JIS INSTITUTE OF ADVANCED STUDIES AND RESEARCH (JISIASR) KOLKATA
JIS UNIVERSITY

A unique post-graduate research institute

Offering translational research based post-graduate education to nurture young minds for Industry 4.0

www.jisiasr.org

About JISIASR

JISIASR Kolkata, JIS University is committed to create appropriate manpower, at the post graduate level, who will be skilled enough to face the challenges in the new paradigm of technological revolution. The institute is aiming towards offering translational research based post-graduate education to nurture young minds for industry 4.0. The students will not only receive internships in leading industries and academic institutes across the country but also receive the opportunity to work on industry-oriented projects for enhancing their levels in the domain knowledge and to manifest resident skills in a pragmatic way.

VISION

JIS Institute of Advanced Studies and Research Kolkata, JIS University aims to contribute, through constant endeavour and innovation in education, interdisciplinary translational research, creativity, and entrepreneurship towards the transformation and well-being of our society.

MISSION

To create analytical minds and embed intellectual curiosity amongst the students by imparting education with focus on imparting interdisciplinary knowledge and problem solving along with a strong communication and leadership skill.

To cultivate amongst the academic community a commitment towards advancement of knowledge by creating a collaborative environment open to the free exchange of ideas, where research, creativity, innovation, and entrepreneurship can flourish; and individuals can achieve their full potential.

Our mission is our commitment to address critical issues and to solve the challenges facing the humanity at large, with an open, creative and scientific mind and adhere to the highest ethical standards. The Institute will inculcate a culture and climate that respects nature, protects our environment and natural resources and welcomes creative minds from diverse backgrounds from across the globe.

Centres @ JISIASR

Centre for Data Science

Centre for Health Science and Technology

Centre for Interdisciplinary Sciences

Centre for Renewable and Sustainable Energy Studies

Director's Message

Prof. Ajoy Kumar Ray (Padma Shri)
Director, JISIASR Kolkata
Former Director, IIEST Shibpur
Former Professor, IIT Kharagpur

JIS Institute of Advanced Studies and Research Kolkata, JIS University started its journey in 2019 with an objective to offer translational research based post-graduate education to nurture young minds ready to face the scientific and technological challenges of 21st Century. The need of the hour is to offer high quality industry-oriented post-graduate and translational research programs in some of the most relevant areas of science and technology in 21st century.

Currently our institute has four centres – Centre for Data Science, Centre for Health Science and Technology, Centre for Interdisciplinary Sciences, and Centre for Renewable and Sustainable Energy Studies. While these centres intimately collaborate with each other, the institute as a whole aim to work closely with the industries and R&D Laboratories across the country and also at the global level. The experts from the industries and academia participate both in teaching and research activities, entangling our various Masters and PhD programs offered by the Institute.

Our fully-structured job oriented courses, collaboration with leading industries across the globe, highly qualified faculties from IITs and other eminent institutions in India, USA and Europe and our infrastructure aims to attract a pool of high-quality graduate students to join our Masters and PhD programs, and learn state-of-the-art technologies in the field.

I strongly believe that our strong repertoire of bright faculty members and motivated Masters and PhD students will eminently place our institute in the technology education map of India in near future via active support and collaboration with the prominent industries and academic institutions across the globe.

Courses @ JISIASR

Centre for Data Science (CDS)

A. 2-Year MTech in Computer Science and Engineering (with specialization in Data Science)
B. 2-Year MTech in Data Science and AI (Blended Mode, for working Professionals)

Eligibility:

- *BTech (minimum 50% marks or equivalent CGPA) in any field, OR*
- *MSc (minimum 50% marks or equivalent CGPA) in any field of Computer Science / Mathematics / Statistics / Chemistry / Physics / Electronics / other subjects (with Mathematics as a pass subject), OR*
- *MCA / MStat (minimum 50% marks or equivalent CGPA)*

C. 2-Year MSc in Computer Science (Generative AI and NLP / ML-Augmented Cybersecurity / AI in Healthcare)

Eligibility:

- *BSc (minimum 50% marks or equivalent CGPA) in any field of Computer Science / Mathematics / Statistics / Chemistry / Physics / Electronics / other subjects (with Mathematics as a pass subject), OR*
- *BCA / BStat (minimum 50% marks or equivalent CGPA)*

D. PhD [Areas: AI and machine learning / Medical image processing / Business analytics / Cybersecurity / Natural language processing / Blockchain / IoT / Satellite image processing / Cryospheric science]

Eligibility:

- *MSc/ MTech / MStat in relevant field*

Centre for Health Science & Technology (CHeST)

A. 2-year MSc in Medical Biotechnology and Bioinformatics
B. 2-year MSc in Microbiology with specialization in Molecular Genetics

