. in Mathematics from DDU Gorakhpur University, Gorakhpur. Her area of research is special functions and she worked as a junior research fellow in a major research project during her Ph.D.



Dr. Reetu (Assistant Professor, Dept. of Mathematics)

M.Sc, Ph.D.

Dr. Reetu has doctorate degree in Statistics from Maharishi Dayanand University Rohtak. She achieved state level gold medal in her master. She had more than seven years' experience of teaching. She had twelve research papers in the field of reliability modelling and analysis.



Dr. Sandhya Gupta (Asst. Prof., Dept. of Physics)

M.Tech (IIT Delhi), M.Phil (Gold Medalist), Ph.D.

Dr. Sandhya Gupta has 20 years of experience in teaching. She holds M. Tech degree in Applied Optics from IIT Delhi. She is Gold Medalist in M.Phil. She has completed Ph.D. in Material Science in 2020.



Dr. Neha Bhardwaj (Asst. Professor, Dept. of Mathematics)

M.Sc., Ph.D.

Ph.D. degree in Mathematics from Delhi Technological University. MSc Applied Mathematics from IIT Roorkee. Area of research is Approximation Theory. More than 15 years of teaching and research experience.



Mr. Sachin Singh (Assistant Professor, Dept. of Mathematics)

M.Sc., UGC-NET, Ph.D. (Pursuing)

Mr. Sachin Singh is pursuing his PhD from Banaras Hindu University, Varanasi. His research area is Sampling theory. He has cleared UGC-NET. He has published several research papers in reputed journals.



Dr. Shivani Priya (Assistant Professor, Dept. of Chemistry and Biochemistry)

M.Sc., ICMR-SRF, Ph.D.

Ph.D. Biochemistry, North Eastern Hill University, Shillong in Biochemistry having research experience in Cancer Biology and Biomarker studies, 3 papers in SCOPUS/SCI indexed journals, Awarded with ICMR SRF fellowship and Savitribai Phule fellowship.



Dr. Gaurav Bhakri (Assistant Professor, Dept. of Mathematics)

M.Sc., Ph.D.

Three years of experience in teaching/research having 17 research publications. Awarded Institutional fellowship during Ph.D programme. Received Best poster award in XII Agricultural science congress, NDRI, Karnal. Areas of Interest include: Obesity, Type I & Type II Diabetes, Microbial Enzyme Production/Purification/Kinetics.



Dr. Suman Mallick (Assistant Professor, Dept. of Chemistry and Biochemistry)

M.Sc., NET-JRF, Ph.D., Postdoc

8+ years of teaching and postdoctoral research experience in Inorganic Chemistry, Electron transfer in mixed-valence systems, Metal-metal multiple bonding, Rare earth elements, Bioinorganic chemistry. 27 research articles in peer-reviewed international journals (Nature, Cell, Wiley VCH, ACS, RSC, Elsevier publishers) with an average Impact Factor 5.0.



Dr. Sayanti Mandal (Assistant Professor, Dept. of Chemistry and Biochemistry)

M.Sc., CSIR-JRF, Ph.D.

3+ years of experience in teaching biochemistry and biotechnology to the undergraduate and post graduate students. 15+ research articles in peer-reviewed international journals and numerous book chapters. M.Sc. from B. H. U, Ph.D. (University of Delhi), NET(CSIR-UGC). Research interest includes functional genomics and proteomic tools to understand plant disease and tolerance mechanism.



Dr. Surender (Assistant Professor, Dept. of Chemistry and Biochemistry)

M.Sc., Ph.D.

Ph.D. in Animal Biochemistry from ICAR-National Dairy Research Institute, Karnal. 7+ years of teaching & research experience, published 11 research papers & 3 book chapters, reviewer for various journals of international repute. Current area of research is influence of functional foods on metabolic disorders.

FACULTY WITH EXPOSURE OF MOST PRESTIGIOUS INSTITUTIONS ACROSS THE GLOBE



 UNIVERSITY OF CAMBRIDGE	 THE OHIO STATE UNIVERSITY	 UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN	 Oregon State University	 THE UNIVERSITY of NORTH CAROLINA # CHAPEL HILL
 Cornell University	 University of Manitoba	 SWINBURNE UNIVERSITY OF TECHNOLOGY	 Queen's UNIVERSITY	 UNIVERSITY OF HOHENHEIM
 JOHNS HOPKINS UNIVERSITY	 Michigan Technological University	 UNIVERSIDADE NOVA DE LISBOA	 清华大学 Tsinghua University	 UNIVERSITY OF ALBERTA
 University of Windsor	 UNIVERSITY of MARYLAND BALTIMORE	 POLITECNICO MILANO 1863	 GEORGE MASON UNIVERSITY	 Ulster University
 UNIVERSITY OF EASTERN FINLAND	 浙江大学 Zhejiang University	 IITD	 IIT BOMBAY INDIAN INSTITUTE OF TECHNOLOGY	 जवाहरलाल नेहरू विश्वविद्यालय Jawaharlal Nehru University
	 暨南大学 JINAN UNIVERSITY	 Western UNIVERSITY OF CANADA		

RESEARCH & INNOVATION AT PAR WITH THE BEST

Research Labs

- Atmospheric Research Laboratory (ARL)
- Computer Lab (Mathematics)
- Computational Chemistry Lab (CCL)
- Advanced Molecular Biology Research Lab
- Advanced Polymer Material Research Lab (APMRL)
- Microbial Bio Process Lab
- Cell Culture Lab
- Zoology Lab
- Nuclear Physics
- General Physics Lab
- Organic Chemistry Lab
- Physical Chemistry
- Diseases Biology & Interventions
- Bio-informatic Lab
- General Physics
- Electronic Physics
- Optics Lab
- Inorganic Chemistry
- Nano Material Lab



Externally Funded Projects

- Number of Projects-26
- Total Funds-10 crores (approx.)
- Funding Agencies-ICMR, DRDO, NIDM, DST-SERB, ISRO, MoES, DST-ASEAN



Consultancies

Faculty members to provide consultancies to the Industries.

Conference/ Workshop/FDPs

International and National Conferences: 20
Faculty Development Programmes: 64
Workshops: 30

Patents

- Number of Patents by the Faculty members and students- 88
- Patent Awarded- 15



Research Publications

- Number of Research Publication-1155
- Published in reputed International & National Journals with highest impact factor
- Number of Books/Book chapters- 400



Best Practices

- Our Undergraduate and Post Graduate carry out quality research projects and publish research papers in reputed journals.
- Students are encouraged to pursue further studies at world renowned institutions and relevant mentoring is done.
- Industry-Academia linkages are encouraged.
- Various MoUs have been signed with National/international universities/industries have been signed to foster Academia-Industry integration.

Outreach/Exchange Programme

- Students carry out summer internship at reputed organizations. Students of other institutions are allowed to get guidance from our able faculty members.
- School level students are being trained for Higher Education.

FOSTERING ACADEMIA INDUSTRY LINKAGES



MoU with Dio Shiv Foods Pvt. Ltd.



Guests from Vikram Sarabhai Space Centre (VSSC)/ISRO, Trivandrum visited Sharda campus.



Prof. Dr. Abdul Kariem Bin Hj Mohd Arof,
Department of Physics, University of Malaya



Organized Special Lecture on “S. Chandrasekhar:
The Joy and Perils of doing Science” By Prof. K. R. Sreenivasan.



Dr. Hee Woo Rhee, Director of Research Center
for Samsung Display Co.



Dr. Nadeem Tarin, philanthropist and businessman from
Saudi Arabia being felicitated during the launch of Centre for
Advanced Research in Applied Mathematics & Physics

CONVOCATION *Ceremony* 2023

(GLIMPSES OF SSBSR
DEGREE AWARD
CEREMONY)



SCIENCE PROGRAMMES DESIGNED FOR SUCCESS

Sharda School of Basic Sciences & Research programmes are designed to develop science professionals focussed on doing innovative research for the benefit of mankind. Students are trained to make the most of the opportunities in prestigious organisations in India and Abroad like IIT; ISRO; DRDO; BARC; CSIR; DST; MOES; IISC; INST; University of Greenwich, UK; University of Massachusetts Amherst, USA; Pennsylvania State University, USA; Wuhan University of Science and Technology, China; University of Technology, Malaysia; The State University of New York, USA; National Chiao Tung University, Taiwan among others.



APPROVED BY
University GRANTS COMMISSION

3/4-Year UG degree with Single Major

Year	Sem.	Subject I	Subject II	Subject III		Subject IV	Vocational	Co-Curricular	Industrial Training/Survey/Research Project	{Minimum Credits} For the year	{Cummulative Minimum Credits} Required for Award of Certificate/ Diploma/ Degree
		Major	Major	Major		Minor Elective	Major	Major	Major		
		4/5/6 Credits	4/5/6 Credits	4/5/6 Credits	Project	2/3/4 Credits	3 Credits	8 Credits	2/3/9 Credits		
		CC	CC	DSC		OE	SEC	AEC(2)	VAC(3)		
1	I	Th-1(5) or Th-1(4) + Pract-1(1)		Th-1(4) or Th-1(3) + Pract-1(1)		1 (3)	1 (3)	ARP (2)	VAC-1 (3)	40	{40} Certificate in Faculty
	II	Th-1(5) or Th-1(4) + Pract-1(1)	Th-1(4) or Th-1(3) + Pract-1(1)			1 (3)	1 (3)	ARP (2)	VAC-2 (3)		
Students exiting the programme after securing 40 credits will be awarded UG certificate in the relevant Discipline/Subject provided they secure 4 credits in work based vocational courses offered during summer term or internship/Apprenticeship in addition to 6 Credits from skill based courses earned during first and second semester											
2	III	Th-1(5) or Th-1(4) + Pract-1(1)	Th-1(4) or Th-1(3) + Pract-1(1)	Th-1(4) or Th-1(3) + Pract-1(1)	RBL-1 **(Audit) 0-0-4-0	1 (3)	1 (3)	ARP (2)		40	{80} Diploma in Faculty
	IV	Th-1(5) or Th-1(4) + Pract-1(1)	Th-1(4) or Th-1(3) + Pract-1(1)	Th-1(5) or Th-1(3) + Pract-1(2)	RBL-2 **(Audit) 0-0-4-0	1 (3)		ARP (2)			
Students exiting the programme after securing 80 credits will be awarded UG Diploma in the relevant Discipline /Subject provided they secure additional 4 credit in skill based vocational courses offered during first year or second year summer term. *Summer Industry Internship (Industry Connect)											
3	V	Th-2(5) or Th-2(3) + Pract-2(2)	Th-1(4) or Th-1(3) + Pract-1(1)	Th-1(3) or Th-1(2) + Pract-1(1)	RBL-3 (1) 0-0-2-1				1 Industry Connect* (2)	40	{120} 1. Bachelor in Faculty with single major 2. Bachelor in Faculty with minor in broad discipline 3. Bachelor in Faculty with double major
	VI	Th-2(5) or Th-2(3) + Pract-2(2)	Th-1(4) or Th-1(3) + Pract-1(1)		RBL-4 (1) 0-0-2-1	1 (3)			1 Community Connect (2)		
4	VII	Th-2(4) or Th-2(3) + Pract-1(2)		Th-2(4) or Th-2(3) + Pract-1(1)		1 (4/5/6)				40	{160} 1. Bachelor (Honours) in Faculty with single major 2. Bachelor (Honours) in Faculty with double major
	VIII	Th-3(4) or Th-3(3) + Pract-2(1.5)		Th-1(4) or Th-1(3) + Pract-1(1)		1 (4/5/6)					
4	VII	Th-2(4) or Th-2(3) + Pract-1(2)		Th-2(4) or Th-2(3) + Pract-1(1)		1 (4/5/6)			1 (3) (Project)	40	{160} 1. Bachelor (Honours with Research) in Faculty with single major 2. Bachelor (Honours with Research) in Faculty with double major
	VIII			Th-1(4) or Th-1(3) + Pract-1(1)		1 (4/5/6)			1 (9) (Project)		



DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY

The Department of Chemistry & Biochemistry endeavors to be a nationally recognized model for nurturing students who can contribute to the ever changing technology of 21st century. To achieve this vision, the Department is committed to provide an excellent teaching & learning atmosphere for Under Graduate as well as Post Graduate students. The Department of Chemistry & Biochemistry has excellent infrastructure with quality class rooms, world class laboratories and outstanding research competence.

The Department of Chemistry and Biochemistry is engaged in research work actively since its inception in 2013. The faculty members of this Department have diversified research expertise and interest like medicinal chemistry, polymer chemistry, bioinformatics, computational chemistry, material chemistry, clinical biochemistry to name a few. The Department boasts in having one sponsored, ongoing project from ISRO, DST-SERB, MSME and more than 100 published research papers over the years in various journals of national and international repute. To cater the need of contemporary research five advanced research laboratories were also established; namely Advanced Polymeric Material Laboratory (APML) and High Computing Laboratory (HCL), Advance biochemistry Lab, Advance Molecular Biology Research Lab, Drug Designing and development Lab. In addition to Ph.D. students, the department also encourages the B.Sc. and M.Sc. students to take research problems as a part of their degree project. The motto of the Department is to give the students a glimpse of modern research and to harbor the scientific talent in those who wish to build a career out of it. Research in the Department of Chemistry & Biochemistry is innovative, collaborative and interdisciplinary by nature. Faculty members, Ph.D scholars, post-graduate and undergraduate students, all contribute to the rich research environment. Students often visit national and multinational industries and R&D laboratories.

Laboratories

- Central Instrumentation analytical facility (FTIR & UV-Visible Spectrophotometer, Cyclic voltammeter, HPLC, AAS, Fluorescence Spectrophotometry)
- UG/PG Lab
- Advanced Polymeric Materials Research Laboratory
- Advanced Higher Computing Labs
- Advanced Biochemistry Labs
- DRUG, Designing & Development Lab
- Advanced Molecular Biology Lab

Career Prospects

- ISRO, DRDO, BARC, CSIR, MOES & their sisters laboratories
- Pharmaceuticals (R&D)
- Polymer industry
- Forensic laboratory
- Quality control and quality assurance company
- Various manufacturing industries
- Fuel and Petrochemical industry
- JNU and Central University

Skill Enhancement Courses and Value added course

- MAT LAB Applications
- Functional English
- Problem solving through C++
- Functional English Lab
- Problem solving through C++ Lab
- ORCA training
- Software in chemistry
- Computational Chemistry
- Instrumental Chemistry

Extramural Funded projects

- Titled "Rational Drug Designing, Fabrication, and Development of O-vanillin Conjugate Amino-acid(s) derived Molecules as Critical Inhibitor(s) and Oral Drug Candidates against Visceral Leishmaniasis" Funded by **ICMR**, Budget **Rs. 83.11 Lakh**.
- Titled "In silico molecular docking analysis and in vitro anticancer activity of bacterial active compound (pectin) with different oncogene protein" funded by **Indian Council of Medical Research (ICMR)**, Amount: **22.18 Lakh**"
- Theoretical and Experimental Study of Intermediate Band Solar Cell having potential for Alternative Source of Energy Funded by **Department of Science and Technology (DST)**, New Delhi; Budget: **Rs. 45.00 Lakhs**.
- Synthesis and characterization of Epoxybased inorganic-Organic hybrid polymers and their evaluation as adhesives and Matrix Resins for composites for Space Applications Funded by **Indian Space Research Organization (ISRO)**, Department of Space Government of India, Antariksh Bhavan, New BEL Road, Bangalore; Budget: **Rs. 34.91 Lakhs**.
- Determining the functional implication of ATM-BLM interaction during DNA damage response Funded by **Department of Science and Technology (DST)**, New Delhi; Budget: **Rs. 18.00 Lakhs**.
- Titled "Determining the functional implication of ATM-BLM interaction during DNA damage response" funded by **DST-SERB** under the TARE scheme, Amount: **18.3 Lakh**"
- Synthesis Polyborodiphenylsiloxane (PBPS) that can be used as a catalyst in the preparation of Polycarbosilane (PCS), a preceramic polymer, for the purpose of melting spinning funded by **DACC Carbon Co. Ltd.,(Client)**, **30 Unam-Ro**, Deokjin-Gu, Jeonbuk, **Korea**
- Development of light emitting diodes Funded by Ministry of Micro Small and Medium Enterprises (**MSME**), New Delhi; Budget: **Rs. 8.00 Lakhs**.
- Anti-bacterial nanoparticle coated fabric for biomedical applications Funded by Ministry of Micro Small and Medium Enterprises (**MSME**), New Delhi; Budget: **Rs. 8.00 Lakhs**
- Biodiesel production using nanoparticle catalysts Funded by Ministry of Micro Small and Medium Enterprises (**MSME**), New

Delhi; Budget: **Rs. 6.80 Lakhs**

- International Consultancy project

Major Activities Organized

- Quiz Series preparation for CSIR UGC NET-JRF, ICMR and GATE for PG student.
- Test Series for Preparation strategies of GATE, CSIR NET, TIFR and IIT JAM Entrance Examinations.
- Capacity building programme on Code of Conduct : Professional Ethics.
- Public Training Speaking and Professional Presentation skills.
- Workshop on Resume Writing, Interview Skill & Mock PI.
- Utsav-e-tarang carrying our legacy to the future"-a cultural event for the academic session 2023-24.
- Industrial Visit to Jubilant Ingrevia Limited, Greater Noida.
- Department of Chemistry and Biochemistry, School of Basic Sciences & Research, Sharda University has celebrated International Mole Day.
- Hands-on training on Research methodology Learning Tools in Research.
- Hands-on Training on Molecular Modelling and Optimization using ORCA.
- Online International Conference on Organic Electronics (ICOE2022).
- One-week national online faculty development programme organized in collaboration of Guru Angad Dev Teaching Learning Centre; A Centre of Ministry of Education, Government of India under Pandit Madan Mohan Malaviya National Mission on Teachers and Training (PMMMNTT), SGTB Khalsa Colleges, University of Delhi & On Strengthening Academic & Research Pursuit in the 21st Century, 2021.
- Research Funding Opportunity in India by Dr. Praveen Kumar S, Scientist-F, DST-SERB, New Delhi.
- Genome Editing: A perspective on the application of CRISPR/Cas 9 to study human diseases.
- Industry in Campus-Hands on Training on Research Grade Industrial Equipment.
- Workshop on Data Management and it's Analysis.



M.Sc. Biochemistry

TERM - I

THEORY SUBJECTS

- Fundamentals of Biochemistry
- Bioanalytical Techniques
- Bioenergetics and Metabolism
- Advanced Enzymology

Practical

- Biochemistry Lab
- Project

TERM - III

THEORY SUBJECTS

- Forensic Biochemistry
- Recombinant DNA Technology
- Biostatistics
- Advanced Cell Biology

Practical

- Cell Biology and Recombinant DNA Technology Lab
- Dissertation

M.Sc. Chemistry

TERM - I

THEORY SUBJECTS

- Inorganic Chemistry-I
- Organic Chemistry-I
- Physical Chemistry-I
- Analytical Chemistry-I
- Introduction to MATLAB & its application

Practical

- Inorganic Chemistry Lab-I
- Organic Chemistry Lab-I
- Physical Chemistry Lab-I
- Research Based Learning-1

TERM - III

THEORY SUBJECTS

- Molecular Spectroscopy
- Inorganic Chemistry-III/ Physical Chemistry-III/ Organic Chemistry-III
- Inorganic Chemistry-IV/ Physical Chemistry-IV/ Organic Chemistry-IV
- Environmental Chemistry / Polymer Science and Technology

Practical

- Organic Chemistry Lab-III/ Physical Chemistry Lab-III/ Inorganic Chemistry Lab-III
- Project

TERM - II

THEORY SUBJECTS

- Advanced Immunology
- Molecular Biology
- Plant Biochemistry
- Clinical Biochemistry

Practical

- Molecular Biology & Immunology Lab
- Project

TERM - IV

THEORY SUBJECTS

- Genomics and Proteomics
- Pharmaceutical Biochemistry
- Research Methodology
- Computational Biology

Practical

- Pharmaceutical Biochemistry and Bioinformatics Lab
- Dissertation

TERM - II

THEORY SUBJECTS

- Inorganic Chemistry-II
- Organic Chemistry-II
- Physical Chemistry-II
- Analytical Chemistry-II
- Renewable Energy Sources: Solar And Hydrogen Energy

Practical

- Inorganic Chemistry Lab-II
- Organic Chemistry Lab-II
- Physical Chemistry Lab-II
- Research Based Learning-2

TERM - IV

THEORY SUBJECTS

- Inorganic Chemistry-V/ Physical Chemistry-V/ Organic Chemistry-V
- Inorganic Chemistry-VI/ Physical Chemistry-VI/ Organic Chemistry-VI
- Medicinal Chemistry/ Science and Technology of Nanomaterials

Practical

- Project



DEPARTMENT OF ENVIRONMENTAL SCIENCES

The Department of Environmental Sciences offers M.Sc Water Resource and Environmental Management, M.Sc Environmental Sciences and Ph.D in Environmental Sciences. The Department has achieved a landmark of producing two DAAD Fellow and two students as Post Doc fellow in Lulea University, Sweden. The department is having research programmes funded by national and International agencies and has offered many fellowships (JRF/SRF/RA) to the students through these fundings. The department of Environmental Sciences has a well-equipped Environmental Laboratory. The laboratory has several instruments needed for air monitoring, physico chemical analysis of water and waste water. In addition, it has working space for full time Ph.D research scholars. The faculty members are having interest in interdisciplinary research on topics such as air pollution, solid waste management, glaciology, waste water etc.

