



About AcSIR



The Academy of Scientific and Innovative Research established by an act of parliament as an Institution of National Importance under the guidance and strengths of the Council of Scientific and Industrial Research (CSIR). One of the important purpose of AcSIR is to achieve a seamless integration of intellectual strengths in multidisciplinary areas with societal needs.

The Mission of the Academy is to create highest quality personnel with cross-disciplinary knowledge, aiming to provide leaders in the field of science and technology

AcSIR is currently the largest educational institution in India for Doctoral Research in STEM, having awarded 624 Ph.D. degrees in 2023 and with more than 7500 students currently enrolled in the Ph.D. program



RANKING OF AcSIR in 2023





SEVENTH CONVOCATION, 7th November 2023

AcSIR AT A GLANCE



Largest Higher Education Institution in India

(81 Campuses across India)



Joint PhD Program with International Universities (3 Universities from Australia)



~8000 students enrolled



624 PhD awarded in 2023



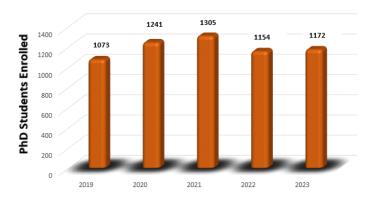
~5000 alumni

ACADEMIC OUTPUTS IN LAST 5 YEARS

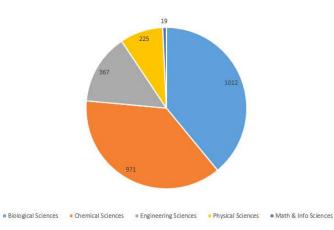
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2019

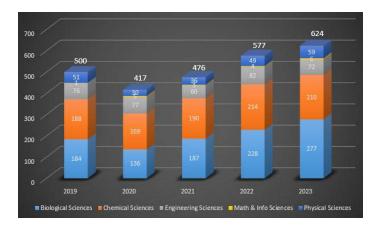
2020



Enrollments of PhD students



PhD awarded (Faculty wise)



PhD Degree awarded

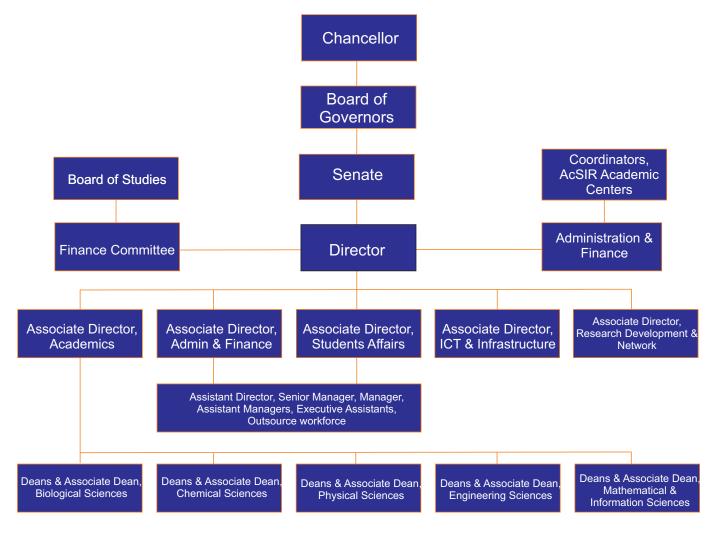
Publications (Year wise)

Calender Year

2022

2023

GOVERNANCE STRUCTURE



Academy Professors (AcSIR Life time Professorship)



Prof. C.N.R. Rao Hon. President, JNCASR, Bangalore, Inc



Prof. M.M. Sharma, Former Director, Institute of Chemical Technology (ICT), Mumbai, India



Late. Prof. R Narasimha Former Director, CSIR-NAL



Prof. G.M. Whitesides Harvard University, Cambridge, USA



Prof. R.A. Mashelkar National Research Professor and Former Chairman & Board of Governor: AcSIR



Prof. Samir K Brahmachari Former Director General, CSIR & Former Vice Chairman, AcSIR



Prof. Vijay Kumar Saraswat Member NITI Aayaog & Former Director DRDO, India



Prof. Anil K. Gupta Founder Honey Bee Network,



Shri N R Narayana Murthy Co-Founder, Infosys







Prof. Suresh Bhargava Deputy Pro Vice-Chancellor, RMIT Australia



Prof. Girish Sahni Former Director General, CSIR, & Former Secretary DSIR



Dr. Krishna Ella Chairman & Managing Director of Bharat Biotech International Limited



Prof. K. Vijay Raghavan

National Biological Research Centre, Tata Institute of Fundamental Research.



Dr. Surendra Pal

Prof. Satish Dhawan Professor & Senior Advisor, ISRO Satellite Centre



Dr. Swati Ajay Piramal Director. Piramal Foundation



Dr. A. V. Rama Rao Avra Laboratories Pvt Limited



Prof. Shekar C. Mande Former Director General, CSIR & Secretary DSIR

Distinguished Emeritus Professors



Dr. Vidyadhar Mudkavi Former Head, CSIR-FPI



Prof. Rakesh K. Mishra Former Director, CSIR-CCMB

Professor of Eminence



Prof. Kalaiselvi. N Director General, CSIR & Secretary DSIR and Chairperson, Board of Governors, AcSIR

