

COMPENDIUM OF TECHNOLOGY TRANSFER RESOURCES



# 3Hnveshank



### **COMPENDIUM OF TECHNOLOGY TRANSFER RESOURCES**











### AISECT Group of Universities (AGU): Catalyzing Technology Transfer, Research Innovation and Strategic Collaborations

The AISECT Group of Universities (AGU) represents a dynamic consortium of higher education institutions committed to academic excellence, interdisciplinary research, and transformative innovation. With its network of six forward-thinking universities—Rabindranath Tagore University (Madhya Pradesh), Dr. C.V. Raman Universities (Chhattisgarh, Bihar, Khandwa), AISECT University (Jharkhand) and SCOPE Global Skills University—AGU has played a pivotal role in driving accessible education and skill-oriented development across India.

AGU is deeply invested in bridging academia with industry, government, and society. Through globally-aligned curricula, advanced pedagogical tools, and strong community linkages, AGU nurtures industry-ready talent and promoter an entrepreneurial mindset. At the heart of this effort is the **Technology Transfer Center (TTC)**- a strategic initiative designed to turn research into real-world impact.

#### Technology Transfer Center (TTC): From Knowledge to Application

The TTC at AGU acts as a crucial enabler in transforming academic research into scalable technologies, empowering startups, and facilitating socio-economic development. It focused on a robust ecosystem of innovation by aligning research with national and regional priorities.

#### **Key Functions of TTC:**

- Commercialization of homegrown innovations.
- Incubation and acceleration of student and faculty startups.
- Intellectual Property (IP) management and patent facilitation.
- Industry-academia collaborations for co-development.
- Advisory support for licensing, mentoring, and funding access.

#### Strategic Engagements with CSIR Laboratories

In alignment with India's premier research institution—the Council of Scientific and Industrial Research (CSIR), AGU and its TTC are contributing meaningfully to the country's R&D landscape. AGU facilitates the translation of CSIR-developed technologies to grassroots application and commercialization, particularly in areas such as:

- Agricultural science and sustainability
- Renewable energy and environmental solutions
- Al-enabled innovations and data-driven research
- Affordable healthcare and bio-research

AGU's research scholars and faculty are increasingly collaborating with CSIR labs such as CSIR-NEERI, CSIR-CFTRI, and CSIR-CDRI to adapt and implement solutions at the community and enterprise levels.

#### Driving Innovation at the Global Investors Summit 2025, Bhopal

AGU and TTC played an instrumental role in showcasing Madhya Pradesh's knowledge and innovation ecosystem at the 8th Global Investors Summit (GIS) 2025. Held in Bhopal on February 24–25, the summit attracted global business leaders, policymakers, unicorn founders, and research institutions.

#### AGU's Key Contributions at GIS 2025:

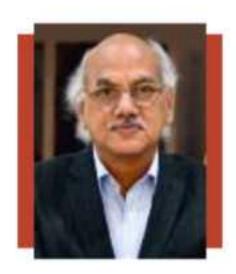
- · Presented breakthrough innovations from AGU's research centers to industrial stakeholders.
- Facilitated dialogues between academia and industry on technology adoption and investment.
- Showcased successful startup incubation stories powered by TTC.
- Highlighted collaborations with CSIR and other national labs as case studies in effective technology transfer.
- Participated in thematic sessions on Education, Startups, Agri-Tech, and Renewable Energy.

Through its presence at the summit, AGU positioned itself as a leading knowledge partner and regional innovation hub, committed to driving Madhya Pradesh's transformation into a research-intensive, innovation-led economy.

#### From Research to Renaissance

By empowering innovation through its Technology Transfer Center, building bridges with CSIR's scientific community, and showcasing excellence on global platforms like the Investors Summit, the AISECT Group of Universities continues to redefine the role of academia in national development. AGU is not just creating knowledge, it is catalyzing transformation, ensuring that research leads to real-world solutions and inclusive growth.

### Chancellor's Message



It gives me immense pride to witness the evolving landscape of research and innovation within the AISECT Group of Universities, as reflected in this year's Anveshank – A Compendium of Technology Transfer Resources. The growing emphasis on transforming academic research into impactful applications is a testimony to our collective commitment to nation-building through knowledge.

In an era defined by innovation and digital transformation, academic institutions must play a proactive role in bridging the gap between theory and practice. The work showcased in Anveshank exemplifies how meaningful research can address societal needs while driving scientific advancement. As we look forward to India's aspirations of becoming a global knowledge hub, let us continue to encourage interdisciplinary exploration, collaboration, and commercialization.

I congratulate all our faculty members, scholars, and collaborators who have contributed to this compendium. May Anveshank inspire a new wave of research-led growth, problem-solving, and sustainable development for generations to come.

Santosh Choubey

Chancellor, Rabindranath Tagore University

### Pro-Chancellor's Message



At AISECT, we have always believed that knowledge must go beyond classrooms and evolve into innovations that shape communities and economies. Anveshank is a reflection of that vision, it captures the journey of research as it moves from ground level experimentation to global relevance.

The establishment of the Technology Transfer Center (TTC) at AGU marks a transformative step toward institutionalizing the process of converting academic research into viable, scalable, and market-ready solutions. This initiative also serves as a fertile ground for fostering entrepreneurship, supporting start-ups, and aligning research with national missions such as Make in India, Atmanirbhar Bharat, and Viksit Bharat.

I am confident that the ideas presented in this edition will spark further innovations, attract strategic collaborations, and serve as models for replication across higher education institutions. I extend my heartfelt congratulations to the researchers, mentors, and partner institutions who are part of this transformative journey of knowledge to impact.

Dr. Aditi Chaturvedi Vats

Pro-Chancellor, Rabindranath Tagore University

### Director Research Message



Research is most powerful when it is directed toward solving real-world challenges. Anveshank 2025 is a manifestation of that principle, documenting the remarkable efforts of our faculty, students, and partners in transforming intellectual efforts into actionable innovations.

The role of the Technology Transfer Center has been pivotal in facilitating patent filings, industry collaborations, and funded projects that go beyond academic achievement to create social, economic, and technological value. The compendium reflects our core research domains, sustainable agriculture, green chemistry, AI and automation, bioresource utilization, and energy efficiency, demonstrating our capacity to drive change from local to national levels.

I encourage every reader to not only explore the pages of Anveshank but to draw inspiration from it and become a part of the movement toward research that is relevant, responsible, and responsive. Let us collectively build a research ecosystem where innovation leads, and impact follows.

Dr. Rachna Chaturvedi
Director (Research),
AISECT GROUP OF UNIVERSITIES

### Advisor's Message



It is with great satisfaction that I witness the growing synergy between academia, industry, and public policy at AGU, particularly through focused efforts on technology transfer and innovation. Anveshank brings together the best of our research interdisciplinary, community centered, and globally conscious.

The projects and partnerships highlighted in this edition not only demonstrate academic depth but also a deep-rooted social conscience. From low-cost sustainable solutions to Al-driven agri-tech interventions, the diversity of research reflects a strong alignment with the Sustainable Development Goals and national aspirations like Digital India and Green India. It is heartening to see young researchers engaging with real-world problems and creating pathways for impactful transformation.

I believe Anveshank will serve as a sourcebook for emerging scholars, a roadmap for policy influencers, and a model for institutional innovation. Let us continue to foster a research culture that blends scientific inquiry with empathy, ethics, and enterprise.

**Dr. Ajay Choubey** Rabindranath Tagore University

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### **Technology Transfer Center**

### at AISECT Group of Universities (AGU)

#### Introduction

he Technology Transfer Center (TTC) at AISECT Group of Universities (AGU) is established to facilitate the seamless transfer of innovative research outputs to industry, society, and governmental organizations. By bridging the gap between academia and practical application, the TTC promotes the commercialization of research, entrepreneurial ventures, and the overall socioeconomic development.

#### **Objectives**

The TTC at AGU aims to promote the commercialization of research and innovations developed within the university. It supports startups, spin-offs, and entrepreneurship activities, creating a robust ecosystem for innovation-driven enterprises. Additionally, the center facilitates collaboration between academia, industry, and government entities to maximize the societal impact of technological advancements. Protecting intellectual property (IP) is a key focus, ensuring that patents, copyrights, and other IP forms are effectively managed. The TTC also offers comprehensive advisory services on technology transfer and commercialization while encouraging innovation through mentorship programs, funding opportunities, and incubation support for emerging ventures.

#### Functions and Key Initiatives

The TTC performs several essential functions to ensure effective technology transfer. It evaluates research outcomes for commercial potential through comprehensive market analysis and feasibility studies. The center provides support in managing intellectual property, assisting with patent filing, copyright registration, licensing, and offering legal and technical guidance. Furthermore, the TTC actively facilitates partnerships with industries and entrepreneurs, negotiating licensing agreements and establishing technology transfer deals.

Entrepreneurship support is a major focus, with the center offering incubation facilities through AIC RNTU. It conducts training programs, workshops, and seminars on technology management, enhancing the entrepreneurial capabilities of researchers and students. Additionally, the TTC promotes collaboration and networking by building relationships with government agencies, corporates, and research organizations, promoting joint ventures, sponsored research, and consultancy projects.

In terms of key initiatives, the TTC organizes annual Innovation Showcases where researchers present their innovations to industry leaders. It also offers Startup Incubation support through mentoring and funding for student and faculty-led startups. The Patent Facilitation Cell assists in patent filing, managing intellectual property, and providing legal advisory services. Moreover, Industry Collaborations are facilitated by forming strategic partnerships for technology co-development and commercialization.

#### Impact and Achievements

- Facilitated numerous patents and technology licenses.
- Supported successful startups and entrepreneurial ventures.
- Formed strategic industry partnerships leading to product commercialization.
- Enhanced the regional innovation ecosystem through skill development and knowledge transfer.

### INTERNAL & EXTERNAL RESEARCH PROJECTS OF AGU

The AISECT Group of Universities (AGU) actively promotes research, innovation, and technological advancements through internal and external projects. As a leading education and research group in India, it focuses on multidisciplinary fields like engineering, agriculture, management, environmental science, and artificial intelligence. By fostering interdisciplinary research, industry collaborations, and technology-driven solutions, AISECT drives academic excellence and real-world impact, contributing to India's socio-economic development while preparing students for a future-ready world.

#### **INTERNAL RESEARCH PROJECTS**

AISECT encourages internal research by providing resources, funding, and infrastructure to faculty and students.

#### **Key Contributions:**

- In-House R&D Centers: AISECT has established research and innovation labs to support internal projects.
- University-Funded Research Grants: Faculty and students receive funding to conduct independent research aligned with national and global challenges.
- Skill Development & Training: AISECT organizes workshops, conferences, and training programs to enhance research capabilities.
- Publication & Patent Support: The university assists researchers in publishing papers in reputed
  journals and filing patents for innovative ideas.
- Technology-Driven Research: AISECT integrates AI, IoT, and sustainable technologies into research for real-world problem-solving.



To develop Bio-Enzymes based products from waste material to replace chemical-based cleaning materials being used in the University and undertake research, testing and certification of entire range of Bio-Enzymes based chemical free materials used in day-to-day life

#### **Amit Kumar Patel**

Assistant Professor, Department of Agriculture, Dr. CV Raman University, Vaishali, Bihar.

This project aims to create sustainable and environmentally friendly cleaning solutions.

- Bio-Enzyme Production: It involves developing bio- enzymes from waste materials, effectively turning waste into a valuable resource.
- Replacement of Chemical Cleaners: The goal is to replace conventional chemical-based cleaning products with bio-enzyme-based alternatives, particularly within the university.
- Research, Testing, and Certification: The project includes rigorous research, testing, and certification of the bio-enzyme products to ensure their effectiveness and safety.
- Broader Application: The intent is to extend the use of these bio-enzyme products beyond the university for general use in daily life.
- In short, this is a project designed to produce environmentally safe cleaning products





Sustainable Socio-Economic Development of Tribals and Farmers through Agricultural and Horticultural Crops Using Natural Farming Systems and Soil Organic Amendment Technology

#### Dr. Arvind Kumar

Associate Professor & Dean (Principal Investigator), AISECT University, Hazaribagh

#### Dr. S. P. Vishwakarma

Assistant Professor (Co-Principal Investigator), ), AISECT University, Hazaribagh

Preparation of Panchagavya: Comprises Panchagavya, Vermiwash, Compost Tea, Matka Khad, Beejmirit, Jeevamrit and Amrutpani.



Effect of different sources of farm yard manure, Jeevamrutha and panchgavya on growth and yield of French bean (Phaseolus vulgaris L) var. Paulista.



Impact of FYM, Jeevamaruth, Beejamruth and Neem Cake on soil microbial during potato (Solanum tubersum L) cultivation.



Novel approach to decrease calcium oxalate in Taro (Colocasia esculenta L.) flour processing as intermediary product

#### Dr. Ganesh Malgaya

Professor, Department of Agriculture, Dr. C. V. Raman University Khandwa

To invent the procedure of flour making from taro roots and invent systematic process of quantitative estimation of calcium oxalate by titration method in taro flour.

Arbi is called Taro Root or Colocasia in English. Colocasia esculenta(L.) Schott commonly known as taro is an emergent, semi-perennial, aquatic, and semi-aquatic stem-less herbaceous plant cultivated for its starchy corms.

To reduce the anti-nutritional factors of taro corm chips such as soluble oxalate and phytic acid, it should be soaked in calcium salts solutions. The presence of oxalates in food is considered harmful to health because of the negative effects it has on the consumer intake. Soluble oxalates bind with minerals such as K+, and Na+ rendering them unabsorbed through the intestinal wall into the



bloodstream. The safe limit to the consumption of calcium oxalate for adults was 0.60-1.25 g per day for 6 consecutive weeks. Oxalate is a natural compound found in a variety of plant foods. There are two forms of oxalate in plants which are soluble and insoluble. In soluble form, oxalate is often found as a sodium salt. Soluble oxalate can be absorbed directly from food.





# Escalating methanization in old conventional biogas units and developing the supply chain of Kamdhenu Natural Gas.

#### Dr. Seema Sharma

Professor, Research Cell, Dr. C. V. Raman University, Khandwa

The objective of this research is to enhance methanization process, biogas production efficiency, develop a portable biogas storage system, and promote a scalable Kamdhenu Natural Gas model for rural energy security. This research focuses on enhancing the methanization process in biogas production. The research explored the potential of using the slurry of a specific plant, Besharam ( lpomoea carnea), in combination with cow dung to increase biogas production.

The conclusion drawn from this research is that the use of Besharam (Ipomoea carnea) leaves and Parthenium hysterophorus (Gajar Ghas) slurry in biogas plants can lead to efficient biogas production with minimal cow dung requirements. This can potentially address the future energy demands and mitigate the scarcity of energy resources.







# 5

#### A Slider Crank Mechanism

#### Dr. Dinesh Kumar Soni

Professor & Coordinator, Core Research & Innovation Group, AISECT Group of Universities

In the invented mechanism, the piston covers ends (stroke) by taking only 90° rotation of the crank, as comparable to mechanism available in market, the piston covers ends of the cylinder by taking 180° rotation of crank. This mechanism will produce double work in single rotation of crank due to stroke achievement in 90° rotation of the crank. In this mechanism, once the crank is rotated, the piston moves 2 times in up direction, with the help of which



we will complete the work in less time than the conventional slider crank mechanism. For example, if an air compressor will take I hour to fill a tank, then this mechanism will take 30 - 40 minutes to fill the tank. Thus, it saves time and electricity consumption of the customer.

# 6

#### Development of Microbial Bio-Formulation against Fusarium wilt

#### Dr. Kusum Sharma

Department of Life Science, Rabindranath Tagore University, Raisen (MP)

This project focuses on identifying and utilizing antagonistic microorganisms to combat Fusarium wilt in tomatoes. In this study, a total of 50 microbial strains were screened for their potential antagonistic activity against Fusarium oxysporum. The screening process involved evaluating the ability of each isolate to inhibit the growth of Fusarium oxysporum using a dual-culture assay. Among the 50 microbial isolates, four strains were identified to exhibit significant antagonistic effects, showing strong inhibition of Fusarium oxysporum growth. These four strains were further characterized for their ability to survive in saline conditions, as many agricultural regions face soil salinity issues that can limit the effectiveness of biocontrol agents. The selected microbial strains were tested for their survival and antagonistic potential in media containing 8% NaCl. Remarkably, these strains demonstrated the ability to thrive and maintain their antagonistic properties even in high salinity environments, which is critical for their use in agricultural areas affected by saline soils.





Fig. 1. Serial dilution technique

Fig. 2 Dual culture method.



Concept Note on Arbi (Colocasia esculenta) waste used as an alternative raw material for handmade papermaking.

#### Mr. Satish Patel

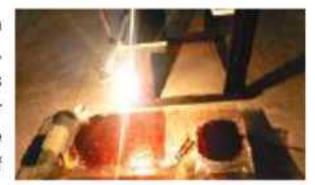
Assistant Professor, Rural Technology, Dr. C. V. Raman University Khandwa

Paper is a crucial component of society. Globally, approximately 195 million metric tons of pulp for paper is produced annually, with a significant portion derived from wood pulp. The escalating demand for paper, coupled with limited wood resources in India, presents significant challenges. India's paper industry ranks among the largest globally, accounting for about 5% of the world paper production. On average, producing one ton of paper requires between 1.5 to 2.5 of wood, leading to the felling of numerous trees. The exact number of trees needed varies based on



species and size. Handmade paper production from agricultural waste presents a promising solution, offering both ecological benefits and economic opportunities.

One such underutilized resource is the waste material from Colocasia esculenta, commonly known as taro (Arbi) in India. Colocasia esculenta is widely cultivated for its edible corms, but its stems and leaves are often discarded as agricultural waste. For instance, research has been conducted on producing decorative paper from taro stems and leaves, highlighting the feasibility of utilizing these materials in paper making processes.



8

#### Azolla Production and Quality Techniques

#### Dr. Mukesh Kumar Dhaked

Assistant Professor, Department of Plant Pathology, Faculty of Agriculture, RNTU, Raisen (M. P.)

The primary objectives of this project are centered around the development and implementation of Azolla-based cultivation and application methods as a sustainable substitute for chemical fertilizers, aimed at enhancing soil fertility. Additionally, the project seeks to assess Azolla's viability as a nutritious and economical feed option that contributes to the health and productivity of livestock. A further goal is to reduce the financial burden on farmers by providing a cost-effective fertilizer solution.

The expected results of this initiative are set to create a standard for the use of bio-fertilizers and plantbased feeds in agricultural practices, which could lead to notable improvements in soil management, livestock health, and environmental sustainability. By establishing a sustainable and accessible framework for the integration of Azolla, this research has the potential to make a significant impact on global agricultural systems, improve farmers' livelihoods, and foster a healthier ecosystem, thereby aiding both immediate and long-term sustainable development objectives.









9

#### Real Time Face Recognition Based Attendance System and Students Behavior

#### Dr. Ravi Shankar Sharma

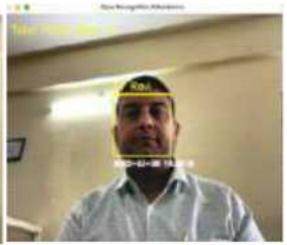
Department of Computer Science & IT, Rabindranath Tagore University, Raisen

Our innovative face recognition-based attendance system leverages cutting-edge computer vision techniques to enhance educational institutions' efficiency and improve classroom management. This system combines real-time face recognition for seamless attendance tracking with behavior analysis to provide insights into student engagement and participation.

#### **Key Features**

- 1. Automated Attendance Marking
- 2. Attendance Capture
- 3. Behavior Analysis Module
- 4. Behavior Analysis
- 5. User Interface
- 6. Reporting: Benefits
- 7. Data Security
- 8. Time Efficiency
- 9. Face Registration
- 10.Accuracy Improved Engagement





10

#### Calcium Oxalate-Depleted Taro Flour as a Natural Improver for PDS Flour.

#### Mr. Sandesh Daftari

Department of Pharmacy, Dr. C. V. Raman University Khandwa

This research aims to enhance Public Distribution System (PDS) wheat flour by incorporating Calcium Oxalate-Depleted Taro Flour (COD-TF). Taro (Colocasia esculenta) is a nutrient-rich tuber, but its high calcium oxalate content limits its usability due to antinutritional effects. The project focuses on removing calcium oxalate and blending the improved taro flour with staple flour to enhance its nutritional value, functional properties, and sensory.







11

#### Design and analysis of piezoelectric energy harvester for Bicycle

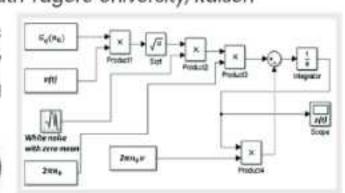
#### Dr. Tejkaran Narolia,

Associate Professor, Department of Mechanical Engineering, Rabindranath Tagore University, Raisen

Dr. T. Ravi Kiran

Professor, Department of Mechanical Engineering, Rabindranath Tagore University, Raisen

The primary objective of this project is to design a piezoelectric energy harvesting system for a bicycle, analyze its energy output potential, and demonstrate its feasibility for powering auxiliary electronic components.



#### This includes:

- 1. Selecting appropriate piezoelectric materials.
- Designing a system that integrates the piezoelectric elements into a bicycle.
- 3. Analyzing the mechanical vibrations during cycling.
- 4. Estimating the electrical energy harvested from the system.

12

#### Solar Powered Velomobile

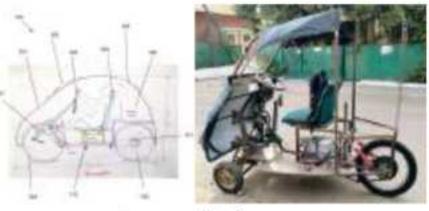
#### Dr. Tejkaran Narolia,

Associate Professor, Department of Mechanical Engineering, Rabindranath Tagore University, Raisen

Dr. T. Ravi Kiran

Professor, Department of Mechanical Engineering, Rabindranath Tagore University, Raisen

Amid rising urbanization and environmental challenges, the demand for sustainable transportation is growing. A solar-powered velomobile, designed for personal mobility, merges the efficiency of a bicycle with the comfort of a car. This human-powered vehicle offers an innovative, eco-friendly alternative for urban commuting, combining pedaling with a protective, car-like shell.



Utility Patent (filed): 202521012871

13

Indigenous development of Polydopamine mediated and e-waste transformed bioinspired fluorine-free superhydrophobic coating with robust anti-corrosion property and durability

#### Dr. Sudeshna Ray and Ms. Shikha Vishwakarma

Advanced Materials Research Centre, Faculty of Science, Rabindranath Tagore University, Bhopal

One of the main challenges in developing superhydrophobic coatings for marine/automobile/petroleum industries is the optimization of mechanical durability, as the rough asperities required for maintaining superhydrophobicity tend to be easily removed by abrasion. To address this issue, this work reports the 'indigenous development' of superhydrophobic coating for metal surfaces with improved inherent mechanical durability and anti-corrosive property. Polydopamine (PDA) is a biomimetic mussel-inspired coating with the outer-exposed functional groups such as amine as well as hydroxyl groups and widely used in the field of surface modification due to its outstanding ability to form an adherent coating on a metallic surface.