Career Prospects

- Pollution control board agency
- Climate change agency
- Environmental forecasting
- Remote sensing organizations

Laboratory

- Environmental Science Laboratory

Projects/Workshops /Conferences (National & International)

- Supported in organising the 19th edition of International Conference on Cryptology (**INDOCRYPT-2018**) jointly organized by Scientific Analysis Group (SAG), DRDO, Delhi and Sharda University, Greater Noida held at India Habitat Centre, New Delhi.
- **National Conference on Environment and Energy Materials(NCEEM)** ON June 27-28, 2020 organised by Department of Environmental Sciences

- Workshop on **Climate Change** Effects on Water Resources and **Rainwater Harvesting Systems** on March 15, 2023
- Seminar on **Professional Ethics** on January 19, 2023
- Workshop on **Fitness with Yoga** on February 23, 2023
- Workshop on **Intellectual Property Right** on June 02, 2022
- International Conference on **Energy and Environment Materials (INCEEM 2021)**, July 29-31, 2021
- Seminar on **World Wetland Day** on February 02, 2021
- National Conference on **Energy and Environment Materials (NCEEM 2020)**, June 27-28, 2020
- Seminar on **Research Methodology**, July 31, 2020
- Seminar on **International Ozone Day**, June 19, 2020

Environmental Awareness Events

- **Water Day 2021:** Celebration of World Water Day on 22nd March, 2021.
- **“National Wetland Day”** on 2nd February, 2021, Sharda University, Greater Noida
- **“Ozone Day”** on 16th September, 2020, Sharda University, Greater Noida
- **“Environment Day”** on 5th June, 2020, Sharda University, Greater Noida
- “International Conference on **“Energy & Environmental Materials” (INCEEM 2023)** on 6th - 9th December, 2023

Research Projects Funded By National/International Organisation: 05

Sponsored Projects (ONGOING)-1 Nos.: Grant Rs. 20,00,000/-

- **“Integrated Studies of Himalayan Cryosphere (ISHC)”** Energy Balance study on Batal Glacier, Himachal Himalaya, sponsored by Space Applications Centre, ISRO, Ahmedabad, Grant - Rs. 20,00,000.00

Sponsored Projects (COMPLETED)-04 Nos.: Total Grant:

Rs. 1,63,03,300.00

- Contribution to High Asia Runoff from Ice and Snow (CHARIS), funded by United States Agency for International Development (USAID), USA, **Grant - \$ 1,12,100**
- Study of Glacio-hydro-meteorological Processes at the Naradu Glacier, funded by Department of Science and Technology (DST), Govt. of India, Grant - Rs. 50,55,000.00
- Snout Monitoring, Mapping, Mass and Energy Balance and Assessment of Biophysical Environment of Naradu Glacier, H.P., funded by Dept. of Sc. & Technology (DST), New Delhi, India, Grant - **Rs. 19,61,800.00**
- Case studies of impacts of climate change on hydrological regime in Nepal, India and Afghanistan, funded by South Asia Water Initiative (SAWI), ICIMOD, Kathmandu, Nepal, **Grant - \$ 31,000.00**

Conferences/Workshops/Seminars

- International Conference on Energy and Environmental Materials(INCEEM-2021) on 29-31st July organized by Department of Environmental Sciences
- International Conference on Energy and Environmental Materials (INCEEM-2023) on 06th-09th December, 2023 organized by Department of Environmental Sciences

Events

- Celebration of **World Environment Day** on June 5, 2022
- Celebration of **World Earth Day** on April 22, 2022
- Celebration of **World Water Day** on March 22, 2021

Awards for Research and innovation received by faculty

Felicitation to faculty of Environmental Sciences with an award for innovation and Recognition from Anveshna for mentoring students in innovative project on solid waste management and energy production.

Fellowship

International US Ful Bright Fellowship to faculty for Post- Doctoral Research

Laboratory

Well - equipped Atmospheric Research Laboratory of Department of Environmental Sciences with instruments such as Respirable Dust Sampler, Gaseous Pollutant Sampler, Fine Particulate Sampler, MFC, Heavy metal Sampler and water analysis instruments.

Student's Placements

Batch 2021-2023 and 2022-2024

- Ms. Emily Thera (As Chief Land Resource Conservation Officer at the Department of Land Resource Conservation, Ministry of Agriculture, Malawi)
- Mr. Vikash Kumar (As Social Junior Manager for "Consultancy Services for Third Party Quality Assurance & Quality Audit, Bihar Kosi Basin Development Project")
- Mr. Adam, Imam Nur (As Senior Environmental Officer, Federal Civil Service Commission, Abuja)
- Mr. Johannes V Lipayi (As Environmental Health Practitioner, Department of Kavango Regional Directorate, Ministry of Health and Social Services, district Bongo, Kavango region)



M.Sc.-Environmental Science

TERM - I

THEORY SUBJECTS

- Climatology and Oceanography
- Applied Environmental Chemistry
- Natural Resource Management
- Fundamentals of Instrumentation Techniques
- Hydrology Basics and Water Management
- Energy Economics and Policy

Practical

- Water Pollution & Monitoring Lab
- Research Based Learning (RBL1)

TERM - III

THEORY SUBJECTS

- Water Treatment and Purification Techniques
- EIA and Risk Assessment Analysis
- Environmental Pollution and Control
- Health Safety and Environment
- Open Elective

Practical

- Project (RBL3)
- Environmental Data Analysis

TERM - II

THEORY SUBJECTS

- Concepts of Environmental Toxicology
- Environmental Law and Audit
- Remote Sensing and GIS Application
- Global Climate System and Sustainable Development
- Disaster Management
- Research Methodology

Practical

- Remote Sensing & GIS Lab
- Community Connect Course
- Research Based Learning (RBL 2)

TERM - IV

THEORY SUBJECTS

- Green Technologies
- Air Pollution and Technologies
- Foundations and Perspectives of Sustainable development
- Data Warehousing & Data Mining
- Campus to Corporate

Practical

- Research Project (RBL-4)
- Industrial Training Report

M.Sc.-Water Resources & Environmental Management

TERM - I

THEORY SUBJECTS

- Water Resources & Management
- Environmental Chemistry
- Environmental Pollution
- Solid and Hazardous Management
- Earth Ecology and Environment
- Environmental Biotechnology
- Technical Presentation

Practical

- Water Pollution & Monitoring Lab
- Research Based Learning (RBL1)

TERM - III

THEORY SUBJECTS

- Research Methodology
- Biodiversity Conservation and Management
- Fundamentals of Hydrology
- Instrumentation and Techniques
- Biostatistics/Disaster Management
- Open Elective

Practical

- Environmental Data Analysis
- Project (RBL3)

TERM - II

THEORY SUBJECTS

- Concepts of Environmental Toxicology
- Environmental Legislation and Audit
- Climate Change & Sustainable Development
- Environmental Toxicology
- Glaciology & Climate Change
- Remote Sensing Techniques & GIS
- Energy Sources and Global Scenario/Water Sanitation & Health

Practical

- Remote Sensing & GIS
- Community Connect Course
- Research Based Learning 2

TERM - IV

THEORY SUBJECTS

- Green Technologies
- Air Pollution and Technologies
- Foundations and Perspectives of Sustainable development
- Data Warehousing & Data Mining
- Campus to Corporate

Practical

- Environmental Impact & Risk Assessment
- Water Purification & Treatment Processes
- Project (RBL4)



DEPARTMENT OF LIFE SCIENCES

The Department of Life Sciences offers undergraduate and postgraduate courses in various disciplines such as Biotechnology, Microbiology, Food Science and Technology, Life Science (Botany and Zoology), Industrial Microbiology and Molecular Biology. All these courses encompass promising areas of research and employability. The Department has well equipped laboratories for research and routine lab experiments. The faculty members are dynamic and pursue interdisciplinary research in the areas of plant biotechnology, crop improvement, protein biochemistry, drug discovery, virology, fermentation and industrial biotechnology, food processing and development of novel food products etc.

Career Prospects

- Pharmaceutical (R&D) Industry
- Diagnostic Laboratories
- Hospitals
- Food & Brewery Industry
- Marketing Research

Laboratories

The Department has following five well equipped laboratories catering to the need of courses

- Cell and Molecular Biology Laboratory
- Microbiology Laboratory
- Plant Tissue Culture Laboratory
- Animal Cell Culture Laboratory
- Virology Laboratory
- Bioprocess engineering Laboratory
- Biochemistry & Enzyme Engineering Laboratory

Food Technology Laboratory The Department also has a herbal garden and an animal house for in-vivo experiments.

