

# DST-AMITY Technology Enabling Centre (TEC)

## What is Technology Enabling Centre?

The DST-Amity Technology Enabling Centre will create an Ecosystem for Technology Development in the NCR Universities and Technical Institutions to provide a platform for networking of researchers and students with other Institutes, National Laboratories as well as industry. The focus of the Centre will be on providing an eco-system, process and support system to enable technology up-gradation.



## What is the need to establish Technology Enabling Centre?

Over a period of time it was observed by DST that the amount of investment on Research and Development made by Govt. of India, for Technical Institutions and Universities is not giving desired results for effective technology development. Ninety percent of the

technologies die at the stage of research publications. Therefore, to enable the potentially viable technologies, from lower level to mature level, the concept of establishment of Technology Enabling Centre has emerged.

## Why a Technology Enabling Centre is established at Amity University Noida?

**DST-AMITY TEC ESTABLISHED ON 25 MAY, 2019**



Amity University is a leading Research & Innovation driven Private University, with over 1,00,000 students studying across 1000 acres of hi-tech 10 campuses. It has India's first wireless campuses with over 4,000 networked HP/IBM machines, 600 MBPS broadband connectivity.

It also has the following:

- 4500 Academicians, Scientists & Researchers Led By 11 Former Vice Chancellors.
- Practical industry-oriented teaching. Contemporary curriculum updated by Industry Advisory Board.
- Member of the Association of Commonwealth Universities.
- Recognized Scientific and Research Organisation by DSIR, Ministry of Science & Technology, Government of India.
- Eligibility of Amity University degrees for National and International tests for higher education.
- Amity Universities are fully Government Recognised by University Grants Commission (UGC).
- Accredited by NAAC.

**Centre of Excellences at Amity**

The following special facilities also exist at Amity:

- IPR Cell
- Directorate of Innovation & Technology Transfer
- Amity Innovation Incubator
- NRDC-Amity Innovation Facilitation Centre
- Tata Motors
- Molecular Medicine & Stem Cell Research Lab
- Quanser Que Laboratory
- Amity Radio
- Amity International Centre for Post- Harvest Technology & Cold Chain Management

 <p>Awarded as the Best Business Incubator of Year 2016 BY <b>BW BUSINESSWORLD</b></p> <p>Ranked 3rd in Brilliant Start-Up Incubators list in India by Entrepreneur India Edition, July 2016 issue</p>	 <p><b>THE TIMES OF INDIA</b></p> <p><b>IITs 1st, Amity 2nd in patents</b></p> <p>In 2012-13, IITs Together Filed 205 While Amity Had 140</p> <p>Source: Times of India, Delhi Edition, March 28, 2014</p>	<table border="1"> <tr> <td><b>No. of Patents filed – 1129</b></td> </tr> <tr> <td><b>No. of Patent published - 765</b></td> </tr> <tr> <td><b>RFE - 345</b></td> </tr> <tr> <td><b>FER - 198</b></td> </tr> <tr> <td><b>No. of Patents Granted – 23</b></td> </tr> </table>	<b>No. of Patents filed – 1129</b>	<b>No. of Patent published - 765</b>	<b>RFE - 345</b>	<b>FER - 198</b>	<b>No. of Patents Granted – 23</b>
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- Amity Center for Bio Control & Plant Disease Management
- Amity Institute of Herbal Research & Studies
- Amity center for Extention Services
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- Amity Institute of Herbal Research & Studies
- Amity center for Extention Services
- Amity Center for Soil Sciences
- Amity Center for Radiation Biology
- Amity Center for Carbohydrate Research



- Amity Center for Sointronic Materials
- Amity Center for Astronomy and Astrophysics
- Amity Center for Cancer Epidemiology and Cancer Research
- Centre for Agricultural Biotechnology
- Centre for Cell Culture Technology
- Amity Centre for Vascular Biology
- Amity Society for Nuclear Security
- Sir Richard Robert Center for Genetically Modified Organism
- Amity Institute of Click Chemistry Research and Studies
- Amity Technical Placement Centre
- Amity Institute of Water Technology and Management
- Amity Center for Antarctic Research & Studies
- Amity Center for Environmental Health and Sciences



# Glimpse of Amity Technologies

**ToT- M/ s. Sinog (Taiwan based company)**

Plant Growth Promoter  
Abiotic Stress Tolerance  
Biofertilizer  
Bioregulator  
Bioherbicide




Positive influence of *T. indicus* on Sugarcane

**ToT- M/s Everest Industries Pvt. Ltd., Ahmedabad**

AMITY INSTITUTE OF NANOTECHNOLOGY

**Milk Adulteration Testing Kit**

- India's first hand held Milk Adulteration Testing Kit.
- 2.2 ml of sample is required
- Detection time: 10 seconds
- App on the users' mobiles

Non-Hazardous    Chemical Free    Use-friendly

Cost effective    Portable



**ToT- M/s. Welspun Energy Pvt. Ltd., Noida**

AMITY INSTITUTE OF ADVANCED RESEARCH STUDIES (Materials & Devices)

**RECHARGEABLE FLY ASH BATTERY FROM WASTE MATERIAL**

- Novel wood ash and activated carbon based.
- Rechargeable with the help of water only
- Portable battery system and
- Can be able to charge Mobile and LED based lamp or street light
- By product of this battery are non-toxic.