Outstanding Professors

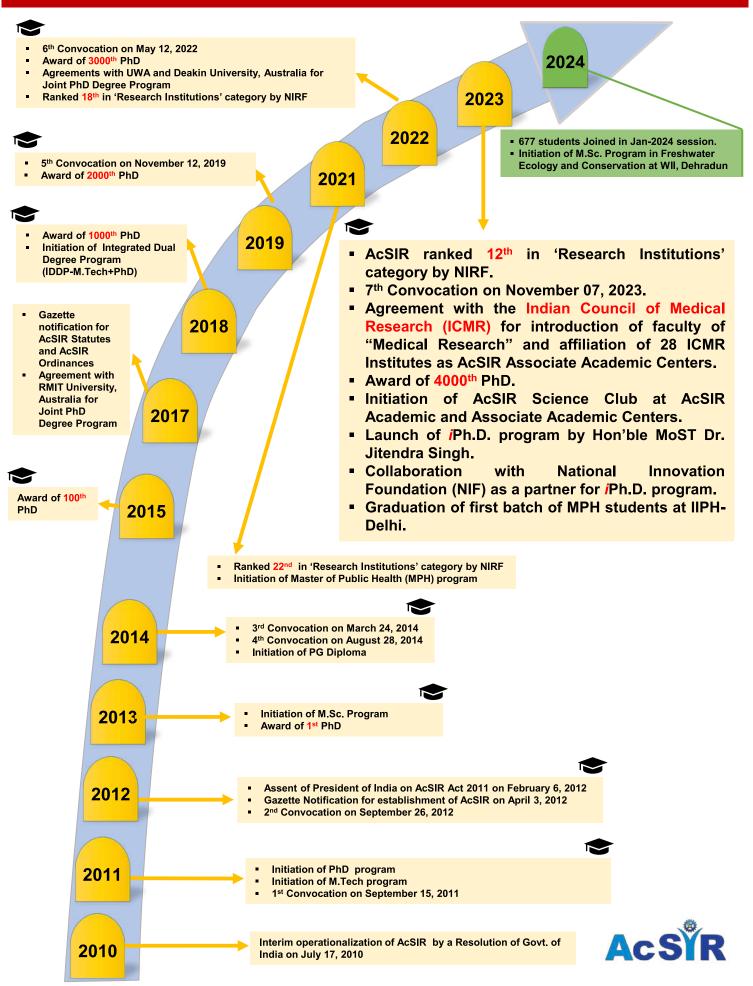


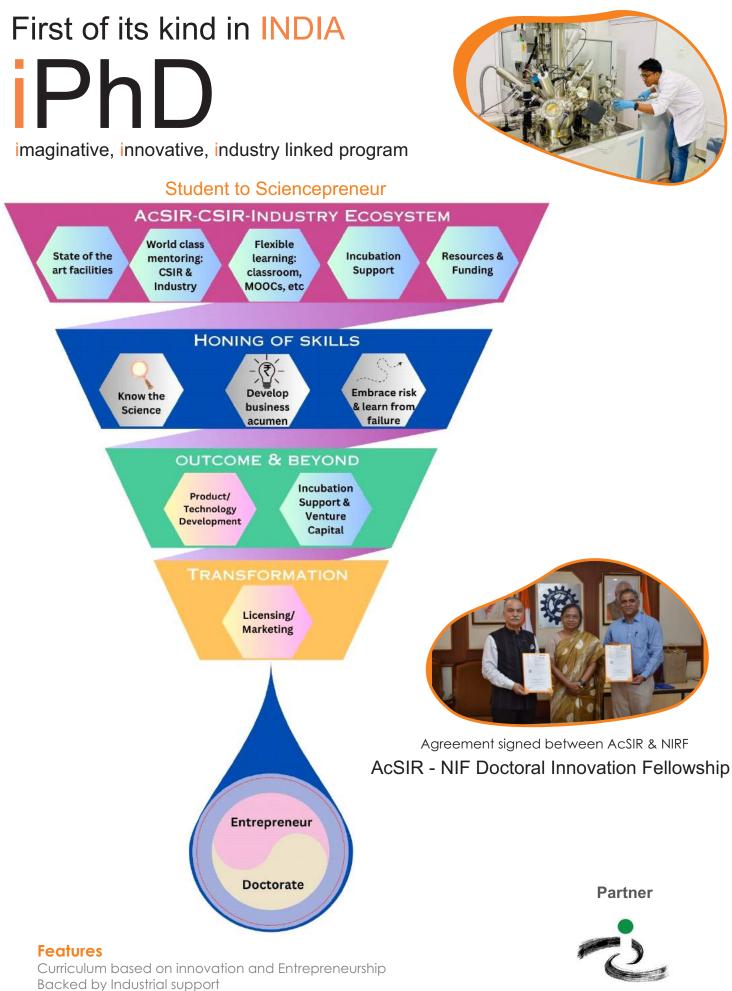
Prof. Manoj Kumar Dhar Director, AcSIR



Prof. Ajay Dhar Associate Director, AcSII

Ascend of AcSIR





Guided by competent mentors Worldclass research infrastructure

National Innovation Foundation

Structure of the iPhD program

Program focus

Research to develop new product/ technology for the progress of the Nation and also for societal good

Eligibility

Master degree holder with entrepreneurial mindset

Mentorship

selected candidates shall jointly be supervised for Ph.D. by the faculty of AcSIR and scientists/technologists of NIF

Coursework

Minimum credit requirement of 18 credits
Built-in flexibility for completing the specially designed courses, related to innovation & entrepreneurship, within 3 years of enrolment apart from few compulsory courses on Research Methodology, Research & Publication Ethics, etc.

Monitoring:

Monitoring Committee (having industry experts as members) shall review the progress of the student every 6 months.
Monitoring Committee shall be constituted by the Director, AcSIR and shall also serve as Doctoral Advisory Committee (DAC).
Comprehensive Examination: Evaluation of progress in technology at the end of 3rd year

Comprehensive

Examination Evaluation of progress in technology at the end of 3rd year

Residency

Student shall have flexibility to work in different Labs (industrial or scientific) and/or remain in field

Program Duration

The PhD. degree program shall be for a minimum duration of three (3) years, including course work and a maximum of six (6) years from the date of admission to the PhD. program

Thesis submission

pre-requisites

Filing of two Patents shall be mandatory before submission of Ph.D. thesis.

Award of

Ph.D. degree Thesis on TRL 4 level technology and its evaluation by Technologists/ industry Experts for the award of the PhD degree.

Post Ph.D.

Support Support with respect to incubation of business idea, etc.

iPh.D

Student to Sciencepreneur

Memorandum of Agreement between AcSIR and ICMR

Indian Council of Medical Research (ICMR) is the apex body in India for formulation, coordination and promotion of biomedical research. ICMR is mandated to conduct, coordinate and implement medical research for the benefit of the Society; Translating medical innovations in to products/processes and introducing them in to the public health system.



A new chapter in the history of AcSIR was added on December 13, 2023, with signing of Memorandum of Agreement with the Indian Council of Medical Research (ICMR) and a new faculty of "Medical Research" was created at AcSIR.

This is a significant development towards making AcSIR a multi-disciplinary Research Institution for promotion of cutting-edge research in cross-disciplinary areas. This would provide much needed impetus to the medical research in the country.

Introducing Faculty of Medical Research



The agreement was signed by Prof. N. Kalaiselvi, Chancellor, AcSIR, DG, CSIR & Secretary, DSIR and Prof. Rajiv Bahl, DG, ICMR & Secretary, DHR in presence of Prof. Manoj K. Dhar, Director, AcSIR, among others, at a function held at ICMR-NIMR

S. No.	Name of ICMR Institute	Research Areas
1	The Indian Council of Medical Research (ICMR) Hqrs. New Delhi	Formulation, coordination and promotion of biomedical research Translating medical innovations in to products/processes and introducing them in to the public health system
2	ICMR-National JALMA Institute for Leprosy & Other Mycobacterial Diseases, Agra	Leprosy Tuberculosis Mycobacteriosis HIV Filariasis
3	ICMR-National Institute of Occupational Health, Ahmedabad	Environmental stressess/ factors at Workplace Occupational Health
4	ICMR-National Centre for Disease Informatics and Research, Bengaluru	Cancer Diabetes CVD Stroke
5	ICMR-Bhopal Memorial Hospital & Research Centre, Bhopal	Clinical Research Epidemiological Research
6	ICMR-National Institute for Research in Environmental Health, Bhopal	Environmental Health Epidemiological Research
7	ICMR-National Institute of Epidemiology, Chennai	Epidemiological Research Leprosy
8	ICMR-National Institute for Research in Tuberculosis, Chennai	Tuberculosis
9	ICMR-National Institute for Research in Tribal Health, Jabalpur	Tribal Health
10	ICMR-National Institute of Nutrition, Hyderabad	Eliminiation of Malnutrition
11	ICMR-National Animal Resource Facility for Biomedical Research, Hyderabad	Developmental BiologyReproductive BiologyNeurobiologyBehavioural SciencesCardiologyStem CellMolecular Cell BiologyImmunologyVirology