Projects/Workshops/Conferences (National & International)

- eWorkshop on "Laboratory Practices and Ethics" (2021)
- 3 days symposium cum training workshop on "Resilience pathways for natural and manmade disasters" (2021)
- 5 days National Workshop cum e-FDP on " Transformation of Food Processing from Lab to Industries" (2020)
- 7 days E-FDP cum workshop on " Waste to Bio-energy"(2020)
- 5 days e-Faculty Development Program cum Training Workshop on "Environment, Water and Disaster Risk (2020)
- Hands on Training programme on GMP, Food Quality Control and Food Safety was held on February 4-10 , 2020 at Auto Expo 2020, Greater Noida.
- Industrial Visit to Yakult Danone Pvt. Ltd. Sonipat Haryana was organized February 13, 2020.
- An educational tour has been arranged by the Department for B.Sc. Zoology students to Bharatpur on March 13-14, 2020.
- An Webinar on 'Agri-Business Opportunities for Students" in Food Processing and Agro Industries was conducted on May 28, 2020.
- The Department organized 7 days E-FDP cum workshop on " Waste to Bio-energy" on June 28, 2020.
- Several research papers have been published in various peer-reviewed journals.
- Regularly organises workshops on various research activities.
- A MoU was recently signed between AIBTM, Greater Noida and Sharda University.
- At present many projects funded by Government agencies like DBT, DRDO& INSA are running in the Department.
- Many of our students have qualified UGC-CSIR NET and GATE and are now working in industry or have enrolled in higher degree programme in India as well as abroad.
- The Department organizes Industry Academic meet annually to

- prepare the students for the requirement of industry.
- Hands-on-training/Workshops are organized in the Department frequently to update the students in modern techniques.
- Department also organizes scientific talk by eminent scientist from India and abroad time to time.

Achievement

Project- There are currently 13 government-funded projects in the department of life sciences, with a total budget exceeding 7 crore. The project investigators are funded by DST, DRDO, ICMR and NMPB, MoAyush.

Patents- The Department of life sciences has filed 33 patents in various areas such as nano materials, nano composites, bio energy, microbial fuel, and anti microbial materials, with the involvement of both faculties and students. Out of 33 patents following patents are granted and published.

Granted Patents- Title: A microbial desalination cell comprising a perovskite oxide catalyst for oxygen reduction reaction, **Inventors:** Richa Tomar, Soumya Pandit, Abhilasha Singh Mathuriya, Pramod Kumar Singh, Piyush Kumar Gupta, Mohit Sahni, Aberam Nagarajan, Aparna Sharma, **Granted Patent No.** 429738, **Granted Date:** 24.04.2023.

Title: Ceramic separator-cathode assembly, **Inventors:** Prasenjit Saha, Soumya Pandit, Abhilasha Singh Mathuriya, Mohit Sahni, Sanjay Kumar, Piyush Kumar Gupta, Santimoy Khilari, **Granted Patent No.** 468645, **Granted Date:** 13.11.2023

Published Patent

Title: Microbial coculture for microbial electrochemical system, **Inventors:** Kalpana Sharma, Vandana Singh, Ankit Kumar, Soumya Pandit, Piyush Kumar Gupta, Srijoni Banerjee, Sagnik Saha, **Patent no.** 202311003436, **Publication Date:** 20.01.2023

Title: Eco-friendly anode chamber cum separator electrode assembly for microbial electrochemical systems, **Inventors:** Prasenjit Saha, Upesh Sharma, Soumya Pandit, Abhilasha Singh Mathuriya, Dantuluri Veerabhadra Raju, Mohit Sahni, Piyush Kumar Gupta, Ankit Kumar, **Patent no.** 202211016725, **Publication Date:** 27.05.2022

Title: A microbial desalination cell comprising a perovskite oxide catalyst for oxygen reduction reaction, **Inventors:** Richa Tomar, Soumya Pandit, Abhilasha Singh Mathuriya, Pramod Kumar Singh, Piyush Kumar Gupta, Mohit Sahni, Aberam Nagarajan, Aparna Sharma, **Granted Patent No.** 429738, **Granted Date:** 24.04.2023

Title: Ceramic separator-cathode assembly, **Inventors:** Prasenjit Saha, Soumya Pandit, Abhilasha Singh Mathuriya, Mohit Sahni, Sanjay Kumar, Piyush Kumar Gupta, Santimoy Khilari, **Granted Patent No.** 468645, **Granted Date:** 13.11.2023

Publications

The Department of life sciences has made significant contributions

to the field, with its faculty members publishing more than 300 articles in national and internationally recognized peer-reviewed journals indexed in SCI and Scopus. These publications have appeared in esteemed journals such as Bioresource Technology, Journal of Cleaner Production, Materials Science and Engineering C, Nanomedicine, European Journal of Pharmacology, and many others. Additionally, most of the faculty members have also authored over 89 book chapters, further showcasing their expertise and knowledge in their respective fields.

Awards

- Central University of Andhra Pradesh has appointed Prof. Satyawada Rama Rao as Ombudsperson of student's grievances redressal committee for a period of three years from 1st August 2023.
- Dr. Piyush Kumar Gupta has been bestowed with "Best Researcher Award of Sharda University for the Year 2022-23" by Honorable chancellor, Pro-chancellor, Vice chancellor, and pro-vice chancellor
- Dr. Piyush Kumar Gupta has been appointed as Review Editor for Frontiers in Bioengineering and Biotechnology
- Dr. Piyush Kumar Gupta has been appointed as an Associate Editor for Frontiers in Biomaterial Science Journal, Frontiers
- Dr. Sanjay Kumar has been appointed as an Associate Editor for BMC Cancer Journal, Springer Nature
- Dr. Piyush Kumar Gupta has joined the Life Membership of the Materials Research Society of India in the year 2023

Programmes Organized

Following Programs are organized by Department

- Annual Sports Day Pratispardha
- Cancer Awareness Programme
- Invited Talk on "Women: The Shining Stars in Science and Technology" on Occasion of International Women's Day
- Fresher's Party, Arambh
- Certification Programme on Financial Literacy organized under the initiative of NSDL and Ministry of Finance under "Market ka Eklavya"
- An Invited talk to be conducted on the occasion of World Health Day dated on April 8th, 2024
- The Department of Life Sciences, SSBSR, is organized an invited lecture by Dr. Shilpy Sharma, Assistant Professor, Department of Biotechnology, Savitribai Phule Pune University, Pune (Maharashtra) on the occasion of National Science Day on 28th February 2024.
- The Department of Life Sciences Celebrated World Food Day with the Theme 'Water is Life and Water is Food' on February 4th, 2023.



M.Sc. in Biotechnology

TERM - I

THEORY SUBJECTS

- Advanced Biochemistry
- Advanced Molecular Biology
- Medical Biotechnology
- Enzyme Technology
- IPR

Practical

- Enzyme Technology Lab
- Biochemistry Lab
- Molecular Biology Lab
- Research Based Learning I

TERM - III

THEORY SUBJECTS

- Environment Microbiology and Waste Management
- Genomics
- Immunology and Immunotechnology
- Bioprocess technology and Quality Control

Practical

- Genomics & Bacterial Genetics Lab
- Immunotechnology Lab
- Bioprocess technology Lab
- Community Connect
- Research Based Learning III

M.Sc. in Microbiology

TERM - I

THEORY SUBJECTS

- Microbial Diversity
- Molecular Biology
- Microbial Metabolism
- Enzymology
- IPR

Practical

- Microbial Diversity Lab
- Enzymology Lab
- Molecular Biology lab
- Research Based Learning 1 (RBL-1)

TERM - III

THEORY SUBJECTS

- Environmental Microbiology & Waste Management
- Infection, Immunity and Diagnostics
- Microbial Biotechnology
- Food Microbiology

Practical

- Microbial Biotechnology Lab
- Immunology lab
- Fermentation Technology Lab
- Community Connect
- Research Based Learning 3 (RBL-3)

TERM - II

THEORY SUBJECTS

- Bio instruments
- Advances in Plant Biotechnology
- Advanced Genetic Engineering
- Animal Cell Technology
- Bioinformatics

Practical

- Genetic Engineering Lab
- Plant Biotechnology Lab
- Bioinstrumentation Lab
- Research Based Learning II

TERM - IV

Practical

- Project / Dissertation / Industrial Training
- Research Based Learning (RBL-4)

TERM - II

THEORY SUBJECTS

- Bio-instruments
- Mycology, Phycology and Virology
- Recombinant-DNA Technology
- Bacteriology
- Bioinformatics

Practical

- Bioinstrumentation Lab
- RDT Lab
- Mycology, Phycology and Virology Lab
- Research Based Learning 2 (RBL-2)

TERM - IV

Practical

- Dissertation / Project work / Industrial Training
- Research Based Learning 4 (RBL-4)

M.Sc. in Food Science and Technology

TERM - I

THEORY SUBJECTS

- Nutrition Biochemistry
- Advanced Food Processing
- Advanced Food Chemistry
- Technology of plant derived Foods
- Technology of Fruits Vegetables and Plantation Crops

Practical

- Advanced Food Processing Lab
- Advanced Food Biochemistry Lab
- Food Preservation Lab
- Research Based Learning-1

TERM - II

THEORY SUBJECTS

- Advanced Food Safety and Toxicology
- Advanced Food Biotechnology
- Fermentation Technology
- Advanced Food Microbiology
- Food Quality and Assurance

Practical

- Advanced Food Microbiology Lab
- Advanced Food Safety and Toxicology Lab
- Food Quality and Assurance Lab
- Research Based Learning-2

TERM - III

THEORY SUBJECTS

- Biostatistics
- Bioinformatics
- Technology of Meat, Poultry and Fish Products
- Waste Management in Food Industries
- Techniques in Food Analysis
- Bakery, confectionary and extruded products

Practical

- Meat Technology Lab
- Community Connect
- Dissertation – I/RBL- 3

TERM - IV

Dissertation – II / RBL- 4

Awards/Scholarships/Fellowships/Publications by students

- Mr. Rahul Kumar Mishra (Ph.D. Student) has been awarded with Oral Presentation award -2023 by Uttaranchal University, India during an International Conference of Functionality of Food Components and Emerging Technologies in Life Sciences.
- Mr. Rohit Kumar (Ph.D. student) has been bestowed with UCB-Young Scientist Award – 2023 given by Uttarakhand Council for Biotechnology, Uttarakhand, India
- The research work of Mr. Rohit Kumar (Ph.D. student) has been appeared as a Front Cover Page on the ACS Applied Bio Materials Journal magazine
- Mr. Ankit Kumar (Ph.D. student) has been bestowed with best poster presentation award for his research work during the "3rd International Conference on Bioprocess for Sustainable Environment and Energy- India-2022 organized by NIT Rourkela, India
- The doctoral research work of Mr. Ankit Kumar has been published in various journals like Catalysts (MDPI), Environmental Engineering Research (KSEE), Bioresource Technology Reports (Elsevier), Membranes (MDPI), Biocatalysis and Agricultural Biotechnology (Elsevier) between 2021- 23.
- The doctoral research work of Mr. Rohit Kumar has been published in various journals like Colloids and Surfaces A (Elsevier), ACS Applied Bio Materials (American Chemical Society) between 2021-23.

