

# Sponsored Projects/Consultancy

2024-2025 AY

## 1. DST Project: India-Italy Joint Science and Technology Cooperation

Title: Deterministic Creation and Characterizations of Negatively Charged Single Boron Vacancy in Hexagonal Boron Nitride for Quantum Technologies

Principal Investigator: Dr. Shantanu Saha, GITAM University, Hyderabad

Duration: 3 years

Funding Agency: DST

Funding Amount proposed: 46,22937/-

S.No	Name of the faculty	Title	Name of the Organization	Duration	Amount
1	Dr. Shantanu Saha	Deterministic Creation and Characterizations of Negatively Charged Single Boron Vacancy in Hexagonal Boron Nitride for Quantum Technologies	DST organization	3years	46,22937/-

## 2. Consultancy Project

S.No	Name of the faculty	Title	Name of the Organization	Duration	Amount
1	Dr. S V Padmavathi	Development of Wifi and mobile network based RT performance monitor for Distribution Transformers	Chenna Digital solutions	4 months	1,45000/-

**3. Sponsored Project title :** The field demonstration in India of spiral type small wind turbine for the new southern policy countries

S.No	Name of the faculty	Title	Name of the Organization	Duration	Nature of Work	Amount
1	Dr. P V Ramakrishna	The field demonstration in India of spiral type small wind turbine for the new southern policy countries	Korea Institute of Energy Technology Evaluation and Planning	4 years	Research	44 Lakhs

# 1. DST Project : India-Italy Joint Science and Technology Cooperation



## Announcement of the Result of the Call for Joint Project Proposals for the Years 2025-2027

under

### *India-Italy Joint Science and Technology Cooperation*

In pursuant to the S&T Agreement with Italy, a joint call for proposals was announced by Department of Science & Technology, Ministry of Science & Technology, Govt. of India on 17<sup>th</sup> June 2024 with last date for submission of proposals as 31<sup>st</sup> July 2024 for:

1. **“Exchange of Researchers”**: joint research projects where only the expenses for researchers’ mobility are funded by both parties in following areas:

- Information and Communication Technologies and Artificial Intelligence
- Biotechnology & Sustainable Agrifood
- Astrophysics and Space Science
- Chemical Sciences
- Climate Change and Geohazards
- Advanced Manufacturing

2. **“Joint Research Projects”**: joint research projects where research activities are co-funded by both parties in following areas:

- Infectious Diseases
- Physics of Matter and New Materials
- Quantum Technologies
- Renewable Energies and Green Hydrogen
- Technologies Applied to Preserve Cultural and Heritage Sites
- Sustainable Blue Economy: Ecological and Environmental Modeling of Terrestrial and Marine Ecosystems

In total 83 common eligible proposals for **Exchange of Researchers** and 165 common eligible proposals for **Joint Research Projects** have been received. Based on scientific merit, national priority of both the countries, scientific strengths of the project coordinators and availability of funds, both the countries agreed to jointly fund 10 proposals for **Exchange of Researchers** (**Annexure I**) and 10 proposals for **Joint Research Projects** (**Annexure II**).

Funding for the selected projects listed in **Annexure I** and **Annexure II** will be granted yearly, based on the financial resources available to both Parties.

The selected Indian PIs will be emailed to submit security sensitivity clearance and bank details to process further for release of grant.