Eligibility:

- *Bachelors (minimum 50% marks or equivalent CGPA) in any field of Life Sciences / Chemistry / Physics*

C. PhD [Areas: Evolution of virulence and antibiotic resistance / Host-pathogen interactions / Human microbiome in health and disease / Machine learning in healthcare / Medical microbiology / Medical image analysis / Molecular modelling and drug design / NGS data mining and methodology development]

Eligibility:

- *MSc / MTech / MBBS / MPharm with minimum 55% marks or equivalent CGPA (candidates qualifying a national level test, e.g. CSIR / UGC / DBT / ICMR / GATE / INSPIRE / JGEEBILS / RGNF, are preferred)*

Courses @ JISIASR

Centre for Interdisciplinary Sciences (CIS)

A. 2-year MSc in Polymer Science & Technology
B. 2-year MSc in Nanobiotechnology
C. 2-year MSc in 3D Printing & Tissue Engineering
D. 2-year MSc in Paint & Coating Technology
E. Integrated MS-PhD in Paint & Coating Technology

Eligibility:

- *Bachelor degree in Science / Engineering with minimum 50% marks or equivalent CGPA in relevant subjects*

F. PhD [Areas: Graphene nanotechnology / 2D materials / Nano particle & protein aggregation / Polymer science / 3D printing / Corrosion science / Paint & coating technology / Anti-amyloid agents / Nanomedicine / Immunotherapeutics / Bioorganic chemistry / Biosensing / Drug delivery / Theranostics / Bioimaging / Bio Physical chemistry / Nanobiotechnology / Water purification / Biocatalyst]

Eligibility:

- *MSc / MTech in relevant field*

Centre for Renewable & Sustainable Energy Studies (CReSES)

A. 2-year MTech in Renewable Energy and Electric Vehicle Technology
for Regular Candidates and Working Professionals (blended mode)
B. 2-year MSc in Renewable Energy

Eligibility:

- *For MTech program – BE / BTech / MSc (in relevant subjects)*
- *For MSc programs – Bachelor degree in Science / Engineering (in relevant areas)*

C. PhD [Areas: Renewable energy and applications / Smart and self cleaning technology / Radiative cooling technology / Electric vehicle / Battery technology / Smart sensor systems and instrumentation / Biomedical instrumentation / Electronics design and instrumentation / 4th generation solar systems / Photovoltaic system reliability]

Eligibility:

- *MSc / MTech in the relevant areas*

Up to 50% Scholarship Available

Centre for Data Science (CDS)

datasymp@jisiasr.org

SCOPE

The booming area of Data Science has gained momentum in recent years due to the growth of big data arising from many sectors. All the top-tier companies and universities are getting involved in this area where enormous opportunities of research and high-salary jobs are getting easy welcome.

OBJECTIVE & CONTENT

The Program objective is to provide very good foundation on different aspects of Computing to the students and then imparting additional exposures to the different spectrum of Data Science so that the students become skilled enough to solve real life problems in Industries. Besides, the objective of the Executive MTech in Data Science program is to enable industry professionals to apply learn Data Analytics and Machine learning techniques to solve real-life problems. As a data scientist, they can help the organization not only in collecting and treating data but also in areas of knowledge management, data management, data security, and interaction design.

The students will learn fundamentals of Probability and Statistics, Advanced Data Base Management Systems, Mathematical Modelling for Data Analytics, Visualization Techniques etc. The students will gain knowledge of Machine Learning and Artificial Intelligence and concerned tools and techniques to explore Big Data problem and analyze them to deduce useful information and decision. The students will definitely get more exposure in Advanced Data Analytics and Data Security aspects. Apart from theory and hands-on implementation, every year, a student will be assessed on term projects assigned to them.

OUTCOME

The students, on completion, will be skilled enough to solve real problems faced by industries – from healthcare to transportation to finance and business. As a whole, the students will be able to grasp the knowledge of engineering and management principles in the domain of data science and machine learning to handle/manage projects in a multidisciplinary scenario. They may be employed in Industries as Data Scientist, Data Analyst, Machine Learning Scientist, Business Analyst, Data Architect, Applications and Enterprise Architect etc.

