



OPJU

UNIVERSITY OF STEEL TECHNOLOGY  
AND MANAGEMENT



# School of Science

## Information Brochure 2024

**B.Sc.(Hons.)** in Physics, Chemistry, Mathematics, Biotechnology, Data Science & Analytics

**M.Sc.** in Physics, Chemistry, Mathematics and Computing

**Ph.D.** in Physics, Chemistry, Mathematics & Humanities

### OP JINDAL UNIVERSITY, RAIGARH

(Recognized by UGC and Approved by AICTE)

OP Jindal Industrial Park, Punjipathra, Raigarh- 496109

## School of Science : A Glance



“Science is a way of life. It is a perspective. Science is the process that takes us from confusion to understanding in a manner that's precise, predictive, and reliable—a transformation.”

– Brian Greene

The School of Science, nestled amidst the vibrant academic hub of OP Jindal University has been a beacon since 2018 for inquisitive minds, fostering a dynamic environment where scientific inquiry thrives. The school comprises of Five Departments: Physics, Chemistry, Mathematics, Biotechnology and Humanities with its UG, PG and Doctoral programs.

The present curriculum of the School caters to the need of the students as required by the demands of the time with hands-on experimentation, applying theoretical knowledge in state-of-the-art laboratories equipped with cutting-edge technology. Collaborative projects, symposiums, and guest lectures further enrich the academic landscape, creating a vibrant tapestry of ideas and discoveries.

The School of Science stands as a testament to the endless possibilities inherent in the pursuit of scientific understanding, nurturing the next generation innovators and visionaries poised to shape our world.

### Programs Offered

#### Bachelor of Science (Hons.)

(3 years full time)

- ▶ B.Sc. (Hons.) Physics
- ▶ B.Sc. (Hons.) Chemistry
- ▶ B.Sc. (Hons.) Mathematics
- ▶ B.Sc. (Hons.) Biotechnology
- ▶ B.Sc. (Hons.) Data Science & Analytics

#### Master of Science (M.Sc.)

(2 years full time)

- ▶ M.Sc. Physics
- ▶ M.Sc. Mathematics and Computing
- ▶ M.Sc. Chemistry

#### Doctor of Philosophy (Ph.D.)

- ▶ Physics
- ▶ Chemistry
- ▶ Mathematics
- ▶ Humanities

#### Insights of SoS

- » Highly qualified, potential and dedicated faculty members
- » Faculty members having Ph.D. from national and international institutions of repute
- » Research-Oriented and Industry-linked curriculum
- » Interdisciplinary and collaborative learning environment
- » Focus on developing problem solving, creative thinking and necessary skills in demand of the time
- » Special focus on soft skills and computational skill development
- » Strong career support and guidance for IIT-JAM, Bank-PO, CSIR-NET, PSC & UPSC

#### Advanced Lab Facilities

- » High Sensitivity Fluorescence Spectrometer
- » Electrochemical Analyzer
- » Luminescence Research Lab
- » Gunn Diode Set up
- » Reflex Klystron Set up
- » Automatic Polarimeter
- » Fume Hood
- » Digital Spectrophotometer
- » Microbiology Laboratory
- » Plant Tissue Culture Laboratory
- » Genetic Engineering Laboratory
- » Bio-Instrumentation Lab
- » Data Mining Lab
- » Data Scientist Toolbox
- » Data Visualization Techniques

#### Core Research Areas

- » Radiation Dosimetry
- » Nanomaterials for Energy Storage
- » Synthesis of Solar Cell & Solid-State Lighting Materials
- » Laser Speckle Imaging
- » Biomedical Optics
- » Macrocyclic Chemistry
- » Asymmetric Synthesis
- » Medicinal Chemistry
- » Microbial Enzymology
- » Enzyme Kinetics
- » LncRNA Biology
- » Cancer Molecular Biology
- » Environmental Biotechnology
- » Graphene Synthesis



“Science is not just a profession; it is a calling. It is a commitment to the betterment of humanity, the preservation of our planet, and the improvement of our lives. Every discovery, no matter how small, contributes to the grand tapestry of human knowledge. As we navigate this ever-evolving realm of science, we are guided by some key principles: excellence in teaching and learning, cutting-edge research, interdisciplinary collaboration, diversity and inclusion, and community engagement.”