## ANNEXURE II

### SELECTED FOR “JOINT RESEARCH PROJECTS”

RESEARCH AREA	TITLE	INDIAN COORDINATOR	ITALIAN COORDINATOR
Sustainable Blue Economy: Ecological and environmental modelling of terrestrial and marine ecosystems	Understanding biogeochemical fate of contaminants in marine ecosystems Prospects of restoration by genome-scale models and bioremediation strategies	Dr. Baram Mohapatra, Gujarat Biotechnology University, Gandhinagar, Gujara	Dr. Simona Rossetti, CNR, Istituto di Ricerca Sulle Acque IRSA, Montelibretti, Rome
Renewable Energies and Green Hydrogen	Imperfect Solid Solutions for Catalyzing Water Oxidation in Acidic Media for Cost-effective Proton Exchange Membrane Water Electrolyzer	Prof. Sayan Bhattacharyya, Indian Institute of Science Education and Research Kolkata, Mohanpur, Nadia, West Bengal	Prof. Christian Durante, University of Padova
Renewable Energies and Green Hydrogen	Modeling, and Control of IEEE 2800-2200 Grid Code Compliant Grid Forming Green Hydrogen Electrolyser Load for Bulk Power System Integration.	Dr. Animesh Kumar Sahoo, Indian Institute of Technology Dharwad, Karnataka	Dr. Susanna Mocci, University of Cagliari
Quantum technologies	Deterministic Creation and Characterizations of Negatively Charged Single Boron Vacancy in Hexagonal Boron Nitride for Quantum Technologies	Dr. Shantanu Saha, GITAM University, Hyderabad, Nalgonda, Telangana	Dr. Antonio Polimeni, Sapienza University of Rome
Physics of matter and new materials	Access to the beamlines of the Elettra Synchrotron and of the FERMI free electron laser by the Indian Institutions	Prof. Jaydeep Kumar Basu, Indian Institute of Science Bangalore, Bangalore Karnataka	Dr. Giorgio Paolucci, Elettra-Sincrotrone Trieste
Physics of matter and new materials	Engineering perovskite chiral ferromagnets for magneto-optical and spintronic applications CHIRALMAG	Dr. Bholanath Pahari, Goa University, Talegaon, Goa	Prof. Lorenzo Malavasi, University of Pavia
Physics of matter and new materials	Effect of Interfacial Intermixing on Spin-Orbit Torque in Quantum Interfaces	Dr. Shrawan Kumar Mishra, Indian Institute of Technology, (BHU) Varanasi, Uttar Pradesh	Dr. Michaela Kuepferling, National Metrology Institute of Italy INRiM
Physics of matter and new materials	Defects Engineering in High Entropy Electrolytes for Solid-State Batteries	Prof. Abhishek Sarkar, Indian Institute of Technology Delhi	Prof. Gian Domenico Soraru, University of Trento
Infectious diseases	Peptide hydrogel/Ag-nanoparticle composites as sustainable approach for treatment of fungal ocular infections	Dr. Sanhita Roy, LV Prasad Eye Institute, Hyderabad, Telangana	Dr. Cleofe Palocci, Sapienza University of Rome
Infectious diseases	Identification of Crosstalk Between Mechanical Stimuli and Small GTPases to Enhance Aged Alveolar Macrophage Immune Efficiency	Dr. Bibhas Roy, BITS Pilani, Hyderabad, Telangana	Prof. Giorgio Scita, IFOM ETS - The AIRC Institute of Molecular Oncology and University of Milan