S. No.	Name of ICMR Institute	Research Areas
12	ICMR-National Institute of Cholera and Enteric Diseases, Kolkata	Diarrhoeal Diseases Typhoid Fever
13	ICMR -National Institute of Immunohaematology , Mumbai	Hematology Tranfusion Medicine Immunology
14	ICMR-National Institute of Malaria Research, New Delhi	Malaria Eradication: Basic, applied and operational field research
15	ICMR-National Institute of Pathology, New Delhi	Molecular Pathology Genetics Immunodiagnostics Vaccine development Environmental Bio-monitoring
16	ICMR-National Institute of Medical Statistics, New Delhi	Medical Statistics Bio-medical and bio-behavioral research
17	ICMR-National Institute of Cancer Prevention and Research, Noida	Cancer: Uterine Cervix, Breast and Oral cavity
18	ICMR-Rajendra Memorial Research Institute of Medical Sciences, Patna	Visceral Leishmaniasis (Kala-azar) HIV/AIDS Tuberculosis
19	ICMR-Vector Control Research Centre, Puducherry	Vector borne diseases: LF, Dengue, JE, Malaria, KFD, Scrub typhus
20	ICMR-National Institute of Virology, Pune	Cell Repository Electron Microscopy Rickettsioses Hepatitis Influenza and related viruses Clinical Virology Biochemistry Virus Registry Biostatistics
21	ICMR-National AIDS Research Institute, Pune	HIV/AIDS
22	ICMR-National Institute of Traditional Medicine, Belagavi	Traditional Medicine: lifestyle and metabolic diseases, geriatric and mental disorders, viral infections
23	ICMR-Regional Medical Research Centre, Bhubaneswar	Lymphatics filariaisMalariaDiarrhoeal disordersTuberculosisHIV/AIDSHaemoglobinopat hiesHypertensionDiabetesTribal Health

S. No.	Name of ICMR Institute	Research Areas
24	ICMR-Regional Medical Research Centre, NE Region, Dibrugarh	Mosquito borne diseases HIV and drug abuse Trematode infection Haemoglobinopathies Cancer nasopharynx, oesophagus, stomach Cardiovascular diseases Medicinal plants of NE India Nutrition
25	ICMR-Regional Medical Research Centre, Gorakhpur	Acute Encephalitis Syndrome (AES) HIV Multi drug resistant (MDR) Tuberculosis Vector borne diseases like JE, Dengue, and filariasis Juvenile diabetes and myocarditis Child and maternal health
26	ICMR-National Institute for Implementation Research on Non- Communicable Diseases, Jodhpur	Cardiovascular diseases Chronic respiratory diseases Environmental health Nutritional disorders Cancers Injury & trauma Mental illnesses including substance abuse Genetic diseases
27	ICMR-Regional Medical Research Centre, Port Blair	Communicable and Non-communicable diseases
28	ICMR-National Institute for Research in Reproductive & Child Health, Mumbai	Reproductive Health

Doctor of Philosophy

Biological Sciences
Chemical Sciences
Physical Sciences
Mathematical & Information Sciences
Engineering Sciences
Medical Research

Eligibility for PhD

PhD

Ph.D.

1. PhD Sciences (Biological Sciences, Chemical Sciences, Physical Sciences and Mathematical & Information Sciences):

Regular

Masters degree in Science with minimum 55% marks (without rounding off) or equivalent grade for General (UR)/General-EWS and minimum 50% marks (without rounding off) or equivalent grade for OBC (NCL)/SC/ST, Third gender and Persons with Disability (PwD).

A valid tenable National-level Fellowship (JRF/ SRF of any funding agency, e.g. CSIR, UGC, DBT, DST, etc.) or any other equivalent fellowship like DBT-BET, INSPIRE, RGNF, etc. or apply for institutional fellowships (of BSIP, IASST, WII, TIGS, TCG-CREST).

OR

Project Assistants, Senior Research Fellows, Group-IV Scientists and Group-III Technical Staff of CSIR and other Associate Academic Centers of AcSIR having Masters degree in relevant science discipline are eligible to apply. NOC from the current employer is mandatory.

Sponsored

Masters degree in Science with minimum 55% marks (without rounding off) or equivalent grade for General (UR)/General-EWS and minimum 50% marks (without rounding off) or equivalent grade for OBC (NCL)/SC/ST, Third Gender and Persons with Disability (PwD). Endorsement (NOC) from the current employer is mandatory.

2. PhD (Engineering):

Regular

Masters degree in Engineering or Technology (after a four year engineering/technology degree or with an integrated 5 year B.Tech./M.Tech. degree or equivalent) with minimum 55% marks (without rounding off) or equivalent grade for General (UR)/General-EWS and minimum 50% marks (without rounding off) or equivalent grade for OBC (NCL)/SC/ST, Third gender and Persons with Disability (PwD).

OR

Project Assistants, Senior Research Fellows, Group-IV Scientists and Group-III Technical Staff of CSIR and other Associate Academic Centers of AcSIR are eligible to apply. NOC from the current employer is mandatory

Sponsored

Masters degree in Engineering or Technology (after a four year engineering/technology degree or with an integrated 5 year B.Tech./M.Tech. degree or equivalent) with minimum 55% marks (without rounding off) or equivalent grade for General (UR)/General-EWS and minimum 50% marks (without rounding off) or equivalent grade for OBC (NCL)/SC/ST, Third Gender and Persons with Disability (PwD). Endorsement (NOC) from the current employer is mandatory.

Faculty of Studies

AcSIR Academic Centres **Areas of Research**

CSIR - Advanced Materials and Process Research Institute, Bhopal Alloys, Composites & Cellular Materials Green Engineered & Additive Manufacturing **Engineering Sciences** Hybrid Building Materials & Manufacturing Industrial Waste Utilization, Nano & Biomaterials CSIR-AMPRI Intelligent materials & Advanced Processes **CSIR-AMPRI, BHOPAL** Water Resources Management & Rural Technologies CSIR - Central Building Research Institute, Roorkee Advanced Concrete, Steel & Composites Architecture Planning and Energy Efficiency Building Materials & Environmental Sustainability **Engineering Sciences Construction Automation & Robotics** Fire Safety Engineering Geotechnical Engineering & Geohazards Heritage & Special Structures **CSIR-CBRI, ROORKEE** Structural Engineering CSIR - Centre for Cellular & Molecular Biology, Hyderabad **Developmental Biology** Structural Biology Genomics and Epigenetic Regulation **Biological Sciences** Cell and Stem Cell Biology Microbes and Biology of Infection Wildlife Conservation and Ecology Crop Improvement Innovation and Technology Development CSIR-CCMB, HYDERABAD CSIR - Central Drug Research Institute, Lucknow Malaria and other Parasitic Diseases **Biological Sciences** Antimicrobial Resistance Virus Research & Therapeutics Cancer Biology Neuroscience & Ageing Biology Cardiovascular system Disorders