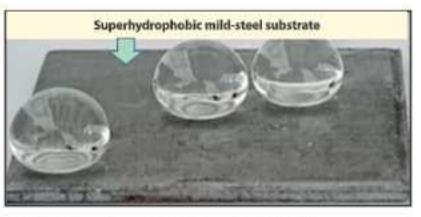


Fig. Superhydrophobic cotton fabric and mild-steel substrates



#### Indigenous Development of 'Flame Retardant' coating formulations for fabric and wood

#### Dr. Sudeshna Ray, Dr. Prachi Tadge and Ms. Shikha Vishwakarma

Advanced Materials Research Centre, Faculty of Science, Rabindranath Tagore University, Bhopal

Flame retardants mitigate the threat of fire from inherently flammable materials responsible for sustaining a high standard of living. Although bulk flame retardants have proven effective for many years, there is now increased interest in the use of surface treatments to localize flame-retardant chemistry at the exterior of a material, where combustion occurs, in an effort to preserve desirable bulk properties and minimize the amount of additive needed. It is noteworthy to mention that fires in trains or stations can lead to catastrophic losses which leads to the application of fire retardant resin for slowing the spread of the fire for railway applications. Wood remained an integral part of building structures across the globe. Concerns have nonetheless arisen about wood having inherent high flammability and threatening the fire safety of buildings and inhabitants, leading to the need for enhancement of flame resistivity. The use of flame-retardants that possessed ease of application and cost-effectiveness to mitigate the threat of flammable wood is compelling in current development. In this modern era, the presence with flammable materials in our homes (curtains, carpets, decorations, plastics etc.), a typical room in a house can reach 600 °C in 3 minutes. However, 'Fire/Flame retardant fabrics' save lives and protect property by helping to prevent fires from starting and spreading. Fire retardant fabrics are usually used in industrial worker wears, uniforms for firefighters, military pilots' suit, war-combat dress, tent fabric, parachute fabric, professional motor racing apparel etc. It is mostly used in interior materials like curtains, in hotels, hospitals, theatres, etc. Materials like 'Twaron' are mostly used to withstand high temperature in industry like firefighting. The above mentioned applications substantiate the requirement of some indigenous 'flame retardant' and 'environmentally friendly' coating. In this work, we report the indigenous development of an improved 'flame retardant formulation' over known flame retardant formulations. The flame retardant formulation disclosed herein comprises a mixture of boron based acid and inorganic phosphate. The formulation is a nontoxic flame retardant lacking any halogenated compounds or additives is sufficiently effective to cut down the fire, when coated on the fabric as well as on the wood by 'Dip-coating'.



Fig. Uncoated and Flame Retardant Material Coated Wood and Fabric

#### **EXTERNAL RESEARCH PROJECTS**

AISECT actively collaborates with government bodies, industries, NGOs, and international universities to work on large-scale research projects.

#### **Key Contributions:**

- Government & Industry Collaborations: AISECT partners with DST, ICSSR, AICTE, ICAR, MSME, and private companies for sponsored research.
- International Research Partnerships: Collaborating with global institutions to enhance research in technology, education, and rural development.
- Startup & Incubation Support: AISECT promotes entrepreneurship through incubators that assist researchers in transforming ideas into businesses.
- Community-Centric Research: Conducting projects that benefit rural India, such as ICT-based learning solutions and renewable energy models.
- Participation in National & International Conferences: AISECT researchers present their findings in global forums, increasing visibility and impact.

### Research Project Granted Rabindranath Tagore University, Bhopal

S. No.	Name of the Faculty Member	EoI/ RFP/ Proposal's Name	Funding Agency	Funding Amount
1	Dr. Indu Sharma Dr. Sunil Kumar Dr. Sadhna Davneriya Dr. Ratnesh Pandey	Celebrating International Day of YOGA (IYD)	Indian Council of Philosophical Research Ministry of AYUSH	2,00,000
2	Dr. Rachna Chaturvedi	"Unveiling the silent Heroes: The role of social Entrepreneurs in shaping Viksit Bharat "	ICSSR	1,50,000
3	Dr. Rachna Chaturvedi	"Embarking on the Pursuit of Rigorous and Impactful Research: An Exploration of the Research Methodology Course for Ph.D. Scholars in Social Sciences"	ICSSR	5,50,000
4	Dr. Ratnesh Pandey	Celebration of International Day of Yoga	Indian Council of Philosophical Research Ministry of Education	40,000
5	Dr. Rachna Chaturvedi	Skilling: Prerequisite for EWS Students	SEED, DST	5,00,000
6	Dr. Sudeshna Ray	Crystal Engineering mediated development of spherical ammonium perchlorate of different sizes	DRDO HEMRL Ministry of Defence	49,61,429

S. No.	Name of the Faculty Member	Eol/ RFP/ Proposal's Name	Funding Agency	Funding Amount
7	Dr. Preeti sing h	"The Legacy of Sir P.C.Ray: Bridging Science and Society"	MPCST	18,000
8	Dr. Shalini Yadav	Assessment of Impact of Climate Change on Water Resource in Shipra River Basin	National Institute of Hydrology Central India Hydrology Regional Centre , Bhopal	66,07,050
9	Dr. Manisha Pandey	"Comparative study of Livelihood in Rural areas of Aspirational and Non-aspirational districts for encourage Effectiveness of Youth Venture Development."	ICSSR	20,00,000
10	Dr. Manisha Pandey	03 Days Workshop For C& D Rated FPOs	NABARD	1,99,000
11	Dr. Rachna Chaturvedi Dr. T. Ravi Kiran, Dr. Kishore	Scio - Economic Impact Assessment of Solar Energy Adoption in Tribal / Rural belt of Raisen District	ICSSR	11,00,000
12	Dr. Manisha Pandey	03 Days orientation program of the Board of Directors of Ratapani Mahila Farmer Producer Company	NABARD	36,000
13	Dr. Bhawna Agrawal	National Mathematics day 2024	MPCST	18,000
14	Dr. Preeti singh	National Workshop on Science Theme -Raman Effect	MPCST	18,000
15	AIC	Gen-Next Support for Innovative Starts -ups (GENESIS) Scheme	Ministry of Electronics and Information Technology Meity Startup Hub	9,80,000
16	AIC	FDP	Atal, AICTE	3,50,000
17	Dr. Ratnesh Pandey	Wellness Through Yoga & Naturopathy	IFFCO	20,000
18	Dr. Savitri Singh, Dr. Sanjay Dubey, Dr. Rachna Chaturvedi	"नर्मदा की सांस्कृतिक परंपराओं का लोक-पक्ष"	ICSSR	55,00,000
19	Dr. Kanak Saxena, Dr. Ashok Kumar Verma	Improved farming practices through EWD & zero tilage for sustainable agriculture in greenhouse gas mitigation in MP	MPCST	6,96,000
20	Dr. Savitri Singh	Dharmpal Swadeshi aur swaraj ki awdharana	Dharmpal Shodh Peeth	56,000

S. No.	Name of the Faculty Member	EoI/ RFP/ Proposal's Name	Funding Agency	Funding Amount
21	Dr. Manisha Pandey	DAIKIN Air Conditioners Installation and Maintainance Training Report	NABARD	5,65,000
22	Dr. Tej karan Naroliya & Dr. Rajender Gupta	Design and fabrication with mechanism for PZT energy harvester applied in fusing system of artillery gun bullet	MPCST	7,89,000
23	Dr. Purvee Bhardwaj	Workshop on Intellectual Property Right	MPCST	40,000
24	Dr. Neha Mathur	ATMANIRBHAR BHARAT: A Transformative Role for the New Education Policy in 2020	ICSSR	3,00,000
25	Dr. Neha Mathur	"Sustainable Development Goals and the G20 Agenda Progress and Challenges"	ICSSR	1,50,000
26	Dr. Prabal Roy	Science Awareness programmes in Tribal Schools of MP	MPCST	2,95,000
27	Dr. Manisha Pandey	One -Day Orientation Program For Associated Persons Of Farmers producer companies	Nevaj Aajeevika Mahila Kishan Producer Company Guna	50,000
28	Dr. Sudeshna Ray	Development of Pyrophoric Metal Ceramic Composite Materials for Smart Flair as IR Countermeasure	Armament Research Board, DRDO	3,295,000
29	Prof Vinay Yadav Dr. Rahul Singh	AICTE (MODROB) for Refrigeration and Indoor Air Quality Lab (RIAQ)	AICTE	2,000,000
30	Dr. Anil Khurchania	An assessment study of the commercialization of already developed technologies of the public funded research institutes established in Madhya pardesh and to eavaluate their relevance in synchrony to the technical requirement of the local industries	Department of Scientific and Industrial Research	655,000
31	Dr. Savitri Singh	Bhartiya Sanskriti evam sanchar parmaparay	Dharmpal Shodh Peetth	40,000

S. No.	Name of the Faculty Member	EoI/ RFP/ Proposal's Name	Funding Agency	Funding Amount
32	Dr. Sudeshna Ray	Indoor Quality Herbs Vegetable Production through Vertical/Geoponic Farming with the intervention of Nano Tech Phosphor Coneverted LED	MPCST	328,000
33	Dr. Rachna Chaturvedi	Women Empowermnet - Creating, Nurturing and Transforming the society	ICSSR	225,000
34	Dr. Savitri Singh	Dharmpal Swadeshi aur swaraj ki awdharana	Dharmpal Shodh Peetth	56,000

# Research Project Granted Dr. CV Raman University, Bilaspur

S. No.	Name of the Faculty Member	EoI/ RFP/ Proposal's Name	Funding Agency	Funding Amount
1	Dr. Anupam Tiwari	"Entrepreneurship Development: A Tribal Perspective for a Skilled and Viksit Bharat"	ICSSR	1,50,000
2	Dr. Kajal Moitra	Beyond Boundaries Exploring Intersections in Social Science	ICSSR	1,50,000
3			Ministry of Education's Innovation Cell And AICTE	1,08,000
4	Mr. Ravikumar Tiwari	One day workshop on FabLab (3-D Printing ,Laser Cutting & Engraving , CNC Router )	IIT Ropar Technology and Innovation Foundation (iHub AWaDH)	1,00,000
5			iTBI Foundation	3,50,000
6	Dr. Ritesh Mishra	Birsa Munda: A Tribal Hero as a Champion of Gender Justice Sub-Themes: 1. Birsa Munda's Life and Legacy: Exploring his early life, struggles, and achievements as a tribal hero. 2. Challenging Socital Norms:Analyzing Birsa Munda's Efforts to Chall	(ICSSR)	3,00,000

S. No.	Name of the Faculty Member	EoI/ RFP/ Proposal's Name	Funding Agency	Funding Amount
7	Dr. Rachna Chaturvedi/ Dr. Satish Sahu	Tribal Development in Chhattisgarh: Shifting perspectives, Issues and Challenges	ICSSR	1,25,000
8	Dr. Kiran Tigga Dr. Vivek Bajpai, Dr. Anshul Shrivastava, Ravish Gupta	3-days Training Cum Workshop on Financial Literacy & Entrepreneurial Opportunities in Fintech	IIT Bhilai Innovation and Technology Foundation	250,000

## Research Project Granted Dr. CV Raman University, Khandwa

S. No.	Name of the Faculty Member	EoI/ RFP/ Proposal's Name	Funding Agency	Funding Amount
1	Dr. Nikita Nagori, Dr. Seema Sharma, Mr. Umesh Sharma, Mr. Shivam Engla	Socio-Economic Impact of Solar Energy in Khandwa District	ICSSR	10,00,000
2	Dr. Rachna Chaturvedi/Dr. Preeti Shukla	Harnesing the potential of NEP 2020 in vocational Education	ICSSR	1,50,000

## Research Project Granted Dr. CV Raman University, Vishali, Bihar

S. No.	Name of the Faculty Member	Eol/ RFP/ Proposal's Name	Funding Agency	Funding Amount
1:	Dr. Akanksha	Viksit Bharat: Igniting Youth Potential for Entrepreneurial Success	ICSSR	1,50,000

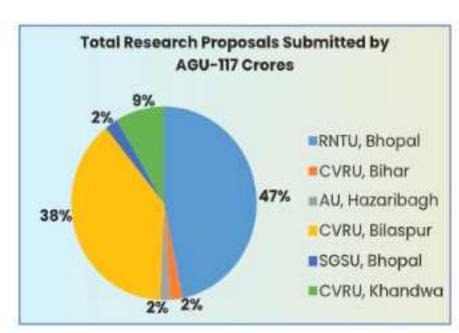
## Research Project Granted AISECT University, Hazaribag

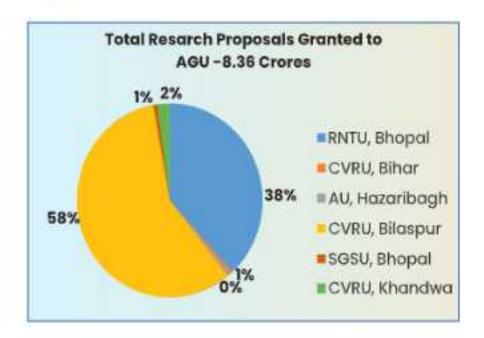
S. No.	Name of the Faculty Member	EoI/ RFP/ Proposal's Name	Funding Agency	Funding Amount
1	Dr. Raj kumar	Fostering Entrepreneurship and Preserving Tribal Culture ('Atmanirbhar Bharat')	ICSSR	2,50,000
2	Dr. Smruti Ranjan Rath	Sustainable Development And CSR	ICSSR	1,40,000

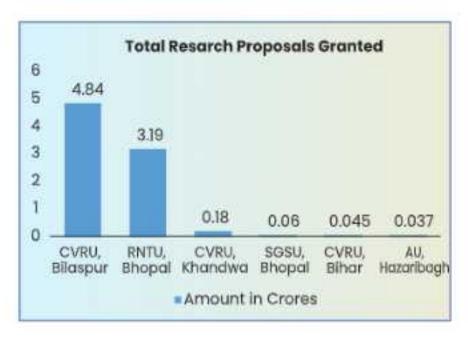
### Research Project Granted SCOPE Global Skills University, Bhopal

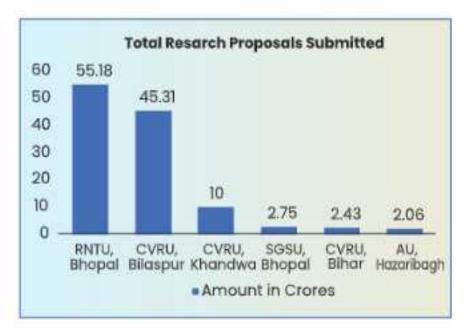
S. No.	Name of the Faculty Member	Eol/ RFP/ Proposal's Name	Funding Agency	Funding Amount
10	Dr. Teena Tiwari/ Dr. Rachna Chaturvedi	"Skill Development -Building a Future -Ready Workforce For Viksit Bharat"	ICSSR	1,50,000
2	Dr. Jyotsna Mishra	National Workshop on Science Theme -Raman Effect	MPCST	18,000
3	Dr. S. Veenadhari	R & D project, Machine learning approach to Predict the Effects of Agro -Climatic parameters Influences on Major Crop yields and Monitoring the Field level Data using Sensors	MPCST	5,00,000

#### Universities Research Projects - Granted









### Global Investors Summit 2025, Bhopal, Madhya Pradesh

he 8th edition of the Invest Madhya Pradesh – Global Investors Summit 2025 was held on February 24-25, 2025, in Bhopal, the capital city of Madhya Pradesh. Organized by the Department of Industrial Policy and Investment Promotion, Government of Madhya Pradesh, this biennial event aimed to showcase the state's investment climate and industrial infrastructure, offering numerous opportunities for potential collaborations.

#### Key Highlights of the Summit:

- Inauguration and Participation: The summit was inaugurated by prominent dignitaries, including
  Prime Minister Narendra Modi and industrialist Gautam Adani. The event attracted over 200 Indian
  companies, more than 200 global CEOs, over 20 unicorn founders, and representatives from more
  than 50 countries, reflecting a robust interest in exploring investment opportunities within Madhya
  Pradesh.
- Investment Commitments: During the two-day summit, Memorandums of Understanding (MoUs)
  worth a total of ₹30.77 lakh crore were signed. These investments are anticipated to establish not
  only large industries but also ancillary industries across the state, contributing significantly to its
  economic development.
- Sectoral Focus: The summit featured eight summits and seven thematic sessions, providing a
  comprehensive platform for dialogue, collaboration, and investment. The discussions spanned
  various sectors, including manufacturing, Information Technology, Pharmaceuticals, Renewable
  Energy, and Agriculture, Dairy & Food Processing. This approach aimed to foster growth and attract
  investments by highlighting the state's unique potential across diverse industries.
- Government Initiatives: Chief Minister Dr. Mohan Yadav emphasized the state's commitment to
  unlocking growth through progressive policies and sustainable development. The government
  has been focusing on enhancing infrastructure, ensuring ease of doing business, and
  implementing investor-friendly policies to create an enabling environment for industries to thrive.

The Global Investors Summit 2025 in Madhya Pradesh served as a pivotal platform for showcasing the state's investment potential and fostering collaborations across various sectors. The substantial investment commitments reflect the confidence of both domestic and international investors in the state's growth trajectory. While the summit faced minor organizational challenges, the overall outcome underscores Madhya Pradesh's strategic initiatives to position itself as a leading investment destination in India.

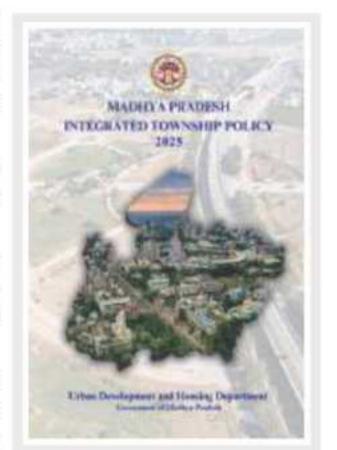


### Integrated Town Development Policy, 2025

The Government of Madhya Pradesh has introduced the Integrated Township Policy 2025 to promote sustainable urban development and attract private investment in real estate within urban areas. This policy aims to stimulate economic activities, generate employment opportunities, and contribute to the state's GDP growth.

#### Key Features of the Integrated Township Policy 2025:

- Land Development through Land Pooling: The policy facilitates the development of large-scale townships through land pooling mechanisms. This approach allows landowners to collaborate in the development process, ensuring equitable compensation and participation.
- Developer Registration: Developers must register with the competent authority before initiating projects under this policy, ensuring adherence to regulatory standards.
- Approval Committees: Township proposals are reviewed by committees chaired by the Principal Secretary at the state level and the Collector at the district level, streamlining the approval process.
- Incentives and Benefits: The policy offers various incentives, including timely approvals, stamp duty concessions, exemptions from certain colony rules, flexibility in development plan amendments, and additional Floor Area Ratio (FAR) for green initiatives and affordable housing units.



- Green Floor Area Ratio (FAR): A minimum of 10% of the gross area must be allocated for parks and open spaces, with at least 2.5% designated for wooded areas, promoting environmental sustainability.
- Affordable Housing: Developers are required to allocate at least 15% of total housing units for vulnerable and low-income groups, addressing housing needs across various economic segments.
- Minimum Land Requirements: For cities with populations under 5 lakh, a minimum of 10 hectares is required for township development. In cities with populations exceeding 5 lakh, the requirement ranges from 20 to 40 hectares.

For more informations visit- https://investmp.in/policies/

### AVGC-XR Policy 2025

The Government of Madhya Pradesh introduced the AVGC-XR Policy 2025 to position the state as a leading hub for Animation, Visual Effects, Gaming, Comics, and Extended Reality (AVGC-XR). This initiative aims to attract investments totalling ₹2,000 crore and generate over 20,000 job opportunities by 2029.

#### **Key Objectives:**



- Economic Growth: Stimulate the state's economy by promoting the AVGC-XR sector.
- Employment Generation: Create substantial job opportunities for skilled professionals.
- Global Recognition: Establish Madhya Pradesh as a prominent player in the global digital content industry.

#### Major Initiatives:

#### 1. Financial Incentives:

- Capital Subsidy: 25% reimbursement on capital expenditure, up to ₹30 crore.
- Rent Assistance: 25% subsidy on rent for three years, up to ₹10 lakh per year.
- Employment Incentives: ₹3,000 per employee per month for the first year.
- Intellectual Property Support: 50% reimbursement of registration costs, up to ₹20 lakh.
- ▶ Bandwidth Cost Reimbursement: Up to ₹50,000 per year for three years.
- 2. Infrastructure Development: AVGC Media Park: Development of a 20-acre state-of-the-art facility under a Public-Private Partnership model, equipped with advanced production and post-production studios, plug-and-play workspaces for start-ups, and specialized data centers.

#### 3. Skill Development and Education:

- Scholarships: Financial support for students pursuing careers in animation, gaming, and related fields.
- Upskilling: Reimbursement for companies investing in employee training.
- Centers of Excellence: Establishment of AVGC-XR labs and centers specializing in emerging technologies like AR, VR, and AI within fine arts colleges.

#### 4. International Collaborations:

Co-Productions: 30% reimbursement of eligible expenditures on international projects, up to ₹2 crore.

#### 5. Support for Women Entrepreneurs:

Special Incentives: Additional assistance and scholarships for women in the AVGC-XR sector.

For more informations visit- https://investmp.in/policies/

# Scheme for implementation of Biofuel Projects in Madhya Pradesh

The Government of Madhya Pradesh has introduced the Biofuel Scheme-2025 under the Madhya Pradesh Renewable Energy Policy-2025 to position the state as a leader in biofuel production, promote sustainable development, and generate employment opportunities.

#### Objectives of the Scheme:

- Promote Biofuel Production and Usage
- Sustainable Use of Biomass
- Reduce Fossil Fuel Dependence
- Enhance Farmer Income
- Develop Bio-Refinery Clusters
- Infrastructure Development
- Expand Biofuel Dispensing
- Employment and Entrepreneurship
- Support Research and Innovation

#### Incentives and Benefits:

- ▶ Basic Investment Promotion Assistance (BIPA): Biofuel units are eligible for assistance up to ₹200 crore.
- Infrastructure Development Support: A 50% subsidy, up to ₹5 crore, is available for developing essential infrastructure such as electricity, water, gas pipelines, roads, drainage, and waste management systems
- Sidemoter implementation of Bioficel Projects in Madhya Products
- Electricity Duty Exemption: A 10-year exemption on electricity duty and energy development surcharge is provided to biofuel units.
- Land Allocation: Priority is given to land allocation for biofuel production plants, with government land for biomass production available at 10% of the collector rate as an annual fee.
- ▶ Customized Packages: Investments exceeding ₹500 crore are eligible for customized incentive packages.
- Support for Intellectual Property Rights (IPR): Assistance is provided for IPR and quality control
  measures.

#### Eligible Projects:

The scheme encompasses various biofuel projects, including Bio-CNG, biomass briquettes and pellets, and biodiesel production. It addresses all aspects of biofuel production, from feedstock cultivation to distribution and utilization.

For more informations visit-https://investmp.in/policies/

# Madhya Pradesh Drone Promotion and Usage Policy 2025

The Government of Madhya Pradesh has introduced the Drone Promotion and Usage Policy 2025 to establish the state as a leading hub for drone manufacturing, assembly, maintenance, and application across various sectors. This policy aims to attract investments, foster innovation, and create employment opportunities by leveraging drone technology.

