



**Startup  
Odisha**



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**immt**

## **Innovative Technology Enabling Centre**

**CSIR – Institute of Minerals & Materials Technology**

Council of Scientific and Industrial Research, Under DSIR,

Ministry of Science and Technology, Govt. of India

Bhubaneswar-751013, Odisha



<http://intec.immt.res.in>

# Innovative Technology Enabling Centre (InTEC)

**CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar** is a premier establishment of Council of Scientific & Industrial Research under the Department of Scientific & Industrial Research, Ministry of Science & Technology, Govt. of India. New Delhi. It carries out R&D activities for the sustainable & optimal utilization of natural resources with special emphasis on mineral processing, material resources engineering, process metallurgy, advanced materials process development and environment sustainability. It has excellent infra structure and human resources to facilitate and mentor budding entrepreneurs/start ups. With this back ground, a CSIR-IMMT initiative **Innovative Technology Enabling Centre (InTEC)** has been established for translation of Innovative Technologies into successful business ventures through intervention of science & technology. InTEC as an Incubation – cum-innovation hub would create support ecosystem for nurturing young entrepreneurs in molding Start-Ups. It will facilitate in providing incubation support and specialized knowledge and technology framework for translating innovative developments in the space of minerals, materials and other technologies for sustainable utilization of natural resources. It will provide conducive environment for scientists to work with external partners for product developments and their commercial exploitation. Moreover, it will endeavor to bring in angel investors, banks as well marketing consultants to enable growth of entrepreneurs and start-ups.

**Vision : Contributing to generate earnings through innovative entrepreneurship**

**Mission: To nurture the innovating ideas to successful business ventures in creating wealth for all stakeholders**

## Organogram



## AREAS WHERE ENTREPRENEURS CAN BE MENTORED



### Advanced Materials Technology

- Plasma processing of minerals, wastes and special materials.
- Metals & alloy making.
- Production of carbide, oxide and nitride powders including ultrafine and nano powders.
- Microstructural and physical properties studies of defects reduced natural gems.
- Advanced characterizations of special and advanced materials.

### Hydro & Electrometallurgy

- Hydro & Electrometallurgical processing of minerals, metals and materials.
- Treatment of lean/ complex/ off grade ores and minerals waste and by-products from metallurgical & allied industries.
- Electrochemical cleaning of contaminated soils.
- Conventional and non-conventional energy technology.
- Evaluation of refractory material of ion exchange and membrane technologies.
- Preparation of battery grade Nickel hydroxides, Gibbsite, Boehmite, Activated alumina, Barium titanate, Titanium dioxide etc.
- Design and detailed engineering of hydrometallurgical plants.
- Corrosion and erosion studies.
- Waste water/effluent treatment.



### Mineral Processing

- Characterization and efficient utilization of Indian mineral resources.
- Development of process flow sheets for beneficiation of low grade and complex ores in lab & pilot scale level
- Full scale washability studies of coals.
- Coal characterization for resource evaluation.
- Development of modern agglomeration techniques for fines, concentrate and solid waste.
- Metallurgical plant waste recycling & utilization
- Human resource development in the area of mineral engineering.
- Preparation of feasibility / techno-economic viability of beneficiation and agglomeration process







## Environmental & Sustainability

- Environmental pollution monitoring and abatement technology.
- Greenhouse gases studies.
- Dry and wet precipitation chemistry.
- Physical and chemical characterization of aerosols.
- Environmental impact assessment & environmental management plan.
- Solid, liquid and gaseous effluent monitoring and treatment.
- Water treatment
- Soil treatment.
- Process flow-sheet for industrial waste/by-products utilization.
- Vulnerability and adaptation technology

## Materials Chemistry

- Colloids
- Environmental Materials
- Catalysis
- Coatings
- Nonmaterial
- Solid Oxide Fuel Cells
- Photo-electrochemical Water Splitting
- Supramolecular Photochemistry



## Process Modelling & Instrumentation

### Process Design

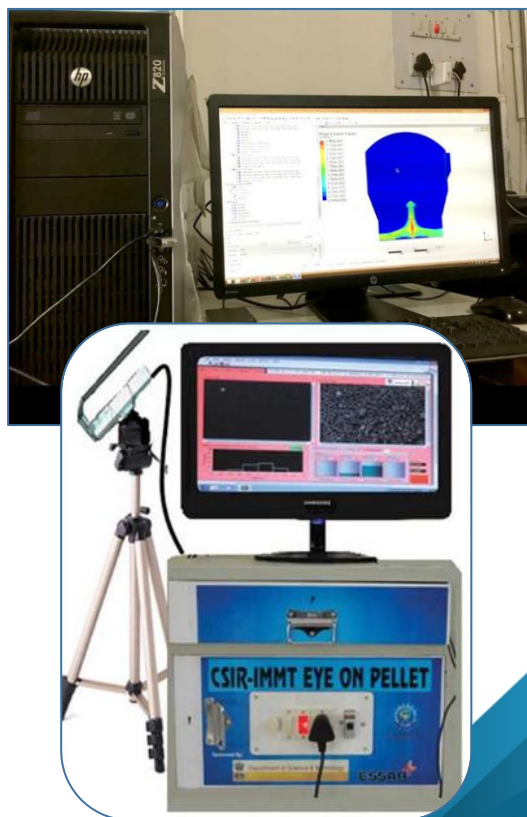
- Design & development of energy efficient cook stoves.