**ToT - M/s. Realty Automation & Security Systems Pvt Ltd (RASS), Pune**

AMITY INSTITUTE OF ADVANCED RESEARCH STUDIES (Materials & Devices)

**LPG SENSOR**

- A novel room temperature, low cost alarm based LPG Sensor.
- Highly sensitive, stable
- Fast response/degassing time
- Low cost of fabrication & portable
- Technology transferred to Realty Automation & Security Systems Pvt. Ltd.




**ToT- MNC GXT Green Inc., Boston**

AMITY CENTRE FOR CARBOHYDRATE RESEARCH

**Biodegradable Plastics**

- Simple chemical process and an easier manufacturing procedure
- Exhibits excellent sparsity through the use of Polysaccharides
- Thickness and strength variation can be customized.
- Safe disposal
- PLA Free
- Cost effective
- Environment friendly
- Easy availability of raw materials



Economic, Safe & Non-Toxic

**ToT-M/s. Tarini Herbal Company, Delhi**

AMITY INSTITUTE OF HERBAL RESEARCH STUDIES

**Herbal Mosquito Repellent Formulation**

- Suitable for rural areas
- Natural and Eco-friendly
- Long lasting effect
- Cost effective



AMITY INSTITUTE OF ADVANCED RESEARCH STUDIES (Materials & Devices)

**Reusable water purifier using silver nano embedded porous concrete pebbles based on green technology**




Silver nano embedded pebbles

**ToT- M/s Shubb Laxmi Industries**

AMITY CENTRE FOR CARBOHYDRATE RESEARCH

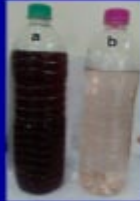
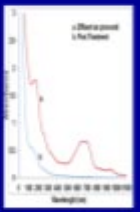
**Herbal colours for Food and cosmetic industry**

- Provide an alternative to Synthetic Colours
- Provides varied range of colours whose intensity can also be varied.
- Widely used for Food items and in Cosmetics for Lipsticks, Hair Dyes, Powder, Gulal etc.

SAFE AND ECO FRIENDLY  
DIFFERENT SHADES  
RETAIN OF COLOUR AND TEXTURE



**Treatment of Industrial Effluent as well as sludge using Advance Oxidation Processes and Nanotechnology**

**BENEFITS OF TECHNOLOGY**

- Advanced, Clean and Green
- Overcomes limitations of conventional protocols
- Highly efficient, modular, economical
- Completely treats effluents of any nature and constitution eg. Textile & dyeing, tannery, pharmaceuticals etc.

## **Network of Technology Enabling Centres in India**

- Amity University, Noida
- Punjab University, Chandigarh
- Chitkara University, Jalandhar
- Anna University, Chennai
- Savitribai Phule Pune University, Pune
- Tejpur University, Assam
- NITTE Mangaluru
- University of Hyderabad
- Kalinga Institute of Industrial Technology (KIIT) Orissa
- Mizoram University
- Amrita Vishwa Vidyapeetham, Kochi

The following are the activities of TEC:

- Mining of Technologies being developed at various Labs in University/Technical Institutes.
- Assessment of technologies requirement of MSMEs in and around the TEC.
- Evaluating maturity of the identified Technologies (Products/Process or both) for further development.
- Carry out the Market Study/ Assessment of the Technologies for their Market Potential.
- Recommend the Pilot stage development & co-development of the Technologies with established Institutions/Industries to make the Technology as Market ready product to DST.
- TEC will serve the Industry by preparing reports and assisting in Research and Development in areas of dense Industry Clusters.
- Networking with various Technology Development Institutions & Labs for refining of the technologies.
- Periodic Workshops/Seminars in Collaboration with Industries.
- To bring out Information' updates on the Technologies available in different areas.
- To bring out TEC Newsletter & Bulletin on Quarterly basis.

**Our Project Advisory Group of DST-AMITY consists of the following:**

- **Chairman**, Dr. W. Selvamurthy, DG, ASTIF, Amity University
- **DST representatives** –
  1. Dr. Anita Aggarwal
  2. Dr. Krishna Kanth Pulicherla
- **TEC Members** -
  1. Dr. Sanjeev Puri, TEC Coordinator, Punjab University
  2. Prof. Mrutyunjay Suar, TEC Coordinator, KIIT University
- **TEC-EAG member/Expert**: Dr. Sudha Mysore
- **Partner Institute**- Prof. Ashiv Shah, CEO, Ajay Kumar Garg Engineering College, Ghaziabad
- **Management**:- Mr. Alok Nikhil Jha, CEO, IIITD Innovation & Incubation Center
- **Industry Association**- Mr. Surender Varma,  
Joint Director, Federation of Indian Chambers of Commerce and Industry (FICCI)
- **Industry Expert**- Mr. Udayan Arya, CEO, Smur Agro Ventures

**Our Associates:**

Technical Institutions

Gautam Buddha University  
Jamia Hamdard University  
IIITD Innovation & Incubation Center  
YMCA University  
Ajay Kumar Garg Engineering College, Ghaziabad

Apex Bodies/Industry Association

FICCI  
PHD Chambers  
CII  
FISME

Team members of DST-AMITY TEC



Dr. W. Selvamurthy  
Chairman



Dr. B.C. Das  
Vice Chairman



Gp. Capt. Kapil Shukla  
Mentor



Dr. R.K. Diwan  
Coordinator



Partha Bhattacharya  
Co-Coordinator



Nishi Naresh Narang  
Co-Coordinator

Research Associate - 1  
Junior Research Fellow - 2  
Project Assistants - 2

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