#### **Key Objectives:**

- Economic Growth: Stimulate the state's economy by promoting the drone industry.
- Employment Generation: Create approximately 8,000 new jobs, including 2,200 direct and 6,600 indirect positions.
- Technological Advancement: Encourage the adoption of drone technology in sectors such as agriculture, logistics, security, and governance.
- Major Initiatives:

#### 1. Financial Incentives:

- Capital Subsidy: 40% subsidy on capital investment, up to ₹30 crore, for new drone manufacturing units.
- Lease Rental Subsidy: 25% reimbursement on lease rentals for three years, capped at ₹5 lakh per annum.
- ▶ Research and Development Grant: Up to ₹2 crore for initiating R&D projects in identified areas.
- Stamp Duty Exemption: 100% exemption on stamp duty and registration charges for land leased for industrial purposes.
- ▶ Patent Support: Assistance of up to ₹5 lakh for domestic patents and ₹10 lakh for international patents

#### 2. Skill Development and Education:

- Drone Schools: Establishment of Drone Schools of Excellence to provide specialized training.
- Curriculum Integration: Incorporation of drone-related courses into technical institutions.
- Internship Support: Under the Chief Minister's Seekho-Kamao Yojana, interns receive ₹8,000 per month for up to six months.
- Infrastructure Development: Testing Facilities: Capital support for testing, calibration, and certification, up to ₹20 lakh during the policy period.
- 4. Data Management: Drone Data Repository: Creation of a centralized platform for drone data and imagery to facilitate cross-departmental data sharing. Implementation and Oversight:

The Department of Science and Technology is responsible for managing the drone data repository and coordinating with collaborating partners. The policy also emphasizes the use of GIS-based planning and analytical tools for effective monitoring and resource allocation

By implementing the Drone Promotion and Usage Policy 2025, Madhya Pradesh aims to harness drone technology to enhance efficiency, reduce costs, and drive innovation across various sectors, positioning itself as a key player in the unmanned aerial vehicle (UAV) industry.

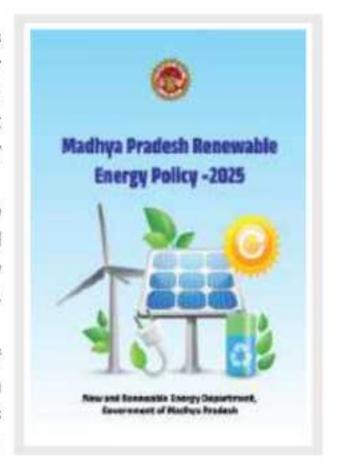
For more informations visit-https://investmp.in/policies/

### Madhya Pradesh Renewable Energy Policy 2025

The Madhya Pradesh Renewable Energy Policy-2025 is a strategic initiative by the state government to transform its energy landscape by promoting sustainable, efficient, and inclusive energy solutions. This policy, effective for five years, aims to significantly increase the share of renewable energy in the state's power consumption, reduce reliance on fossil fuels, and foster economic growth through green energy investments.

#### Key Objectives:

- Increase Renewable Energy Consumption: The policy sets ambitious targets to source 20% of the state's annual power consumption from renewable energy by the financial year (FY) 2024, 30% by FY 2027, and 50% by FY 2030. State government departments are mandated to achieve 50% renewable energy usage by 2027 and 100% by 2030.
- Develop Renewable Energy Infrastructure: Plans include establishing 10,000 MW of renewable energy parks and hybrid parks by FY 2027, and developing 4,000 MW of renewable energy projects for power export outside the state by FY 2024, expanding to 10,000 MW by FY 2027.
- Attract Investments: The policy aims to attract investments of ₹150 billion in renewable energy generation and ₹40 billion in renewable equipment manufacturing by 2024, with targets increasing to ₹500 billion and ₹100 billion, respectively, by 2027.



#### Strategic Initiatives:

- Wind Energy Development: The policy emphasizes repowering existing wind energy projects to enhance efficiency and increase generation capacity by an additional 1,562 MW.
- Pumped Hydro Storage Projects: A comprehensive scheme has been introduced to implement Pumped Hydro Storage (PHS) projects, addressing the intermittency of renewable energy sources and ensuring grid stability.
- Electric Vehicle (EV) Promotion: The Madhya Pradesh Electric Vehicle Policy, 2025, complements the renewable energy policy by providing incentives for EV adoption and establishing EV and component manufacturing facilities, thereby reducing transportation sector emissions.

Recent Developments: NTPC's Investment: The state power company NTPC has announced plans to invest over ₹2 trillion (\$23.07 billion) in renewable energy projects in Madhya Pradesh, including solar, wind, and pumped hydro storage, aligning with the state's green energy objectives.

**Transmission Infrastructure Enhancement:** PFC Consulting has invited bids to augment the evacuation capacity of renewable energy by 4.5 GW and construct line bays at the Mandsaur substation, facilitating efficient transmission of renewable power.

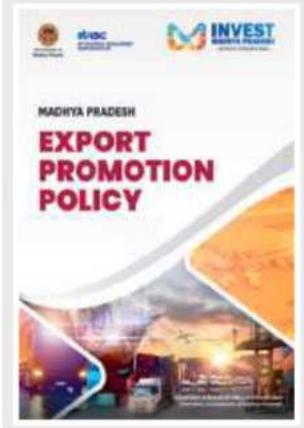
For more informations visit- https://investmp.in/policies/

# Madhya Pradesh Export Promotion Policy 2025

The Madhya Pradesh Export Promotion Policy 2025 is a strategic initiative by the state government to enhance its presence in global trade by developing export-oriented infrastructure, providing financial incentives, and simplifying export procedures.

#### **Key Objectives:**

 Diversify and Increase Exports: The policy aims to diversify the state's export portfolio, increase export volumes, and enhance export efficiency.



- Develop 'Made in Madhya Pradesh' Brand: There is a targeted effort to establish 'Made in Madhya Pradesh' as a prominent market brand to boost employment opportunities within the state. Strategic Initiatives:
- Financial Incentives: Export units are eligible for reimbursement of 50% of transportation costs incurred for moving finished goods from the factory premises to seaports or air cargo facilities, available for five years, up to ₹40 lakh per unit per year, with a maximum of ₹2 crore.
- Export-Oriented Infrastructure: The policy focuses on developing sector-specific export hubs and improving logistics support to enhance connectivity to major ports.
- Simplified Export Procedures: Efforts are being made to simplify export procedures through digitalization and ease of doing business initiatives.

By implementing the Export Promotion Policy 2025, Madhya Pradesh aims to position itself as a competitive and globally recognized export hub, contributing to the state's economic growth and development.

## Madhya Pradesh Tourism Policy 2025

The Madhya Pradesh Tourism Policy 2025 is a strategic initiative by the state government to position Madhya Pradesh as a premier tourism destination by promoting sustainable practices, enhancing infrastructure, and encouraging private investment. This policy aims to boost economic growth, generate employment, and preserve the state's rich cultural and natural heritage.

#### **Key Objectives:**

- Sustainable Tourism Development: The policy focuses on balanced and sustainable tourism to facilitate socioeconomic development and establish Madhya Pradesh as a destination offering a comprehensive tourism experience.
- Investment Promotion: Attracting substantial investments in the tourism sector to develop infrastructure and services that cater to diverse tourist preferences.

#### Major Initiatives:

#### 1. Financial Incentives:

- Capital Grants: Mega projects with investments exceeding ₹100 crore are eligible for capital grants ranging from 15% to 30%, up to ₹90 crore, to encourage large-scale investments.
- Land Allocation: Such projects receive preferential incentives, including land allocation at collector guideline rates for up to 90 years.

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#### 2. Infrastructure Development:

- Tourism Hubs: Development of sector-specific tourism hubs and enhancement of logistics support to improve connectivity to major tourist destinations.
- Eco-Tourism: Promotion of eco-tourism by developing wildlife resorts, electric cruises, and projects in remote areas to ensure sustainable development.
- 3. Simplified Procedures: Single Window System: Establishment of a Single Window System to ensure timely approvals for tourism projects, enhancing the ease of doing business in the sector.

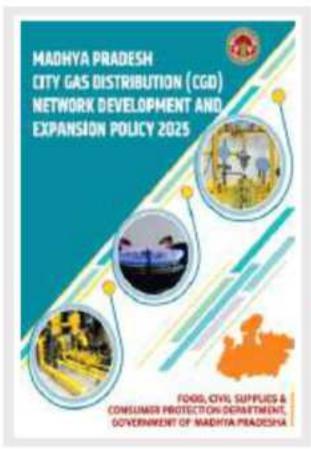
Film Tourism Promotion Policy 2025: As part of its tourism strategy, Madhya Pradesh has introduced the Film Tourism Promotion Policy 2025 to position the state as a favoured destination for film production. Key features include:

- Financial Subsidies: Provision of subsidies ranging from ₹15 lakh for short films to ₹10 crore for international films, contingent upon 75% of the shooting being conducted within the state.
- Additional Incentives: Extra financial support for films in regional languages and those focusing on themes like child and youth development, women empowerment, and promotion of tourist, historical, and religious sites in Madhya Pradesh.
- Simplified Approval Process: Implementation of a single-window clearance system under the Public Services Guarantee Act to expedite shooting permissions.

# Madhya Pradesh City Gas Distribution (CGD) Network Development and Expansion Policy 2025

The Madhya Pradesh City Gas Distribution (CGD) Network Development and Expansion Policy 2025 is a strategic initiative by the state government to enhance the availability and usage of natural gas across urban centers. This policy aims to provide clean, efficient, and cost-effective energy solutions to households, industries, and the transportation sector, aligning with national energy goals.

#### Objectives:



- Promote Clean Energy: Increase the availability of clean and safe cooking fuel (Piped Natural Gas - PNG) and transportation fuel (Compressed Natural Gas - CNG) to reduce pollution and improve public health.
- Infrastructure Development: Establish a robust CGD infrastructure to ensure uninterrupted and safe supply of natural gas, fostering industrial and economic growth.
- Ease of Doing Business: Create a policy framework that simplifies permissions and approvals for CGD entities through a standardized and time-bound single-window system.

#### **Key Features:**

- Financial Incentives: Companies engaged in city gas distribution will receive subsidies on infrastructure development and tax benefits to encourage investment and expedite project implementation.
- Regulatory Support: The policy provides a streamlined process for obtaining necessary approvals, reducing bureaucratic delays and facilitating faster deployment of CGD networks.
- Public Awareness: Initiatives to educate citizens about the benefits of natural gas usage, promoting a shift towards cleaner energy sources.

#### **Expected Outcomes:**

- Environmental Benefits: Widespread adoption of PNG and CNG is anticipated to significantly reduce air pollution levels in urban areas.
- Economic Growth: Enhanced energy infrastructure is expected to attract industries, create employment opportunities, and contribute to the state's economic development.
- Energy Security: Diversification of energy sources will strengthen the state's energy security and reduce dependence on traditional fossil fuels.

# Global Capability Centers (GCC) Policy 2025

Madhya Pradesh has introduced the Global Capability Centers (GCC) Policy 2025, marking a significant move to position the state as a hub for global innovation and technological advancement. This policy aims to attract multinational corporations (MNCs) to establish their GCCs within the state, thereby boosting economic growth, creating employment opportunities, and enhancing the state's prominence in the global digital landscape.

#### **Key Objectives:**

- Attract Global Investments: Encourage MNCs to set up GCCs in Madhya Pradesh, contributing to India's vision of achieving a \$110 billion GCC market by 2030.
- Foster Innovation: Develop the state as a center for advanced technological research and development, focusing on areas such as artificial intelligence (AI), cybersecurity, and product engineering.
- Generate Employment: Create over 37,000 direct jobs by attracting more than 50 GCCs, offering global-level employment opportunities for the state's youth.

#### Strategic Initiatives:

Incentives and Support: Provision of support for capital expenditure, payroll, upskilling, and research and development to make the state an attractive destination for GCCs.



- Infrastructure Development: Development of state-of-the-art technology parks and Special Economic Zones (SEZs) to provide a conducive environment for GCC operations
- Talent Pool Enhancement: Leveraging over 300 engineering colleges that produce more than 50,000 technology graduates annually to meet the talent demands of GCCs.

#### **Expected Outcomes:**

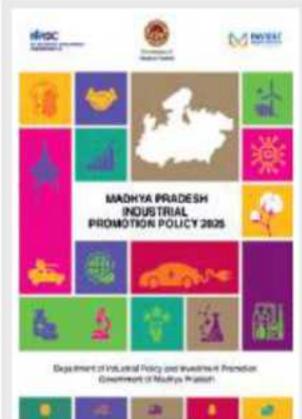
- Economic Growth: Establishing Madhya Pradesh as a leading destination for GCCs is expected to significantly boost the state's economy through increased investments and job creation.
- Technological Advancement: The focus on emerging technologies like AI and cybersecurity will position the state at the forefront of technological innovation.
- Enhanced Global Standing: By attracting global tech centers, Madhya Pradesh aims to enhance its reputation on the international stage as a competitive and forward-thinking state

# Madhya Pradesh Industrial Promotion Policy 2025

The Madhya Pradesh Industrial Promotion Policy 2025 is a strategic initiative by the state government aimed at transforming Madhya Pradesh into a developed and prosperous state by attracting domestic and foreign investments, generating employment, and boosting the state's GDP.

#### **Key Objectives:**

Economic Growth: The policy aims to increase the state's Gross Domestic Product (GDP) from the current ₹2.9 lakh crore to approximately ₹6 lakh crore by 2030.



- Employment Generation: It seeks to create about 2 million new employment opportunities over the next five years.
- Investment Attraction: The policy focuses on attracting both domestic and foreign investments to boost industrial development.

#### Sector-Specific Sub-Policies:

The Industrial Promotion Policy 2025 encompasses ten sectorspecific sub-policies to cater to diverse industrial needs.

- Agriculture, Dairy, and Food Processing Policy
- Textile Policy
- Apparel and Footwear Policy
- Electric Vehicle (EV) Manufacturing Policy
- Renewable Energy Equipment Manufacturing Policy
- ▶ High Value-Added Manufacturing Policy

- Logistics Policy
- Export Promotion Policy
- MSME Development Policy
- Startup Policy and Implementation Scheme

#### Implementation Strategy:

- Ease of Doing Business: Simplifying regulatory processes to improve investor facilitation.
- Skill Development: Preparing a trained workforce to meet future industrial demands.

## Logistics Policy 2025

Madhya Pradesh has introduced the Logistics Policy 2025 to transform the state into a global logistics hub by enhancing infrastructure, reducing costs, and improving supply chain efficiency.

#### **Key Objectives:**

- Reduce Logistics Costs: Align logistics expenses with global standards by 2030 to boost competitiveness.
- Enhance Supply Chain Efficiency: Implement innovative measures to streamline logistics operations, ensuring timely and cost-effective delivery of goods.
- Attract Investments: Develop world-class logistics infrastructure to make Madhya Pradesh an attractive destination for domestic and international businesses.

#### Strategic Initiatives:

- Cargo Terminals: Establish over 20 state-of-the-art cargo terminals to facilitate efficient freight movement.
- Export Parks: Develop export parks with incentives such as full reimbursement of stamp duty and registration fees, and financial assistance up to ₹40 crore for infrastructure development.
- RFID Implementation: Use Radio Frequency Identification (RFID) technology to enhance security and expedite goods movement.
- Unified Logistics Interface Platform (ULIP): Facilitate seamless data exchange across the logistics value chain to improve coordination and efficiency.
- Green Card Scheme: Provide fast-track approvals to logistics operators adopting eco-friendly transportation methods.
- Waste Management Support: Offer up to 50% reimbursement for establishing zero-liquid discharge waste management systems to promote green industrialization.



# Madhya Pradesh Civil Aviation Policy 2025

The Madhya Pradesh Civil Aviation Policy 2025 is a strategic initiative by the state government to enhance air connectivity, stimulate economic growth, and position Madhya Pradesh as a pivotal aviation hub in India.

#### **Key Objectives:**

Infrastructure Development: Construct permanent helipads every 45 KM and airports every 150 KM to ensure widespread air connectivity across the state.



- ▶ Financial Incentives: Offer grants of ₹7.5 lakh for each new domestic flight connecting Madhya Pradesh to other states and ₹10 lakh for every new international flight to encourage airlines to establish new routes.
- Private Sector Engagement: Attract private aviation companies to utilize 22 state-owned airstrips, fostering public-private partnerships in the aviation sector.

#### **Expected Outcomes:**

- Economic Growth: Improved air connectivity is anticipated to attract investments, boost tourism, and create employment opportunities, contributing to the state's overall development.
- Enhanced Accessibility: The development of airports and helipads aims to make even remote areas of Madhya Pradesh more accessible, facilitating swift movement of people and goods.

#### Recent Developments:

- Air India Express Expansion: Plans to launch two international flights from Indore to Bangkok and Abu Dhabi, along with three new domestic routes connecting Indore to Patna, Cochin, and Varanasi.
- Helicopter Services: Initiatives to introduce helicopter services connecting Indore, Ujjain and Omkareshwar to enhance regional connectivity and tourism.

# Madhya Pradesh Electric Vehicle (EV) Policy 2025

The Madhya Pradesh Electric Vehicle (EV) Policy 2025 is a strategic initiative by the state government to promote sustainable transportation, reduce carbon emissions, and position Madhya Pradesh as a leader in the adoption of electric mobility.

#### Key Features of the Policy:

Financial Incentives: The policy offers a complete exemption from road tax and registration fees for

new electric vehicles, encouraging individuals and businesses to transition to Evs.

 Infrastructure Development: To support the growing number of EVs, the policy mandates the installation of at least one charging point at each petrol pump

- Public Awareness and Adoption: Initiatives such as free parking for EVs are being introduced to encourage wider adoption and raise public awareness about the benefits of electric mobility.
- Integration with Renewable Energy: The policy aligns with the state's Renewable Energy Policy 2025, promoting the use of clean energy sources to power EVs, thereby enhancing environmental benefits.

#### **Expected Outcomes:**

- Environmental Benefits: By reducing reliance on fossil fuels, the policy aims to lower greenhouse gas emissions, contributing to improved air quality and environmental protection.
- Economic Growth: The development of EV infrastructure and increased vehicle adoption are expected to attract investments, create jobs, and stimulate economic growth in the state.
- Enhanced Mobility: The policy seeks to provide residents with cleaner and more efficient transportation options, improving overall mobility and quality of life.



# Madhya Pradesh Health Sector Investment Promotion Policy 2025

The Madhya Pradesh Health Sector Investment Promotion Policy 2025 is a strategic initiative by the state government to enhance healthcare infrastructure and services across the region. This policy aims to bridge existing gaps in tertiary healthcare, develop regional medical hubs, and cultivate a skilled medical workforce

#### Key Objectives:



- Bridge the Tertiary Care Divide: Encourage the establishment of multi-specialty and super-specialty hospitals to elevate the state's healthcare landscape.
- Cultivate Regional Medical Hubs: Promote the development of multi-specialty hospitals in underserved districts to ensure equitable healthcare distribution.
- Home-grow & Upskill Medical Talent: Foster a self-sustaining and skilled medical workforce in Madhya Pradesh to meet the state's healthcare aspirations.
- Incentives and Support Mechanisms: The policy offers various incentives, including capital subsidies for setting up healthcare facilities, particularly in underserved regions. It also introduces fast-track approvals, land allotment support, and simplified regulatory processes to facilitate healthcare investments.

#### **Expected Outcomes:**

- Enhanced Healthcare Access: Improved availability of advanced medical facilities across Madhya Pradesh.
- Economic Growth: Attraction of private investments leading to job creation and economic development.

Skilled Workforce: Development of a competent medical and nursing workforce to meet healthcare demands.

# Madhya Pradesh IT, ITeS & ESDM Investment Promotion Policy 2025

The Madhya Pradesh IT, ITeS & ESDM Investment Promotion Policy 2025 is a strategic initiative by the state government to position Madhya Pradesh as a premier hub for Information Technology (IT), Information Technology Enabled Services (ITeS), and Electronics System Design and Manufacturing (ESDM). This policy aims to attract investments, foster innovation, and generate employment in the technology sector.

#### Key Objectives:

- Attract Investments: The policy seeks to draw significant investments into the IT, ITeS, and ESDM sectors, enhancing the state's economic landscape.
- Infrastructure Development: Emphasis is placed on developing state-of-the-art infrastructure to support the growth of technology enterprises.
- Employment Generation: By promoting these sectors, the policy aims to create substantial employment opportunities for the youth of Madhya Pradesh.

#### Incentives and Support Mechanisms:

- Financial Assistance: Eligible investor units can receive assistance in capital expenditure and rent, making it financially viable to establish operations in the state.
- Land Allotment: Investors are offered land at affordable rates, facilitating the setup of necessary infrastructure.
- Regulatory Support: The policy provides exemptions on stamp duty and registry, along with assistance in marketing and quality control, simplifying the business setup process.

#### Recent Developments:

- Investment Proposals: Madhya Pradesh has secured investment proposals worth over ₹20,000 crore in the IT sector, expected to generate employment for more than 1.5 lakh individuals. Thirteen IT and ITeS companies have proposed investments totaling approximately ₹5,000 crore, aiming to provide jobs to about one lakh people.
- Policy Amendments: The state cabinet approved amendments to the IT policy to offer additional incentives for investors, further enhancing the investment climate.

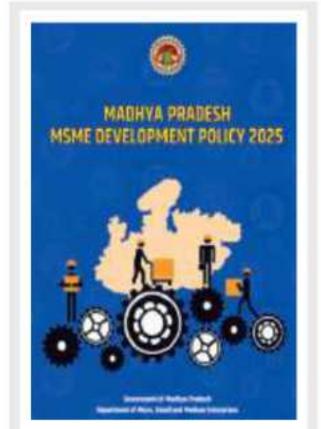


# Madhya Pradesh MSME Development Policy 2025

The Madhya Pradesh MSME Development Policy 2025 is a strategic initiative by the state government to bolster the micro, small, and medium enterprises (MSME) sector, recognizing its pivotal role in economic growth, employment generation, and industrial diversification.

#### **Key Objectives:**

▶ Enhance MSME Contribution to GSDP: The policy aims to significantly boost the MSME sector's



contribution to Madhya Pradesh's Gross State Domestic Product (GSDP) by driving growth in manufacturing, services, and exports.

- Create a Supportive Ecosystem: It focuses on facilitating access to finance, technology, infrastructure, and markets, thereby creating a robust and supportive environment for MSMEs
- Employment Generation: Encouraging MSME-led growth, particularly in employment-intensive industries, to enhance job creation across the state.
- Competitiveness and Productivity: The policy seeks to improve MSME competitiveness and productivity through skill development, innovation, quality improvement, and technology adoption.
- Balanced Industrial Growth: Ensuring equitable industrial development across all regions of Madhya Pradesh to create equal economic opportunities.
- Sustainable Practices: Encouraging MSMEs to adopt environmentally sustainable and energyefficient practices to achieve long-term industrial sustainability.

#### Incentives and Support Mechanisms:

- Investment Promotion Assistance: The policy offers investment promotion assistance of up to 40%, with enhanced support of 48% for Scheduled Castes (SC), Scheduled Tribes (ST), and women entrepreneurs. Units established in backward development blocks can receive assistance up to ₹1.3 crore.
- Special Packages for Specific Sectors: Special packages have been introduced for sectors like medical devices, aiming to encourage diversification and specialization within the MSME sector.
- Simplified Regulations: The policy emphasizes adherence to the Business Reform Action Plan (BRAP) by simplifying regulations and reducing compliance hurdles, thereby improving the ease of doing business for MSMEs.