Chemical Sciences



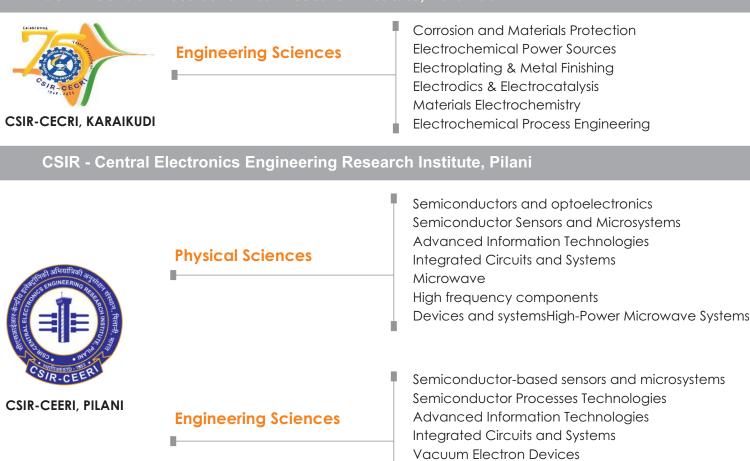
Organic & Medicinal Chemistry Natural Product Chemistry Chemical Biology Spectroscopy & Its applications Crystal Engineering

Reproductive Health Research

Bone Health & Metabolic Bone Diseases

Pre-clinical studies & Translational Research

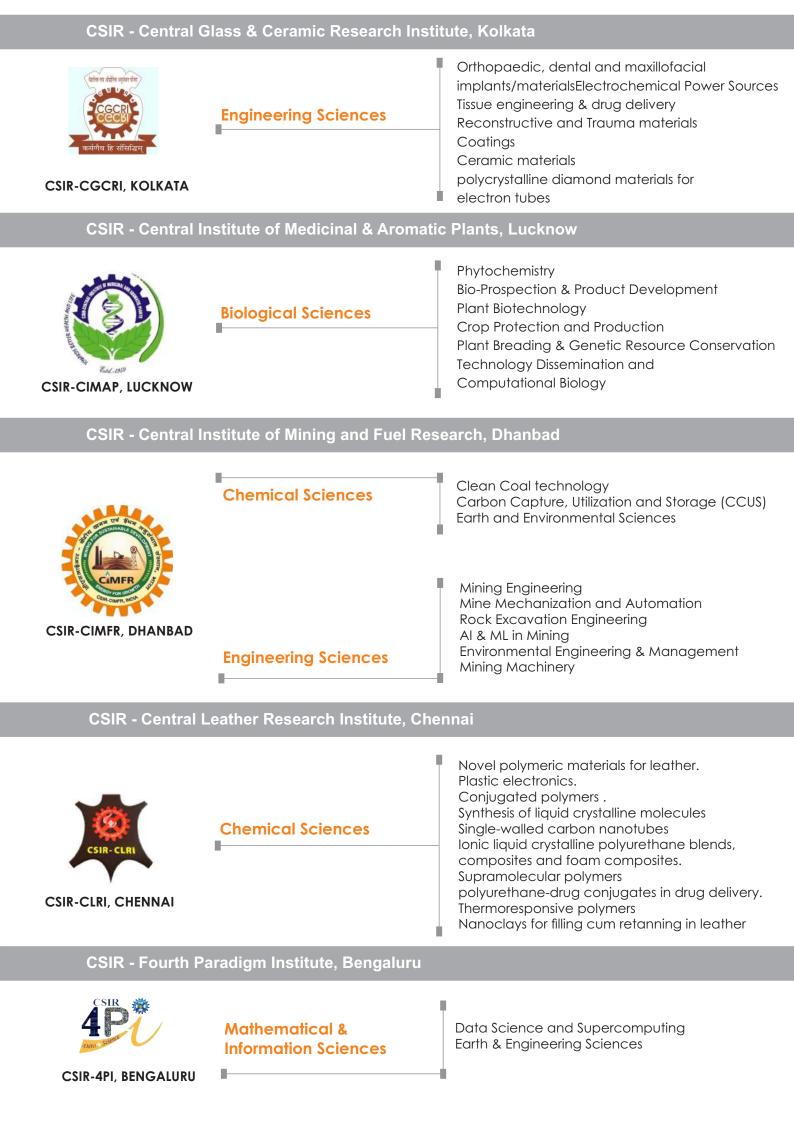
CSIR - Central Electrochemical Research Institute, Karaikudi



High-Frequency Devices and System High-Power Microwave Systems

CSIR - Central Food Technological Research Institute, Mysuru

	Biological Sciences	Biotechnology Microbiology Biochemistry Molecular Nutrition Food Science and Technology
CSIR-CFTRI, MYSURU	Chemical Sciences	Packaging Technology Flavour Chemistry Natural Product Chemistry Synthetic Organic Bioactives from Food Sources Specie Chemistry
	Engineering Sciences	Food Engineering Environmental Engineering Design and Fabrication Food Science and Nutrition Fruit and Vegetable Technology





Biological Sciences	 Seaweed biotechnology Seaweed metabolomics and nutraceuticals marine biology Algal biostimulant & biofertilizer Plant Abiotic stress Plant proteomics & metabolomics Plant Biotechnology & Plant Molecular Biology Soil/ marine microbiology Plant Tissue Culture Seaweed cultivation Plant gene cloning & genetic engineering Plant genome editing Marine environmental monitoring Microalgae: value addition and processing Plant Physiology Breeding & Genetics Phytoremediation Waste land reclamation & management Saline agriculture
CSMCRI CSIR-CSMCRI, BHAVNAGAR	Inorganic Metal Complexes synthesis Electrochemical Energy Conversion Organic transformations Heterocycle Synthesis & Functionalizations, C-H Functionalization Asymmetric synthesis Ion Exchange Membranes Thin Film composite Nano filtration & Hollow fibre Membrane Reverse and forward Osmosis membrane science & technology conducting polyme Water Treatment Separation Technology Ionic liquids
Chemical Sciences	Solution thermodynamics Computational Chemistry Salts and Marine Chemicals Electrochemical & Optical sensors Elecro & Photo catalysis Heterogeneous & Homogeneous catalysis Seaweed Polysaccharides Natural product chemistry Analytical Chemistry- Method Developments Seaweed Functionalization Coordination chemistry Chemical process development and engineering (speciality and other salt & marine chemicals) Porous metal-organic and covalent-organic frameworks Metallopolymeric matrix/gel Zeolite & Silica based Materials C02 capture & utilization Chemical biology

Engineering Sciences CSMCRI CSIR-CSMCRI, BHAVNAGAR	Valorization of biomass Fermentation Technology Marine Environmental monitoring Reverse and forward Osmosis membrane -science & technology Chemical process development -and Engineering Heat & Mass transfer Fluid mechanics Renewable energy Analytical and Process control -instrumentation Civil Engineering and Engineering aspects of Solar Salt Works Embedded systems Cooling Crystallization
CSIR - Institute of Genomics and Integrative	Biology, New Delhi
Biological Sciences	Genomics and Molecular Medicine Cardiorespiratory Disease Biology Chemical and Systems Biology Informatics and Big Data

CSIR-IGIB, NEW DELHI

Genomics Knowledge Partner

CSIR - Institute of Himalayan Bioresource Technology, Palampur



CSIR-IHBT, PALAMPUR

Biological Sciences

- Agriculture Sciences Biochemistry Biotechnology Microbial Biotechnology Fermentation Technology **Bioinformatics** Computer Science Scientific Computing Data Science Artificial Intelligence Botany Entomology Forestry & Environmental Sciences Food Science Food Technology Genetics and Plant Breeding Plant Molecular Biology Floriculture Microbiology
- Industrial Microbiology Medical Microbiology Molecular Microbiology Molecular Biology Nanotechnology Nano biosciences **Plant Science** Plant Pathology Plant Physiology Pharmaceutical sciences (Pharmacology & Pharmacology & Toxicology) Zoology Human Genetics Virology Traditional Medicine Natural Resource Management **Statistics** Remote Sensing & GIS