Details of Value added course- Graduate

- Green Technology and approaches for waste valorization
- Human Molecular Genetics

Post graduate

- Biomedical Nano Technology
- Green Technology
- Spirulina Farming
- Writing research paper and plagiarism



DEPARTMENT OF MATHEMATICS

Mathematics is the language of nature. Certain qualities that are nurtured by mathematics are the power of reasoning, creativity, abstract or spatial thinking, critical thinking, problem solving activity & more. To express any problem from the real world, the logic and reasoning akin to mathematics along with its concepts and structures is a must. Department of Mathematics runs undergraduate & postgraduates courses with a balance syllabus of both pure & applied mathematics and offers Ph.D programmes in various areas of specializations such as Number theory & cryptography, Fluid dynamics, Mathematical modelling, Numerical analysis, Functional analysis, Graph theory, Operations research & Special functions. Different groups are also working in advanced fields of Mathematics like chaos theory and dynamical systems. Department of Mathematics also supports other schools in their courses such as School of Engineering & Technology (SET), School of Education (SOE), School of Nursing Science & Research (SNSR) and others. Due to high demand in industry, the department also started B.Sc. Data Science and Analytics and M.Sc. Data Science and Analytics and B.Sc. Computational Mathematics and Statistics. Department also offered Post Graduation Programme and Doctorate Degree:

- M.Sc. Mathematics
- M.Sc. Data Science & Analytics
- Ph.D. Mathematics
- Ph.D. Data Science & Analytics

Strength of The Department:

- Numerous Research scholars have been awarded Ph.D. Degrees.
- Number of research papers have been published in reputed National & International Journals.
- Number of books and book chapters have been published by reputed publishers.

- Highly qualified faculty members and students are being exposed by eminent personalities of the world.
- An interdisciplinary research centre "Centre for Advanced Research in Applied Mathematics and Physics" provide scholarship for good research projects.

Career Prospects

- Accountancy & Professional Service
- Banking- Retail Banking
- Computing & IT
- General Management
- Statistical Research
- Operational Research
- Engineering Sciences

Laboratories

The Department has laboratories equipped with basic and modern computing facilities which include advanced software such as MATLAB, PYTHON, R, SPSS and LATEX.

Workshop/Career Guidance Programme/Seminars

- "An online webinar tips & trick to crack competitive examinations" like NET/ SLET on 22nd July, 2020.
- "Entrepreneurship and start-ups by a renowned Entrepreneur and startup founder" on 29th December, 2020.
- A Webinar on Awareness of Trends in Technology under the Memorial Lecture Series 2021 in the memory of Prof. A. H. Siddiqi" on 20th January 2021.
- Department of Mathematics has organised a lecture series on "Preparations for Competitive Exams" on 23rd February 2023.
- Department of Mathematics has organised a community connect visit to Talda, Bilaspur Village on 15th April, 2023.

- Department of Mathematics has organised a two days' workshop on "Data-Driven Decisions: Mastering Google Analytics for Website Success" from 21st - 22nd April 2023.
- Department of Mathematics has organised an Industry visit to "Vividh Packaging Industries" on 24th April 2023.
- Department of Mathematics has organised an expert lecture on "Internship Interviews for Students" on 3rd May 2023.
- Department of Mathematics, Sharda School of Basic Sciences and Research, Sharda University has organized an "International Seminar" on "An Overview of Statistical Meta-Analysis" in collaboration with the "University of Maryland" on 3rd June, 2023, from 6PM to 7PM India time (8:30 AM-9:30 AM USA time).
- Department of Mathematics, Sharda School of Basic Sciences and Research, Sharda University, Gr. Noida organized an online five days training program for teaching staff of Sharda University, titled as "Plan, Measure, and Action Plan at Course & Programme Level" from 24-28 July, 2023.
- Department of Mathematics, Sharda School of Basic Sciences & Research (SSBR) has organized a Career Counselling Seminar for transforming into successful career counsellors on 19th August 2023. Coming from various academic backgrounds, these professionals had one thing in common-the person to guide students toward the right career path.
- Department of Mathematics (SSBSR) has organized "Hands-on Workshop on Resume Writing" on October 19, 2023.
- Department of Mathematics, Sharda School of Basic Sciences & Research (SSBR) has organized a Career Counselling Workshop for Academic Career Counselling and International Opportunities from 16th-23rd October 2023.
- Department of Mathematics has organised an invited talk on "How to write a project proposal for obtaining successful sponsorship: Prospects and Challenges" on 3rd December, 2022.
- Department of Mathematics, Sharda School of Basic Sciences and Research, Sharda University, Gr. Noida has celebrated National Mathematics Day 2022 (the 135th Birth anniversary of Srinivasa Ramanujan) on 22nd December 2022.
- Department of Mathematics has organised an expert lecture on "How to Write a Research Report" on 25th April 2023, delivered by Prof. Subhdeep Mukherjee is working as an Assistant Professor in Department of Operations, GITAM School of Business, GITAM (Deemed to be University), Visakhapatnam.
- Department of Mathematics has organised an expert lecture on "How to Write a Research Report" on 25th April 2023.
- Department of Mathematics (SSBSR) has organized an expert lecture on Gender Equity on June 22, 2023 delivered by Shalini Anand is a Sr. Corporate Trainer, Sharda Skill Department, Sharda University.

National/International Conferences:

- The A. H. Siddiqi Centre for Advanced Research in Applied Mathematics & Physics (CARAMP), Sharda University, Greater Noida, India, organized International Conference on Applied and Industrial Mathematics (ICAIM 2023) on 24th - 26th March, 2023 (Virtual conference).
- Department of Mathematics, SSBSR, Sharda University has organized two-days global conference from 10th to 11th December, 2022, in collaboration with various international universities like London Churchill College, United Kingdom; International Training Institute, Papua New Guinea; Wollo University, Ethiopia; PT. LEO Jejarlingllmu- Indonesia & national universities like Shri Jairambhai Patel Institute of Business Management and Computer Applications; Guru Nanak Institute of Management; Narayana Business School; ITM University; School of Commerce & Management, Mohan Babu University; Swami Vivekananda Institute of Science and Technology; Ajeenkya DY Patil School of Engineering under the umbrella of CONFAB 360 on the theme "Global Conference on Emerging Technologies, Business, Sustainable Innovative Business Practices, and Social Well- Being".

Academic curricular Activities and Achievement:

- Dr. Selbi Jose, Director, Knowledge Resource centre, Dr. Homi Bhabha State University, Mumbai India (2020).
- Mathematics department started Sharda Mathematics Olympiad (SMO- 2020).
- From the last two years, the Department has been giving coaching for NET/SLET classes
- In 2019, one student cleared Civil services and one cleared JAM in 2021.

Invited Lectures

- Expository Lecture on "Fractal with Real life Applications" by Prof. Rashmi Bharadwaj (Professor, Department of Mathematics, Guru Gobind Singh Indraprastha University, New Delhi), 18th January 2019.
- Expert Lecture on "Role of Artificial Intelligence in Natural Language Processing and Computational Linguistics" by Prof. Ashish Chandiok on 15th February 2019.
- Expert lecture on "Carbon Nanotubes and its applications" by Prof. Mushahid Husain (Former- Director Nano science and Nanotechnology Centre and former Vice Chancellor M. J. P. Rohilkhand University, Bareilly), 22th February, 2019
- Invited lecture on "Data Mining and Wavelets" by Prof. P. Manchanda (Professor & Head, Department of Mathematics, Guru Nanak Dev University, Amritsar), 15th April 2019.
- "Industrial and Financial Mathematics" by Prof. Kum Kum Dewan, Adjunct Professor, MITS, M.P. Technical University, Gwalior, 1st November 2019.
- Expert lecture on "Vector Order and Set Order: Vector Optimization and Set Optimization" by Prof. Q. H. Ansari (Department of Mathematics Aligarh Muslim University). He did his Ph. D. from AMU, Aligarh.

Extra Curricular Activities:

- On 4th May 2023 Department of Mathematics, Sharda School of Basic Sciences and Research, Sharda University has organized a cultural Event "FANTAST FIESTA-2023".

The following International Academicians have graced various events organised by the Department of Mathematics

- Prof. Pavel Exner (President, European Mathematical Society).
- Prof. G. Leugering (Vice president, Friedrich-Alexander University, Germany).
- Prof. Stephane Jaffard (University of Paris, East, France).
- Prof. M. Shahjahan (Memphis University, USA).
- Prof. H. Feichtinger (Vienna University, Austria).
- Prof. T. Khan (Clemson University, USA).
- Prof. R. Lozi (Nice University, France).
- Dr. Damienne Provitolo (Permanent Researcher CNRS, Nice, France).