# Scheme for Implementation of Pumped Hydro Storage (PHS) Projects in Madhya Pradesh 2025

The Scheme for Implementation of Pumped Hydro Storage (PHS) Projects in Madhya Pradesh 2025 is a strategic initiative by the state government to enhance renewable energy integration and ensure a reliable power supply. Notified in February 2025, this scheme aims to promote the development of energy storage systems, addressing the intermittency challenges associated with renewable energy sources like solar and wind power.

#### **Key Objectives:**

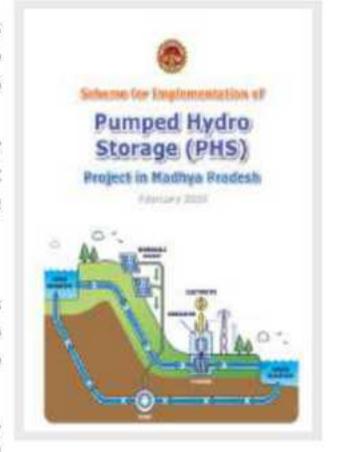
- Promote Renewable Energy Integration: By developing PHS projects, the scheme seeks to provide effective energy storage solutions, facilitating the seamless integration of renewable energy into the power grid.
- Ensure Reliable Power Supply: PHS systems store excess energy during periods of low demand and release it during peak demand, thereby stabilizing the power supply and enhancing grid reliability.

#### Policy Framework and Incentives:

- Project Development Modes: The policy outlines various modes for project development, including public-private partnerships, to encourage investment and expertise in the sector.
- Land Allotment Policies: To facilitate project implementation, the scheme provides guidelines for land allotment, ensuring that developers have access to necessary resources.
- Financial Incentives: The policy offers financial incentives to attract investments, making PHS projects economically viable for developers.
- Project Timelines: Clear timelines are established to streamline the implementation process, ensuring that projects are completed efficiently.

#### Alignment with Renewable Energy Goals:

This scheme operates in conjunction with the Madhya Pradesh Renewable Energy Policy 2025, which targets meeting 50% of the state's annual power consumption from renewable energy resources by 2030. The PHS policy is valid for 10 years, supporting the state's long-term renewable energy objectives.



# Madhya Pradesh Semiconductor Policy 2025

The Madhya Pradesh Semiconductor Policy 2025 is a strategic initiative by the state government to position Madhya Pradesh as a significant player in the semiconductor industry. This policy aims to attract substantial investments, foster innovation, and create employment opportunities by offering a comprehensive package of incentives and support mechanisms.

#### **Key Objectives:**



- Attract Investments: The policy is designed to create an investment-friendly environment, aiming to attract significant investments in semiconductor fabrication and design units.
- Promote Innovation: By encouraging research and development (R&D) and technological advancements, the policy seeks to foster innovation within the state's semiconductorecosystem.
- Generate Employment: The initiative aspires to create approximately 14,400 job opportunities over the next five years, contributing to the state's economic development.

#### Incentives and Support Mechanisms:

- Capital Investment Subsidy: Eligible projects can receive a subsidy covering up to 25% of the total project cost or 50% of the subsidy provided by the Government of India, whichever is lower. For projects without central government assistance, the state offers a subsidy of up to 40%, capped at ₹150 crore.
- Interest Subsidy: The policy provides an interest subsidy of 6% or the prevailing interest rate (whichever is lower) for up to five years, with a maximum limit of ₹10 crore.
- Land and Power Tariff Concessions: Semiconductor companies are eligible for land at concessional rates and a power tariff subsidy of ₹2 per unit for the first ten years, significantly reducing operational costs.
- ▶ Customized Incentives for Large Investments: Projects with investments exceeding ₹400 crore may receive tailored incentive packages, including additional infrastructure support, tax benefits, and financial incentives.

#### Strategic Focus Areas:

- Public-Private Partnerships (PPP)
- Foreign Direct Investment (FDI)
- Research and Development (R&D)

# Madhya Pradesh Startup Policy and Implementation Scheme 2025

The Madhya Pradesh Startup Policy and Implementation Scheme 2025 is a strategic initiative by the state government to foster innovation, entrepreneurship, and economic growth. This policy aims to position Madhya Pradesh as a leading startup hub by providing comprehensive support to emerging businesses across various sectors.

#### **Key Objectives:**

- Promote Innovation and Entrepreneurship: The policy seeks to cultivate a culture of innovation and entrepreneurship by supporting startups at different stages of development, from ideation to scaling.
- Financial Assistance: Startups are eligible for financial support of up to 15% of their initial investment, capped at ₹15 lakh, to facilitate early-stage development and operational stability.
- Infrastructure Support: The government plans to establish incubation centers, co-working spaces, and startup hubs to provide necessary infrastructure and resources for startups.

#### Incentives and Support Mechanisms:

- ▶ Seed Capital Fund: A ₹100 crore seed capital fund has been established to support early-stage startups, aiming to double the number of startups in the state to 10,000 over the next five years.
- Policy Reforms: The policy includes measures to enhance transparency, ease of doing business, and expedite project approvals, making it easier for startups to operate and grow.
- Capacity Building: Initiatives for capacity building, including training programs and workshops, are planned to equip entrepreneurs with necessary skills and knowledge.



### Council of Scientific and Industrial Research (CSIR)



The Council of Scientific and Industrial Research (CSIR) is one of the largest and most prestigious research and development organizations in India. Established in 1942, it operates under the Ministry of Science and Technology and focuses on conducting cutting-edge research in various scientific and technological fields to contribute to the country's socio-economic development.

#### Overview of CSIR

- Headquarters: New Delhi, India
- Number of Laboratories: CSIR manages a network of 37 national laboratories, 39 outreach centers,
   3 Innovation Complexes, and over 4500 active scientists supported by technical and administrative personnel.
- Mission: To conduct high-quality scientific research, promote industrial growth, enhance environmental sustainability, and contribute to public welfare through technological advancements.

#### Key Functions of CSIR

- Scientific Research: Undertaking fundamental and applied research in sectors such as energy, environment, healthcare, agriculture, aerospace, and materials.
- Technology Development: Translating scientific knowledge into tangible technologies for commercial applications.
- Collaboration: Partnering with industries, academia, and international research organizations to enhance knowledge transfer and innovation.
- Innovation Support: Providing incubation, intellectual property management, and technology licensing to foster startups and industrial growth.

#### Prominent CSIR Laboratories and Their Focus Areas

Here are some notable CSIR laboratories across India, classified based on their research domains:

#### Chemical and Pharmaceutical Sciences

- CSIR-Indian Institute of Chemical Technology (IICT), Hyderabad: Specializes in chemical synthesis, process development, and pharmaceutical research.
- CSIR-Central Drug Research Institute (CDRI), Lucknow: Focuses on drug discovery and biomedical research.
- CSIR-National Chemical Laboratory (NCL), Pune: Conducts research in chemical engineering, polymer science, and catalysis.

#### Agriculture, Food, and Biotechnology

- CSIR-Central Food Technological Research Institute (CFTRI), Mysuru: Develops food processing technologies and nutritional products.
- CSIR-National Botanical Research Institute (NBRI), Lucknow: Conducts plant-based research, including conservation and herbal medicine studies.

 CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur: Specializes in bioresource utilization and sustainable agriculture.

#### **Energy and Environmental Sciences**

- CSIR-National Environmental Engineering Research Institute (NEERI), Nagpur: Works on water and air pollution management, waste treatment, and environmental sustainability.
- CSIR-Central Institute of Mining and Fuel Research (CIMFR), Dhanbad: Develops sustainable mining technologies and clean energy solutions.

#### Engineering and Industrial Technologies

- CSIR-Central Mechanical Engineering Research Institute (CMERI), Durgapur: Develops robotics, advanced manufacturing, and automation technologies.
- CSIR-National Aerospace Laboratories (NAL), Bengaluru: Specializes in aerospace engineering, aircraft design, and material science research.
- CSIR-Central Electronics Engineering Research Institute (CEERI), Pilani: Conducts R&D in electronics, sensors, and semiconductor technologies.

#### Healthcare and Life Sciences

- CSIR-Institute of Genomics and Integrative Biology (IGIB), Delhi: Advances genomic research and molecular biology applications.
- CSIR-Indian Institute of Toxicology Research (IITR), Lucknow: Conducts toxicological assessments and environmental health studies.

#### CSIR's Impact

- Developed technologies such as indigenous COVID-19 diagnostic kits, affordable medicines like antiviral drugs for diseases like malaria, and air purification systems.
- Supported industrial sectors by providing solutions in chemicals, energy, environment, and materials science.
- Contributed to national initiatives like Make in India and Atmanirbhar Bharat through innovationdriven research.

The CSIR laboratories in India play a critical role in driving scientific excellence and technological innovation. By addressing societal challenges and enhancing industrial competitiveness, CSIR continues to contribute significantly to the nation's scientific and economic progress.



#### About CSIR-AMPRI

The Advanced Materials and Processes Research Institute, Bhopal, formerly known as the Regional Research Laboratory, is a research laboratory in Bhopal, Madhya Pradesh in India. It was established in May 1981.

#### Areas of Research

- Alloy Composites and Cellular Materials
- Green Engineered Materials and Additive Manufacturing
- Hybrid Building Materials and Manufacturing
- Industrial Waste Utilization and Nano and Bio Materials
- Intelligent Materials and Advanced Process
- Water Resources Management and Rural Technologies

#### Address

Hoshangabad Road, Near Rani Kamlapati Railway Station, Bhopal, Madhya Pradesh 462026

S. No.	Title	
I	Evergreen Hybrid Composites of Parali (Agro Wastes) and Industrial Wastes	
2	Lead Free Red Mud Based X-Ray Radiation Shielding Polymeric Hybrid Composite Panels and Doors	
3	Lead Free X-Ray Shielding Tiles	
4	Process for making Red Mud based Synthetic Aggregates & Radiation Shielding Concrete	
5	Surface Plasmon Resonance (SPR) Raman Substrate	
6	A Novel Process for Making Advanced Radiation Shielding Materials for Broad Application Spectrum	
7	Advanced Hybrid Composite Wood and Wood substitute (AC Wood)	
8	Ampricare-Disinfectant Box ( UV Rays Hybrid Technology)	
9	AMPRICARE: Instantaneous Hypochlorite Generator Using Kitchen Salt	
10	Bamboo Composites for Modern Housing Structures	
11	Cement Free Concrete	
12	Deflouridation of Drinking Water Using Nano Adsorbant Based Domestic Filter	
13	Hammer Tips for Sugar Mills	
14	High Performance Hybrid Composite Materials	
15	MMC Brake drums	
16	Nano Alumina Adsorbent Based Water Filter for Arsenic and Fluoride Removal	
17	Nanoadsorbent-Nanobiocides Based Membrane Filter for the Removal of Arsenia Fluoride, Micro-organisms etc from drinking water	



#### Advanced Materials and Processes Research Institute

S. No.	Title
18	Paver Blocks from Copper Tailings
19	Process for Making Fly Ash Based Geopolymer Concrete Using Solid form Ingredients for Rigid Pavement Roads
20	Process for Making Light Weight Al-Si Alloy - SiC Composite Manhole Cover
21	Radiation Shielding Material
22	Sisal Buffing Wheel
23	Sisal Potential for Rural Employment and Making Hybrid Composite Wood Materials Using Fly ash
24	Waste Gypsum and Fiber Based Board / Panel for Partitioning
25	Hybrid Wood Substitute Composite



#### About CSIR-CBRI

Central Building Research Institute (CBRI), located at Roorkee, Uttarakhand, India, is a constituent establishment of Council of Scientific and Industrial Research responsible for "generating, cultivating and promoting building science and technology" in India.

#### Areas of Research

- Advanced Concrete, Steel & Composites (ACSC)
- Architecture Planning & Energy Efficiency (APEE)
- Building Materials & Environmental Sustainability (BMES)
- Construction Automation & Robotics (CAR)
- Extension Centre Delhi
- Fire Safety Engineering (FSE)
- Geotechnical Engineering & Geohazards (GEGH)
- Heritage & Special Structures (HSS)
- Structural Engineering (SE)

#### Address

VW82+5W3, CBRI Colony, Roorkee, Uttarakhand 247667

S. No.	Title
1	Internal Fuel Based Eco-friendly and Energy Efficient Burnt Clay Bricks
2	Agro Forestry and C&D Waste based Fly Ash Brick for Partition Walls
3	Bored Compaction Piles
4	Brick Machine
5	Building Products from Kota Stone Waste
6	C-Brick Machine – Capacity 5000 Bricks per 8 Hours Shift (upgraded version)
7	Cable Penetration Seal System (Cable Fire Stop)
8	Cement Based Vermiculite Tiles
9	Cement Paint
10	Concept Design of a Rotary Calcinator & Process for Manufactiring of Beta Hemihydrate Plaster (Plaster of Paris) from all Dihydrated Gypsum
11	Design of High Draught Brick Kilns with Zig-Zag Setting
12	Design of Wet Scrubber Based Retrofit Emission Control Device (RECD) For Diese Generator Sets
13	Development of Expansive Mortar for Silent Cracking of Stones
14	Direct Foam Injection (DFI) technology for the Petroleum Oil Tank Fire Safety
15	Energy Efficient Gypsum Calcinator
16	Fire Resistant Metallic Door



S. No.	Title	
17	Fire Retardant Intumescent Coating for Steel and Gl duct applications	
18	Fire Retardant Water Repellent Canvas	
19	Flooring Tiles from Waste Gypsum	
20	Flooring- Wall Tiles, Bricks, & Paver Blocks Using Marble Waste	
21	Geopolymeric Building Materials	
22	Glass Facade cum Canopy Cleaning Robot	
23	Gravitational Settling Chamber for Pollution Control in Brick Kilns	
24	Gypsum- Vermiculite - Fly Ash Light Weight Plaster	
25	High Strength Plaster from Fluorogypsum	
26	High Volume Fly Ash Gypsum Composite Plaster	
27	Horizontal Boring Machine for Making Underground Bores	
28	Hybrid Rebar Coupler	
29	Imaging of Hidden Anomalies in Concrete and Stone Masonry Structures using Ultrasor Pulse Velocity	
30	Imaging of Hidden Anomalies in Concrete and Stone Masonry Structures using Ultrasor	
31	Innovative Cool Roof	
32	Liquid Extinguishant Fire Extinguisher	
33	Low Carbon Cement Concrete Composites using Sustainable Chemical Admixtures	
34	Manufacture of Paver Block and Other Building Components i.e. Tiles/Bricks from C& Waste	
35	Manufacturing of Internal Fuels Based Eco-Friendly and Energy Efficient Burnt Clay	
36	Natural Fibre Composite Door/Panel	
37	Pine Needle Composite Board/Panel	
38	Plant for Shaping Building Bricks from Inferior Soils/Industrial Waste by Extrusion Process	
39	Portable Temporary Building Unit (PTBU)	
40	Process Know-how for Manufacturing of Nano-Lime	
41	Process Know-how for Manufacturing of Silica Nano Particles (SNPs)	
42	Rice Husk Plastic Composite (Wood without tree)	
43	Roof Cooling Device	
44	Semi-mechanized Brick Making Machine	
45	Stationary Concrete Block Making Machine	



#### ROORKEE

S. No.	Title
46	Test Setup for Simulating Controlled Settlement / Upliftment of Civil Structures
47	Urethanized Bitumen System for Waterproofing of Roof
48	Water Based Epoxy System for Concrete
49	Epoxy-phenolic IPNet-RB Coating for Steel Reinforcement in RCC
50	Modified Epoxy Cardanol IPN Protective System for Concrete & Steel Structures
51	Silicate Based Waterproofing Formulation



#### About CSIR-CCMB

The Centre for Cellular and Molecular Biology (CCMB) is an Indian fundamental life science research establishment located in Hyderabad that operates under the aegis of the Council of Scientific and Industrial Research. CCMB is a designated "Centre of Excellence" by the Global Molecular and Cell Biology Network, UNESCO.

#### Areas of Research

- Developmental Biology
- Structural Biology
- Genomics and Epigenetic Regulation
- Cell and Stem Cell Biology
- Microbes and Biology of Infection
- Wildlife Conservation and Ecology
- · Crop Improvement
- Innovation and Technology Development

#### Address

CGCR+CC3, Uppal Rd, IICT Colony, Habsiguda, Hyderabad, Telangana 500007.

S.No.	Title	
1	Biomarkers Useful for Detection of Types, Grades and Stages of Human Breast Cancer	
2 Improved Samba Mashuri (ISM) Rice Variety		
3	Peptide-based Delivery of Therapeutic Nucleic Acids Targeting Neurodegenerative Diseases	
4	DNA Markers for Assessing Seed Purity	
5	mRNA Vaccine Platform for SARS-CoV2 and Other Viruses	
6	Multi-dimensional, High-throughput Small-molecule Screening Platforms for Protei misfolding Diseases	
7	Novel Method for Simultaneous Detection and Discrimination of Bacterial, Fungal, Parasitic and Viral Infections of Eye and Central Nervous System	
8	Paper-based Affordable Microfluidic Kit for Early Pregnancy Detection in Cattle and Buffaloes	
9	Process for the Preparation of Novel Porphyrin Derivatives and Their Use as PDT Agents and Fluorescence Probes	
10	Production of Metal Nanoparticles in Aqueous Solution	
11	RapGEF1(C3G) 3F6 Monoclonal Antibodies	
12	Universal Primers for Wildlife Identification	



#### About CSIR-CDRI

CSIR-Central Drug Research Institute, a premier biomedical research institute of India was inaugurated on 17th February, 1951 by the then Prime Minister of India Pt. Jawaharlal Nehru, with a vision to advance drug research and development and enable affordable healthcare. The Institute has made significant progress in its mission to develop new drugs and technologies, conduct fundamental research and impart training to research students. Today, it has become a unique model for modernized drug research, with multi-dimensional capabilities under a single roof.

#### Areas of Research

- Cancer
- Metabolic Disorders
- Microbial Infections
- Muscoskeletal Health and Disorders
- Neurological Disorders
- Parasitic Infections
- · Reproductive Health
- Virus Research & Therapeutics

#### Address

CSIR-Central Drug Research Institute, Sector 10, Jankipuram Extension, Sitapur Road, Lucknow-226031

S. No.	Title
1	Novel Anti-osteoporosis Drug Candidate CDRI-99/373
2	CDRI 1703F003 for PCOS Management
3	IAP Antagonist/Smac Mimetic Against Therapy Resistant Cancer (S016-1348)
4	Candidate Drug 80/574 (Anti-dyslipidemic)
5	CDRI Compound S007-1500 (Novel Orally Active Fracture Healing Drug Candidate)
6	Centbucridine Hydrochloride
7	Controlled Release Micro-Capsule for Osteogenic Action
8	Dry Powder Inhalation of Particles Containing Anti-tuberculosis Drugs
9	Novel Oral Combination Formulation (SMEDDS) for Treatment of Malaria



#### About CSIR-CECRI

On July 25, 1948, Karaikudi, a hitherto bleak and desolate village in Tamil Nadu, wore a festive look. A mammoth crowd of more than a lakh people gathered to witness the ushering in of a new era in Indian science. It was the day the CSIR-Central Electrochemical Research Institute (CSIR-CECRI) was founded at Karaikudi. The institute took roots in the patriotic fervour of RM. Alagappa Chettiar, Pandit Jawaharlal Nehru and Dr. Shanthi Swarup Bhatnagar. Fast forward five years, on January 14, 1953, the institution became a reality when Dr. S. Radhakrishnan dedicated CSIR-CECRI, the 12th national laboratory under the Council of Scientific and Industrial Research (CSIR), to the nation.

#### Areas of Research

- Corrosion & Material Protection
- Electrochemical Power Sources
- Electroplating and Electrometallurgy
- Electrochemical Process Engineering
- Electro organic and Materials Electrochemistry
- Electrodics & Electrocatalysis

#### Address

Central Electrochemical Research Institute, Karaikudi-630003, Tamil Nadu, India.

S.No.	Title
1	3-Chloromethyl Azetidinone Ester (Cephalosporin Antibiotic)
2	3-kW LT-PEMFC for Stationary Power Application
3	Amorphous Alloy Coatings by Sputtering on Surgical Tools
4	Anodizing of Aluminium
5	Barrel Electro Polishing of Stainless Steel Needles
6	Brush Electropolishing of 316LN Stainless steel
7	Coloring of Stainless Steel
8	Coloring of Stainless Steel
9	Copper Plating of Stainless Steel
10	Degradable Amorphous Alloy Coatings by Sputtering for Bioimplants
11	Electrochemical Conversion of DL-Homocystine to DL-Homocysteine
12	Electrochemical Dyeing of Cotton Fabrics
13	Electrochemical Technique for the Production of Anti-Oxidant Enriched Water
14	Electrochemical Synthesis of Perfluorobutane Sulfonylfluoride
15	Electroplating of Gold
16	Electropolishing of AISI 304 Stainless Steel



#### TAMIL NADU

S. No.	Title	
17	Lead Free Electroplating Process for Cu-Sn Alloy and Ag-Bi Bilayer	
18	Metal Oxide Impregnated Fabrics for Surgical Mesh	
19	Recovery of Tin Metal from Soldering Alloy by Electro Refining Process	
20	Simultaneous Detection and Inhibition of Corroding Steel Structures by Imir Functionalized Silica Aerogels and its Process thereof	
21	Sputter Coating of Metallic Nitrides on Nickel or Chrome Plated Stainless Steel Needles & o Synthetic Chemical Stones	
22	Sputter Etching of Brass Valves for Bonding to Rubber	
23	Super Hard Coatings for Blomedical Applications / Cutting Tools	
24	Zinc-Nickel Electrodeposition on Stainless steel	
25	Anticorrosive Treatment for Steel Reinforcement Rods	
26	Biodegradable Inhibitor for Preventing Scale and Corrosion Deposits of Steel Pipeline in Cooling Water System and Process thereof	
27	Cement Polymer Composite Coating System for Corrosion Protection of Reinforcing at Prestressing Steels.	
28	Corrosion Resistance, Thermal Coating for Hydroclaves	
29	Corrosion Resistant Inhibitive Admixture for Portland Pozzolana Cement	
30	Electrochemical Defluorination of Drinking Water.	
31	Formulation of Neutral Paint Removing Jelly	
32	High Performance Epoxy PAB Coating System	
33	High Temperature Ceramic Thermal Barrier Coatings for Missile Components	
34	Indigenous Li-Ion Battery	
35	Integrated Corrosion Monitoring Sensor [ICMS] Gadget	
36	Modified Polymer Electrolyte Membranes Fuel Cell (PEMFC) Stacks for Hydrogen Removal	
37	Multicoat Protective Scheme for Concrete Structures and Bridges	
38	PEM Electrolyser	
39	Redox Active Polymer Encapsulated Lamellar {REL} Compound Based Anticorrosive Coating for Reinforcement Bars	
40	Triboluminescent (TL) Paint Triggered Luminescence Signal Identifying Smart Camera fo Crack Detection of Structural Components	



#### About CSIR-CEERI

Central Electronics Engineering Research Institute (CEERI), located at Pilani, Rajasthan, is a research institute in India and a constituent laboratory of the Council of Scientific and Industrial Research (CSIR India). It was established in 1953, for advanced research and development in the field of Electronics.[2][3]

Since its inception, it has been working for the growth of electronics in the country and has established the required infrastructure and well-experienced manpower for undertaking R&D in the following major areas:

#### Areas of Research

- Cyber Physical Systems
- Microwave Tubes
- Smart Sensors

The center focuses on process control instrumentation, automation, and machine vision technologies.