Spotlight

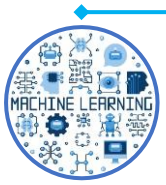
- ✓ ***State-of-the-art Laboratory facilities at per with the industry level configurations***
- ✓ ***Expert faculty members with profound resident knowledge in different dimensions of data analytics***
- ✓ ***Research publications in top-tier peer-reviewed journals***
- ✓ ***Highly qualified faculties, graduated and experienced from IITs, ISI, industries and other eminent institutions in India and abroad***
- ✓ ***Collaborative research outreach in global arena to jointly work on current technological aspects***
- ✓ ***Targeting need of the hour issues in social and economical realm through computational approaches based on artificial intelligence and machine learning techniques***

In-house Facilities

State-of-the-art IoT lab infrastructure with advanced sensors and processing units

Big data and machine learning with significant focus on deep learning techniques

High Performance Clusters



High-end GPUs with various deep learning frameworks to execute Computer Vision, NLP, and Machine Learning-related projects

Computational statistical analytics in R and Python for large dataset

In-house cloud server to execute projects related to IoT, machine learning etc.

Cutting-edge server to manage Database using MySQL, NoSQL with big data analytics

Research

- ✓ Intelligent Intrusion Detection Systems
- ✓ AI-Enabled Access Control Models
- ✓ ML-assisted Skin Disease Detection
- ✓ Biomedical Natural Language Processing
- ✓ End-to-end framework for extracting NLACPs from NL Documents
- ✓ Neuro-signal Processing & Autism Detection
- ✓ Natural Language Processing
- ✓ Information and System Security
- ✓ Network Security
- ✓ Medical Image Analysis
- ✓ IoT and Cloud Computing

Centre for Health Science & Technology (CHeST)

biosymp@jisiasr.org

SCOPE

The call of technological expertise in both academic and industry sectors of health science can only be ever-increasing. On one hand, there is a continuous need for biotechnological developments, especially for direct medical applications. Simultaneously, the advent of newer technologies asks for powerful bioinformatic solutions on how to extract, tackle, analyze and visualize the biologically meaningful data for subsequent research and industrial applications. This scenario puts qualified bioinformatics professionals, especially the ones with expertise of analyzing medical biotechnology data, are in high demand for top-salary jobs worldwide.

OBJECTIVE CONTENT & OUTCOME

Our Masters programs, to comply with our research-based teaching approaches, are designed in connection to real-life research and development problems faced by industries and academia. As CHeST collaborates with many academic and industry practitioners from premiere institutions across the globe, the in-house strong pool of faculty members is optimally complemented by collaborating with some distinguished members from academia and industries for offering classes to students as and when necessary.

Keeping in mind that the students could be from diverse streams of life sciences or from (bio)chemistry or (bio)physics, the entire first semester is devoted to bring the students on the same boat necessary for the respective programs. In the following two semesters, the students dive deep into some key areas of utmost industrial needs (visit our website for detailed course structure). Apart from regular subject-oriented topics, our programs include topics like research methodology, career development, entrepreneurship and intellectual property rights. This addition not only enables the students to cope with the situations in industrial or academic environments during their summer internships or final semester projects, or in their job positions after the course completion, but also aims to motivate the students to develop an entrepreneurial mindset.

Importantly, each of our Masters students, starting from their second semester, becomes a part of one of our ongoing research programs. The aim is to build the research mindset in each student to cope up with either the industrial or academic research environment as a professional in future. An additional goal of this research engagement for each student is to have a research publication in an international peer-reviewed journal which becomes pivotal, especially if someone aims to join the PhD program in a reputed laboratory in India or abroad. Altogether, our real-life research-based course curricula connect the students to real-life problems linked to industrial applications, not just being limited to academic exercises. While we offer strong placement assistance, an expert in either genetics or medical biotechnology/ bioinformatics is readily offered lucrative jobs in pharmaceutical and biotechnology industries, in hospitals and clinics, in bioinformatic data analysis companies in India and abroad, besides the standing opportunities of research positions in academia.

Spotlight

- State-of-the-art laboratory with Illumina MiSeq next-generation sequencer
- Internationally experienced faculty team with sound domain knowledge
- Need of the hour bioinformatics program in health and medicine
- Prestigious high-budget on-going research grants

In-house Facilities

Advanced Molecular Genomics, Biotechnology and Bioinformatics laboratories with avant-garde equipment

Molecular Genomics Facilities

The Molecular Genomics Facility boasts cutting-edge sequencing platforms, empowering advanced applications in Next-Generation Sequencing (NGS). Our capabilities span diverse genomic analyses, including whole-genome sequencing, exome sequencing, metagenomics, and transcriptomics. Researchers benefit from our state-of-the-art infrastructure and expert support to explore the intricacies of genetic and molecular biology.