**Dr. Girish Chandra Mishra**

Professor and Dean, SoS

### Mentor-Mentee System

All the departments of SoS strongly maintain Mentor-mentee system with the intense involvement of the faculty members with a small group of students addressing their academic and personal issues and difficulties. Faculty members truly pay a significant role as FPG (Friend, Philosopher and Guide)

### Flexible & Peer-Learning

Students are not only entitled to limited to the classroom teaching, they have ample opportunity to learn and study with the peer-group in the departmental and Central Library round the clock.

### Knowledge Exchange & Enrichment

Faculty members are extremely careful for a unique growth of the students blending their knowledge with the current and up-to-date happenings around the world taking them to various national, international conferences, seminars, summer camps, boot camps, motivate to attend various MOOC Courses offered by IITs and other reputed institutions through NPTEL-SWAYAM.

### Extra-Curricular & Club Activities

There are nine clubs in the university, and SoS has dedicated teams of each club consisted with the students and faculty mentors to inculcate and promote extracurricular activities like Sports, Cultural, Literary, Technical, Innovation, Social Empowerment and Services, Pixel, Adventure and so on as per the interest and choice of the students.

### Exposure & Connectivity

Continuously organizes guest lectures, expert talks, industry visits, seminars, interactions with a variety of resource persons from different academic institutions and industries.

### Society for Science Studies

Society for Science Studies (SSS) at School of Science is dedicated to expand scientific literacy, effective science education and scientific research. The vision of the society is to build up a platform to share knowledge and research findings in fields of academia and industries and to harness innovation to create job opportunities and accelerate sustainable developments of society. To promote understanding and appreciation of the science, the Society organizes expert lectures, debates, discussions, symposia, science exhibitions and presentation of scientific papers. Faculties & students of School of Science OPJindal University are eligible to become a member of the society for science studies.

## Scholarships & Privileges (Applicable for Indian Students)

### A. Entry Level Scholarship

Name of Scholarship	Eligibility % in class 10th/12th/Graduation	Scholarship Amount in (Rs.)				
		Diploma	B.Tech	BBA/B. Com./BA	B.Sc.(Hons.)	M.Sc.
Shri OP Jindal Scholarship	95.01% & Above	100% Tuition Fee Waive-Off	100% Tuition Fee Waive-Off	100% Tuition Fee Waive-Off	100% Tuition Fee Waive-Off	NA
	90.01% to 95 %	15,000	75,000	55,000	15,000	10,000
	85.01% to 90%	10,000	50,000	35,000	10,000	8,000
	80.01% to 85%	7,500	40,000	25,000	7,500	6,000
Smt. Savitri Devi Jindal Scholarship for Girls	95.01% & Above	100% Tuition Fee Waive-Off	100% Tuition Fee Waive-Off	100% Tuition Fee Waive-Off	100% Tuition Fee Waive-Off	NA
	90.01% to 95 %	15,000	75,000	55,000	15,000	10,000
	85.01% to 90%	10,000	50,000	35,000	10,000	8,000
	80.01% to 85%	7,500	40,000	25,000	7,500	6,000
Shri Naveen Jindal Scholarship	75.01% to 80%	5,000	25,000	15,000	5,000	4,000
Chancellor Scholarship	70.01% to 75%	NA	15,000	10,000	NA	2,000
	60% to 70%	NA	12,000	8,000	NA	NA

★ Aggregate of class XII(10+2) percentage of all subjects from any recognized board in case of B.Sc. (Hons.) Program.

@ Aggregate of Graduation percentage in case of M.Sc. program

Note: The scholarships & concession are given on an annual basis. To continue the scholarships after the first year, the student must maintain a certain level of prescribed academic performance & attendance during the course of the programme.

## Career Prospects in Science

### Preferred Organizations

#### Teaching & Research

- Higher & School Education
- Post-Doc in IITs, NITs & Abroad
- ICMR, CSIR & DST Labs
- BARC
- ISRO
- DRDO

#### Government Sectors

- UPSC & PSC
- Staff Selection
- Railways
- Banking
- Army, Airforce & Navy
- HPCL, BHEL, GAIL, NTPC & OIL

#### Private Sectors

- Jindal Steel & Power
- JPL & JSW
- Vedanta
- Reliance
- Private Banks
- IT & Software & many more...