#### Address

Central Electronics Engineering Research Institute, Pilani, Vidyavihar, Rajasthan 333031

S.No.	Title
1	1kW Grid Tied/Stand-alone Solar Inverter
2	5HP Three Phase Solar Inverter for Pump Drive
3	Acoustic Milk Analyser
4	Design & Development of 2.6 MW S-Band Tunable Pulse Magnetron
5	Dual Energy X-Ray Image Analysis Technique for Material Discrimination
6	High Power Coaxial RF Coupler for BARC
7	Mathematical Model for Human Fatigue Detection Using Physiological Parameters
8	Mercury-Free Plasma UV-Lamp or MFP-UV-Lamp
9	On-line Monitoring of Free Fatty Acid (FFA) in Edible Oil
10	Plastic Waste Sorting System for Five Types of Plastics
11	RF MEMS Switches
12	Smart-camera Based System for Sorting of Biscuits
13	System for Detection of Adulteration in Milk
14	Technology for Environmental Monitoring of NH3/NOx/COx Using Gas Sensors with Smart Electronic Interface
15	X-ray Imaging Based Mango Sorting System
16	Electronic weighing based Fruit Sorting System



#### About CSIR-CFTRI

The Central Food Technological Research Institute (CFTRI) is an Indian food research institute and laboratory headquartered in Mysore, India. It is a constituent laboratory of the Council of Scientific and Industrial Research.[1]

India is the world's second largest food grain, fruit and vegetable producer, [2] and the institute is engaged in research in the production and handling of grains, pulses, oilseed, along with spices, fruits, vegetables, meat, fish, and poultry.

#### Areas of Research

- A Novel Process for Preparation of Green Amla Powder
- Ultra High Pressure System for Food Preservation
- Non-aqueous applications of membrane technology
- Smart packaging
- mPACK Software
- Shell-life Extension of Prasadams
- Vacuum Frying System
- Bottling of Beverages
- Advanced drying techniques

#### Address

Cheluvamba Mansion, Valmiki Main Rd, opp. Railway Museum, Devaraja Mohalla, CFTRI Campus, Kajjihundi, Mysuru, Karnataka 570020

S.No.	Title
1	A Process for Flavour Essence from Decalepis hamiltonii / Hemidesmus indicus Roots
2	A Process for the Extension of Shelf Life of Bread with Natural Preservatives
3	A Process for the Preparation of b-carotene and Mineral Fortified Buns
4	Continuous Vibro Fluidized Bed Roaster using Flue Gas
5	Continuous Vibro Fluidized Bed Roaster using Flue Gas
6	Dehydrated Shelf Stable Egg cube
7	Dry Maize Milling Plant
8	Expanded Horse Gram
9	Gluten Free Biscuits
10	Gluten-Free Cookie Cake
11	High-Performance Advanced Oxidation Process for STPs, Greywater and Industrial Wastewaters (Food and Non-Food)
12	Integrated Rubber Roll Sheller Huller
13	Moringa Chikki

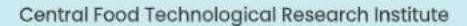




S. No.	Title	
14	Multigrain Nutri Cookies	
15	Parboiling and Drying Plant – 2 TPH Capacity	
16	6 Quick Cooking, Germinated and Dehydrated Pulses	
17 RTE Low Fat Flaked Jowar Snacks (Sweet and Savoury)		
18	8 Shelf Stable Muffins with Natural Ingredients as Preservatives	
19	Shelf-stable Chicken Tit Bits	
20	Shelf-stable Egg Crunchy Bites	
21	Soya Protein Hydrolysate	
22	Sugar Free Biscuit	
23	Tiny Rice Mill	
24	Amla Paste	
25	Amla Spread	
26	Apple Pomace Powder for Enrichment of Bakery Products (bun, muffin and cookies)	
27	Baked Beans Mixed Vegetables Curry and Rice Based Convenience Products in Aluminium Cans.	
28	Baking Powder	
29	Beverages from Banana Pseudo Stem	
30	Bombay Halwa Mix	
31	Bottling of Sugarcane Juice	
32	Bread Production	
33	Chikki/Nutra chikki	
34	Chutney Spreads	
35	Clear Lime-lemon Flavour Blend for Soft Drink manufacture	
36	Coconut Beverage from Tender Coconut	
37	Coconut Oil Blend with Other Vegetable Oils.	
38	Coffee Concentrate	
39	Cola Flavour Concentrate	
40	Composite Bajra Bread	
41	Composite Ragi Rusk	
42	Continuous Ragi Mudde Making Machine	
43	Date Syrup Concentrate	

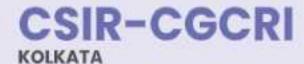


S. No.	Title
44	Deep Fat Fried and Flavoured Cashew Kernels
45	Dehydrated Whole Lime
46	Dolymix, a Ready to Use Mix to Obtain Soft and Enhanced Number of Idlys
47	Eggless Cake Premix
48	Energy Food: New Formulation
49	Fortified Protein Rich Vermicelli
50	Fortified Whole-wheat Pasta
51	Fruit Jam Slices
52	Fruit Squashes and Syrups
53	High Protein Biscuits
54	High Protein Rusk
55	Instant Cake Mix
56	Instant Payasam mix
57	Jams, Jellies and Marmalades
58	Legume Based Pasta
59	Lime/Lemon Flavour Blend for Soft Drink Manufacture
60	Low Glycemic Index Noodles
61	Lutein Rich Multipurpose Ready mix
62	Malted Weaning Food.
63	Milk Chocolate
64	Mini Versatile Dhal Mill.
65	Modified Atmosphere Packaging of Minimally Processed Vegetables.
66	Multi-grain Cereal-legume Bar and Puffed Rice Bar
67	Neera Bottling
68	Nutra Chikki with Added Spirulina
69	Nutri Oil Blends
70	Onion Flavored Biscuits
71	Online Fortification of Atta (Whole wheat flour)/Maida (Refined Wheat Flour)
72	Osmo-air Dehydrated Pineapple Slices
73	Pre and Post Harvest Technology Protocols for Export of Banana variety Dwarf Cavendish by Sea





S. No.	Title
74	Process for the Production of Spray Dried Coconut Milk Powder
75	Production of Low Sugar Milk Burfi
76	Production of Natural Oryzanol Concentrate from Rice Bran Oil for Non Food Applications
77	Production of Ready Mix Snacks and Sweets
78	Production of Soy based Instant Sambar Mix
79	Purified Wax from Rice Bran Wax Sludge
80	Ragi Malt-Enzyme Rich
81	Ready mix Jamun
82	Ready Mix Jelebi
83	Ready mix Maddur Vada
84	Ready mix Pakoda
85	Ready mix Upma
86	Ready Mix-chakli
87	Rural-based Biotechnological Production of Spirulina
88	Sesame Dehulling – Dry Process
89	Shelf-stable and Ready-to-eat foods Thermo-processed in Retort Pouches (both Vegetarian & Non-vegetarian foods)
90	Shelf-stable Chapathi
91	South Indian Parotta
92	Sprulina Choco Bar & Spirulina Cereal Bar
93	Stabilized Edible Rice Bran
94	Sugar Free Bread
95	Suruchi Meetha Burfi
96	Tamarind Candy
97	Technology Protocol for Export of Alphonso Mango by Ship
98	Turmeric Powder from Fresh Turmeric Rhizome
99	Vîrgin Coconut Oil



#### About CSIR-CGCRI

Central Glass and Ceramic Research Institute (CGCRI) originally proposed to be named as Central Glass & Silicate Research Institute is one of the first four laboratories decided to be set up under the Council of Scientific & Industrial Research, the other three being National Chemical Laboratory, Pune; National Physical Laboratory, New Delhi and Central Fuel Research Institute, Dhanbad. Even though it started functioning in a limited way in 1944, the Institute was formally inaugurated on August 26, 1950.

At the initial stages most of the work was directed towards identifying suitable mineral resources within the country and their suitability for specific product development. The quality control aspects in glass and ceramic received due attention and so was the work on glass forming machines and glass-lined equipment.

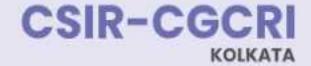
As a logical continuation of the work of the fifties, CGCRI's stepping into sixties marked a very important milestone in the history of economic development of the country. Development of various types of optical glasses brought CGCRI into limelight in the international arena.

#### Areas of Research

- Specialty Glasses for Nuclear Hot Cell application
- Specialty Borosilicate Glass Beads for Immobilization of Nuclear Waste
- Technology Developed
- Address

Jadavpur Main Rd, Ananda Pally, Bapuji Nagar, Jadavpur, Kolkata, West Bengal 700032

S. No.	Title
1	70-90% Alumina Cement free Dense Self Flowing Castable
2	A New Type of Sealing Material for High Temperature Applications
3	Ceramic Biomedical Implants Including Optical Eyeball Implants
4	Ceramic Membrane Based Technology for Water Purification.
5	Demo of 1KW Fibre Laser for Medical Applications
6	Fibre Bragg Gratings for Industrial and Strategic Applications
7	Low Cost Production of Nano Lime for Restoration of Heritage Buildings
8	Low Moisture Castable (45-75% Al2O3)
9	Mag-Chrome Refractory Aggregates from Friable Chrome Ore
10	Moisture Sensor (5-95%RH) Moisture Meter (5-100 ppm Moisture)
11	Mullite Refractory Aggregates from Bauxite
12	Net Shape Replicating Forming of Precision Glass Optics
13	Orbital Eye Ball Implant
14	Paper Based Ceramic Separators for Battery
15	Pilot Scale Manufacturing of Nd Doped Glass



#### Central Glass and Ceramic Research Institute

S. No.	Title
16	Pilot Scale Manufacturing of RBSN Radomes
17	Plasma Sprayed Hydroxyapatite Coating on Biomedical Implants
18	Pottery and Low cost Earthen Wares
19	SiAlON High Speed Cutting Tools
20	Specialty Optical Fibres and Guided Wave Photonic Devices
21	Superior Refractory for Induction Melting Furnace
22	Synthetic Bone Graft Material
23	Technology for Fabrication of Specialty Refractory Pot and Manufacturing of High Density Specialty Glass Cullet for Radiation Shielding Applications
24	Technology for Making Single Cells of Anode-Supported Planar Solid Oxide Fuel cell (SOFC)
25	Technology for Production of Cement Free High Strength Fly Ash Based Pavement Blocks
26	Technology of Manufacturing Special Glass Beads in the Borosilicate Glass Matrix for Nuclear Waste Immobilization
27	Technology of Packaged Fiber Laser
28	Upscaling of Radiation Shielding Materials



#### About CSIR-CFTRI

CSIR-CIMAP is a premier research institute under the Council of Scientific and Industrial Research (CSIR) in India. It is dedicated to research, development, and extension activities in the field of medicinal and aromatic plants (MAPs). The institute aims to promote the sustainable utilization of these plants for economic and social benefits.

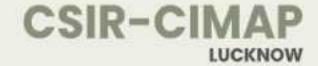
#### Areas of Research

- Development of high-yielding and disease-resistant varieties of medicinal and aromatic plants.
- Biotechnological interventions in MAP improvement.
- Phytochemical analysis and value addition of plant products.
- Standardization and development of agro-technologies for MAP cultivation.
- Socio-economic upliftment through MAP-based livelihood initiatives.

#### Address

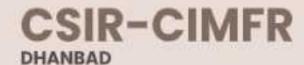
CSIR-CIMAP P.O. CIMAP, Kukrail Picnic Spot Road, Lucknow - 226015, Uttar Pradesh, India

S. No.	Title
1	Relaxomap - Anti-inflammatory Pain Relieving Oil
2	CIMKESH - Hair Oil
3	CIM-Larvishield Novel Polymeric Bead Formulation for Mosquito Larvicidal Action
4	CIMKESH - Hair Oil
5	Menthofresh - Herbal Oral Cleanser
6	Acne Cure Gel
7	Acne Preventive Face Wash - Anti Acne Herbal Formulation
8	After Shave Gel - Natural After Shave Formulation
9	All Purpose Cream [Haloe Skin] - Skin Care Formulation
10	CIM - मृदाशक्ति
11	CIMPaushak
12	CIM Phal-Se
13	CIMAP ASVIKA Portable Mini Distillation Unit
14	Cleangerm - Natural Aromatic Floor Cleaner
15	Cohobation Type Distillation Units
16	CRACKNIL – Herbal Anti-crack Cream
17	CSIR-CIMAP Herbal Cough Syrup for Allergic Cough (bronchitis)
18	CSIR-CIMAP Improved Field Distillation Units
19	CSIR-CIMAP Mobile Distillation Unit



#### Council of Scientific and Industrial Research

S. No.	Title
20	Face Scrub - Natural Formulation to Remove Dead Skin Cells
21	FLOMOP - Herbal Insect Repellent Foor Mopping Formulation
22	Geranium Active - Natural Anti-dandruff Shampoo
23	HANKOOL - Hand Disinfectant
24	Hankool Plus- Hand Sanitizing formulation
25	HERBI CHEW - Herbal based Mouth Freshener
26	HERBY SOFT - Natural Hair Care Shampoo
27	KLEENZIE - Natural Face Wash
28	Lip Balm - Lip Care Formulation
29	Manufacturing Agarbattis (Incense sticks) from Bio-resource
30	Mos-Ex- Herbal Mosquito Repellent Body Lotion
31	MOSPRAY - Herbal Mosquito Repellent Spray
32	Mosquito Repellent Cream
33	MOSREP - Mosquito Repellent Agarbatti
34	MYCONIL - Anti-fungal Cream
35	NAARI- Skin Hygienic Medicated Sanitary Pad
36	PAIN CHHOO – Herbal Pain Balm
37	Painjaa - Anti-inflammatory Pain Relieving Gel
38	Poly Herbal Toothpaste - Herbal Tooth Care Formulation
39	PsoriaCIM Cream
40	SKIN GEL - Natural Formulation for Skin Care
41	Swabee - Natural Surface Disinfectant



#### About CSIR-CIMFR

CSIR-CIMFR is a constituent laboratory of CSIR in India focused on the advancement of mining and fuel research. The institute's primary goal is to provide R&D solutions to industries in the mining, mineral, and fuel sectors, contributing to sustainable and safe resource extraction.

#### Areas of Research

- Development of eco-friendly and efficient mining technologies.
- Advanced techniques for coal beneficiation and clean coal technologies.
- Rock mechanics and ground control for mining safety.
- Environmental management and reclamation of mining-affected areas.
- Renewable energy resources and alternative fuel research.

#### **Address**

CSIR-CIMFR Barwa Road, Dhanbad - 826015, Jharkhand, India

S. No.	Title
1	20 kg/h Pilot Scale Air Blown Fluidized Bed Gasification (PFBG) TestFacility
2	Ash Filling in Opencast Mines
3	Bottom Pulsated Aero-Hydro Two Product JIG
4	Contactless Auto UV Disinfect Unit or Chamber for Touch Screens, Thumb or Finge Scanners and Keypads of Biometric Identification Devices and Other Devices or Systems
5	Contactless Auto UV Disinfect Unit or Chamber for Touch Screens, Thumb or Finge Scanners and Keypads of Biometric Identification Devices and Other Devices or Systems
6	Paste Backfilling in Underground Coal Mines
7	Paste Backfilling in Underground Metal Mines
8	Thermo-gravimetric Reactor (TGR)
9	Truck Mounted Mobile Coal Sampler for Instant Coal Ash & Moisture Analyser at Site from Railway Wagon / Truck
10	Yielding Steel Prop
11	Bio-methanation of Coal Washery Effluent and Biomass Blend.
12	CO2 Capture via Microbial Route
13	Empirical Validation of the Use of Recycled Lubricant Oils to Make High Energy ANFO Type Blasting Agents
14	Fly Ash Soil Amendment Technology (FASAT)
15	Froth Flotation Technology for Coal Slurry Beneficiation
16	Technology for Non-Recovery Type Coke Oven, Drag Type coke oven with Stamp Charging and Coke Quenching.
17	Technology for Production of Soft Coke
18	The Process for Manufacture of Building Bodies such as Bricks, Building Blocks, Roofing Tile and the Likes Utilising Fly Ash, Bottom Ash of Pulverised Coal Fired Thermal Power Stations Ash from Shale and Washery Rejects and/or Sinks



#### About CSIR-CLRI

CSIR-CLRI is the world's largest leather research institute, focusing on technology, innovation, and skill development in the leather and allied industries.

#### Areas of Research

- · Leather processing technologies.
- Product design and footwear manufacturing.
- Waste management in leather industries.
- · Bioprocessing for leather chemicals.
- Fashion forecasting and trade promotion.

#### Address

CSIR-CLRI Adyar, Chennai - 600020, Tamil Nadu, India

S. No.	Title
1	Biogas Generation from Organic Wastes
2	Emulsifier for Water in Oil and Oil in Water Emulsion
3	Extreme Cold Weather Protection Gloves: CHILLS gloves
4	Immobilized Oxidation Reactors (IOR) for Wastewater Treatment
5	Plant Based Leather-like Material
6	Preparation of Collagen Peptide from Fish Skin
7	Preparation of Leather like Material from Agricultural Wastes: Pseudo-Corium
8	Preparation of Regenerated Leather from Tannery Solid Wastes: Geno-Corium
9	Production of Dehairing Enzyme
10	Bacterial Protease for Unhairing Application
11	Chicken Feet Leathers
12	Chrome-Melamine Syntan
13	Co-Digestion of Tannery Solid Wastes for Biogas Generation
14	EO based Zero wastewater discharge process
15	Keratin Hydrolysate from Feather
16	Leathers and Products from Fish skin
17	Lignin based Re-tanning agent - An Improved Process for Making Retanned Leather with Dyeing Effect
18	Preparation of Compost from Animal Hair Waste (Process-based Technology)
19	Preservation-cum-unhairing (PCU) Process
20	Protein based Synthetic Tanning Agent



S.No.	Title
21	Sequential Toxic-anoxic Bio reactor (SOABR) Technology for Reduction of Primary Chemical Sludge in Wastewater Treatment
22	Utilization of Chrome Shavings for Manufacture of Basic Chromium Sulphate (BCS)
23	Waterless Chrome Tanning Technology



# About CSIR-CMERI

CSIR-CMERI is a leader in mechanical engineering research, specializing in designing and developing innovative technologies for industrial applications.

# Areas of Research

- Robotics and automation.
- Advanced manufacturing technologies.
- Renewable energy systems.
- Agricultural machinery.
- Waste-to-wealth technologies.

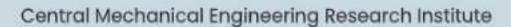
## Address

CSIR-CMERI MG Avenue, Durgapur-713209, West Bengal, India

S. No.	Title
1	1 TPD Fully Automatic Bio-diesel Plant
2	11.0 kWp Solar Artifact
3	AC Powered Intelligent, Remote Controlled UVC LED Sterilizer Unit
4	Automatic Biomass Briquetting Plant
5	IoT based Smart Parking Slot Identification System
6	Mob Control Vehicle (MCV) of 3 Modules, namely Heavy Category, Medium Category & Tractor-based MCV
7	Retractable Roof Polyhouse
8	Solar Photo Voltaic (PV) Energy Based Electric Cooking System
9	Vehicle Integrated Mechanized Drain Cleaning Machine
10	All Terrain Mobile Robot
11	Arsenic Sludge Disposal Through Stabilization
12	Arsenic Water Filter
13	Automatic Biomass Briquetting Machine
14	Autonomous Underwater Vehicle Operational upto 150 m.
15	Biogas from Municipal Solid Waste
16	Biogas Plant Operated on Deoiled Cake of Jatropha Seeds
17	Cabinet Dryer for Ginger and Turmeric
18	Ceramic Shelling Process Technology
19	CNC Based Laser Micro Machining Technology on Polymers
20	Coconut Dehusking Machine



S. No.	Title
21	Community Level Arsenic Removal Filter (Model-II)
22	Community Level Arsenic Removal Plant (Model-I)
23	Community Level Fluoride Removal Plant
24	Community Level Fluoride, Arsenic, Iron Removal (FAIR) Plant
25	Compact Electric tractor (CSIR PRIMA Et11)
26	Contactless Hand Washer
27	Demestic Iron Removal Filter
28	Design and Development of Kitchen Waste Biogas Plant
29	Development of Autonomous Intelligent Robotic Wheel Chair - Advanced or High end model
30	Development of Autonomous Intelligent Robotic Wheel Chair - Low End Low Cost Model
31	Digital Kiosk
32	Disposal of Municipal Solid Waste Utilizing High Temperature Plasma
33	Domestic Arsenic Water Filter
34	Domestic Filter for Defluoridation of Water
35	Domestic Fluoride, Arsenic, Iron Removal (FAIR) Filter
36	Domestic Iron and Arsenic Filter
37	Domestic Iron Water Filter Unit
38	e-Power Tiller
39	Five (05) modules of Integrated Municipal Solid Waste Disposal System
40	Five Axis Micro Milling Machine
41	Fluidized Bed Dryer for Agro Crops
42	Ginger Processing Technology
43	High Flow Rate Arsenic Removal Filter
44	High Flow Rate Arsenic Removal Filter
45	High Flow Rate Fluoride and Iron Removal Plant
46	High Flow Rate Iron Removal Filter
47	High Speed Interpoint Braille Embosser
48	High Speed Spindle for Micro Milling and Drilling Operations
49	Improved Iron Removal Plant
50	Integrated Municipal Solid Waste Disposal System (iMSWDS) for Bulk Waste Generators





S. No.	Title
51	Integrated Municipal Solid Waste Disposal System (iMSWDS)
52	Intelligent LED UVC Sterilizer Unit
53	Inter-row Rotary Cultivator for Wide-row Crops
54	Large Scale Production of Graphene Oxide
55	Leaf Collector and Shredding Machine (as an attachment to a tractor)
56	Making of Concrete (M20 to M25 Grade) Utilizing Legasy Waste with Complete Replacement of Natural Sand
57	Mechanized Drain Cleaning System
58	Medical Device - Colposcope
59	Metal Detector
60	Metal Injection Molding
61	Micro Fuel Cell
62	Mobile Bridge Inspection Unit
63	Multi-Fab Micro Fabrication Machine
64	Nickel Wick for Loop Heat Pipe
65	Outdoor Air Purifying System
66	Outdoor Mobile Robot
67	Oxygen Enrichment Unit
68	Plasma Disposal of Plastic Waste and Generation of Syngas for Power Generation
69	Pneumatic Precision Planter for Vegetables
70	Pneumatically Operated Mobile Indoor Disinfection (POMID) Unit
71	Process Technology for Manufacturing of Engineering Components from Austempered Ductile Iron (ADI)
72	Production of Biodiesel from Tung Seeds in North East India
73	Programmable Irrigation Scheduler
74	Pyrolysis of Polymer Waste
75	Reconfigurable Micro Factory
76	Remotely Operated Vehicle (ROV): 500 m. Depth
77	Remotely Operated Vehicle (ROV) with Manipulator for Inspection & Minor Intervention
78	Rotary Drum Washer for Ginger and Turmeric
79	Salivary Fluoride Detection Kit

# CSIR-CMERI DURGAPUR

S. No.	Title
80	Semi Continuous Biodiesel Plant
81	Serpentine Robot
82	Small Tractor- Krishi Shakti
83	Smart Car Parking Slot Identification
84	Smart Card Operated Prepaid Energy Meter
85	Smart Dimmable LED Street Lighting System
86	Solar Artifact
87	Solar Biodiesel Hybrid Minigrid of 50kW Peak Capacity for CSIR-CMERI, Ludhiana Campus
88	Solar Bomass Electric Hybrid Dryer
89	Solar Power Tree
90	Soleckshaw
91	Tele-operated Rotary Wing Flying Robot (RWFR)
92	Tractor Operated Road Disinfection Spray System
93	Vision Guided Mobile Robot
94	Waste Water Treatment Technology



# About CSIR-CRRI

CSIR-CRRI specializes in research and innovation for road and transportation infrastructure to promote safe, sustainable, and efficient mobility.