Master of Science (Mathematics)

TERM - I

- Real Analysis
- Linear Algebra
- Ordinary and Partial Differential Equations
- Statistical Methods
- Introduction to MATLAB and its Applications
- Mathematics Lab-I
- Mathematics Lab-II
- Research Based learning-I

TERM - II

- Numerical Analysis
- Complex Analysis
- Topology
- Differential Geometry & Tensor Analysis
- Numerical Analysis Lab
- Mathematics Lab-IV
- Technical Presentation
- Community Connect Course
- Research Based learning-II

TERM - III

- Abstract Algebra
- Functional Analysis
- Graph Theory and its Applications
- Fluid Dynamics
- Number Theory with Cryptography Applications
- Mathematics Lab-V
- Dissertation-1

TERM - IV

- Measure Theory
- Linear programming
- Discrete Mathematics
- Wavelet Analysis and their Applications
- Open Elective
- Disretation-2

Master of Science (Data Science & Analytics)

TERM - I

- Foundations of Data Science
- Statistical Methods
- Mathematics for Machine Learning
- Probability Theory and Distributions
- Next Generation Databases
- Practical-I
- Practical-II
- Research Based Learning-I

TERM - II

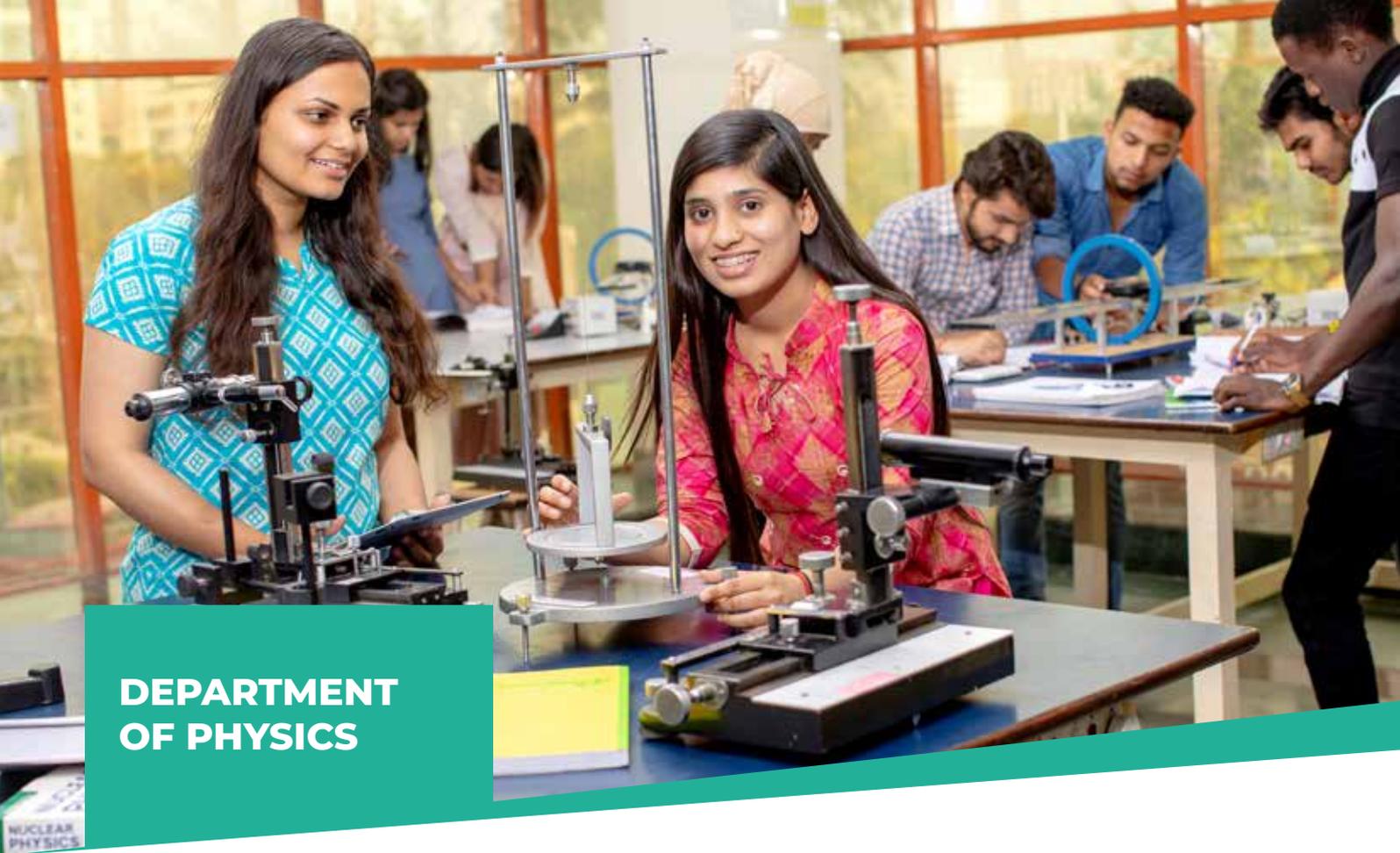
- Numerical Analysis
- Regression Analysis and Predictive Models
- Statistical Data Preparation & Analytics
- Advanced Big Data and Text Analytics
- Data Mining and Artificial Intelligence
- Community Connect
- Practical-III
- Practical-IV
- Research Based Learning-II

TERM - III

- Inferential Statistics
- Multivariate Data Analysis
- Soft Computing Techniques
- Exploratory Data Analysis and Visualization
- Open Elective
- Practical-V
- Practical-VI

TERM - IV

- Elective-I
- Elective-II
- Capstone Project



DEPARTMENT OF PHYSICS

The Department of Physics is involved in doing research in various areas of Materials Science like Ceramics, Super Capacitors, Solid Electrolytes, Ceramics and Ferrite materials. Apart from experimental areas, faculties are well experienced in High Energy Physics, Astroparticle Physics, and Medical Physics. In the field of high energy Physics and medical Physics, imageprocessing, magneto hydrodynamics and seminal research works have been carried out where as in the field of material science and technology, our faculty members are focused around synthesis and electrochemical application of nanomaterials, ceramics, Porous Carbon and Polymer electrolyte.

We have a fully equipped laboratory known as Material Research Laboratory (www.materialsresearchlab.net) where we have most important characterization tools like impedance spectroscopy, Keithley source major unit, FTIR, UV absorption spectroscopy. Using specialized equipment, we are able to develop electrochemical devices like Solar Cells- Dye Sensitized Solar Cell (DSSC), Perovskite Solar Cell (PSC), Quantum Dot Sensitized Solar Cell (QDSSC), Super Capacitors-Electrochemical Double Layer Capacitor (EDLC), Sensors, Fuel Cells.

Career Prospects

M.Sc. Physics:

The student with M.Sc. (Physics) degree and having comprehensive knowledge of concepts in Physics has great opportunity for employment in private as well as Government Sector. Students have career opportunities in research labs, medicals lab, academic institutions and various government owned Scientific Research and Development Organizations. Students with M.Sc. (Physics) are eligible for the post of Scientist C in different research organizations such as ISRO, DRDO and BARC. Other than these options, a Physics graduate can go for higher studies like M.Sc. (Physics), Ph.D and MTech. from India and Abroad.

Government sector major recruiting organizations are

- Defense Research and Development Organization (DRDO)
- Physical Research Laboratory, Ahmedabad
- Saha Institute of Nuclear Physics, Kolkata
- Indian Space Research Organization (ISRO)
- Nuclear Science Centre New Delhi.
- Bhabha Atomic Research Centre (BARC)
- Oil and Natural Gas Corporation (ONGC)
- Bharat Heavy Electricals Limited (BHEL)
- National Thermal Power Corporation (NTPC)

Physics graduates can get Officer Job in other government sectors like: -

- Railway Officer
- State Bank of India (SBI)
- Staff Selection Commission
- Banking Sectors
- UPSC Geoscientist and other Government Sector Services.

B.Sc. (Physics)

Students have career opportunities in research labs, medicals lab, academic institutions and various government owned Scientific Research and Development Organizations. The students also have the opportunity to go for Higher Studies after B.Sc. (Physics) such as M.Sc. (Physics), MBA, MCA and other courses.

- Other than these options, a Physics graduate can go for higher studies like M.Sc. (Physics), Ph.D and MTech. from India and Abroad also M.Tech. could be done by qualifying GATE after M.Sc. Physics
- B.Sc. Honours/ (Honours with research) in Physics, B.Sc. Honours/ (Honours with research) in Physics with Minor in Computational Physics, B.Sc. Honours/ (Honours with research) in Physics with Minor in Renewable Energy

Laboratories

- Physics lab for Engineering Students.
- Physics lab for science graduate and post graduate students.
- Electronics lab
- Computational lab

Research Laboratories

- Centre of Excellence (<https://www.sharda.ac.in/research/center-of-excellence>)
- Acoustics Research Lab
- Artificial Intelligence Lab
- Nanomaterial Lab

Centre of Excellence on Solar Cells & Renewable Energy

The centre is mainly focused around the development of modern materials and its successful application in energy devices like Solar Cells, Supercapacitors, Sensors, Fuel cells.

Projects/Workshops/Conferences

- Faculty Development Program Entitled "Recent Advances in Physical, Bio- and- Life Sciences", Feb 6-10, 2023 Organized by the Department of Physics, Sharda School of Basic Sciences and Research.
- 4th International Conference on Science and Engineering of Materials ICSEM 2021, July 19-22, 2021
- Skill of Quality Engineering and Technological advances based one week FDP" Quality Engineering and Technological advances in Materials and Devices, March 8-12, 2021
- Recent Trends in Acoustics and Material Science-2020, RTAMS 2020, November 28-30, 2020
- Teaching and research Skill in the field of Engineering Materials & Nanotechnologies: One-week Online Faculty Development programme on Recent Trends in Materials and Engineering, May 25-31, 2020

Projects Completed

- Development of nano porous TiO₂ electrode and modified solid polymer electrolytes for Dye Sensitized Solar cells (DSSC) (Rs.18,14,000) sponsored by DST.
- Development of High Dielectric Constant Polymer Composite for Pulsed Power System (Rs. 7,00,000) sponsored by DRDO.
- Effect of Swift Ion Beam On Polymer Electrolyte Films (Rs. 22,58,534) sponsored by DST.
- Development of large area Dye Sensitized Solar cells (DSSC) using modified solid polymer electrolytes (Rs. 20,30,644) sponsored by DST.
- Development and characterization of ionic polymer blend membrane metal composites (IPMS) for the application of actuation devices (Rs. 31,35,000) sponsored by DRDO.

Ongoing Projects

- "Smart synthesis of carbon waste material from hazardous single use plastic around the surroundings for energy application" (Rs. 11.92 Lakhs) sponsored by Council of Science & Technology U.P. (CSTUP).
- "Efficiency and reliability improvement of Dye-Sensitized Solar Cells with Discotic Liquid Crystals as Electrolyte solution" (Rs. 14.08 Lakhs) sponsored by Council of Science & Technology U.P. (CSTUP).
- "An Automatic device for removal of dye from the water" (Rs. 9.60 Lakhs) sponsored by iHUB Divyasampark, IIT Roorkee.
- "Flexible Rechargeable Batteries for Wearable Device Applications" (Rs. 10 Lakhs) sponsored by iHUB Divyasampark, IIT Roorkee.
- "Bismuth Based Energy Storage Device for IoT Applications" (Rs. 10 Lakhs) sponsored by iHUB Divyasampark, IIT Roorkee.
- Development and characterization of swift response actuators using Carbon allotrope's based ionic polymer composites (Rs. 25,07,000) sponsored by DRDO.