# ANNEXURE I

## SELECTED FOR "EXCHANGE OF RESEARCHERS"

RESEARCH AREA	TITLE	INDIAN COORDINATOR	ITALIAN COORDINATOR
Climate Change and Geohazards	Development of Time-Dependent Probabilistic Seismic Hazard Assessment TD-PSHA Models for the National Capital Region Delhi in India A Step Towards Seismic Risk Mitigation	Dr. R B S Yadav, Kurukshetra University, Kurukshetra, Haryana	Dr. Aybige Akinci, National Institute of Geophysics and Volcanology INGV, Rome, Italy
Astrophysics and Space Science	Exploring the dark universe with multi-wavelength gravitational waves	Prof. Parameswaran Ajith, International Centre for Theoretical Sciences (ICTS-TIFR), Bengaluru, Karnataka	Prof. Jan Harms, Gran Sasso Science Institute, L'Aquila
Astrophysics and Space Science	Realistic modelling of relativistic jets from supermassive blackholes	Prof. Dipanjan Mukherjee, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune University Campus, Pune, Maharashtra	Dr. Paola Rossi, Osservatorio Astrofisica di Torino
Advanced Manufacturing	4D bioprinting of a magneto-responsive hydrogel to model cartilage in osteoarthritic conditions	Dr. Ramendra Kishor Pal, Birla Institute of Technology and Science, Pilani, Hyderabad	Dr. Alessio Bucciarelli, IRCCS Istituto Ortopedico Rizzoli, Bologna
Information and Communication Technologies and Artificial Intelligence	Modelling Affective and Social Interactions in Cross-cultural Settings	Dr. Dinesh Babu Jayagopi, IIIT Bangalore, Karnataka	Dr. Radoslaw Niewiadomski, University of Genoa, Genoa
Information and Communication Technologies and Artificial Intelligence	MERITO Monitoring of Energy in OpenRAN via Intelligent Transport and x/r Apps Optimization	Dr. Koteswararao Kondepudi, Indian Institute of Technology Dharwad, Dharwad, Karnataka	Dr. Andrea Marotta, University of L'Aquila
Biotechnology & Sustainable Agrifood	Healthy and sustainable diets through digitally-customized 3D printed foods	Dr. Jeyan Arthur Moses, Indian Institute Of Food Processing Technology, Thanjavur, Tamilnadu	Dr. Antonio Derossi, University of Foggia
Biotechnology & Sustainable Agrifood	Characterization of physio-biochemical and molecular responses of plant-fungal interactions in brinjal Solanum melongena L.	Prof. Annamalai Muthusamy, Manipal School of Life Sciences, Manipal Academy of Higher Education (MAHE), Manipal, Karnataka	Dr. Laura Toppino, Council for Agricultural Research and Economics CREA
Chemical Sciences	Borophene Nanozyme-Based Microfluidic Colorimetric Biosensors for Rapid and Sensitive Detection of Biomolecules	Dr Manash R. Das, CSIR-North East Institute of Science and Technology, Jorhat, Assam	Dr. Pier Paolo Pompa, Italian Institute of Technology IIT, Genova
Chemical Sciences	Exciton dynamics in 2D and Quasi 2D Single-Crystal Metal Halide Perovskites Impact of Organic -Electronic Spacers with Increased Aromatic Rings and Superior Donor-Acceptor Charge Transfer Properties	Dr. Sarthak Mandal, National Institute of Technology, Tiruchirappalli, Tamilnadu	Dr. Valeria Demontis, University of Cagliari

2. Development of Wifi and mobile network based RT performance monitor for Distribution Transformers



GITAM/RDC/GST/2025/ 1399

**PROCEEDINGS**

Sub: GITAM – School of Technology – Dr. S V Padmavathi - Permission to take up Consultancy work - Reg.

Read: 1. Work order from M/s. Chenna Digital Solutions (P) Ltd. No:2025/GITAM/WO/01 dt. 13.03.2025.  
2. E-file No. 202512538 dt. 29.04.2025.

Hon'ble Vice-Chancellor has approved your request to carry out the following Consultancy work at a total cost of ₹ 1,45,000/- plus GST (including all operational expenses) as offered by M/s. Chenna Digital Solutions (P) Limited, Hyderabad.

**"Development of WiFi and Mobile Network based RT performance monitor for distribution transformers"**

The work will be taken up by Dr. S V Padmavathi, Assistant Professor, EECE, GITAM School of Technology, Hyderabad.

**Note:**

- I. The Consultancy work will be completed within 04 months for the date of release of payment of first instalment.
- II. It is the responsibility of the project team to complete the project to the satisfaction of the client and without probable risks for any future obligations and commitments on the part of the GITAM.
- III. The royalty shall be distributed to the project team as per GITAM norms after the submission of a copy of Satisfactory report/ certificate from M/s. Chenna Digital Solutions (P) Limited, Hyderabad.

  
REGISTRAR

To,  
Dr. S V Padmavathi  
Assistant Professor  
Dept. of EECE  
School of Technology  
GITAM (Deemed to be University)  
Hyderabad

**Copy to:** Director-RDC/ Dean-GST/ HoD-EECE, HYD/ OOF

3. The field demonstration in India of spiral type small wind turbine for the new southern policy countries

Endless Challenge for the Better Future



**Esco RTS Co., Ltd.**

To : Gitam University  
Attn. :  
Subject : End of the international joint research project

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We declare that the international joint project between Esco RTS located in Korea and GITAM University located in India has ended.

1. Project : The field demonstration in India of spiral type small wind turbine for the new southern policy countries
2. Total Project Period : from 01 October 2020 to 30 September 2024
3. Lead Organization : Esco RTS Co.,Ltd  
Participating Organization(Domestic) : JIS Co.,Ltd, Cheongju University  
Participating Organization(Oversea) : GITAM University, Archimedes Green Energy (P) Ltd

Sincerely,

A handwritten signature in black ink, appearing to be "Baek Joon-Ho", written over a horizontal line.