# Areas of Research

- Pavement design and maintenance.
- Traffic and transportation planning.
- Bridge engineering.
- Sustainable materials for road construction.
- Road safety and accident analysis.

## Address

CSIR-CRRI Mathura Road, New Delhi - 110025, India

S.No.	Title
1	A Process of using Thermocol (Expanded Polystyrene) Waste in Hot Bituminous Mixes fo Road Construction
2	A Wet Process for the Preparation of Waste PVC (Polyvinyl Chloride) Modified Bitumen Useful for Paving Applications.
3	Aggrandizing the Mechanical Behaviour and Environmental Benefit of Rigid Pavemen Using Imperial Smelting Furnace Slag (ISFS)
4	Aggrandizing the Mechanical Behaviour and Environmental Benefit of Flexible Pavemen Using Imperial Smelting Furnace Slag (ISFS)
5	Car Driving Simulator with Driver Diagnostic and Training Method
6	Cold mix Technology for Construction and Maintenance of Roads
7	Design of Noise Barrier Based on Different Frequencies (a) Low Frequency Noise Barrier Configuration (b) Middle Frequency Noise Barrier Configuration and (c) High Frequency Noise Barrier Configuration
8	Development of Electromechanical Field Density Gauge for Evaluation of Dry Density of th Compacted Fill
9	Development of Mobile Application for Supply Chain and Freight Transportation- "Kisa Sabha"
10	High Performance Highly Modified Bitumen and Process Thereof
11	Macrosurfacing Technology: Thin Surfacing for Cement Concrete Pavement
12	Method for Enhancing the Bearing Capacity of Existing Structures Using Steel Fibr Reinforced Grout Column
13	Method/Process for Instant Improvement of Foundation Soil during Box Jacking Operatio without Affecting the Live Rail/Road Traffic Thereof



#### **NEW DELHI**

S.No.	Title
14	Mobile Bridge Inspection Unit (MBIU)
15	Modified Mix Seal Surfacing (MSS+)
16	National Portal For HealthCare Needs-AarogyaPath
17	New Process for Preparation of Harder Grade Bitumen (VG40 and Vg50)
18	Novel Piezo Based Device for Multipurpose Non Destructive Evaluation Vibro-Integrity Sensing Device (VInSD)
19	PATCHFILL-The Pothole Reparing Machine
20	Process for Construction of Shallow Multidirectional Underpass Intersection by Box Jacking and Soil Nailing without Effect Existing Traffic
21	REJUPAVE: Rejuvenator for Recycling of Asphalt Pavement Material for Hot in Plant and Ho in Situ Recycling of Bituminous Pavement
22	Stepwise Repeated D-stabilisation and Stabilisation of Collapsible Soil Mass by "Soil
23	Terasurfacing: Waste Material Based Thin Surfacing for Pavement Preseravation and Rehabilitation
24	Utilization of Municipal Solid Waste (MSW) in Road Embankment



# About CSIR-CSIO

CSIR-CSIO focuses on the development of advanced scientific instruments for industrial, healthcare, and scientific applications.

# **Areas of Research**

- Optical and electronic instrumentation.
- Biomedical devices.
- Sensortechnologies.
- Precision mechanics and automation.
- Photonics and laser systems.

## Address

CSIR-CSIO Sector 30-C, Chandigarh - 160030, India

S.No.	Title
1	Colorimetric Kit for detection of Selenium (10 ppb-1000 ppb)
2	V Treat: A Wearable Pressurised Air Purifying Breather with SARS CoV2Deactivation (We Unit)
3	UV-C Disinfection Systems
4	FOCUS System for Produce Water Soluble Nano-Drug
5	Building Energy Management System (BEMS)
6	HMIGauge 1.0: A Portable Image Colorimeter for Heavy Metals Detection in Water
7	Industrial Energy Management System (iEMS) based on LonWorks Technology
8	Industrial Energy Management System (iEMS) based on Modbus Technology
9	ViroxyGelly - Natural based Reusable Sanitizer
10	Air Conditioner Efficiency Meter: ACE Meter
11	Air-Assisted Electrostatic Sprayer (AAESS)
12	Analog Seismic Recorder
13	AutoCEPH (Software for 2-D Computerized Cephalometric Analysis)
14	Bore Sighting Tool (BSS)
15	Building Energy Management System (BEMS)
16	Control Module for Touch Based Finger Gesture Controlled Intelligent Patient Vehicle
17	Development of Patient-Specific Orthopaedic & Maxillofacial Implants
18	Development of Water Quality Monitoring Watchdog Pod
19	Diffraction Lloyd Mirror Interferometer
20	Digital Grain Moisture Analyser



S.No.	Title
21	Dual Face Pocket Braille Writer
22	Earthquake Warning System EqWS
23	Electronic Knee
24	Electrostatic Disinfection Machine
25	Electrostatic Dust Mitigation and Smog Control Device
26	Energy-Management-System
27	Exoskeleton Device
28	Ferro Fluid-based Liquid Cooling System
29	Head Up Display (HUD)
30	Immunochemical Explosive Detector
31	Induction Motor Efficiency Monitoring System
32	Infra Red Based Snow Surface Temperature Probe
33	Intelligent Seismic Sensing System for Elephant Movement Detection (eleSeisAlert)
34	lodine Value Meter
35	Ligament Injury Assessment & Therapy Device for Motor Rehabilitation of Soldiers: L-Gear
36	Linear Hydraulic Artificial Knee Joint
37	Low Cost Oxygen Monitor
38	Materials for Optical Detection of Selenium in Water
39	Mobile based Programmable Invisible Marker Authentication Device (mPiMAD)
40	Modified Lathe Tool Post
41	Myoelecric Arm
42	Myometer
43	Night Driving Filter
44	Organ - Biomechatronic Rehabilitative Solutions for Children with Congenital Hemi- paresis
45	PC Based Fully Automatic Batch Analyser
46	Portable Energy Audit Tool
47	Portable Reading Machine for Visually Impaired
48	Postural Stability Assessment System
49	Power Quality Anyalyser



# Central Scientific Instruments Organisation

S.No.	Title
50	Precision Iodine Value Analyser
51	Process Technology for Separation of Glass and Phosphor from Waste CFLs
52	Programmable Invisible Marker Authentication Device (PiMAD)
53	Pulse-Oximeter
54	Pump Efficiency Monitoring System
55	Respiration Assistive Intervention Device - Respi AID
56	Rice Grading System
57	Snow Moisture & Density Measurement System
58	Snow Multi-Parameter Probe
59	Surgical Microscope for Eye Surgery
60	Technology for Production of High Cost Porous Adsorbents from Zinc Scraps
61	VEERA: Virtual Intelligence techniques for Rehabilitation
62	Virtual Intelligent Techniques for Rehabilitation of Persons with Motor Disability: VIBHRA



# About CSIR-CSMCRI

CSIR-CSMCRI works on harnessing marine resources and developing innovative technologies in the areas of salt, chemicals, and water.

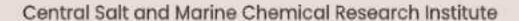
# Areas of Research

- Salt production technologies.
- · Marine chemicals and bio-resources.
- Membrane-based water desalination.
- · Renewable energy from algae.
- Industrial waste management.

# Address

CSIR-CSMCRI Gijubhai Badheka Marg, Bhavnagar - 364002, Gujarat, India

S. No.	Title
ĺ	Cultivation Technology for Commercial Scale Farming of Gracilaria debilis, a Principal Source of Agar and Bio-stimulant Production
2	A Cost-eff ective and Greener Process for 3-methyl-5-phenylpentanol (Mefrosol)
3	A Zero Liquid Discharge Process for the Production of Alginic Acid and its Derivatives from Alginophytes
4	Bacterial Detection Kit
5	Curd Strip
6	Fast and Safe Defluoridation of Water Using Alumina
7	Manufacture of Zeolite-A (Detergent Builder) from Bauxite or Bauxite Leachate (Baye liquor)
8	Optical Liquid Switch
9	Plastic Chip Electrode (PCE)
10	Preparation of Halogen Scavenger Grade and Pharmaceutical Grade Syntheti Hydrotalcite
11	A Cost-effective Process for Production of High Purity Solar Salt in Solar Salt Works
12	A Cost-effective Process for Recovery of Low Sodium Salt from Bittern
13	Continuous Electro-deionization based System for Production of Ultrapure Water
14	Cultivation Technology for Commercial Scale Farming of Kappaphycus alvarezii, Principal Source of k-carrageenan
15	Eco-friendly Process for Production of Precipitated Calcium Carbonate from Calcium Carbonate Rich by-product.
16	Hollow Fiber Microfiltration and Ultrafiltration Membrane Manufacturing Technology
17	Integrated Processes for Simultaneous Production of Sap and K-carrageenan from Fres Seaweed
18	Low-cost Fluorimeter





S.No.	Title
19	Manufacture of Synthetic Hydrotalcite (Halogen Scavenger Grade)
20	Palladium Recovery
21	Preparation and Applications of Non-hazardous Brominating Reagent
22	Preparation of Industrially Important Organo-bromo Compounds Using Brominating Reagent
23	Preparation of Low Sodium Salts of Botanic Origin
24	Preparation of Molecular Biology Grade Agarose from Indian Seaweed Suitable for Nucleic Acid Separation
25	Process for Production of High Purity Magnesia
26	Process for the Preparation of Finely Divided Precipitated Silica
27	Processes for the Production of Seaweed Liquid Fertiliser from Brown Seaweed
28	Processes for the Utilization of Kimberlite Waste for the Manufacture of Sodium Silicate Detergent Grade Zeolite A and Precipitated Silica
29	Production of Food Grade Agar from Cultivated Gracilaria edulis / G. debilis
30	Production of Superior Quality Writing Chalk Sticks
31	Scale-up Technology of Commercially Important of Cattle Licks
32	Technology for the Manufacturing Thin Film Composite Reverse Osmosis Membrane for Desalination and Water Purification
33	Technology for The Production of 2-Phenyl Ethyl Alcohol (2-PEA): A Synthetic Rose Aromo by the Hydrogenation of Styrene Oxide
34	Technology for the Production of Biodiesel from Jatropha Seed
35	Technology for the Production of Styrene Oxide via Non-chlorine Route
36	Technology for the Production of Sulphate of Potash and Refractory Grade Magnesia from Sea Bittern
37	Technology for the Production of Sulphate of Potash (SOP) and (ii) Ultra-pure Magnesia



# About CSIR-IGIB

CSIR-IGIB is a leading institute in genomics and integrative biology, focusing on understanding the genetic basis of human health and diseases.

#### Areas of Research

- Genomic medicine.
- Molecular biology of diseases.
- Computational biology and bioinformatics.
- Drug discovery and development.
- Environmental genomics.

## Address

CSIR-IGIB, Mathura Road, New Delhi-110025, India

S. No.	Title
1	FnCas9 Editor Linked Uniform Detection Assay (FELUDA)
2	e-Health Centre
3	e-Skin: A Unique Computational Solution in Dermatology
4	GENOCLUSTER: Software for Predicting Genes, Protein Functionality and Virulence factors.
5	Mit-o-Matic: Comprehensive Pipeline for Diagnosis of Mitochondrial Diseases Using Next- Generation Sequencing Technology (Mit-O-Matic)
6	Pulmoscan: An Affordable Forced Oscillation Technique Based Device for Better Point of Care Screening of Lung Disease (With Cognita Labs, USA as the Principal Partner)



# About CSIR-IHBT

CSIR-IHBT focuses on bioresource development and utilization in the Himalayan region for sustainable economic growth.

# Areas of Research

- High-value crops and medicinal plants.
- Biotechnological innovations.
- · Tea quality improvement.
- Natural products and nutraceuticals.
- Agro-technologies for hill agriculture.

## Address

CSIR-IHBT Palampur - 176061, Himachal Pradesh, India

S.No.	Title
1	Technology for Shortened Flowering Cycle and Year Round Production of Lilium and Tulip
2	In vitro Production System for Naphthoquinones (red colour) from Arnebia euchroma
3	Agro-technology of Gerbera (Gerbera jamesonii)
4	Air Fresheners
5	Alstroemeria: Agro-technology
6	Bamboo Charcoal
7	Biofertilizers Market potential
8	Calla Lily: agrotechnology Market potential
9	Chemical Free Herbal Soap
10	China Hybrid Tea (Camellia sinensis): Agrotechnology Package
11	Chrysanthemum: Agro-technology
12	Chrysanthemum: Agro-technology
13	Damask rose (Rosa damascena): agro and processing technology
14	Dietary Fiber From Apple Pomace
15	DNA Barcode Technology for Plant Authentication
16	Food Products from Bamboo
17	Formulation Promoting Cartilage Health
18	Gel Processing and Transfer Device (GEPROTED)
19	Green Process for Nanocurcumin Synthesis with Enhanced Solubility
20	Herbal Oil for Dandruff Prevention
21	Herbal Formulation for Immunity Modulation



# **PALAMPUR**

S.No.	Title
22	Herbal Lipsticks
23	Incense Cones from Herbs and Flowers
24	Lilium: agrotechnology
25	Lip Balm
26	Low Calorie Herbal Mouth Fresheners (Mukhwas)
27	Low Calorie Natural Sweetener: Monk fruit (Siraitia grosvenorii)
28	Micropropagation Protocols for Picrorhiza kurroa, an Important Medicinal plant o Himalayas
29	Micropropagation Protocols for Industrially Important Crop Plants
30	Mini Laminar Flow Unit Steriflow™
31	Natural Colours from Plants and Vegetables Sources
32	Natural Perfumes
33	Process for Cyclohexane-1,3-diones Synthesis
34	Protein and Micronutrients Enriched Ready to Cook Foods
35	Ready to serve Tea concentrates
36	Roasted Barley Grain Based Beverages
37	Superoxide Dismutase(SOD)
38	Tea Based Mouthwash
39	Tea Based Synbiotic Nutraceutical
40	Tea Based Vinegar
41	Tissue Culture Protocol for Mass Production of Quality Corms of Saffron
42	Value Added Food Products based on Honey
43	Wild Marigold (Tagetes minuta): Agro- and Processing technology
44	A Kit for Isolation of RNA
45	Agro-technology for Mass Production of Saffron (Crocus sativus L.)
46	Agro-technology of Carnations
47	Buckwheat Bars and Noodles
48	Canning Technology for Ready to Eat (RTE) Foods
49	Canning Technology for Ready to Eat (RTE) Foods
50	Complete Package of Production Technology Including Nursery Development, Cultivation Practices, and Processing



S.No.	Title
51	Compost Booster for Cold Region
52	Crispy Fruits and Vegetable Technology
53	Diagnostic Kits for Prunus Necrotic Ringspot Virus (PNRSV)
54	Eco-friendly Process for Textile Fibre from Plant Resources for Various Applications
55	Food Products from Seabuckthorn (Hippophae rhamnoides)
56	German chamomile (Matricaria chamomilla L.): agro and process technology
57	Heeng (ferula assa-foetida): agrotechnology
58	Improved Bee Hive for Quality and Hygienic Extraction of Honey
59	Indigenized Low Cost Bioreactor System
60	Indoor Air Pollution Abatement Plants
61	Iron and Zinc Enriched Spirulina Based Food Products (Nut and Chocolate Bars, Instan Soup Mixes, Beverage Mixes)
62	Iron Enriched Fruit Bars and Candies
63	Lavender (Lavandula officinalis): agro- and Processing Technology
64	Mass production of Diplazium maximum: A Nutritious Ethnic Food of Himachal Pradesh
65	Mass Production of Nardostachys jatamansi – a Critically Endangered High Valu Medicinal Plant of Himalaya
66	Mini Distillation Unit Herbostill
67	Mosquito Repellents
68	Nutritionally Enriched Mango Bar & Puffed Rice Bar
69	Process for 5-Methylfurfuryl Alcohol (MFA) Production from Biomass Derived 5-HMF
70	Production of Aescin from Aesculusindica
71	Protein and Fiber Enriched Cereal Bars (Variants: Granola Bars, Protein Bars, Low Calori Bars)
72	Protein Mix for Beverages
73	Ready to Eat Crispy Fruits and Vegetables
74	Rosemary (Rosmarinus officinalis L.): Agro- and Processing Technology
75	Scalable Process for Production of 4-alkyl resorcinols
76	Simultaneous Production of Biodegradable Bioplastic Polyhydroxyalkanoates (PHA) an Violacein Pigment from Himalayan Bacteria
77	Stevia: Agro and Processing Technology



#### PALAMPUR

S.No.	Title
78	Tea Catechins
79	Tea Concentrates
80	Tea Wine
81	Tea Withering Machine
82	Technology for manufacturing of Natural Colours
83	Technology for the Production of Aescin from Horse Chestnut
84	Technology for Year Round Cultivation of Quality Spice Crops
85	Technology with Short Cultivation Cycle for Production of Adventitious Roots as a Source o Valepotriates
86	Theaflavins
87	Truck Mounted Mobile Distillation Unit Designed for On-site Processing of Aromatics and Herbal
88	Value Added Food Products and Technologies Based on Sohiong (Prunus nepalensis)
89	Value Added Food Products and Technologies based on Sohiong (Prunus nepalensis)
90	Value Added Food Products and Technologies based on Seabuckthorn (Hippophaerhamnoides)
91	Vertical Gardening
92	Vitamin D2 Enriched Shiitake Mushroom Products: Ready to Reconstitute Products Instan Soup Mixesbeverage Mixes, Ready to Eat Energy Bars



# About CSIR-IICB

CSIR-IICB conducts advanced research in chemical biology and drug discovery to address health challenges.

# **Areas of Research**

- Cancer biology.
- Neurodegenerative diseases.
- · Infectious diseases.
- Structural biology and bioinformatics.
- Drug development and pharmacology.

## Address

CSIR-IICB 4, Raja S. C. Mullick Road, Jadavpur, Kolkata - 700032, West Bengal, India

S. No.	Title
1	3-Indolyl Furanoids as Inhibitors of Matrix Metalloproteinase-9 for Prevention of Gastric Ulcer and Other Inflammatory Diseases
2	A Liposomal Formulation and Use Thereof
3	A Novel Molecule Effective for Non-steroidal Anti-inflammatory DrugInduced Gastropath
4	A Pharmaceutical Composition Useful for the Treatment of BenignProstate Hyperplasia
5	A Plant Flower Extract as an Anti-peptic Ulcer Pharmaceutical Formulation
6	A Process for The Preparation Of 2,7-Dihydroxyfluorenone Useful for the Synthesis of Tilorone and its Salts
7	A Pure Herbal Prophylactic Contraceptive for HIV Infection
8	An Easy-to-use Diagnostic System for Rapid Dengue Virus DetectionUsing Fluorescence Based Molecular Probes
9	An Herbal Based Composition for Treating (acute and chronic) Myeloidand Lymphoi Leukemia, Lymphomas
10	A Gene Chip Based Predictive Biomarker for Oral Cancer Metastasis
11	A Liposomal Composition of Photo System-I for Treatment of Cancer
12	A Novel Composition of Cationic Metal Nanoparticle Conjugated Nanoemulsion and Process for the Preparation Thereof
13	A Promising Therapeutic Lead from Medicinal Plant: Hope for Targeting Cancer and Cancer Stem like Cells
14	An Improved Synthetic Method for the Preparation Of Indole-3-Carboxylic Acid Derivatives: Useful Key Intermediate for the Synthesis of Several Biologically Activ Molecules Including Tropisetron
15	Antileishmanial Activity of Ampbotericin B Entrapped in Cationic Liposomal Formulation



S. No.	Title
16	Bicycle Topoisomerase I Inhibiting Compounds, Process for Preparation and Use Thereof
17	Biomarker for Rheumatic Heart Disease (RHD) - Prototype is Ready for Commercialization
18	DNA Vaccine as Immune-prophylaxis Against Kala-azar
19	Hand held Electronic Device for Estimating Citral Content In Lemongrass Oil Empowerment of Farmers
20	Herbal Composition for Treating Asthma
21	In Vitro Protease-Based Sars-Cov-2 Spike Protein Cleavage Assay System
22	Nonapeptide of Formula I, Pharmaceutical Compositions and Methods for Preparation Thereof
23	Peptoid of Formula I, Pharmaceutical Compositions and Method for Preparation Thereof
24	Pharmaceutical Formulations for Management of Cancers
25	Potent TLR9-Selective and TLR9/7 Dual Antagonists
26	Process for Preparation of a Biomarker Specific for O-acetylated sialic acid Useful for Diagnosing, Monitoring Treatment Outcome, and Predicting Relapse of Lymphoblastic Leukemia
27	Process for the Isolation of Organic Compounds Useful for the Treatment of Cancer
28	PROSTALYN: A Herbal Extract for Treatment of Beninprostate Hyperplasia
29	Purine Based Compounds as Toll-Like Receptor 9 Antagonist
30	Quinazolinones Derivatives for Treatment of Non-Alcoholic Fatty Liver Disease Preparation and Use Thereof
31	Rapid Diagnostic Kit For Detection Of Kala-azar from Serum and Urine Samples



# About CSIR-IICT

CSIR-IICT is a premier institute focused on chemical research for industrial and societal benefits.

# Areas of Research

- Green and sustainable chemistry.
- Drug discovery and process development.
- Material science and catalysis.
- · Environmental engineering.
- Renewable energy and biofuels.