Chemical Sciences

Organic Chemistry Analytical Chemistry Inorganic Chemistry Physical Chemistry Chemistry Pharmaceutical Chemistry

Integrative and Functional Biology

Immunology and Infectious Disease Biology

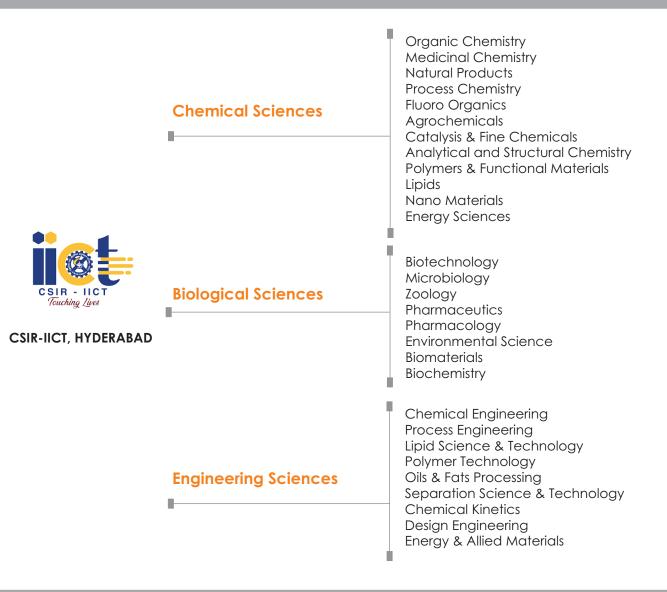


Biological Sciences

CSIR-IICB, KOLKATA

Cancer Biology & Inflammatory Disorder Cell Biology & Physiology Infectious Diseases & Immunology Molecular Genetics Organic & Medicinal Chemistry Structural Biology & Bioinformatices

CSIR - Indian Institute of Chemical Technology, Hyderabad



CSIR - Indian Institute of Integrative Medicine, Jammu



Chemical Sciences

Catalysis Catalytic Processes Reforming Syngas Chemistry Biogas Advanced Functional Materials Adsorption and Absorption Carbon Nanomaterials Fuels and Energy **Biofuels** Lignin Valorization through chemical bio-chemicalthermal conversions Life cycle analysis **Petrochemicals** Green Chemistry Specialty Chemicals Lubricants and Additives Solvent Extraction

CO2 capture and utilization (ccus) Chemicals and Energy Waste-to-Wealth (Waste Plastics, ewaste) Hydrogen energy Petro-refining Processes Hydroprocessing Heavy Oil Processing Reaction Engineering Fluid Catalytic Cracking Analytical Methods Development

Biological Sciences

Biomass to Chemicals Environmental Science Microbial Biotechnology Industrial ecology Waste water processing Microbial Fermentation Oleaginous Fermentation Material Resource Efficiency Circular economy Carbon flux assessment Microbial-omics Nutraceuticals and API Bio-remediation Enzymology Bio-manufacturing Biofuel

Bioethanol (1G, 2G, 1.5G)

Engineering Sciences

Mass Transfer Process Intensification Material characteristics Lubricant materials Tribology High entropy alloy

CSIR - Indian Institute of Toxicology Research, Lucknow



Biological Sciences

Toxicoinformatics & Industrial Research Environmental Toxicology Food, Drug & Chemical Toxicology Systems Toxicology & Health Risk Assessment Regulatory Toxicology

CSIR-IITR, LUCKNOW

CSIR - Institute of Minerals and Materials Technology, Bhubaneswar

Physical Sciences

Solid state hydrogen

Photovoltaic (PV)

-storage material

Batteries

Physical Sciences

Physics Electronics Geology Materials sciences Nano-sciences



Biological Sciences

Biology (Plant sciences/Botany, Animal sciences/Zoology) Environmental Sciences Microbiology, Biotechnology

Mathematical & Information Sciences

Information

Chemical Sciences

Chemistry (Physical/Organic /Inorganic /analytical) Materials Environmental Nano-sciences

Engineering Sciences

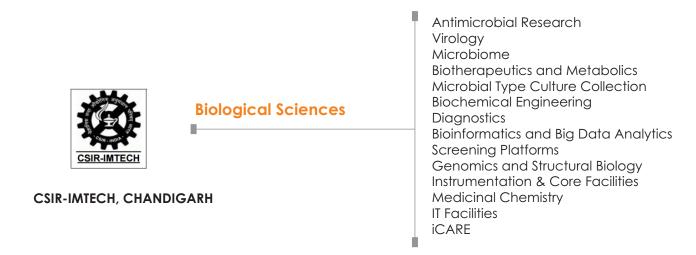
- Metallurgical Engineering Chemical Engineering Mineral Engineering Mechanical Engineering Electronics Engineering Electrical Engineering Computer Science Engineering
- Information Technology Engineering

Future मापेसं Fuels

Creating

CSIR-IIP, DEHRADUN

CSIR-IMMT, BHUBANESWAR



CSIR - National Aerospace Laboratories, Bengaluru



Engineering Sciences

Corrosion & Tribology Energy Function Materials Nanoscale Architecture Sensors Structural Ceramics Aircraft Radome Technology Autopilot Systems

CSIR-NAL, BENGALURU

CSIR - National Botanical Research Institute, Lucknow



Biological Sciences

Plant Molecular Biology Biodiversity Toxonomy Environmental Science Plant Microbe Interaction Phytochemistry Soil Science

Chemical Sciences

CSIR-NBRI, LUCKNOW

CSIR - National Chemical Laboratory, Pune



Speciality chemicals Soft Condensed Matter Physics Polymers Polyolefin Science and Technology Polymer Membrane Technology / Fuel cell Conductive Polymers and Energy Materials Sustained and Controlled Release Technology Personal Protective Equipment (PPE) recycling Nano-materials & nanoparticles Medicinal chemistry Process chemistry Custom synthesis Isolation of natural products Total synthesis of natural products

Carbohydrate chemistry

New catalytic materials

Oligonucleotides Peptidomimetics Synthetic foldamers Biocatalysis Photochemistry Organo catalysis Homogenous catalysis Asymmetric synthesis Organic functional materials Organic functional materials Organic dyes Entomology Bioorganic Chemistry Chemical Biology Computational Chemistry Quantum Computing

Biological Sciences

Proteomics Computational biology Fermentation Enzymology and microbiology Plant biochemistry and molecular biology Structural biology National collection of industrial microorganisms **Biosimilars** Cellulosics Microbiology and Microbial Diversity Microbial Technology Microbe derived Bioactive Molecules Antimicrobial Resistance Human and Animal Pathogen Surveillance (Environmental and Clinical) Drug resistance in Infectious Disease (Malaria) Pathogen Biology (Malaria, Toxoplasmosis, Salmonellosis) Disease Epidemiology Computational and Systems Biology Genomics and Genome Editing Plant Biochemistry and Plant Biotechnology Plant-Pathogen Interaction studies

Physical Sciences

Theoretical computational chemistry Materials science Thermodynamics of chemical reactions and -processes Nanoscale science Molecular modelling and simulations Reaction Kinetics and reaction mechanism Computational Physics Quantum Computing Computational Materials Science