- Synthesis of alkali ion (Li, Na and K) doped Bi FeO₃ - Graphene oxide nanostructured materials for visible light photocatalytic application (Rs. 18,30,000) sponsored by SERB 2019.

Projects Submitted

- "Electro-spun PVDF(1-x)BiFeO₃@x(ZnO-Graphene) Core-Shell Nanostructured materials for waterflow derived Piezo-photocatalytic and Flexible Nanogenerator Applications" (Rs. 32,34,800) to Core Research Grant (CRG), SERB.
- "Highly Thermally Conductive Graphene-based Nanocomposite as Integrated Heat spreader for efficient electronics cooling" (Rs 42,28,128) to Core Research Grant (CRG), SERB.
- "Synthesis and optimization of electrical and optical properties of Cs₃Bi₂I₉ and its application as a light absorber in PSC" (Rs. 26,72,841) to SERB POWER GRANT.
- "Development of semi-organic crystals for their potential nonlinear effects in optoelectronic devices" (Rs. 28,92,832) to SERB POWER GRANT.
- "Design a prototype working device for efficient water remediation" (Rs 18,30,000) to TARE-SERB.
- "Development of electrode materials for next-generation energy storage devices using bio-mass derived composites" (Rs 24,91,840) to MNRE.
- "Electrical and Ultrasonic Characterization of Polymers for their applications in electrochemical devices" (Rs.23,62,120) to Core Research Grant (CRG), SERB.
- "Structure and electrical properties of newly twist bend nematic liquid crystals doped with nanomaterials for display and photonic enabling technologies" (Rs 18,30,000) to TARE-SERB.
- "DST FIST" (Rs 30,000,000) to FIST-DST.
- "Bismuth based heterostructure materials for waste water treatment" (Rs. 3,000,000) to DST-WTC.
- "Applications of Molybdenum Disulphide for Water Purification" (Rs. 3,000,000) to DST-SERB-SURE.
- "Ionic Liquid Water in salt electrolyte (ILWISE): Safe and Efficient Energy Storage with Novel Aqueous Rechargeable Lithium ion batteries" (Rs. 3,900,000) to BRNS.
- "Bio sustainable CNT/Graphene derived Eco batteries using paper-based electronics for flexible/ wearable healthcare applications" (Rs. 2,000,000) to MSME.
- "Graphene Quantum dots based flexible paper battery for healthcare applications" (Rs. 1,400,000) to UGC-DAE.
- "Quasi solid-state rechargeable (Li/Na) battery based on nano material electrodes" (Rs. 2,932,600) to SERB_SURE.
- "Matching Carbon Nanostructures and Electrolytes for NextGeneration Energy Storage" (Rs. 21,000,000) to DST-RSF (Indo-Russia Joint Call).
- Novel biowaste materials for energy applications" (Rs. 3,300,000) to DST-MSHE (Indo-Russia MSHE call).
- "Stable ionic liquid electrolyte and carbon allotropes based highly efficient supercapacitor" (Rs. 3,992,640) to DST (MES Scheme).

Awards:

- **Prof. R.C. Singh Selected for following awards**
- **Intellectual Quality Excellence Award** conferred by Indian Journalist Compendium, New Delhi.2017
- Selected for **Albert Nelson Marquis Lifetime Achievement Award** Marquis Who's Who, USA. 2017
- **Dronacharya Award** conferred by Shree Narayan Sanskritik Chetna Nyas, Noida (UP).2018
- Selected for **Lifetime Achievement Award** by Marquis Who's Who, USA; 2019.
- **Lifetime Achievement Award** conferred by VDGOD Professional Association, India,2020

Master of Science (Physics)

TERM - I

- Solid state physics.
- Mathematical Physics.
- Quantum mechanics
- Classical mechanics
- Introduction to MATLAB and its Applications
- Research Based Learning (RBL-1)
- Physics Lab-1

TERM - II

- Renewable energy sources
- Electronics
- Statistical Mechanics
- Atomic, molecular physics and spectroscopic techniques.
- Advanced quantum mechanics.
- Community Connect.
- Research Based Learning (RBL-2).
- Physics Lab-3.
- Physics Lab-4

TERM - III

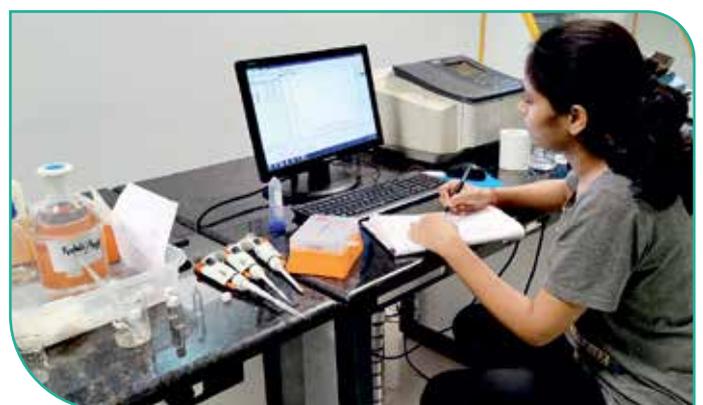
- Electromagnetics.
- Materials Physics.
- Synthesis of Materials.
- Nuclear and particle physics.
- Dissertation – 1 (RBL-3).
- Specialized Physics lab

TERM - IV

- Open Elective.
- Characterization of Materials.
- Properties of Materials.
- Dissertation – 2 (RBL-4)



CENTRE OF EXCELLENCE



RESEARCH LABS



CULTURAL SOCIETY OF SHARDA UNIVERSITY

The Cultural Society of Sharda University is formed of 9 Clubs, where each of the clubs will be operated by student coordinators and board members under the supervision of faculty coordinators. The cultural society will be governed overall by the following functionaries:

- The Dean of Students' Welfare
- The Associate Dean of Students' Welfare
- Faculty Advisors of Cultural Society

Music Club caters to the passion of student providing quality facilities like instruments, dedicated music room and a plethora of events. It serves as a platform for musicians of all genres and skill levels to showcase their talent at various events like Sufi Night and Voice of Sharda, etc. held at Sharda University.

FINE ARTS CLUB



The Fine Arts Club brings out the hidden artistic talents of our students, cultural programmes are conducted during Independence, Sports and college day function. Students participate in Inter & Intra-College competitions. The purpose is to encourage students to express their thoughts and emotions through art.

MUSIC CLUB



DRAMATICS CLUB

The Dramatics Club is for students who are interested in Performing Arts. The Club offers acting education, a creative outlet for theatrically minded students, and a variety of theatrical productions for the students to enjoy. In the past students from the Club brought accolades for the University in various events.



DANCE CLUB

The Club was established with the mission of bringing out the hidden talents of students and also provides them a stage where they can showcase their dancing talent and interest. The Club provides lot of opportunities in the form of competition and workshops for igniting the spark of interest present in the budding technocrats and honing their skills towards showcasing their talents.

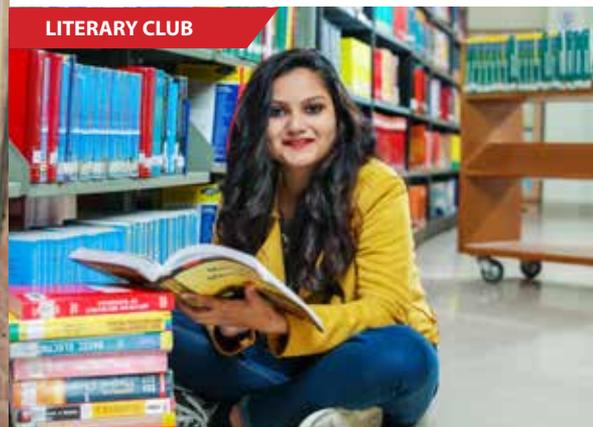
The Fashion Club aims to bring students together who have a passion for the fashion industry by participating in local and regional fashion events. Club members work with Fashion Merchandising students to help with events and activities on and off campus. The Club has hosted fashion shows, fashion showcases, and window dressings of local businesses.

FASHION CLUB



The Club aims to foster love for language, enhance literary creativity and provide an avenue for self-expression beyond the school curriculum. It is also to develop and hone the literary skills of students and inspire them to develop a taste for literature by conducting various workshops. The Club also initiates competitions in extempore, essay writing, creative writing, poetry writing, debate, elocution, quiz and reading to enhance the speech and oratorical skills.

LITERARY CLUB



DIVERSITY CLUB

Sharda University has a diversified group of students from across 80+ nationalities. The Diversity Club is dedicated in raising awareness of the various cultures among all students. Throughout the year various events are organized by the students to explore different cultures like Rejoice 3D, Festivals of Light, etc.



PHOTOGRAPHY CLUB

Photography Club of Sharda provides a platform where talent meets creativity and gives rise to productivity. Students are engaged in various activities that challenge their imaginative capabilities, assist in sharpening their photographic skills, and present an opportunity for students to learn from each other.



ENVIRONMENTAL CLUB

The main purpose of the Environmental Club is to educate on sustainable practices, to implement change in the best interest of the environment, and to include all persons working to improve the future of our earth by conducting significant workshops and seminars.

PLACEMENTS



Ms. Anjali Kathait
M.Sc. Chemistry
Placed at
Ceradecor India Pvt Ltd.



Mr. Prabhu Prasad Das
M.Sc. Chemistry
Placed at
PAMR Industries Pvt. Ltd.



Ms. Rabita Javeed
M.Sc. Chemistry
Placed at
LEVERAGE EDU.



Ms. Ruchika
M.Sc. Chemistry
Placed at
Victor Chemicals India Pvt. Ltd



Ms. Riya Middha
M.Sc. Chemistry
Placed at
Jaypee Medical, Greater Noida



Ms. Anjika
M.Sc. Chemistry
Placed at
DELHI PUBLIC SCHOOL, Jind, HARYANA



Ms. Somya Mishra
B.Sc. Biochemistry
Placed at
Gomedii



Ms. Shaurya Gupta
B.Sc. Biochemistry
Placed at
Simplify Growth



Ms. Priya
B.Sc. Biochemistry
Placed at
Gomedii



Ms. Nandita
M.Sc. Chemistry
Placed at
Jubilant Life Sciences Ltd.