Mr. Baek Joon-Ho / Director of Technical Management Department

**Esco RTS Co., Ltd.**







**GITAM**  
(DEEMED TO BE UNIVERSITY)  
(Estd. u/s 3 of the UGC Act, 1956)

PRO office, B-Block, Rudraram, Patancheru, Sangareddy-502329  
[www.gitam.edu](http://www.gitam.edu)

Date: 19-7-2022

**Press Release:**

## ఇండో-కొరియా ప్రాజెక్టును సందర్శించిన కొరియా బృందం

దక్షిణ కొరియా ప్రభుత్వ సుదృఢత, ఇండో-కొరియా ప్రాజెక్టులో భాగంగా గీతమ్ హైదరాబాద్‌లో ఏర్పాటు చేసిన నాలుగు విండ్ టర్బైన్‌లను నలుగురు సభ్యులతో కూడిన కొరియా బృందం మంగళవారం సందర్శించింది.

గాలి వేగాన్ని పర్యవేక్షించడం, స్వదేశీ-కొరియా సమూహాల పనితీరును పోల్చడం ఈ ప్రాజెక్టు ముఖ్య ఉద్దేశంగా మెకానికల్ ఇంజనీరింగ్ విభాగాధిపతి డాక్టర్ పి.శ్రీనివాస్ తెలియజేశారు. ముఖ్యంగా ఈ ప్రాజెక్టు నిర్వహణలో తలెత్తే సాంకేతిక సమస్యలను గీతం నిపుణులు పరిష్కరిస్తారని చెప్పారు. అర్కిమెడిస్ విండ్ టర్బైన్‌లను ఎక్కడ ఉంచినా, ప్రపంచం నలుమూలల నుంచి వచ్చే డేటాను విశ్లేషించడానికి ఒక డేటా సెంటర్‌ను ఏర్పాటు చేయాలని గీతం యోచిస్తోందన్నారు.

ఈ ప్రాజెక్టు కోసం ఎస్కొ-అర్మీఎస్, చెంజా విశ్వవిద్యాలయం, జేఐఎస్, గీతం, అర్కిమెడిస్ గ్రీన్ ఎనర్జీ ప్రైవేట్ లిమిటెడ్‌లతో ఒప్పందం కుదుర్చుకున్నట్లు డాక్టర్ శ్రీనివాస్ వివరించారు.

ప్రాజెక్టు ప్రధాన పరిశోధకుడు బీక్ జాన్ చో నేతృత్వంలో రిసెస్ మెరిమాట్యూస్, యాంగ్, కిమలతో కూడిన ఎస్కొ-అర్మీఎస్, కొరియా ప్రతినిధుల బృందం గీతమ్‌ను సందర్శించి, గాలి టర్బైన్లను విజయవంతంగా అమర్చిన స్థానిక పరిశోధకులను అభినందించినట్లు డాక్టర్ శ్రీనివాస్ పేర్కొన్నారు.

గీతం ఉపకులపతి దయానంద సిద్ధవట్లం, గీతం-హైదరాబాదు అదనపు ఉపకులపతి ప్రాఫెసర్ డీఎస్ రావు, గీతం స్కూల్ ఆఫ్ టెక్నాలజీ అసోసియేట్ డైరెక్టర్ ప్రాఫెసర్ ఎన్.సీ.రామయ్యలను ఈ బృందం కలిసినట్లు చెప్పారు.

స్థానిక ప్రధాన పరిశోధకుడు ప్రాఫెసర్ కె.రాజగోపాల్, అర్కిమెడిస్ గ్రీన్ ఎనర్జీ సీఈవో-ఎండీ సూర్యప్రకాష్ గజ్జల కూడా ఈ కార్యక్రమంలో పాల్గొన్నట్లు తెలిపారు.

కాగా, గీతం పరిశోధనా సమన్వయకర్త డాక్టర్ ఐవీ సుబ్బారెడ్డి, అసిస్టెంట్ ప్రాఫెసర్లు డాక్టర్ పీవీ రామకృష్ణ, పీకే శ్రీధర్‌లు ఈ కార్యక్రమాన్ని సమన్వయం చేసినట్లు ఆయన పేర్కొన్నారు.

P.R.O.,  
GU Hyderabad, 94 94 65 66 77

*GITAM Committed to Excellence*