Engineering Sciences

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Bio-chemical and biological engineering Bio-chemical and biological engineering Process separations Process modelling & engineering Modular-agile-intensified continuous (MAGIC) Processes Continuous flow synthesis Biochemical and biological engineering Process Development and Scale-up



Bioprospecting of Biodiversity Human Metabolic and Genetic Disorders (Diabetes and Cancer) Structure Biology (X-ray diffraction, NMR and Cryo-electron Microscopy) Protein Expression and Functional Characterization Biomarker studies Drug Discovery studies Biotherapeutics Fermentation Mammalian Cell Culture systems Plant Natural Products (biosynthesis pathway studies, isolation, characterization -and applications) **Bio-Membrane** Dynamics Clinical studies using Omics approach (Proteomics, metabolomics & Genomics) Probiotics and Prebiotics Bio-Nanomaterial and Nanobiotechnology Drug Delivery systems (Nano and Polymeric) Diagnostics (Aptamers, CRISPR, Oxford Nanopore Sequencing, Mass Spectrometry) **Biocatalysis** Biomaterials (Cellulosics)

Mathematical & Information Sciences

Machine learning Artificial Intelligence Natural Language Processing Quantum Computing Mathematical modelling Systems and network modellingT heoretical BiologyAI/DL models for materials design Quantum computing

Catalysis **Reactors and Separations** Biochemical and Biological Engineering Chemical Engineering Polymer science Plastic & polymer engineering Nanotechnology **Bioinformatics** biotechnology computational biology Computer science Material science & technology Metallurgical and material science & technology Process modelling and simulation advanced distillation configurations, -flow chemistry Bioengineering Artificial intelligence Oncology

CSIR - National Environmental Engineering Research Institute, Nagpur
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THE CSIR-NEERI, NAGPUR	Engineering Sciences Physical Sciences	Air Pollution Control Environmental Impact And Sustainability Cleaner Technology and Modelling Waste Water Technology Water Technology and Management Environmental Biotechnology And Genomics Climate Change and Green Material Environmental Virology Cell Health and Toxicity Cell Environmental Audit and Policy Implementation Chemical and Hazardous Waste Management Sophisticated Environmental Analytical Facility Waste Peprocessing
		Waste Reprocessing Energy and Resource Management

CSIR - North East Institute of Science & Technology, Jorhat

Biological Sciences

Zoology Biotechnology Molecular Biology Botany Pharmacology Biomedical Bioinformatics Infectious diseases



CSIR-NEIST, JORHAT

Chemical Sciences

Advanced Material Coal Chemistry Chemical Engineering Synthetic Organic Chemistry Natural Product Chemistry Analytical Chemistry Polymer & Petroleum Separation Science

Mathematical & Information Sciences

Artificial intelligence Machine Learning Big Data

Physical Sciences

Computational Seismology & Geophysics Geology Geochemistry

Engineering Sciences

Heat & Mass Transfer Biomass and Solar Energy Advanced Manufacturing Mechanical Simulation & Modelling Thermo Electric Devices

CSIR - National Geophysical Research Institute, Hyderabad



Physical Sciences

CSIR-NGRI, HYDERABAD

Airborne Geophysics Computational Electromagnetics Controlled Source Seismics and Gas Hydrates Earth Process Modelling Earthquake Hazard Electrical and Heliborne Geophysics Environmental Seismology Geochemistry Geochronology Geology Geomagnetism Gravity and Magnetics Instrumentation and Engineering Geophysics Magnetotellurics Paleo-Seismology **Planetary Sciences** Seismological Imaging Shallow Seismics **Tectonic Geodesy**

CSIR - National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram



Chemical Sciences

Physical Sciences

Engineering Sciences

Agroprocessing Sustainable Energy Environment Technology Materials Science Microbial Process Artificial Intelligence & Machine Learning

CSIR-NIIST, THIRUVANANTHAPURAM

CSIR - National Institute of Oceanography, Goa			
Physical Sciences	Biological Sciences	Chemical Sciences	
Marine Geology Geophysics Physical Oceanography	Marine Biology Marine Biotechnology Marine Ecology	Biogeochemistry Marine pollution Marine Natural Products	
understanding the seas	 Mathematical & Information Sciences Applied Mathematics Atmospheric Ocean Science & Mathematics 	Engineering Sciences Ocean Engineering Marine Instrumentation	

CSIR - National Institute Of Science Communication and Policy Research, New Delhi

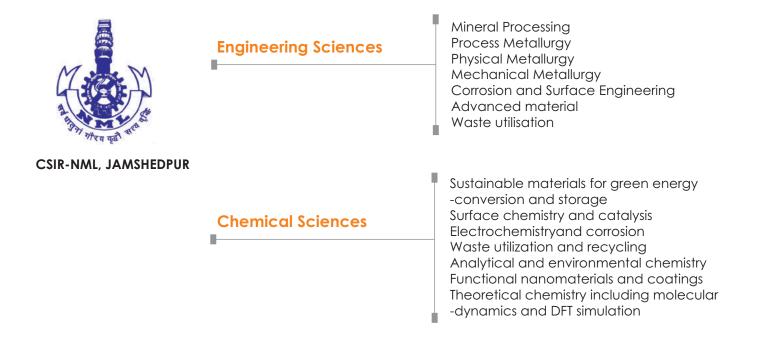


CSIR-NIO, GOA

CSIR-NIScPR

Mathematical & Information Sciences Innovation, Entrepreneurship, and -Diffusion Research Energy, Environment & Sustainability Studies in Science Communication Agriculture & Sustainable Rural Development Inclusive Health & Traditional Knowledge Global Governance & Science Diplomacy Internatinal Popular Science

CSIR - National Metallurgical Laboratory, Jamshedpur





Organic and Perovskite Solar cells/ Materials Science/Physics 2D materials for optoelectronic devices /quantum devices Laser induced white light Luminescent materials Perovskite Oxides and organic semiconductor devices /2D materials for device applications Quantum technologies Optics and instrumentation for laser -cooling of atoms Time & Frequency Metrology Boltzmann constant based -quantum standards Infrared thermometry 2D materials and Vacuum Metrology Semiconductor for optoelectronic properties 3D Printed Electronics and -Electrochemical Devices Metal oxide/transition metal chalcogenides -thin films for gas sensor applications Stable LasersQuantum applications FPGA based Digital and RF signal generator Time and Frequency Metrology Semiconductor Thin Film Devices Physics of nanodevices Detection of low energy photons Fabrication of THz absorbers and detectors **Topological Quantum Materials** Including Superconductors/Magnetics Solar cell reliability Band engineering in alloys and -heterostructures of 2D materials

Chemical Sciences

Development of carbon materials for energy applications Indoor air pollution Bioaerosols Atmospheric deposition Atmospheric aerosols Metal organic framework for -hydrogen storage Measurement of GHC emission Organic and Perovskite -Solar cells/ Materials chemistry

Engineering Sciences

Industrial Engineering Recycling of E-waste and -Plastic waste to wealth for energy -and environmental applications Development of Interferometry based measurement system for 100 g -Kibble Balance High entropy oxides **Computer Vision** Smart Grid Microgrid Metrological characterization -of PMUs Application for monitoring Protection and control of -the power grid