Research

- ✓ Evolution of virulence and antibiotic resistance
- ✓ Host-pathogen interactions
- ✓ Human microbiome in health and disease
- ✓ Machine learning in healthcare
- ✓ Medical microbiology
- ✓ Medical image analysis
- ✓ Molecular modelling and drug design
- ✓ NGS data mining and methodology development

Centre for Interdisciplinary Sciences (CIS)

info@jisiasr.org

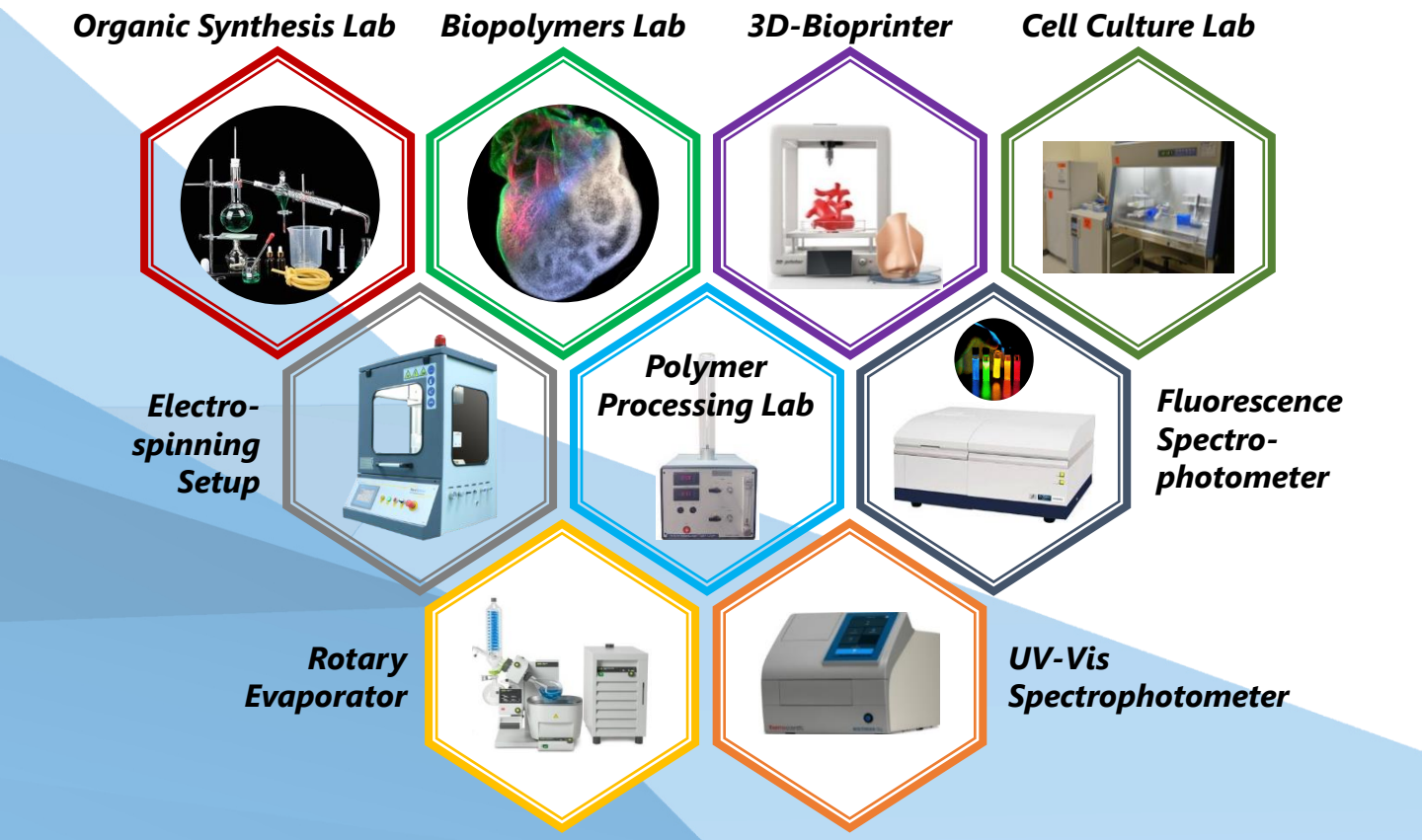
CIS has been established to offer an unique opening to advanced educational curriculum and research where the basic sciences meet with the technology to address the real challenges and pertinent issues for present society. Realizing the urgent need to fulfil the gap between academic curriculum and industry's demands, CIS is offering a number of quality programs at post-graduate and research levels which will ultimately provide a talented pool of skilled manpower to ensure the working solution in the respective domains. Under the extraordinary leadership of Padma Shri (Prof.) Ajoy Kumar Ray, Prof. Arun Kumar Majumdar (Former Deputy Director, IIT Kharagpur), some of the best academicians and bright scholars have joined CIS as faculty members from India and across the globe.

