




# ***INSTITUTE OF INFRASTRUCTURE, TECHNOLOGY, RESEARCH AND MANAGEMENT***


***An Autonomous University established by Government of Gujarat***





## ***Centres of Excellence (CoEs) @ IITRAM***

***Laboratory facilities available for  
External Institutions/Organizations***

 <https://www.facebook.com/iitramahmedabad>

 <https://www.linkedin.com/school/iitramahmedabad/>

 [https://www.instagram.com/iitram\\_official/](https://www.instagram.com/iitram_official/)

 <https://twitter.com/IITRAM191595>

**About:**

IITRAM presently has five centres of excellence (CoEs) with state-of-the-art laboratories and facilities in the following areas that are established with financial support from Government of Gujarat and support from industries.

- 1) Centre of Excellence in Artificial Intelligence and Machine Learning (CoE: AIML)**
- 2) Centre of Excellence in Drone Technology (CoE: DT)**
- 3) Centre of Excellence in Aerospace and Defence (CoE: A&D)**
- 4) Centre of Excellence for Advanced Defence Technology (CoE: CADT)**
- 5) Siemens' Centre of Excellence in the field of Industrial Machinery, Industrial Automation, and Electrical Switchgear.**

The aim of the CoEs is to develop an advanced, self-sustaining, dynamic and industry-relevant learning platform. This will bridge the gap in technological skills that currently exists between industries and academia. The CoEs are actively pursuing several activities for knowledge sharing and skill development such as elective courses, minors' program, short term training programs, expert talks, workshops, demonstration sessions, internships, student projects, etc. The CoEs conducts extensive research on advance topics and current/futuristic problems in their respective domains. The CoEs aims to serve as nodal/coordinating centres for technical workforce such as scientists, engineers and technicians with an objective to contribute towards smart and sustainable infrastructure development of Gujarat state and our country.

# CENTRE OF EXCELLENCE: ADVANCE DEFENCE TECHNOLOGY

## Sensors And Signal Processing Laboratory



**Q Car SDRS package  
(Self-Driving Research Studio)**



**Function Generator**



**Data Acquisition System**



**Spectrum Analyzer**



**Digital Storage Oscilloscope**

Sr. No.	Name of test / Instrument	Unit	Charges for Academic institutions & Government organizations (INR)	Charges for Industry (INR)
1	Q Car SDRS package (Self-Driving Research Studio)	Per 3 hours Session	6000	9000
2	Data Acquisition System	Per 3 hours Session	2000	4000
3	Digital Storage Oscilloscope	Per 3 hours Session	2000	4000
4	Function Generator	Per 3 hours Session	2000	4000
5	Spectrum Analyzer	Per 3 hours Session	4000	6000

All charges mentioned above are excluding GST | Charges may be revised from time to time as per Institute norms

## CENTRE OF EXCELLENCE: ADVANCED DEFENCE TECHNOLOGY ADVANCED MATERIALS PROCESSING AND CHARACTERIZATION LABORATORY



**Planetary Ball Mill**

- **Key Features:**

- Size reduction, mixing, homogenization, mechanical alloying.
- Feed material: Soft, hard, brittle, fibrous, wet or dry
- Material feed size: less than 5 mm
- Final fineness: less than  $1\mu\text{m}$ , for colloidal grinding less than  $0.1\mu\text{m}$
- Maximum rotational speed 1300 rpm.
- Grinding jar made of tungsten carbide and zirconium oxide of size 250 ml.

**Make/model:** LABINDIA Analytical Instruments Pvt. Ltd/BM1100

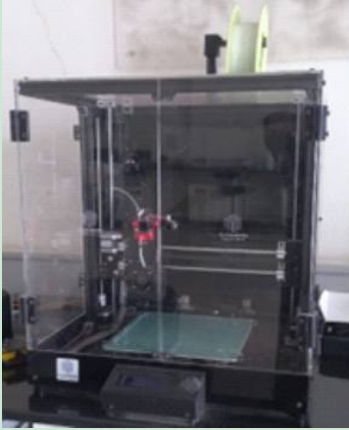
Sr. No.	Name of the equipment	Charges for Academic institutions & Government organizations (INR)	Charges for Industry (INR)	Remarks
1	Planetary Ball Mill	2000 per sample for 30 minutes of grinding	3000 per sample for 30 minutes of grinding	INR. 1000/- for every additional 30 minutes grinding for each sample (for Academic institutions & Government organizations and industry)  Sample volume: minimum 25 ml and maximum 100 ml.

All charges mentioned above are excluding GST | Charges may be revised from time to time as per Institute norms

## CENTRE OF EXCELLENCE: DRONE TECHNOLOGY

### Drone Technology Laboratory

#### 3D printer PLA/ABS/PETG



- Compatible with PLA, ABS, and PETG for versatile printing.
- Supports large, detailed designs with minimal warping.
- Automatic bed levelling and temperature control for reliable prints.
- Maintains high-speed printing with excellent accuracy.
- Economical pricing for academic institutions to promote research and innovation.

#### Testing Charges:

- **Academic Institutions/ Govt. Organizations:**

INR. 600 per 100 gram

- **For Industry:** INR. 1200 per 100 gram

#### Different Types of Multirotor



- Supports various configurations, including quadcopters, hex copters, and octocopters for diverse applications.
- Equipped with advanced stabilization systems for improved flight control.
- Facilitates integration with multiple payload options, including cameras and sensors.
- Affordable access for academic institutions to enhance UAV research and development.

#### Service Charges:

- **For Academic Institutions/Govt.Organizations:**

INR. 3,000 for 2 hours (For flying)

#### Internships for the outside students



- Provides practical experience in a professional environment to enhance learning.
- Offers mentorship from experienced professionals in the field.
- Encourages skill development through hands-on projects and tasks.
- Facilitates networking opportunities with industry professionals.

#### Internship charges:

- **Academic Institutions/For Govt. Organizations:**

INR. 2500 per month

- Affordable charges for outside students to gain valuable experience.

All charges mentioned above are excluding GST | Charges may be revised from time to time as per Institute norms

## CENTRE OF EXCELLENCE: DRONE TECHNOLOGY

### Drone Technology Laboratory

#### Real time flight simulator



- Supports a variety of flight models for comprehensive training experiences.
- Provides realistic flight dynamics and controls for enhanced immersion.
- Allows for real-time performance analysis and feedback for skill improvement.
- Affordable access for academic institutions to enhance practical learning experiences.

#### Testing Charges:

- **Academic Institutions/Govt. Organizations:** INR. 1,000 per 3 hours session
- **For Industry:** Rs.2,000 per 3 Hours session

#### Lab Facility Utilization

- Access to advanced equipment for enhanced research productivity.
- Encourages collaboration among students, faculty, and industry.
- Flexible scheduling for diverse research needs.
- Hands-on learning through practical applications.
- Regular maintenance for equipment reliability.
- Affordable access to promote innovation and collaboration.

#### Charges:

- **Academic Institutions/Govt. Organizations:** INR. 1000 per person per day
- **For Industry:** INR.2,000 per person per day

#### Training facility for faculty/ industry persons

- Offers specialized training programs to enhance skills and knowledge.
- Facilitates access to advanced equipment and resources for practical learning.
- Provides expert-led workshops and seminars on the latest industry trends.
- Encourages collaboration and networking among professionals.
- Affordable training opportunities to promote continuous professional development.

#### Training Charges:

- **Faculty & Government Personnel:** INR.2000 Per 5 hours session.
- **Industry Personnel:** INR.3000 per 5 hours session.