CSIR - Structural Engineering Research Centre, Chennai

2D materials and phase transitions



Engineering Sciences

Advanced Materials for Sustainable Structures Disaster Mitigation Special and Multi-functional Structures Structural Health Monitoring & Life Extension

CSIR - Unit for Research & Development of Information Products, Pune



Mathematical & Information Sciences

Patinformatics Toxinformatics Phytoinformatics Cheminformatics



CSIR-NPL, NEW DELHI



MoHF-NIB, NOIDA

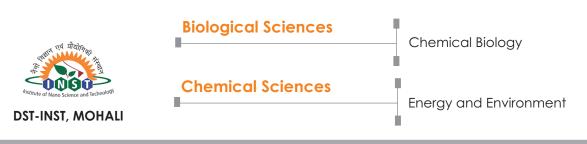
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Biological Sciences

NCDs Infectious Diseases Oncology Molecular Diagnostics Clinical Research

DST - Institute of Nano Science and Technology, Mohali



DST-Birbal Sahni Institute of Palaeosciences, Lucknow

TUTE OC OP A EOSO	Biological Sciences	Precambrian-Cambrian evolution of early life Radiation of life during Palaeozoic & Mesozoic Palaeogene-Neogene Biostratigraphy, Palaeoclimate and Palaeogeography Late quaternary Palaeoclimate of -Himalayan Region Monsoonal variability during Quaternary -from Penninsular India Late quaternary Palaeoclimate of -Palaeooceanic variability from marine records Archaeobiology, Palaeogenomics/ Metagenomics in relation of human environment
DST-BSIP, LUCKNOW	Physical Sciences	Precambrian-Cambrian evolution of early life Radiation of life during Palaeozoic & Mesozoic Palaeogene-Neogene Biostratigraphy, Palaeoclimate and Palaeogeography Late quaternary Palaeoclimate of -Himalayan Region Monsoonal variability during Quaternary from Penninsular India Late quaternary Palaeoclimate of -Palaeooceanic variability from marine records Holocene Monsoon variability and forcing factors inferred from abiotic process

Centre of Biomedical Research, Lucknow



Biological Sciences

Molecular Synthesis & Drug Discovery NMR & Metabolomics Functional MRI

Engineering Sciences

Light-Weight Cryptography Provable Security of Symmetric Key Cryptography Design and Analysis of Authenticated Ciphers Beyond Birthday Bound Security of -Symmetric key cryptographic primitives Symmetric key Cryptanalysis Symmetric Searchable Encryption Secure Cloud Computing Blockchain Technology Quantum Cryptography and Computation Lattice-based Cryptography Post-Quantum Cryptography White-Box Cryptography Statistical Learning Theory Deep Neural Networks Representation Learning **Deep Generative Models Computer Vision** Natural Language Processing Large Language Models Climate Informatics Al in Law Privacy-preserving Learning

Mathematical & Information Sciences

Functional Analysis Operator Algebra Algebraic Topology Low Dimensional Topology Contact Topology Knot Theory **Topological Combinatorics** Structural Graph Theory Algebraic Graph Theory Combinatorial and Discrete geometry Discrete Morse Theory Enumerative and algebraic combinatorics Matroid Theory(Non-) associative Algebras Lie algebra and Lie Groups Deformation theory and Homotopy algebras Algebraic Geometry

Chemical Sciences

Batteries and Supercapacitors Hydrogen Energy Co2 Reduction and Clean Fuels

Physical Sciences

Biological Sciences

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TCG-CREST, KOLKATA

- Quantum Sensing and -Computing using Cold Atoms Photonic Integrated Circuits -for sensing and computing Quantum Computation with -superconducting qubits: Experiments
- Psychiatry Neurology Molecular and Cell Biology Biochemistry Genetics Stem Cell Biology

ICMR - Regional Medical Research Centre, Dibrugarh



Medical Entomology Malaria and other vector borne diseases Cancer Biology Molecular Biology Virology Immunology Communicable Diseases Non-Communicable Diseases

Tata Insitute of Genetics & Society, Bengaluru



TIGS, BENGALURU

Biological Sciences

Infectious diseases -(including antimicrobial resistance, vector biology, and surveillance) Rare genetic disorders (including diagnostics -and therapeutics) crop improvement

M.Sc

Master of Science

Food Technology



@ CSIR-CFTRI, Mysuru / 2 years / August Session

Eligibility

Regular:

A Bachelor's Degree in Science / Agriculture / Engineering / Technology with a minimum of 55% marks for General/ EWS/ OBC candidates/ Defence Personnel and 50% for SC/ST/PwD students from a recognized University (candidates waiting for final year results can appear for the entrance test, however, admission will be subjected to the above criteria).

Sponsored:

Bachelor's Degree in Science / Agriculture / Engineering /Technology with a minimum of 55% marks and two years industrial experience in a Food and allied industry.

Clinical Research

@ PHFI-IIPH, Delhi / 2 years / August Session

Eligibility

Graduate qualifications in: medical and allied fields like dentistry, AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy), pharmacy, physiotherapy, nursing, and veterinary science, biological and life sciences (microbiology, biochemistry, biotechnology, botany, zoology), basic sciences (chemistry), occupational therapy and biostatistics.







Health Informatics

@ PHFI-IIPH, Hyderabad / 2 years / August Session

Eligibility

Bachelor's degree, in any science discipline under the 10+2+3 system.



M.Sc

Master of Science

Wildlife Science

@ Wildlife Institite of India, Dehradun / 2 years / August session

Eligibility

Bachelor's degree in Life Science, Medical Science, Engineering, Veterinary Science, Agriculture, Forestry, Pharmacy, Social Science and Computer Science or degrees recognized as equivalent thereof.

Minimum of 15 years of formal education (either 10+2+3 or 11+2+2).



Heritage Conservation and Management

@ Wildlife Institite of India, Dehradun / 2 years / August Session

Eligibility

Bachelor's Degree from a recognized University. Minimum of 15 years of formal education (either 10+2+3 or 11+2+2).



Freshwater Ecology and Conservation

@ Wildlife Institute of India, Dehradun / 2 years / August Session

Eligibility

Candidates having Bachelor's degree in Life Science (Botany, Zoology, Wildlife sciences and Forestry as oneof the subjects) or allied subjects such as Veterinary Science, Agriculture, Biodiversity and Conservation Science, Sustainable Development, Biotechnology and Environmental Science from a recognized university by UGC.

Minimum of 15 years of formal education (10+2+3).



M.Tech

Master of Technology

Eligibility

M.Tech

- 1. Bachelor's degree in Engineering or Technology following a four-year Engineering /technology or 4/5 year science degree or equivalent degree of not less than 4 years' duration. AND
- 2. At least one of the following:
- (a) Awarded a national-level fellowship tenable at CSIR institutes
- (b) Qualifying all the conditions required for eligibility for the CSIR-SRF, or CSIR-GATE-JRF

Farm Machinery and Power Engineering

Computational Biology and Bio Engineering

- (c) Qualifying the conditions for award of the INSPIRE fellowship
- (d) Qualifying the conditions stipulated by AcSIR for industry-sponsored students
- A valid GATE score, or CGPA \ge 8.0 from a CFTI at the BE-level examination. (e)

Specialization



Design of Machinery and Equipment

Mechatronics



Chemical Engineering



Polymer Engineering



@ CSIR-CSIO, Chandigarh



Advanced Instrumentation

IDDP

IDDP

M.Tech + PhD

Integrated Dual Degree Program

Eligibility

Regular:

4-year undergraduate degree in Engineering (such as BE/BTech/BS) with minimum 55% marks (without rounding off) or equivalent grade for General (UR)/General-EWS and minimum 50% marks (without rounding off) or equivalent grade for OBC (NCL)/SC/ST, Third Gender and Persons with Disability (PwD).