OBJECTIVE & INITIATIVE

HIGHLIGHTS

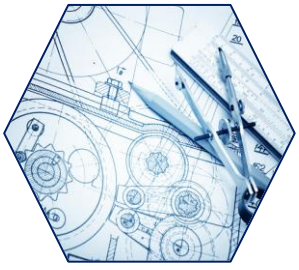
- ✓ Scholarships (in MSc / PhD) for bright and meritorious students.
- ✓ Research/industrial training in leading National and International institutes.
- ✓ Need based curriculum designed for academic and industrial demand (Unique in Eastern India).
- ✓ Cutting edge research with in-house laboratory facilities.
- ✓ Excellent placement support as well as scope of higher studies and research at leading National / International industries and institutes.
- ✓ Guidance for entrepreneurship with in-house start-up incubation facilities.
- ✓ Research collaborations with several leading national and international institutes and industries.

In-house Facilities



Research

CIS is committed to emerge as a research group of global reach in the design and development of novel bio-materials including polymeric and nanomaterials along with sensor technology and IoT adhering to the norms of industries with green and sustainable alternatives to existing materials for cutting edge applications. The centre is also focusing in innovation and design science with the concept of integration of interdisciplinary technologies resulting in hi-tech complex industrial products.



Materials & 3D Printing:
- ✓ Artificial skin, dental / bio-implant
- ✓ Polymer coatings and composites
- ✓ Bioplastics to replace single use plastics

Analytical and Sensor Technology:
- ✓ Biosensing and point-of-care diagnostics
- ✓ Sensor device fabrication and instrumentation
- ✓ Toxic and explosive gas sensors

Advanced Functional Materials:
- ✓ Graphene-composite materials for energy research
- ✓ Metal-organic precursor based electronics materials development
- ✓ Thermal management, mechanical reinforcement of composites

Nano-materials & Protein aggregation:
- ✓ Designing Nano particulate Systems for Drug Delivery
- ✓ Interaction of Proteins with Ligands/Nanomaterials
- ✓ Designing novel therapeutic agents for amyloid fibrillation process

Bioorganic and Biomedical Sciences:
- ✓ Fluorescent probes for biosensing and diagnosis
- ✓ Materials for bioimaging (MRI, fluorescence)
- ✓ Drug-delivery and theranostics
- ✓ Nanomedicines and immunotherapeutics
- ✓ Drugs from natural sources

Bridging the World

CIS is connected with some leading institutes and industries across the world, like IIT Kharagpur, CSIR-IICB, MG University-Kerala, NIPER Kolkata, SNBNCBS Kolkata, IACS Kolkata, IISc Bangalore, JNCASR Bangalore, IISER Bhopal, IISER Kolkata, IICT Hyderabad, College of Medicine & Sagore Dutta Hospital, PDPU Gujarat, IIEST-Shibpur, IPF-Dresden Germany, POSTECH South Korea, Hongik University South Korea, GUT Poland, Materials Science and Engineering Georgia Institute of Technology USA, Hanyang University South Korea, The University of Sheffield, UK, Indian Paint Association (IPA), Confederation of Indian Industry (CII) etc.

Centre for Renewable and Sustainable Energy Studies (CReSES)

info@jisiasr.org

AIM & SCOPE

Energy is one of the most essential commodities in the world. Due to global climate change, fossil fuel energy is in a critical transition from conventional to clean and renewable energy. Keeping in pace with the rest of the world, Government of India has taken several initiatives to enhance the share of renewable energy to the total energy generation capacity of India. This venture requires enormous skilled-manpower to power the earth by clean and green energy. The specific goal of the centre is to create suitable human resource to establish a carbon-optimised economy. Innovative research is being actively pursued all over the world in the fundamental science behind these and other novel application areas to enhance the scope of the utilization of green energy. The next step is to make the attempts sustainable to create a circular economy by recycling technologies in the areas of energy, transportation and other relevant areas. The aim and objective of this centre is thus to provide quality education to budding minds as also the working professionals to cope up with the present need of energy and transportation market. Along with this, adequate standard research will also be carried out to serve the requirements of the industries.

OBJECTIVE CONTENT & OUTCOME

CReSES has been established to offer a unique opening to advanced educational curriculum and research where the basic goal is to strengthen knowledge and technological aspects for the ultimate goal of zero carbon footprint. The key outcome of the centre includes:

1. **Academic Advancements:** The center serves as a hub for cutting-edge research and education in renewable and sustainable energy. Through interdisciplinary collaboration and a dedication to academic rigor, we aim to conduct fundamental research to advance the understanding of renewable energy technologies and their integration into existing energy systems. Our specialized courses and workshops cultivate the next generation of leaders in the field. We provide a platform for scholars, students, and researchers to exchange ideas, collaborate on projects, and publish groundbreaking research in top-tier journals.
2. **Industrial Advancements:** Recognizing the crucial role of industry in driving the transition to a sustainable energy future, our center actively engages with industry partners on applied research projects and consultancy services to address industry-specific challenges and foster innovation. We also offer professional development programs and industry-focused training to enhance the skills and expertise of professionals working in the renewable energy sector.
3. **Integrated Approach:** At the heart of our center lies a commitment to bridging the gap between academia and industry. By fostering strong partnerships between researchers, educators, and industry stakeholders, we strive to create a dynamic ecosystem where academic insights inform industrial practices and vice versa, leading to impactful solutions that address real-world energy challenges. We promote knowledge exchange and collaboration through joint research initiatives, industry-sponsored projects, and industry-academic forums.