Ms. Chhaya Dagar
M.Sc. Chemistry
Placed at
Jubilant Life Sciences Ltd.



Ms. Vidhi Katiyar
M.Sc. Chemistry
Placed at
HBG Knowledge Services Pvt. Ltd.



Ms. Vaishali Joshi
(M.Sc. Biotechnology)
Placed at
Zyla Health



Mr. Himanshu Sati
(B.Sc. Biotechnology)
Placed at
Phronesis Partner



Ms. Chandrika
(M.Sc. Biotechnology)
Placed at
Prescient & Strategic Intelligence



Mr. Rahul Pandey
(M.Sc. Chemistry)
Placed at
Jubilant Chemsys



Mr. Abdulaziz Garba Ahmed
(M.Sc. Mathematics)
Research Assistant Fellow,
National Mathematical
Centre, Abuja, Nigeria



Mr. Dushyant Pratap Singh Rathore
(B.Sc. Physics)
Placed at Wipro



Md. Mu'azu Tafida
M.Sc. Chemistry
Placed at
Federal University Dutsin-Ma



Mr. Rahul Verma
M.Sc. Chemistry
Placed at
Medicita Pharma Pvt. Ltd.



Mr. Allen R. Ranjan
M.Sc. Chemistry
Placed at Bharat Rasayan Limited



Ms. Riya Das
M.Sc. Chemistry
Placed at Acadecraft Inc



Mr. Ankush Sharma
M.Sc. Chemistry
Placed at Cadila Pharmaceuticals Ltd.



Mr. Sundaram Sammadar
M.Sc. Chemistry
Placed at Shree Jee Laboratory Pvt. Ltd



Ms. Rupali Tiwari
M.Sc. Chemistry
Placed at Jubilant Chemsys Limited



Ms. Vandana
M.Sc. Chemistry
Placed at Jubilant Chemsys Limited



Ms. Bhawna Jain
M.Sc. Chemistry
Placed at Jubilant Chemsys Limited



Mr. Deepak K Singh
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Placed at Jubilant Chemsys Limited



Ms. Priyanka Prasad
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Jubilant Chemsys Limited



Mr. Dharamnath Kushwaha
M.Sc. Chemistry
Placed at Jubilant Chemsys Limited



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M.Sc. Chemistry
Placed at BYJU's



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Placed at
Jubilant Chemsys Limited



Ms. Himani Sharma
M.Sc. Chemistry
Placed at BYJU's



Ms. Riya Singh
M.Sc. Chemistry
Placed at BYJU's



Mr. Jatin Sharma
M.Sc. Chemistry
Placed at BYJU's



Ms. Parul Dhiman
B.Sc. (H) Mathematics
Placed at
BYJU's



Ms. Jaspreet
M.Sc. Chemistry (Batch: 2022-24)
Placed at
TÜV SÜD South Asia Pvt. Ltd.



Ms. Slashi Leel
M.Sc. Mathematics
Placed at
Socratic Education Private Ltd



Ms. Vaishali Goyal
M.Sc. Mathematics
Placed at
Basic Education Department



Mr. Aniket Sharma
B.Sc. Mathematics
Placed at Acadecraft Inc



Mr. Gaurav Sharma
B.Sc. Mathematics
Placed at
Acadecraft Inc



Mr. Mohit Chaudhary
M.Sc. Microbiology
Placed at
ACS Global Tech Solution

HIGHER STUDIES ABROAD/NATIONAL



**Mr. Ishan Shrestha, B.Sc. (Hons.)
Biochemistry**

Got admission to the MS Program (Biochemistry & Molecular Biology) in Wright State University, Dayton, Ohio, United States.



**Ms. Deeksha Gudla,
B.Sc. Food Science & Technology**

Pursuing M.Sc. in Food Innovation with Industrial Practice at The University of Greenwich, UK



Mr. Niranjn Singh, B.Sc. Physics

Qualified JAM 2021



Ms. Anjali, M.Sc. Physics

Pursuing Ph.D from University of Nova Gorici, Slovenia.
World QS Ranking: 1817th, 3rd in Slovenia.



Ms. Shreya Mathela, M.Sc. Chemistry

Pursuing Ph.D from Pennsylvania State University, USA with 100 % Scholarship



Ms. Bharti Sangwan, M.Sc. Chemistry

Pursuing Ph.D programme at The State University of New York with 100 % Scholarship



**Mr. Manish Kumar
(B.Sc. Data Science & Analytics)**

Got an International Internship in Machine Learning at Ignitus, Pittsburgh, Pennsylvania



**Mr. Jatin Verma
(B.Sc. Data Science & Analytics)**

Got an International Internship in Machine Learning at Ignitus, Pittsburgh, Pennsylvania



Ms. Varsha Chauhan, B.Sc. Biochemistry

Pursuing M.Sc. Forensic Science at National Forensic Science University, Tripura Campus



Ms. Vishakha Chauhan, M.Sc. Chemistry

Pursuing Ph.D programme at Indian Institute of Science, Bangalore with 100 % Scholarship



Mr. K. James Singh, M.Sc. Physics

Pursuing Ph.D programme at National Chiao Tung University, Taiwan



Mr. Asif Yousuf, M.Sc. Physics

Pursuing Ph.D programme at University of Technology, Malaysia



Ms. Kousar Jan, M.Sc. Physics

Pursuing Ph.D programme at Wuhan University of Science and Technology, China



Mr. Ujjwal Dubey, B.Sc. Biotechnology

Pursuing M.Sc. Biotechnology at University of Greenwich, UK



Ms. Tanu Sharma, M.Sc. Physics

Perusing Ph.D from University of Sao Paulo, Brazil. World QS Ranking: 85th



Mr. Tejas Sharma, B.Sc. Physics

Persuing Ph.D, Lee Kong Chian faculty of Engineering Science Department of Mechanical & Materials Engineering, University Tunku Abdul Rahman Malaysia



Mr. Rohit Kumar Ranjan B.Sc. Biotechnology

Perusing Ph.D from National Tsing Hua University, Taiwan. World QS Ranking: 168th



Ms. Manya Vats, B.Sc. Mathematics

NCC Cadet Manya Vats proudly represented the Sharda University from the Ghaziabad group at the state-level inter-group competition. Her team clinched three trophies, securing the 1st position in drill, cultural, and NIAP competitions.



Ms. Sehaj Dhawan B.Sc. Data Science & Analytics

Appointed as a Business Development Counsellor in Winspark Innovations Learning Pvt. Ltd., Gurgaon with good CTC.



Mr. Anuj Tiwari M.Sc. Data Science & Analytics

Got an internship position at Springer Capital as a Data Scientist Internship (Remote) with Stipend of Rs. 15000/- per month.



Mr. Vaibhav Kumar M.Sc. Data Science & Analytics

Got an internship position at Springer Capital as a Data Scientist Internship (Remote) with Stipend of Rs. 15000/- per month.



Ms. Diksha Singh, M.Sc. Physics

Pursuing Ph.D programme from Nicolaus Copernicus University, Poland.



Ms. Ritika Singh, M.Sc.

Perusing Ph.D: University of Naples Federico II, Italy World QS Ranking: 335th

VIEWS THAT SPEAK EXCELLENCE



Ms. Saleha Siddiqui

B.Sc Biochemistry (Batch 2018-2021)

At Sharda University, my passion for biochemistry and related fields thrived under the guidance of transformative teachers. Their enthusiasm fueled my exploration of molecular and cell biology beyond textbooks, laying the foundation for an impressive AIR 4 in my master's entrance. Transitioning to AIIMS Delhi, my Sharda-acquired expertise paved the way for impactful contributions to research, including a Systematic Review and Meta-Analysis. Reflecting on my journey, Sharda University wasn't just an institution; it was the nurturing ground where my academic roots were planted, shaping me into a continuous learner and contributor to scientific research.



Ms. Pakhi Gupta

M.Sc. Chemistry (2022-2024)

My bachelor's experience in the Chemistry and Biochemistry department at Sharda University was incredibly enriching and fulfilling. The program offered a diverse curriculum that blended theoretical knowledge with hands-on laboratory experience, providing a comprehensive understanding of biochemistry. The faculty members were dedicated mentors who provided invaluable guidance and support, fostering a nurturing learning environment where I felt encouraged to explore and innovate. Engaging in research projects and internships allowed me to apply classroom knowledge to real-world scenarios, enhancing my critical thinking and problem-solving skills. Moreover, the vibrant academic community and cultural diversity of the university enriched my overall experience, exposing me to different perspectives and fostering lifelong connections. Overall, my bachelor's journey in the department of Chemistry & Biochemistry was transformative, equipping me with the skills, knowledge, and passion to pursue a fulfilling career in the field of biochemistry. Thank you, Professors!



Ms. Anjika

M.Sc. Chemistry (Batch: 2022-24)

My tenure at Sharda University proved to be both enriching and rewarding, and I attribute a significant part of my success to the unwavering support and encouragement provided by the faculty. Without their guidance, I would not have attained my current position in DELHI Public School. The books, research opportunities, library resources, and professors have all been instrumental in shaping me into the professional I am today.



Ms. Nandita

M.Sc. Chemistry (Batch: 2022-24)

I am grateful to be part of Sharda University. Thank you to the university and faculty for providing an enriching academic experience. I am thankful for the placement in Jubilant Life Science. The guidance provided to me has been invaluable in shaping my future.



Ms. Jaspreet

My time in Sharda was very fulfilling and enlightening. My teachers, friends, the whole department really supported me in my 2 years journey of masters. All my achievements I have received wouldn't have been possible without the help of my teachers. So, a big thanks to the teachers.

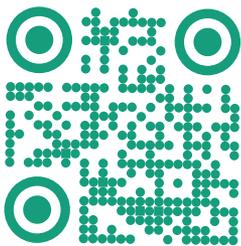


Ms. Varsha Chauhan

B.Sc. (Hons) Biochemistry (Batch: 2020-23)

Admitted in M.Sc. Forensic Science at National Forensic Science University, Tripura Campus. I had great experience at Sharda University. This program made me to understand the depth of theory and practical knowledge of Biochemistry courses.

Regional Reach- Sharda Counselling Centres



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