# FACULTY MEMBERS



**Dr Girish Chandra Mishra**  
Ph.D. [Central University, Bilaspur]  
M. Sc. (Gold Medalist), M.Phil.,  
Professor-Physics and Dean, SoS



**Dr Ram Sevak Singh**  
Ph.D. (National University of Singapore)  
M. Sc. (BHU), M. Tech. (IIT Kharagpur)  
Associate Professor (Sr. Grade)-  
Physics



**Dr Dipti Shukla**  
Ph.D. (Pt. RSU), M.Phil, M.Sc.  
Associate Professor -Physics



**Dr Shubhashri Kumari**  
Ph.D. & M.Sc. (IIT ISM, Dhanbad)  
Assistant Professor -Physics



**Dr Ankur Rastogi**  
Ph.D. & M. Sc. (MJP RU, Bareilly)  
Associate Professor (Sr. Grade)-  
Chemistry



**Dr Kavita Patel**  
Ph.D (CVRU, Bilaspur),  
M.Phil, M.Sc, B.Ed  
Asst. Professor (Sr. Grade)-Chemistry



**Dr Deepak Patel**  
Ph.D. & M. Sc. (GGU, Bilaspur)  
Asst. Professor-Chemistry



**Prof. Sanjana Dewangan**  
Ph.D. (Pursuing)  
M.Sc., B.Sc. (Pt. RSU)  
Asst. Professor- Chemistry



**Dr Taniya Sengupta Rathore**  
Ph.D (Devi Ahilya University, Indore)  
M.Sc. (PTU)  
Associate Professor- Biotechnology



**Dr Pranjal Kumar**  
Ph.D. (IIT-Dharwad)  
M.Tech. (IIT-Hyderabad )  
Asst. Professor- Biotechnology



**Dr Saumya Singh**  
Ph.D. & M. Sc. [IIT (BHU), Varanasi]  
Associate Professor(Sr. Grade)-  
Mathematics



**Prof. Manas Ranjan Mishra**  
Ph.D. (Pursuing) M. Sc., M.Phil.,  
Asst. Professor (Sr. Grade)-  
Mathematics



**Dr Swati Verma**  
Ph.D & M.Sc. (Pt. RSU),  
Associate Professor - Mathematics



**Dr Debasmita Samal**  
Ph.D. (Berhampur University)  
M.Sc. & M.Phil. ( Sambalpur University)  
Asst. Professor (Sr. Grade) -Mathematics



**Dr Manik Das**  
Ph.D. (NIT Meghalaya),  
M.Sc. & B.Sc. (Hons.),  
Visva Bharati Calcutta  
Assistant Professor - Mathematics



**Mr. Shrikant Chaini**  
M.Sc. in Mathematics  
Atal Bihari Vajpayee University  
Bilaspur (C.G.).  
Asst. Professor- Mathematics



**Dr Sanjay Kumar Singh**  
Ph.D. (APSU, Rewa)  
Professor-Humanities



**Dr Arindam Patra**  
Ph.D. (Pt. RSU), M. Phil.,  
M.A. (English), B.Ed.  
Asst. Professor-Humanities



**Ms. Suchismita Panda**  
Ph.D. (Pursuing), M.A. (English),  
B.Ed. (Pt. RSU)  
Asst. Professor-Humanities

## Placement/Internships



**MANSI MISHRA**  
(B.Sc.)  
JSW



**DIKSHA APAT**  
(B.Sc.)  
JSW



**SIDDHI RAWAL**  
(B.Sc.)  
JSW



**ABHISHA BEHERA**  
(B.Sc.)  
JSW



**DIPALI PRADHAN**  
(B.Sc.)  
JSW



**VIVEK GUPTA**  
B.Sc. (Hons.)  
IIT-JAM



**VISHAKA SINGH**  
B.Sc. (Hons.)  
JPL



**KALYANI SINGH**  
B.Sc. (Hons.)  
VEDANTA



**DEBARCHAN KAR**  
(B.Sc.)  
JSW



**SUMITRA DAS**  
(B.Sc.)  
JSW



**DEBASHREE**  
(B.Sc.)  
ALKEM LABORATORIES LIMITED



**ADITYA MOHANTY**  
(B.Sc.)  
JPL-TAMNAR



**AVUSH SAHU**  
B.Sc. (Hons.)  
IIT-JAM



**BHAWANA SONI**  
(M.Sc.)  
JPL



**PIJJA YADAV**  
B.Sc. (Hons.)  
VEDANTA



**JIYA SINGH**  
B.Sc. (Hons.)  
OP JINDAL UNIVERSITY



**SHAHINA YASHMIN**  
(B.Sc.)  
ALKEM LABORATORIES LTD



**MANOSWINI MAHAPATRA**  
(B.Sc.)  
SQUARE YARDS