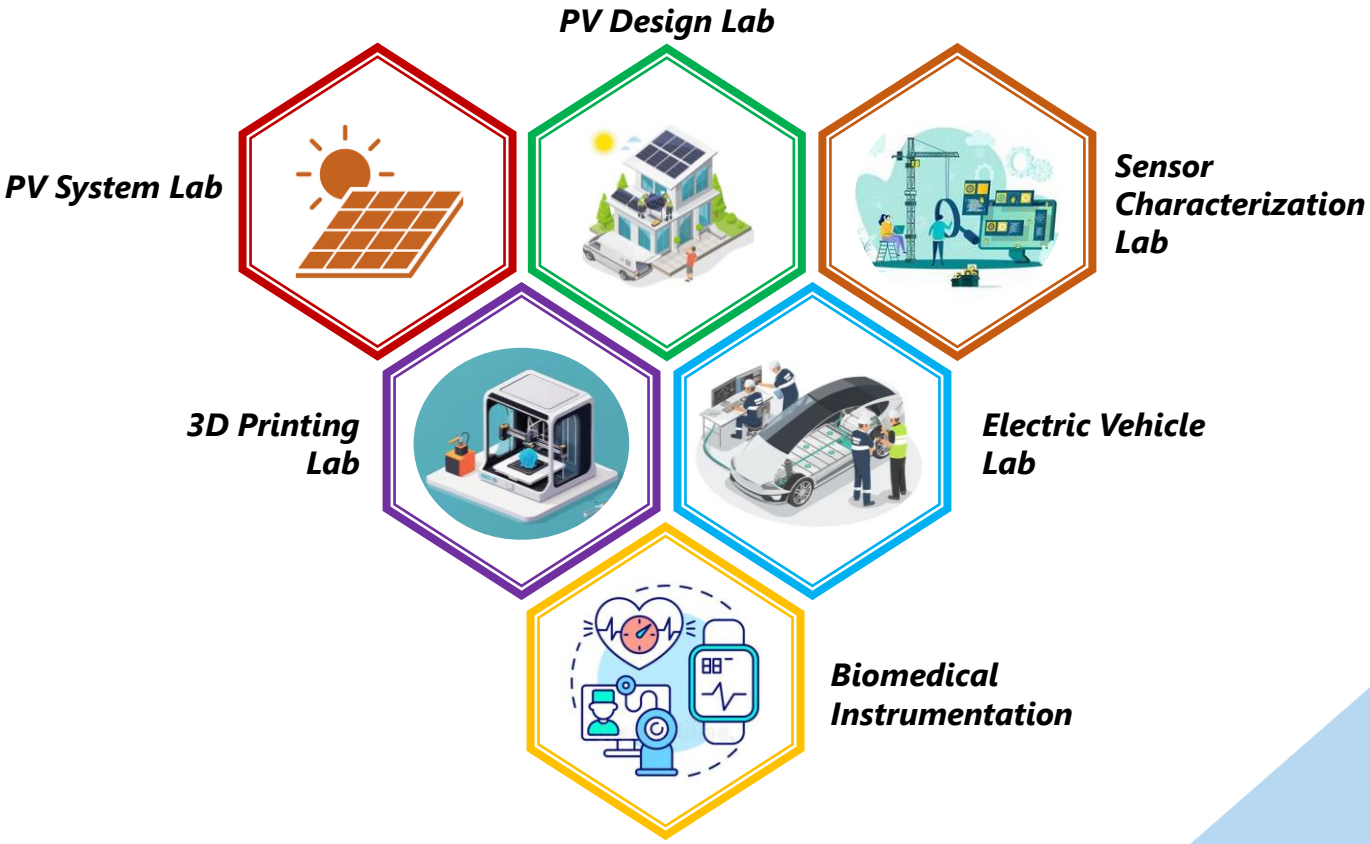
Spotlight

- ✓ **State-of-the-art laboratory with advanced equipment**
- ✓ **Hands on training program in line with industrial trends**
- ✓ **Prestigious high-budget on-going research/training grants**
- ✓ **Internationally experienced faculty team with sound domain knowledge**

HIGHLIGHTS

- ✓ Scholarships (in MSc/MTech) for bright and meritorious students.
- ✓ Research/industrial training in leading National and International institutes in line with the present global energy demand.
- ✓ Intensive efforts are being made by the educationists, scientists and industry experts working in different aspects of renewable energy and green technology, to formulate the course structure which relates to current industry demands.
- ✓ Cutting edge research with in-house laboratory facilities.
- ✓ Research collaborations with several leading national and international institutes and leading industries (through MoU).