OR

Project Assistants, Group-IV Scientists and Group-III Technical Staff of CSIR are also eligible to apply (as per relevant AcSIR rules).

Sponsored:

4-year undergraduate degree in Engineering (such as BE/BTech/BS) with minimum 55%marks (without rounding off) or equivalent grade for General (UR)/General-EWS and minimum 50% marks (without rounding off) or equivalent grade for OBC (NCL)/SC/ST,Third gender and Persons with Disability (PwD). Endorsement (NOC) from the current employer is mandatory.

	Specialization
@ CSIR-NCL, Pune	 Chemical Engineering Computational Biology and Bio Engineering Polymer Engineering
@ CSIR-CMERI, Durapur	- Machine Design - Mechatronics
@ CSIR-CEERI, Pilani	- Advanced Electronic Engineering
@ CSIR-IMMT, Bhuaneswar	- Materials Resource Technology
@ CSIR-CGCRI, Kolkata	- Materials Science and Engineering
@ CSIR-SERC, Chennai	- Engineering of Structures
@ CSIR-IICT, Hyderabad	-Chemical Engineering

M.P.H

Master of Public Health

@ PHFI-IIPH, Delhi

2 years / August Session

Eligibility

Applicants with graduate qualifications in: medical and allied fields like dentistry, A YUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy), pharmacy, physiotherapy, nursing, and veterinary science.

Applicants with graduate qualifications in: biological and life sciences (microbiology, biochemistry, biotechnology, botany, zoology), basic sciences (chemistry), occupational therapy and biostatistics.

All applicants should have basic computing skills and proficiency in English language

@ MAX Healthcare, Delhi

2 years / August Session

Eligibility

Bachelor's Degree/ Graduation (with a minimum of 55% marks) from a recognised institute in Medicine/ AYUSH/ Dentistry/ Allied and Health Sciences/ Life Sciences/ Veterinary Sciences

Bachelor's Degree/ Graduation (with a minimum of 55% marks) from a recognized institute in Statistics/ Demography/ Population Studies/ Nutrition/ Sociology/ Psychology/ Anthropology/ Social Work/ Biostatistics

Graduates from other disciplines (other than mentioned above) may also be considered Work experience in a healthcare-related field is desirable





Post Graduate Diploma

Precision Measurement and Quality Control

@ CSIR-NPL, New Delhi / 1 year / August session

Eligibility

Eligibility B.Sc. (Physics and Maths) / B.Sc. Engg./ B.E./ B.Tech. in Mechanical/ Electrical/ Electronics/ Electronics & Communication/ Instrumentation

Advance Manufacturing Technology

@ CSIR-CMERI, Durgapur / 1 year / August Session

Eligibility

B.E./B.Tech/AMIE in Mechanical/Manufacturing/Production Engineering or Equivalent

Patinformatics

@ CSIR-URDIP, Pune / 1 year / August Session

Eligibility

- Master's degree in Science/Technology (Minimum 60% marks)
- M.Pharm. (Minimum 60% marks)
- B.E/ B.Tech. (Minimum 60% marks)
- L.L.B with graduation in Science (Minimum 60% marks at each degree)
- M.Lib Sci. with graduation in Science (Minimum 60% marks at each degree)
- MBA with graduation in Science (Minimum 60% marks at each degree)

Advance Manufacturing Technology

@ CSIR-CMERI, Durgapur / 1 year / August Session

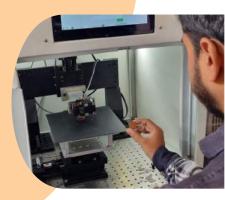
Eligibility

B.E./B.Tech/AMIE in Mechanical/Manufacturing/Production Engineering or Equivalent









PhD students for a joint PhD degree (Cotutelle) program in one of the below-mentioned international universities.

- RMIT University, Melbourne, Australia
- University of Western Australia, Perth, Australia
- Deakin University, Geelong, Australia

The selected students, as a part of their AcSIR PhD enrolment, have to spend 1 year of research at one of the above universities. These fellowships are open to all PhD students, enrolled at AcSIR, who have successfully completed their comprehensive examination by the end of third semester of their PhD enrolment.



Features of AcSIR-RMIT Joint Ph.D. Program

• The Students enrolled at both institutions under joint supervision, spend the majority of their program at the host institute (AcSIR/RMIT), and come onshore to RMIT/AcSIR for upto 12 months

 On successful completion of requirements, the students will be awarded PhDs from both AcSIR and RMIT University

• Students after the completion of 2 years in the respective institutes (AcSIR/RMIT) are eligible for this program.

Advantages to Students

- Access to world class facilities at both Institutions (AcSIR and RMIT)
- Global expertise and dual supervision between AcSIR and RMIT
- Scholarship covering living and travel expenses in India and Australia
- Doctoral PhD degree awarded by both AcSIR and RMIT in cotutelle mode.

USP of this program

- Enable and empower students to take on global challenges
- Share their working at two institutes and two countries
- Exposure to different research environments and diversity.



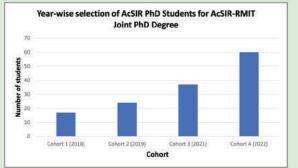


RMIT is a global university of technology, design and enterprise

Royal Melbourne Institute of Technology, focuses on applied research as well as outcome-related research and consultancy services, and has extensive partnerships with government and industry. It mainly focuses its research in the areas of design, technology, health, globalisation and sustainability.

Its Portfolio of Research and Innovation operates on a similar scale to its colleges, and also contains a specialist research school in order to foster excellence in research methodology and pedagogy. Over 50 research centres operate independently within RMIT's colleges and schools as well as a large number of smaller research groups.





way forward

- 250 students in Joint Ph.D. program by 2027
- Ensure enrollment/participation of RMIT students in this Joint Ph.D. Program.



A world-class education for international students by Partnerships with industry and government

Deakin is home to four faculties, 14 schools and 13 institutes and strategic research and innovation centres. It offers a broad and exciting range of multidisciplinary projects across the vibrant research community.

Deakin researchers have access to national and international grants and schemes. These opportunities cover a wide range of disciplines and include funding from industry, government and commercial collaborations.



Deakin University's core research strengths:

- Energy
- Smart Manufacturing (smart materials)
- Future Sustainable Infrastructure
- Agriculture, Ecology, Water, Environment & Biotech
- Critical Technology
- Technology for Health care



Valued industry connections, innovative courses, commitment to student experience and high-impact research

Over the years the University has acquired an international reputation for excellence and enterprise. It is regarded as one of Australia's top research institutions, attracting researchers of world standing across the range of disciplines, with international leaders in many diverse fields.



Research strengths:

- Biological Sciences
- Physcial Sciences
- Chemical Sciences
- Mathematical Sciences
- Environmental Sciences
- Earth Sciences

- Agricultural & Veterinary Sciences
- Chemical Engineering
- Neurosciences
- Clinical Sciences
- Mechanical Engineering
- Oceanography



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