## Address

CSIR-IICT Uppal Road, Hyderabad - 500007, Telangana, India

S.No.	Title
1	1,1,1,2-Tetrafluoroethane (HFC-134a)
2	1,1,1-Trifluoro Trichloroethane (CFC-113a)
3	2,2,2-Trifluoro Ethanol
4	A Mercaptan Free Process for Profenofos
5	Accelerated Anaerobic Composting (AAC) of Organic Waste
6	An Improved Process for the Preparation of 2H-Heptafluoropropane
7	Anaerobic Gas Lift Reactor (AGR) – A High Rate Biomethanation Technology for the Generation of Biogas for CHP applications and Bio-Manure from Organic Wastes
8	Annona Seed Extract as Insecticide
9	Atmospheric Water Generator (AWG) with Remineralization
10	Avobenzone-Anti-UV Agents
11	Compact and Low Cost Vertical Modular RO/NF/UF Systems for Defluoridation of Ground Water and Purification of Surface Water
12	Enzymatic Degumming of Rice Bran Oil
13	Extraction of Impurity-free Sodium Thiocyanate Solvent from Aqueous Solutions in Acrylic Fiber Industry
14	Glycerol-based Solid Acid and Base Catalysts useful for the Esterification and Transesterification Processes
15	Hydrazine Hydrate Technology (HH), for M/s Gujarat Alkalies & Chemicals Limited Vadodara (Make-in-India & Sashakth Bharath initiative)
16	Nanofiltration (NF) Process for Separation of Corrosive Chloride Ions from Steel Industric Wastewater
17	Neem Seed Extract as Insecticide



S.No.	Title
18	Novel Cationic 17-Estradiol-Substituted-Estradiol Derivatives with Anti-cancer Activity
19	Novel Inexpensive Membrane System as Import Substitute for Production of Demineralized Sterile Water
20	Process Development of Misoprostol
21	Process Development, Scale-up Studies and Basic Design for a Continuous Commercial Plant of 3000 MTA Capacity for Para-tert-butylbenzoic acid (PTBBA)
22	Process Development, Scale-up Studies and Basic Design for a Continuous Commercia Plant of 3000 MTA Capacity for Para-tert-butylmethyl benzoate (PTBMB)
23	Process Development, Scale-up Studies and Basic Design for a Continuous Commercia Plant of 4000 MTA Capacity for Para-tert-butyl toluene (PTBT)
24	Process for Bleached Wax from Crude Rice Bran Wax
25	Process for Synthesis of Novel Cationic Amphiphiles Containing N-Hydroxyalkyl Group for Intracellular Delivery of Biologically Active Molecules
26	Process for the Enrichment of Methyl Ricinoleate from Castor Oil Methyl Esters by Liquid- liquid Extraction
27	Process for the Isolation & Enrichment of Tocopherols (70%) and Phytosterols (95%) from Soybean & Sunflower Oil DOD
28	Process for the Isolation of Triacontanol from Rice Bran Wax
29	Renewable Biohydrogen (H2) and Platform Chemical from Biogenic (solid/liquid) Waste
30	Soybean and Rice Bran Oil-based Lecithin Products
31	Synergistic Composition for Drug Sensitization and Therapy in Cancer
32	Synthesis of Cetyl Myristoleate (CMO) Isomers for the Treatment of Osteoarthritis and Other Joint Inflammatory Diseases
33	Technology Package for Production of Packaged Drinking Water Facility



# About CSIR-IIIM

CSIR-IIIM specializes in natural product chemistry, drug discovery, and biotechnology for improving healthcare.

#### Areas of Research

- Drug discovery from natural sources.
- Genomics and metabolic engineering.
- Quality control of herbal medicines.
- Bio-prospecting Himalayan resources.

#### Address

CSIR-IIIM Canal Road, Jammu - 180001, Jammu & Kashmir, India

S.No.	Title
1	Bacterial Cellulose Patches
2	Cultivation and Collection of Shivalik Berry / Phalsa Plant for Preparation of Neutraceutica Product.
3	Cultivation of Ashwagandha [AGB-002].
4	Cultivation of Lemongrass "CKP-25" for Essential Oil.
5	Cultivation of Lemongrass "CPK-F2-38" for the Extraction of Essential Oil.
6	Cultivation of Monarda citriodora/Lemon Beebalm "IIIM(J)MC-02" for the Extraction o Essential Oil.
7	Cultivation of Rosa damascena L/ Kashmir Rose for the Extraction of Essential Oil.
8	Cultivation of Rosagrass "IIIM(J)CK-10" for the Extraction of Essential Oil.
9	Cultivation of Rosagrass "RRL(J)CN-5" for the Extraction of Essential Oil
10	Fermentation Process for the Production of Biofertilizer/Biocontrol agents
11	ICB 014 (Woodfordia fructicosa) Capsules
12	Microbial Fermentation Process for the Production of DHA (Docosahexaenoic Acid)
13	Prepartion of Health Drink from Sea Buckthorn/Hippophae Rhmnoids Fruits.
14	Production of Metal Gluconates
15	Propagation of Mentha Longifolia/Mint "RRL(J)ML-4" for the Extraction of Essential Oil.
16	Saffron-based Nutraceutical Product for Brain Health
17	Zinc Gluconate-vitamin C Capsule and Syrup Formulation
18	Agrotechnology for cultivation of Tinospora cordifolia (Thunb.) Miers [RRL(J)-82], Giloye Guduchi in varying climatic condition.



# About CSIR-IIP

CSIR-IIP works on R&D in petroleum, petrochemicals, and alternative fuels.

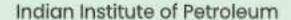
# Areas of Research

- Clean fuels and energy.
- Catalytic process development.
- Waste-to-fuel technologies.
- · Bio-refineries and renewable energy.
- Emission control and environmental technologies.

## Address

CSIR-IIP Mohanpur Road, Dehradun - 248005, Uttarakhand, India

S. No.	Title
1	Mobile Pyrolyser for Turning Agricultural Waste into Energy and Fertilizer
2	Pressure Vacuum Swing Adsorption (PVSA) Technology for Medical Grade Oxygen (MO2) Production
3	Room Temperature Biodiesel Process
4	An Improved Domestic Cooking Burner for PNG
5	Aromatic Extraction Technology for Production of Benzene & Toluene, Using Sulfolane as Solvent
6	Birnetallic Reforming Catalyst
7	Bio-Aviation Fuels
8	Biodegradable Metalworking Fluid (Soluble Cutting Oil)
9	Butylated Hydroxy Hydro Cinamates (ODBHC), (PDHBC)
10	Catalytic Process For Isomerisation of C7+ Hydrocarbon Streams
11	Conversion of Light Naphtha to LPG and High Octane Gasoline
12	Conversion of Vegetable Oil Feed Stock to Esters Using Solid Heterogenous Catalyst
13	CSIR-IIP: Room Temperature Process for Biodiesel Production
14	Delayed Coking of Petroleum Residual Fractions
15	Deoiling / Dewaxing Additive for Lubricating Oil
16	Development of New Generation FCC Catalyst
17	Development of Vacuum Swing Adsorption (VSA) Process for Biogas Up-gradation to Pipeline Quality Fuel from Raw Biogas
18	Dewaxing/Deoiling, Revamping
19	Di-tertiary Butyl para Cresol





S.No.	Title
20	Dual Fuel Industrial Low Air Pressure Burner
21	Energy Efficient De-Asphalting Process using Supercritical Solvent Recovery
22	EV Kit for retrofitment of 3W Diesel Autos into Electric Autos
23	Food Grade Hexane
24	Improved Jaggery Making Plant
25	Improved LPG Stove
26	LOBS through NMP Extraction
27	Lube oil Refining
28	Na/Ca Sulphonate, EP Additive Feed Stocks for Detergents/dispersant Additives
29	Para Tertiary Butyl Phenol
30	Propane Deasphalting
31	Simultaneous Production of US Grade Gasoline and High Purity Benzene from FCC C6 Hear Cut Naphtha
32	Sulfolane Production
33	Sweetening catalyst for Refinery Streams
34	Technology for Briquetting of Pine Needles to Produce Biogenic Fuel for Direct Heating
35	Technology for Conversion of Diesel Genset to Dual-Fuel Mode
36	Technology for Energy-Saving Cooking Vessel
37	Technology for Improved Biomass Stove
38	Visbreaking of Petroleum Residual Fractions Soaker Mode.
39	Waste Plastics to Fuel and Petrochemicals
40	Wax De-oiling Technology for Production of Paraffin and Microcrystalline Waxes



# About CSIR-IITR

CSIR-IITR is a pioneer institute in toxicology research focusing on human health, safety, and environmental sustainability. It provides solutions to industrial and public health issues.

# Areas of Research

- Environmental toxicology.
- Nanotoxicology.
- Food and drug safety.
- Occupational health.
- Risk assessment and management.

#### Address

CSIR-IITR Vishvigyan Bhawan, 31 Mahatma Gandhi Marg, Lucknow - 226001, Uttar Pradesh, India

S.No.	Title
1	Argemone Oil Detection Kit (AO Kit)
2	Oneer- An Electronic Device for the Disinfection of Drinking Water
3	Portable Water Analysis Kit
4	Circular Electrophoresis
5	Milk Adulteration Detection Kit (MilkAchecker)
6	Model of Alzheimer's Disease (AD)
7	Mustard Oil Check (MO Check)
8	Twin Window Slides



# About CSIR-IMMT

CSIR-IMMT focuses on mineral processing and materials technology research to contribute to sustainable industrial growth.

#### Areas of Research

- Mineral beneficiation and waste utilization.
- Advanced materials and metallurgy.
- Process engineering and technology.
- Hydrometallurgy and extractive metallurgy.
- Environmental management in mining.

## Address

CSIR-IMMT Acharya Vihar, Bhubaneswar - 751013, Odisha, India

S. No.	Title
1	Hydraulic Transportation of Minerals/Ores/Industrial Wastes
2	Production of Alum from Waste Aluminium Dross Rejects
3	Battery Grade Materials from Spent Catalysts, Sludges, Secondaries, Effluents, Primary and Low-grade Ores
4	Bricks and Blocks from Fly Ash, Red Mud, Crusher Dust and Mineral/Mining Wastes
5	City Air Pollution Monitoring and Prediction System – CAMPS
6	Coal / Wood Fired Pottery Kiln
7	Column Thickener for Dewatering of Slurry
8	Development of Process Know-How for Low Grade Iron Ore Beneficiation
9	Energy Efficient Low Cost Bakery Oven
10	Energy Efficient Multi-fuel Portable Cook Stoves (Harsha)
11	EYE-ON-PELLET: Online Pellet Size Analyzer for Iron Ore Pelletization Industries
12	Gasification of Powdery Biomass/Coal/Industrial Wastes
13	High Pure Metals from Spent Catalysts, Sludges, Secondaries, Effluents, Primary and Low- grade Ores
14	High Pure Tellurium Powder from Anode Slime
15	IMMT Column Flotation System
16	IMMT Designed Screw Scrubber Equipment for Mineral Processing
17	Improved Hydraulic Jig
18	Improved Natural and Forced Draft Biomass Domestic and Community GVK Series Cookstoves



S. No.	Title
19	Innovative Constructed Wetlands based Wastewater Treatment Plants
20	Low Ash Coal Production for Utilisation in Metallurgical Industries
21	Low Cost Terafil Water Purification System
22	Maximisation of Iron Recovery from Lean/Low Grade Iron Ore Resources by Reduction Roasting Technique
23	Maximising the Recovery of Flaky Graphite in Beneficiation Process
24	Pelletisation of High LOI and High Blaine Number Iron Ore Concentrate
25	Process Development for Production High Purity Graphite from Natural Graphite
26	Process Development for Production of Graphene Oxide (GO) from Natural Graphite
27	Process to Beneficiate Low Grade Bauxite
28	Recovery of Iron values from Red Mud
29	Solar Fuel Generation Technology
30	Solar/Biomass/Hybrid Dryers
31	Technology for Coking Coal Fine Beneficiation by Column Flotation



# About CSIR-IMTECH

CSIR-IMTECH specializes in microbial research, biotechnology, and industrial applications of microorganisms.

# Areas of Research

- Microbial genetics and genomics.
- Protein engineering and drug discovery.
- Industrial enzymes and biopharmaceuticals.
- Immunology and vaccine development.
- Bioinformatics and computational biology.

## Address

CSIR-IMTECH Sector 39-A, Chandigarh - 160036, India

S.No.	Title
1	A pH Based Test for Detection of Bacteria in Drinking Water
2	Anticopier Colour Shift Protein Film for High Security Applications
3	Biosimilar of Granulocyte-Colony Stimulating Factor (Filgrastim) and PEGylated G-CSF (Pegfilgrastim)
4	Cell Penetrating Peptide, IMT-P8 as a Drug Delivery Vehicle in Management of MRSA and other Gram Positive Topical/Skin/Wound Infections
5	Clot-Specific Streptokinase - The Third Generation Clot Buster
6	Glycolipid Based Niosomal Delivery System for Drugs and Biomolecules
7	Hair Structure Analysis Based Diagnosis of Health Issues in Humans and Animals
8	Natural Streptokinase (Sk) - The First Generation of CSIR's Clot Busters
9	Novel and Promising Efflux Pump Inhibitors (EPI) to Control Bacterial Drug Resistance
10	Novel Antibiotic Against Colistin Resistant MDR Klebsiellasps
11	Novel Small Molecule Potential to Treat Carbapenem-Resistant Entereobacteriace (CRE) Infections
12	Peptide-Based Therapeutics Against Parkinson's Disease
13	Plasma Gelsolin Diagnostic Kit for Prematurity and Sepsis
14	Promising Novel Therapeutics for Strokes and Cardiac Maladies
15	Recombinant Streptokinase (Rsk) – CSIR's Second-Generation Clot Buster
16	Technology Development for Production of Pullulan
17	Technology Development for Sophorolipid Production
18	Technology for Production of Novel High Redox Potential Laccase Enzyme
19	Typhoid Test Kit



# **About CSIR-NAL**

CSIR-NAL is India's premier aerospace research institute dedicated to developing cutting-edge technologies for the aviation and defense sectors.

# Areas of Research

- Aerospace systems and structures.
- Aerodynamics and flight simulation.
- Composite materials and manufacturing.
- · Civil aviation technologies.
- Unmanned aerial vehicles (UAVs).

## Address

CSIR-NAL HAL Airport Road, Kodihalli, Bengaluru - 560017, Karnataka, India

S. No.	Title
1	Manufacturing of Cocured Composite Structures for Aircraft withAutoclave Moulding Technology
2	Process Technology for Continuous Preparation of Carbon Fiber (NAL-CFI)
3	55 hp Wankel Rotary Combustion Engine
4	50 N Micro Gas Turbine (MGT) engine
5	SwasthVayu - Non-invasive BiPAP Ventilator for Treating Mild toModerate Covid-19 Patients
6	Eco-Friendly Process for the Preparation of Corrosion Resistant Sealed Anodized Coating on Aircraft Aluminium Alloy
7	Foil Bearing Technology (Bump Foil Bearing & Wear Resistant Coating) for High Spee Rotor Applications
8	HANSA - NG Aircraft
9	Location of Bullet on Target System - Acoustic Based Hit Identification and Analysis System (ABHIAS)
10	Multi Zone Hot Bonder
11	NAL MRA 1426/1427 GMR Magnetic Sensor
12	Paediatric Prosthetic Knee Joint
13	SUCHANMini UAV
14	Tapecasting Technology for Ceramic Substrates
15	Thermal Insulation Paint
16	Active Noise Control System for Pilot Helmet.
17	Advanced Display System for Aircraft Cockpit
18	Aerospace Class Autoclave



S. No.	Title
19	Alumina Tri-hydrate (ATH) Fillers for Paper and Printing Ink Industry
20	An Improved Slurry Spray Process for Coating of Yttria-Stabilized Zirconia (YSZ) of Strontium Doped Lanthanum Manganite (LSM) Tubes for Solid Oxide Fuel Cell Applications
21	Carbon - carbon Composite Fasteners (bolts, nuts, screws) for High Temperature Applications
22	Carbon Fibre Composite Materials for Aircraft Brakes and High-end Automobiles
23	Chromate Free Sealed Oxide Layer Developed on Aerospace Aluminum alloy (AA 2024) Process
24	Composite Structures for Aircraft
25	DHVANI (Detection and Hit Visualization using Acoustic 'N'-wave Identification)
26	DRISHTI Transmissometer- A Runway Visibility Measuring System
27	Enhanced Fatigue Meter (eFM)
28	Hard and Superhard Coatings for High Speed Machining and Solid Lubricant Coatings for Bearing Applications.
29	High Purity Alpha Alumina Powder for Use in Ceramic Industries
30	High Temperature Solar Selective Coating for Solar Thermal Power Generation
31	Highly Efficient Solar Absorber Coating for Water
32	Inexpensive Process to Make Fused Silica Products by Slip Casting Method
33	Integrated Global Bus Avionics Processing System
34	Manufacturing Technology for Carbon Fibers
35	Multicopter Drone (Quadcopter, Hexacopter, Dual Hexacopter & Octacopter) for Societic Applications
36	NAL FOQA Flight Data Analysis System
37	Nickel-Titanium (NiTi) Shape Memory Alloy (SMA) products for Engineering and
38	Process for Making Cathode Material for Solid Oxide Fuel Cell Applications
39	Radomes for Air Borne and Weather Applications
40	Speed Sensor Based on Giant Magneto Resistive (GMR) Element Technology
41	Technology for Making PZT Actuators for Use in Vibration Control, Precision Flow Control Energy Harvesting etc.
42	The HANSA Success - Two Seat Aircraft Flying at Six Indian Flying Clubs
43	Wear Resistant Nickel Based Composite Coating for Aerospace and Automobil Applications.
44	Wind Solar Hybrid (WiSH) System



# About CSIR-NBRI

CSIR-NBRI is a leading institute in plant sciences and biodiversity conservation, contributing to sustainable development and ecological balance.

# Areas of Research

- Plant biodiversity and conservation.
- Phytoremediation and environmental solutions.
- · Plant-microbe interactions.
- Development of medicinal and aromatic plants.
- Genomics and biotechnology of plants.

## Address

CSIR-NBRI Rana Pratap Marg, Lucknow - 226001, Uttar Pradesh, India

S.No.	Title
1	A Potential Herbal Combination for Alleviating Urolithiasis, Nephrolithiasis and Poslithotripsy Conditions (ESWL)
2	Alcohol Based Herbal Hand Sanitizer Gel
3	Alcohol Based Liquid Herbal Hand Sanitizer
4	Alcohol Free Herbal Hand Sanitizer
5	Anacardic Acid Technology
6	CROMA-03: Natural and Non-toxic Standardized Extract of Curcuma longa with High Bioavailable Curcumin
7	Herbal Gulal from Temple Used Flowers
8	Herbal Nanoserum - for Skin Care
9	Herbal Antioxidant Formulation
10	Herbal Breathe Easy Spray
11	Herbal Floor Disinfectant and Cleaner
12	Herbal Gulal from Kachnar Flowers
13	Herbal Hair Colour
14	KESARI: A Promising Variety of Turmeric for North India
15	Low Arsenic Accumulating Rice Cultivar for Safe Human Consumption
16	NBRI - Dentogel
17	Plant Based Biofilm
18	Polyherbal Dental Cream
19	Traditional Kadha Concentrate
20	Whitefly Trap-cum-Death Sink Cotton for the Control of Viral Diseases in Crops



S.No.	Title
21	Zanthodent
22	Anti Cough Herbal Formulation
23	Antiulcer Formulation
24	Beauveria bassiana Based Biological Insecticide to Control Insects and Promote Plant Growth
25	Chrysophanol Coated Urinary Catheter
26	Dehydration of Flowers & Foliage Technologies
27	Fruit based Herbal Drink (Alcohol 2-5%)
28	Herbal Anti-Dandruff Hair care oil
29	Herbal Colours for Cosmaceuticals
30	Herbal Formulation for Diabetes Management
31	Herbal Gulal
32	Herbal Ointment for Wounds
33	Herbal Sindoor
34	Herbal Soft Health Drink
35	HERBICHEW - Tobacco & Chemical Free Herbal Mixture
36	LIP BALM : Natural Lip Care Formulation
37	NUTRI-JAM: An Herbal Jam Rich in Nutrition
38	Spodoptera Insect Resistant GM Cotton Technology
39	Technology Package of Bacillus Strain for Plant Growth Promotion and Control o Phytopathogenic Fungi
40	Topical Herbal Anti Candida gel
41	Trichoderma Consortium Technology for Plant Growth Promotion and Biological Control o Phytogpathogenic Fungi
42	Whitefly Resistance Technology



# About CSIR-NCL

CSIR-NCL is a globally recognized research center specializing in chemical sciences and engineering for industrial and societal benefits.

#### Areas of Research

- Catalysis and process development.
- · Polymer science and engineering.
- Organic chemistry and drug design.
- Material science and nanotechnology.
- Renewable energy and sustainable processes.

## Address

CSIR-NCL Dr. Homi Bhabha Road, Pune - 411008, Maharashtra, India

S. No.	Title
1	Continuous Process for Manufacturing Precision Silver Nanowires at Scale
2	Economical Process for the Production of Novel Thermostable Bio-surfactants with Different Applications
3	High Yield Production of High Value Bacterial Nano Cellulose (BNC) Films from Low Cost Crude Glycerol Feed
4	Highly Efficient and Scalable Process for Manufacturing Azelaic Acid from Oleic Acid
5	Novel Process Platform for the Manufacturing and Purification of Biosimilar rHu Ranibizumab
6	Novel, Eco-friendly and Autocatalytic Process for the Synthesis of Tributyl Citrate (TBC)
7	Novel, Single Site Catalyst for Producing Disentangled Ultra-high Molecular Weight Polyethylene (dis-UHMWPE)
8	One Step and Acid-free Catalytic Process for Making Diphenylmethane (DPM)



# About CSIR-NEERI

CSIR-NEERI is a premier institute focused on environmental research and engineering solutions to address pressing environmental challenges.

# Areas of Research

- Air and water pollution control.
- Waste management and resource recovery.
- · Environmental impact assessment.
- Climate change and sustainability.
- Green technologies and eco-restoration.

## Address

CSIR-NEERI Nehru Marg, Nagpur-440020, Maharashtra, India

S. No.	Title
1	High Rate Transpiration System (HRTS)
2	Municipal Waste Water Treatment Using Immobilized Microbial Culture- Bio Phytorem System
3	Florafter for Lake In-situ Treatment
4	Green Firecrackers
5	Hand Pump Attachable Iron Removal Plant for Community Water Supply
6	Innovative Patient Friendly Saline Gargle RT-PCR Testing Method
7	Liquid and Solid Disinfectant
8	NEERDHUR: Multi-fuel Domestic Improved Cookstove
9	NEERFLUSH
10	NEERI-ZAR: Instant Water Filter
11	NEERWASH
12	Phytorid-SWAB Technology for Wastewater Treatment
13.	Solar Energy Based Electrolytic Defluoridation (EDF)



# About CSIR-NEIST

CSIR-NEIST focuses on promoting scientific and technological research for sustainable development, particularly in the Northeast region of India.

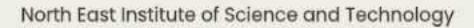
# Areas of Research

- Drug development from natural resources.
- Petroleum and natural gas exploration.
- Agro-technologies for the Northeast.
- Material science and engineering.
- Environmental and geotechnical studies.

## Address

CSIR-NEIST Jorhat - 785006, Assam, India

S.No.	Title
1	Manufacture of Membrane with Controlled MW Cut off for Racemic Resolution of Drugs and Pharmaceuticals
2	Process for Production of Natural Vanillin
3	SUFAL Bio Organic Fertilizer
4	Agro-Technology for Edible Mushroom
5	An Improved Grain Storage Structure
6	Anti-Acne Face Cream
7	Anti-Fungal Ointment for Domestic Animal
8	Anti-Mold Leather Polish
9	Bacterial Formulation for Crop Enhancement and Yield Improvement
10	Blue Fluorescence Emitting Carbon Quantum Dots
11	Composite Board from Agro-waste
12	Domestic Stove cum Charcoal Making Unit
13	Essential Oil Distillation Unit
14	Flexible Composite Sheet from Tannery Wastes
15	Herbal Anti-Fungal Drug for Skin Infection (Anti-Fungal)
16	Herbal Drug for Management of Arthritis (Anti-Arthritis)
17	Herbal Ingredient based Anti-bacterial Hand Wash
18	Herbal Lipsticks with Lipcare
19	Herbal Mosquito Repellent Candle
20	Herbal Mosquito Repellent Larvicide





S. No.	Title
21	Herbal Mosquito Repellent Liquid Vaporizer
22	Herbal Mosquito Repellent Ointment
23	Herbal Mosquito Repellent Spray
24	Lemongrass Jor Lab L-10 (Cymbopogon khasianus (Hack.) Stapf ex Bor)
25	Lemongrass Jor Lab L-14
26	Lemongrass Jor Lab L-9 (Cymbopogon khasianus (Hack.) Stapf ex Bor)
27	Low Cost Honey Bee Box
28	Manufacture of Membrane for removal of Acetic acid (≤3%) from Process Effluent
29	Modular Bricks from Brahmaputra River Bed Sand
30	Mosquito Repellent Herbal Incense Sticks
31	Nanoporous Montmorillonite (NM)
32	Novel Membrane with Controlled MW Cut off for Racemic Resolution of Amino Acids
33	OP - 12 Biofertilizer
34	Patchouli JorLab P-1
35	Process for Extraction and Purification of Oxyresveratrol
36	Process for Separation and Purification of Natural Dyes
37	Production of Bamboo (Bambusa balcooa) Plantlets by Plant Tissue Culture Technique
38	Room/Air Freshener
39	Technology for Bioremediation of Hydrocarbon Contaminated Soil
40	Technology for Extraction of Banana Fibre
41	Technology for High Essential Oil Yielding Variety of Lemon Grass (Jor Lab L-8)
42	Technology for High yielding variety of Java citronella (Jor Lab C-5)
43	Technology for Production of Handmade Paper
44	Technology for Production of Liquid Deodorant Cleaner
45	Technology for Production of Low Dust Chalk Pencil
46	Technology for Production of Solid Dispersible Deodorant
47	Technology for Production of Wax Crayon Pencil
48	Technology for Production of Wood Care
49	TP16 Biofertiliser
50	Vermi-compost Production
51	Vertical Shaft Kiln Mini Cement Plant (VSK MCP)



### About CSIR-NGRI

CSIR-NGRI is a leading institute in geophysics and earth sciences, contributing to natural resource exploration and disaster mitigation.