In-house Facilities



Research

- ✓ Renewable energy and applications
- ✓ Smart and self cleaning technology
- ✓ Radiative cooling technology
- ✓ Electric vehicle
- ✓ Battery technology
- ✓ Smart sensor systems and instrumentation
- ✓ Biomedical instrumentation
- ✓ Electronics design and instrumentation
- ✓ 4th generation solar systems
- ✓ Photovoltaic system reliability

Faculty Members

Prof. Ajoy Kumar Ray (Padma Shri), *Director and Professor, CDS*
Former Director, IIEST Shibpur
Former Professor, IIT Kharagpur
Research Interest:
Pattern recognition and machine intelligence; Computer vision; Biomedical engineering

Prof. Arun Kumar Majumdar, *Professor, CDS*
Former Dy. Director, IIT Kharagpur
Former Head, CSE, IIT Kharagpur
Research Interest:
Very large databases; Machine learning in document processing; Natural language processing; Information security

Prof. Jyotirmoy Chatterjee, *Dean - Research*
Former Head, SMST, IIT Kharagpur
Research Interest:
Oral pre-cancer therapeutic patch development; Wound healing & honey; Stem cells differentiation; Multi-modal imaging on oral cancer diagnostic; Lung cancer; Diabetic retinopathy

Dr. Atanu Bhattacharya, *Associate Professor, CDS*
PhD, IIT Roorkee
Post-Doc, TU Dresden, Germany (AvH Fellow); University of Zurich, Switzerland; and University of St. Andrews, UK
Research Interest:
Digital image processing; GIS; Cryosphere science; Disaster mitigation

Dr. Saptarshi Das, *Assistant Professor and Head, CDS*
PhD, IIT Kharagpur
Research Interest:
Information and system security; Access control model; Network security; Cybersecurity; Deep Learning

Dr. Chirantana Mallick, *Assistant Professor, CDS*
PhD, IIEST Shibpur
Research Interest:
Natural language processing; Machine learning; Bio-NLP

Faculty Members

Mr. Bijitaswa Chakraborty, *Assistant Professor, CDS*
PhD, IIT Kharagpur (Pursuing)
Research Interest:
Financial data analytics; Impression management; Corporate finance

Ms. Kasturi Barik, *Assistant Professor, CDS*
PhD, IIT Kharagpur (Thesis submitted)
Research Interest:
Neuro-signal processing; Machine learning; Bio-signal processing; Autism detection

Mr. Suman Pathak, *Faculty Associate, CDS*
MTech, IIT Dhanbad
Research Interest:
Computer vision; Bigdata analytics

Dr. Sugato Ghosh, *Assistant Professor and Head, CReSES*
PhD, IIEST Shibpur
Project Scientist, CGCRI, Jadavpur and IIEST Shibpur
Research Interest:
Renewable energy; Solar photovoltaic and applications; Microelectronics fabrication; Gas sensor; Biosensors; Electronics and instrumentation

Dr. Saheli Sengupta, *Assistant Professor, CReSES*
PhD, IIEST Shibpur
Research Interest:
Renewable energy; Grid integration; Generation, assessment under dusty weather condition; Micro-grid scheduling; PV-module reliability analysis

Dr. Subinoy Roy, *Assistant Professor, CReSES*
PhD, IIT Bombay
Research Interest:
Photovoltaic module reliability; Defect characterization; Luminescence and thermal imaging; Photovoltaic system modelling; Photovoltaic powered electric vehicles

Faculty Members

Dr. Sujay Chattopadhyay, *Professor and Head, CHeST*
PhD, IACS Kolkata
Post-Doc & Research Professorship, University of Washington, USA
Research Interest:
Molecular evolution; Phylogenomics; Adaptive convergence; Clonality of microbes; Evolution of virulence and antibiotic resistance

Dr. Debabani Ganguly, *Associate Professor, CHeST*
PhD, University of Calcutta
Post-Doc, Kansas State University, USA
Research Interest:
Structure and dynamics of intrinsically disordered proteins; Couple folding and binding mechanisms

Dr. Sandip Paul, *Associate Professor, CHeST*
PhD, Jadavpur University
Post-Doc, University of Washington, USA
Research Interest:
Human microbiome; Comparative metagenomics and methods development; Microbial community structure; Comparative genomics