### Process Modelling and Simulation:

- Process modelling and simulation of mineral processing and extractive metallurgy unit operations
- Data driven based models using Design of Experiment techniques, and process parameter optimization
- Artificial Neural Networks
- Molecular modelling.

### Instrumentation:

- Intelligent Instrumentation.
- Microcontroller based system.
- LabVIEW and dSpace based rapid prototyping.
- Image processing based monitoring and control system.
- Vibration analysis based fault monitoring system.
- Thermal Plasma Diagnostics using Spectroscopy

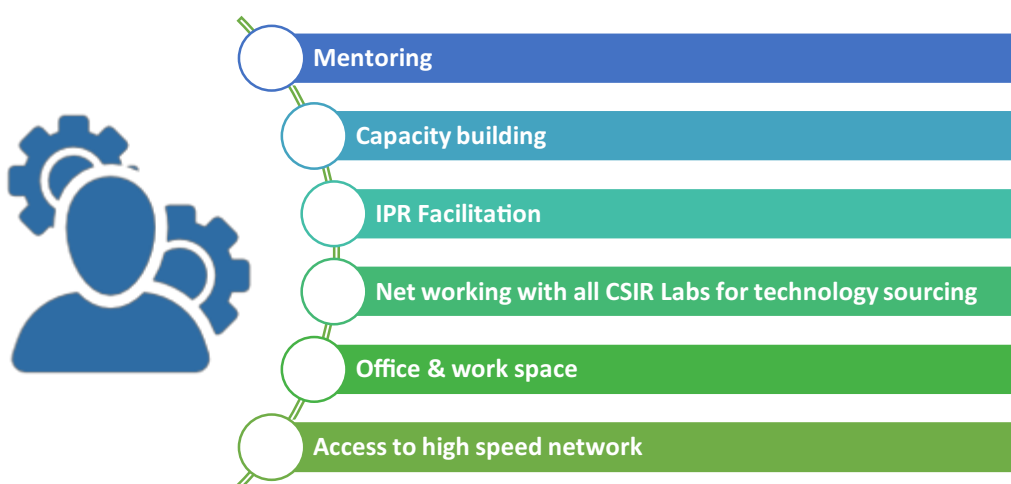




## Design & Project Engineering

- Rural technologies and devices/ products for employment generation and agricultural income enhancement .
- Utilization of alternate energy sources for agricultural post harvest processing.
- Computer Aided Drawing & Design .
- Development of processes of technologies for SSIs of cottage industries.
- Development of alternate energy sources.
- Waste utilization.

## InTEC SUPPORT SERVICES



## Facilities

**Dedicated work place/ office**

**Laboratories for R&D ; product / process development**

**Central Characterization facilities : world class equipment & instrumentation facilities for testing & analysis**

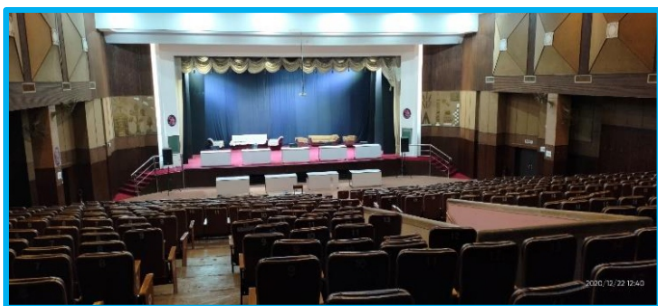
**Central Workshop : State of the art facilities for fabrication, machining , glass work**

## InTEC INFRASTRUCTURE FACILITIES



### Incubation Facility

InTEC Building at CSIR-IMMT



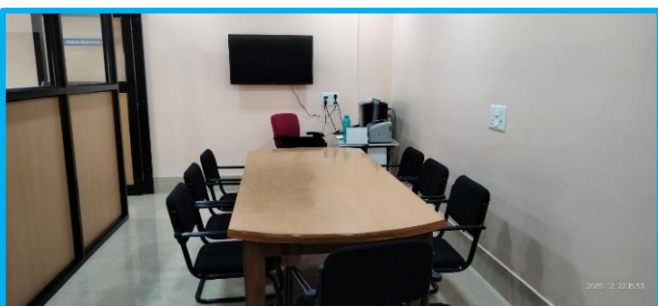
### Auditorium

Sitting Capacity 600



### SS Bhatnagar Hall

Sitting Capacity 180



### InTEC Discussion Room

Sitting Capacity 08



### Conference Room

Sitting Capacity 40



### Mini-Conference Room

Sitting Capacity 10



## Management Committee

### (MC-InTEC)

- Director (Chairman)
- Head/CEO (InTEC)
- Head (R&D Planning)
- Heads of R&D Departments (MPD, AMT, HEM, MCD, E&S, PMI, D&PE)
- Head, ESD
- F&AO
- COA
- Convener/Manager (InTEC)

## Technical & Business Advisory Committee

### (TBAC- InTEC)

- Head, BD/CEO- InTEC
- Head of Planning or Representative
- 2-3 Scientists representing various Activity areas as required
- Two Industry Representatives (M/s Innocule, M/s LNIndTech) - Invitee
- Director or Representative of Startup Odisha - Invitee
- Director or Representative of MSME-DI, Cuttack - Invitee
- Convener (Dr S. M. Mustakim)

## How to Apply

[Click here to Visit Intec Website & Apply online](http://intec.immt.res.in/ex-register.aspx)  
(<http://intec.immt.res.in/ex-register.aspx>)

## Contact Us

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