## Areas of Research

- Seismology and earthquake hazard assessment.
- · Groundwater exploration and management.
- · Hydrocarbon and mineral exploration.
- Geodynamics and crustal studies.
- Environmental geophysics.

#### Address

CSIR-NGRI Uppal Road, Hyderabad - 500007, Telangana, India

S.No.	Title
1	Nano-geo Tracers for Understanding Groundwater Flow Dynamics and Contaminants Migration
2	Heliborne Geophysical Investigations For Exploration of Water And Minerals
3	Earthquake Risk Assessment of Lucknow and Dehradun: Risk Profiling through Buildings
4	Hydrate-based Technology for Greenhouse Gas Separation, Storage, Transportation
5	Moving Source Diploe Electromagnetic Exploration Device for Deeper and Poorer
6	Seismic Full Waveform Tomography (FWT)



## About CSIR-NIIST

CSIR-NIIST is an interdisciplinary research institute focusing on sustainable technologies and innovative solutions for industrial and societal needs.

#### Areas of Research

- Chemical and material sciences.
- · Biotechnology and bioprocess engineering.
- · Agro-processing and food technology.
- Renewable energy and nanotechnology.
- Environmental management.

### Address

CSIR-NIIST Industrial Estate P.O., Thiruvananthapuram - 695019, Kerala, India

S. No.	Title
1	Alcohol-Based Herbal Gel Hand Sanitizer (CLEANiiST)
2	Aluminium Auto Components
3	BFBR:A High-Rate Anaerobic Reactor for Complex WastewaterTreatment
4	Biodegradable Cutleries, Cups, Glass and Plates from Agri wastes (wheat barn, sugar cane bagasse, rice husk, fruit peels and pineappleleaves)
5	Bioprocess for Treating Perchlorate (rocket fuel) Contaminated Waterand Soil
6	Cashew Nut Shell Liquid (CNSL) and Derivatives
7	Ceramic Membrane
8	Coir-based Mulching Sheets
9	Compact Food Waste Biogas Plant
10	Coir-based Mulching Sheets
11	Compact Food Waste Biogas Plant
12	Dehumidification Drier for Food / Agri produces
13	Dehydrate Fruits and Fruit Preserve in Honey
14	Endophytic Bacterial Formulation – Plant Tonic
15	Flocculant based Gelation, Solidification, Disinfection System for Medical Waste Disposal
16	Fresh Ginger Processing Technology
17	Functionally Graded Aluminum Alloy and Composite Products and Process Technology
18	Manufacturing Building Bricks from Foundry Silica Sand
19	Process for Development of Weather Resistant Coir Geotextile
20	Value-added Syrups from Palm Neera and Coconut Neera
21	A Process for the Production of White Pepper



# Thiruvananthapuram

S. No.	Title
22	An Anaerobic Digester for Treating Household Organic Wastes
23	An Environmental Friendly Process for the Production of High Grade Synthetic Rutile from Low Grade Ilmenite
24	Banana Fibre from Banana Stem and Bunches
25	Biofilter: Technology for Industrial Odour Control
26	Compostable, Hydrophobic and Moisture Resistant Plant Oil-based Bio-resin as an Alternate to Plastic Liner
27	Exopolysaccharides for Food Grade Application
28	Fluorescent Inks for Security Applications
29	House hold Sanitation Device
30	In-fra Red Reflective Blue Pigment
31	Injection Moldable, Biodegradable Coir Composite Pellets
32	Leather Substitutes from Agrowaste
33	Lignocellulose Hydrolyzing Enzyme Cocktail(s) for Biorefinery Applications
34	Modular Onsite Wastewater Treatment cum Resource Recovery Unit
35	Organism and Process for Production of Beta Glucosidase (BGL)
36	Plant-based Meat Analogs
37	Process for H2S Control in Anaerobic Reactors
38	Process for the Large-scale Production of Fortified Rice Kernels (FRK)
39	Process for the Production of Instant Coffee with Stable Crema
40	Rare Earth Phosphate-based Coatings and Monoliths for Metal Non Wetting Application
41	Ready to Cook Dehydrated Vegetables/Vegetable Mixes
42	Refining of Rice Bran Oil
43	Semi-Automatic Equipment's for Large Area Dye-Sensitized Solar Module Fabrication
44	Swing Technology for Spice Oil and Oleoresil from Fresh and Dry Spices
45	Technology for grading different stages of cervical cancer
46	Technology for Red Palm Olein (RPO) Based Soft Gel as Vitamin-A Supplement for Combating Vitamin-A Deficiency
47	Technology for the Production of Nutrient Premix for Rice Fortification
48	VIRTUAL CASTING – Affordable State-of-the-Art Software for Casting Process Design Commercial name: FLOW+ module in AutoCAST XI
49	Wood Substitutes



### About CSIR-NIO

CSIR-NIO specializes in oceanographic research, focusing on understanding and managing marine ecosystems and resources.

## Areas of Research

- Marine biodiversity and ecology.
- Ocean circulation and climate change.
- Marine resource exploration.
- Coastal zone management,
- Development of underwater technologies.

### Address

CSIR-NIO Dona Paula, Goa - 403004, India

S.No.	Title
1	Coral Reef Monitoring Robot (C-Bot)
2	A Novel System for Seafloor Classification Using Artificial Neural Network (ANN) Hybrid Layout with the Use of Unprocessed Multi-Beam Backscatter Data.
3	Antibacterial Molecule
4	Autonomous Vertical Profiler (AVP) for Profiling Coastal Waters
5	Controlled Thruster Driven Autonomous Underwater Vehicles (AUV) for Oceanographic Exploration and Profiling
6	Integrated Coastal Observation Network (ICON) with Near Real Time Reporting Internet Accessible Weather Station
7	Low Cost Multipurpose Multichannel Data Logger Unit
8	Marine Bacteria to Decolorize and Detoxify Textile Dyes
9	Melanin from Sponge Associated Bacteria
10	Microbial Consortium for Waste Management in Aquaculture Ponds



# About CSIR-NML

CSIR-NML is dedicated to research in metallurgy and materials science, focusing on innovations for the industrial and societal sectors.

## Areas of Research

- Mineral processing and extractive metallurgy.
- Advanced materials and alloys.
- Failure analysis and structural integrity.
- Waste utilization and recycling.
- Corrosion and surface engineering.

### Address

CSIR-NML Burmamines, Jamshedpur - 831007, Jharkhand, India

S. No.	Title
1	Closed Loop Corrosion Test Rig" Equipment for Flow Assisted Corrosion Study
2	A Process to Clear Ball Jam in Ball Pen Tips
3	A Process to Improve the Corrosion Resistance of Steel Rebar
4	An Apparatus and Method for Dry Separation of Materials Based UponTheir Density Dif- erence
5	Conversion Of Hematite Fines to Magnetite Using Compressed Natural Gas (CNG)
6	Cyanide Free Alkaline Electrolyte and Electrochemical Process for Rust Removal from Plair Carbon Steel Components
7	Cyanide Free Process for Leaching and Recovery of Gold
8	Development of High Carbon High Chromium White Cast Iron with Improved Wea Resistance for Grinding Media Applications
9	Energy-Efficient Production Of Low/Medium Carbon Ferromanganese
10	FOBOP: Fibre Optic Based Break Out Prediction technology for Billet Caster
11	Highly Metallised Directly Reduced Iron (DRI) from Mill Scale and Lean Grade Non-coking Coal in Tunnel Kiln
12	Indigenous Sodium Metal Production Technology
13	Know-How for Preparation of Hydrogen Standard (CRM) in Steel
14	Low-Cost Work Hardenable Hadfield Steel for Heavy Impact Gouging Wear Resistan Application
15	Process for Production of Highly Metallised Directly Reduced Iron Cylinders (DRIC) from Lean Grade Raw Materials
16	Production of Fe-Ni/Co-Mo Metallic Alloy & Saleable Alumina Rich Slag from Ni-Mo/Co-Mo Spent Catalysts



S.No.	Title
17	Production of Ferric Sulphate from Copper Slag for Arsenic Removal
18	Recovery of Nickel from Spent Nickel Catalyst
19	Self-Healing Anticorrosive Coating For Steel
20	Technology for Beneficiation of Low-Grade Limestone Containing Finely Disseminated Silica Grains for Utilization in Cement Making Industry.
21	Technology for Dry Beneficiation of Non-coking Coal for Application in Thermal Power and DRI
22	Technology for Production of Tungsten Metal Powder from Plant Tailings/Waste Sample
23	Technology for Recovery of Chromite Values from Tailings/Slimes Produced by Chromite Ore Beneficiation Plant
24	Ultrasonic Flow Gauge: A device for Fluid Flow Rate Measurement Through a Narrow Tube
25	Zincometer: A Sensing Device for Real-time Zinc Weight Measurement in Galvanised Wir Lines
26	A Biomimetic Process for the Synthesis of Aqueous Ferrofluids for Biomedical Applications
27	A New Process for Value Addtional and Beneficiation of Low Grade Baryte Ores
28	A Process for Production of Highly Metallised Low Sulphur Directly Reduced Iron(DRI) I Tunnel Kiln
29	A Process for Production of Low Sulphur Directly Reduced Iron from Waste Iron Ore Slim Including Rejected Coal Containing More Than 50% Ash
30	A Process for Recovery of Lead From Zinc Plant Residue
31	An Erosion Resistant Steel for Underwater Components of Turbine Hydrogenerators and Process for Producing the Same
32	An Improved Integrated Novel Annealing Simulator Device for Annealing of Stee Specimens Under Desired Environmental Conditions for Testing and Characterization
33	An Improved Process for In-Situ Preparation of Alumina-(Ti, Zr) Borides Composite
34	Anti-Corrosive Chemical for Steel Sheet, Rebar and Wire
35	Anti-Tarnishing Lacquer for Silver and Copper-based Alloys
36	Arsenic Removal from Groundwater
37	Beach Sand Heavy Minerals
38	Beneficiation of Dumped Low-Grade iron ore Fines for Iron and Steel Making
39	Beneficiation of Low-grade Iron Ores
40	Biomimetic Electrospun Collagen - Graphene Nanocomposites
41	Biomimetic Polymer Base Hydroxyapatite Block



S. No.	Title
42	Briquetting of Ore Fines
43	Certified Reference Materials
44	Coal Mine Water Reclamation
45	Cold Bonded Carbon Composite Pellets for Utilization of Iron Ore Micro- Fines and Carbon Bearing Fines
46	Column Flotation Technology
47	Copper Base Ductile Bulk Metallic Glass
48	Copper Concentrate From Copper Ores
49	De-ashing of High-ash Thermal Coal
50	Development of Biphasic Calcium Phosphate Block
51	Development of Synthetic Flux and a Process for De-phosphorization of Steel in Induction Furnace.
52	Dip Cleaner cum Brightener for Gold and Diamond
53	Dip Cleaner/tarnish Remover for Silver
54	Energy Efficient Coke Brass and Bell Metal Melting Furnace
55	Fine Zirconium Diboride Powder by SHS
56	FlawGuard: A Cost Effective Device for defect Detection in Wire during Cold Drawing
57	Fluxed Sinter Through Micro-Pelletization
58	Geopolymer Cement
59	Graphene Coated Steel
60	High Quality Magnesite
61	HINDMET: High induction Nanostructure Ferromagnetic Metallic Ribbons
62	MagStar: A Portable Magnetic Hysteresis and Barkhausen Emissions based Electromagnetic Device for Non-Destructive Evaluation of Steel Structure/Component
63	MagStric: Magnetostrictive Sensing Device using Nanostructured Soft Magnetic Materials for Pipeline Inspection
64	MagSys: A Portable Giant Magneto-Impedance (GMI) based Magnetic Sensing Device for NDE Applications
65	Microwave-IR Sort: Rapid, Reliable, Non-invasive Technology for Iron Ore Compositiona Analysis
66	Nano-composite Hard Coating
67	Paving Blocks from Fly Ash, Blast Furnace Slag, Steel Slag, etc.



S.No.	Title
68	Pellet-Sinter Composite Agglomerate (PSCA) of Iron Oxide Fines for Use in Blast Furnace
69	Pelletization of Iron Ore Fines/Slimes
70	Portable Automated Ball Indentation (PABI) System for In-Situ Evaluation of Mechanica Properties of Metallic Components
71	Production of Directly Reduced Iron (DRI)
72	Production of Ferrite and Pigment Grade High Purity Monodispersed Iron Oxide from Waste Chloride Pickle Liquor and Other Iron Rich Sources.
73	Production of Ferronickel from Spent Nickel Catalyst
74	Recovery of Cobalt from Discarded Li-ion Batteries of Mobile Phone
75	Recovery of Gold from Waste Mobile Phones and Scraps of Various Equipment
76	Recovery of Lithium, Nickel, Cobalt, Manganese and Graphite from Spent/Used/Discarde Lithium-ion Batteries of mixed chemistries
77	Recovery of Neodymium as a Value Added product from Waste Hard Disk of Persona Computers
78	Recycling of Spent/Used/Discarded Lithium Iron Phosphate (LFP) Batteries for Recovery of Lithium, Iron, and Phosphorus
79	Simple and Cost-effective Production of Nickel Sulpahte
80	Specific, Selective & Green Reagents for the Beneficiation of Ores, Minerals & Coal
81	Suction Casting Assembly for the Preparation of Bulk Metallic Glass
82	Ultra-p: A Portable Nonlinear Ultrasonic Device
83	Wide Metallic Glass Ribbon Processing Unit
84	Yellow Tungsten Oxide and Tungsten Metal Powder from Heavy Alloy Scraps
85	Zirconium Diboride Powder
86	Zn-Ni-Cu Coatings for Anti-bacterial and Fuel Tank Applications
87	Beneficiation of Low-grade Tungsten Ores
88	Clean Coal from Coking/Non-coking Coal/Coal Slurry
89	Ferrosilicon from BHQ, BHJ & Low Reactive Coal
90	Phosphate Concentrate
91	Separation of Quartz & Feldspar
92	Sintering of Iron Ore with High Percentage of Micro-fines.



# About CSIR-NPL

CSIR-NPL is India's National Measurement Institute (NMI), specializing in precision measurements and metrology to ensure standards across industries.

# Areas of Research

- · Time and frequency standards.
- Quantum metrology and material characterization.
- Environmental monitoring.
- · Nanotechnology and thin films.
- Advanced materials for energy applications.

#### Address

CSIR-NPL Dr. K. S. Krishnan Marg, New Delhi-110012, India

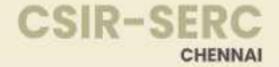
S.No.	Title
1	High Resolution Syringe Pump
2	Noise Absorptive Barrier
3	Process for the Preparation of Zinc Peroxide Nano-particles and itsApplication for Controlling Spore Germination in Wheat (Bipolarissorokiniana) and an Antimicrobia Agent and Preparation Thereof
4	Waste Biomass to Biocoal by Rotating Reactor Type Torrefaction Technique
5	Electro-Magnetic Acoustic Transducer (EMAT) based Instrument for Non-Contact Ultrasonic Non-Destructive Testing (NDT)
6	3 Tesla Auto-Ranges Pulsed/Static Field Gauss Meter
7	5-channel PPS Pulse Distribution Amplifier
8	Synthesis process of Poly(3,4-ethylenedioxythiophene)-poly(styrenesulfonate) (PEDOT:PSS)
9	Cross Floating Valve (CFV)
10	Process for Development of Standard Polystyrene Films
11	A Highly Sensitive Low-cost, Small-sized Device for Measuring Weak Magnetic Fields
12	A know-how for the Development of UD, 2-D Carbon Fiber Based Polymer Composites
13	A Process for Removal of Arsenic, Chromium, Cyanide and Pesticides for Improving Wate Quality
14	Acoustical Lightweight Interior Dry Wall Panel for High Sound Insulation
15	Activated Carbon from Waste Biomass Jute Sticks
16	An Antimicrobial Agent and Preparation Thereof
17	An FPGA based General-purpose Lock-in Amplifier and PID Controller



S.No.	Title
18	Apparatus for Polarization vs Electric Field Measurement at Various Frequencies in Thir Film Samples
19	Calibrated Photodetector and its Monitoring Unit
20	Carbon Composites Bipolar Plates for Hydrogen based Fuel Cell Applications
21	Carbon Foam
22	Colloidal Multicomponent CZTSSe Inks for Solar Cells
23	Commercial Process for the Recovery of High Purity Gold and Silver Process Waste
24	Development of Axis-symmetrical Shaped Force Transducers
25	Development of Free Standing and Flexible Carbon Nanotube Paper
26	Development of Mesocarbon Microbeads
27	Development of Strain Gauged Force Proving Instruments
28	Device for Time Synchronization (T-Synch)
29	Device to Use Conventional Ultrasonic Flaw Detector as EMAT based Flaw Detector
30	Electro-Magnetic Acoustic Transducer (EMAT) for Generation and Detection of Ultrasound in Electrically Conducting Metals
31	Environmental Conditions Monitoring Device
32	Ferrofluid Based Portable Power Generator
33	Ferrofluid based Temperature Sensor, sensitivity 3.7 (± 0.2) mK
34	FonOclock with Time Synchronization Accuracy of ± 10 ms
35	GTEM (Gigahertz Transverse Electromagnetic) Cell with E field Sensor
36	High Density Graphite
37	High-Volume PM10 Sampler
38	High-Volume PM10 Sampler
39	Improved Variable Frequency Ultrasonic Interferometer for Velocity and Attenuation Measurement in liquids
40	Long Afterglow Phosphor Powders
41	Low-cost and Maintenance-free Thermoelectric Cooler/Refrigerator
42	Metal Alloy Based Nano - powders for EM Absorbing Paints
43	Particle Board from Rice Husk
44	PM2.5 Sampler
45	Porous Conducting Carbon Paper as a Fuel Cell Electrode



S. No.	Title
46	Process for Synthesis of Fullerene Acceptors for Organic Solar Cells
47	Recovery of Materials from Waste Silicon Solar Photovoltaic Modules
48	Recovery of Materials from Waste Silicon Solar Photovoltaic Modules
49	Recycling of Plastic Wastes into Tiles for Structure Designing for Societal Usage
50	Six-stage Viable Sampler and Sampling Probe for BFE Testing of Mask
51	Smart Coatings of Conducting Polymers for Corrosion Protection
52	Thermal Chemical Vapour Deposition (CVD) Set-up for Graphene Deposition
53	Tissue Equivalent Liquids as per IEEE-1528 for SAR compliance testing
54	Ultrasonic Pulse Velocity Tester Device with Threshold Error Correction
55	VNA based Broadband Dielectric Measurement Systems for solids (X-band)



# About CSIR-SERC

CSIR-SERC is a leader in structural engineering, providing research solutions for safe and sustainable infrastructure development.

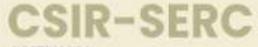
# Areas of Research

- Earthquake-resistant structures.
- Advanced materials and composites for construction.
- · Structural health monitoring.
- Wind engineering and aerodynamics.
- Computational modeling and simulation.

### Address

CSIR-SERC CSIR Campus, Taramani, Chennai - 600113, Tamil Nadu, India

S.No.	Title
1	Glass Textile Reinforced Concrete Crash Barrier
2	Brick Masonry Triplet Shear Tester
3	Conductive Cement Composite as Embedded Sensor for Dual Sensingof Static and Dynamic Response Monitoring in Structure
4	Conductive Cement Composite as Embedded Sensor for Dual Sensing of Static and Dynamic Response Monitoring in Structure
5	Development of Cement and Rice Husk Ash Blended Interlocking Paver Blocks
6	Dual Slab Floor Isolation Technology for Seismic Damage Mitigation
7	Efficient Beam-To-Column Connection For Cold-Formed Steel Framing
8	Engineered Cement-based Composite Systems for Expansion Joint-free Bridges (Jt-Free)
9	FlexiHeatFire
10	Functionally Enhanced Foam Concrete for Structural and Non-Structural Applications
11	Geopolymer Foam Concrete (GeFoCON) Technology
12	Innovative Embedded Reinforced Concrete Dowel Shear Connector
13	Innovative Precast Segmental Concrete Footing
14	Innovative Smart Cement Composite Sensors for Impedance Based Corrosion Monitoring in Structures
15	Integrated Instrumentation System for Acoustic Emission Sensing using Low Cost PZ Patch (In-AESense)
16	Laced Steel Concrete Composite (LSCC) System
17	Low Cost, Lightweight Sandwich SECRO Built Wall Panel for Housing



# CHENNAI

S.No.	Title
18	Magneto Rheological Damper Equipped Mass Driver (MR-MD)
19	Multi-scale Engineered Strain Hardened Cement Composite – for Structural Upgradation
20	Pre-fabricated Steel-Foam Concrete Composite (SFCC) Building Components for Seismic Resistant Buildings
21	Precast Lightweight Panels for Mass Housing - Upgraded with Efficient Jointing System
22	Toilet Unit Using Thin Precast Concrete Segmental Panels - Upgraded With Single and Combined Service Core Units
23	Ambient Temperature Cured One-Part Geopolymer Binder
24	Cost-Effective Water Tanks For Domestic Needs
25	Development of Naturally Red Coloured Paver Blocks Using Red Soil Stabilization Technique
26	Eco-Friendly Goepolymer Concrete Blocks
27	Emergency Retrieval System (ERS) for Power Lines
28	Energy-Dissipating Replaceable Fuse Elements for Steel Beam-Column Connection
29	High Velocity Multi-Hit Resistant Movable Protective Booth/ Shack for Security Personnel
30	Laminated Vibration Isolators with Magneto-rheological Elastomers (MRE)
31	Portable Lightweight Foldable Module for Make-Shift Hospitals and Other Needs (PoliTal-M)
32	Precast Ferrocement Toilet Core Unit (Prefer TOCO)
33	Textile Reinforced Concrete Prototyping Technology (TRCPT)
34	Textile Reinforced Concrete Toilet Unit
35	Threaded End Anchors For Indian Rebars (HEAD-T)