Dr. Kamakshi Sureka, *Associate Professor, CHeST*
PhD, Bose Institute, Kolkata
Post-Doc, University of Washington, USA
Research Interest:
Host-pathogen interaction; Second messenger signaling; Biosensors; Human microbiome; Cervical cancer

Dr. Rachana Banerjee, *Associate Professor, CHeST*
PhD, University of Calcutta
Post-Doc, CSIR-IICB, Kolkata
Research Interest:
Microbial genomic adaptation strategies; Antibiotic resistance associated with nosocomial infection

Dr. Kausik Basak, *Associate Professor, CHeST*
PhD, IIT Kharagpur
Post-Doc, Technical University Munich, Germany
Research Interest:
Machine learning; Deep learning; Image processing; Medical image analysis; Gene sequence data analysis; Predictive modelling

Faculty Members

Dr. Sankarprasad Bhuniya, *Professor, CIS*
PhD, IIT Kharagpur
Post-Doc, POSTECH, South Korea and Illinois Institute of Technology, USA
Research Interest:
Medicinal chemistry; Theranostics drug-delivery; Fluorescent probes; Biodegradable polymer; MR imaging

Dr. Subhankar Singha, *Associate Professor and Head, CIS*
PhD, POSTECH, South Korea
Post-Doc and Research Professorship, POSTECH, South Korea
Research Interest:
Bioorganic and analytical chemistry; Chemical / bio-sensing & bioimaging materials; Diagnostics; Drug delivery and theranostics

Dr. Prosenjit Saha, *Associate Professor, CIS*
PhD, IIT Kharagpur
Post-Doc, GNU, South Korea and MG University, Kerala, India
Research Interest:
Electrospun and 3D printed biomaterials; Polymeric bio-inks; Composites

Dr. Farhat Afrin, *Associate Professor, CIS*
PhD, Jadavpur University
Post-Doc, NIAID, National Institutes of Health, MD, USA
Post-Doc, University of York, UK
Research Interest:
Nanomedicine; Herbal medicine; Vaccinology and immuno therapeutics of infectious diseases; Biomedical science; Epigenetics

Dr. Pooja Ghosh, *Assistant Professor, CIS*
PhD, IIT Kharagpur
Post-Doc, IISER Kolkata
Research Interest:
Bio-chemistry; Nanoparticle and protein aggregation; Chemical-bio interface; Biopolymer

Dr. Barun Das, *Assistant Professor, CIS*
PhD, IISc Bangalore
Post-Doc, Arizona State University, Tempe, Arizona, USA
Industrial R&D: Macdermid Alpha Electronics Solutions; R&D, Bangalore
Research Interest:
Materials chemistry; Nanotechnology; Electronics materials; 2D materials

Faculty Members

Dr. Subhajit Ghosh, *Assistant Professor, CIS*
PhD, IIT Kharagpur
Post-Doc, IIT Guwahati
Research Interest:
Corrosion; Self-healing coating; Inhibition; Passivation; Bio-physical chemistry

Dr. Prabir Ghosh, *Assistant Professor, CIS*
PhD, IIT Bombay
Post-Doc, IIT Kharagpur
Research Interest:
Bio-inorganic chemistry; Environmental chemistry

Research Supports

Since the inception (August 2019), **JISIASR Kolkata** has bagged several projects worth of more than **INR 7 Crores** from various funding agencies like

Memorandum of Understandings (MoUs)

JISIASR Kolkata has signed MoUs with following academic institutes and industries in education and research. The primary objective is to promote interaction and collaboration between the faculty members and the students through resource sharing, joint academic and research programs, exchange programs, joint supervision of masters and doctoral students, joint academic activities and events, along with joint conference and exhibition towards developing a scientific and research oriented ecosystem.

IIT Kharagpur, India

MGU Kottayam, India

Bhairab Ganguly College, Kolkata, India

NRS Medical College & Hospital, India

CSIR - IICB, Kolkata, India

Hongik University, South Korea

Moscow State Medical University, Ministry of Health, Russia

Terracarb, India

TCG Lifesciences, Kolkata, India

Enikolopov Institute of Synthetic Polymeric Materials, Russia

Next Big Innovation Lab, India

Indian Paint Association

Agni Green Power, India

Quadra Medical Services Pvt. Ltd., Kolkata, India

Moreover, JISIASR Kolkata is in the process of signing MoUs with different other industries, hospitals, academic and research institutes like TATA Medical Centre Kolkata, Synchro Electronics Kolkata, Vikram Solar, etc. to promote the skill development and introduction of several academic courses and collaborative R&D programs as per industry standards.

Follow us on:

For admission related queries, please contact

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admission@jisiasr.org

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