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**NATIONAL
INSTITUTIONAL
RANKING
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**Times Higher Education
Impact Rankings 2024**



**Times
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**QS UNIVERSITY
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ASIA**



GITAM
DEEMED TO BE UNIVERSITY

BENGALURU • HYDERABAD • VISAKHAPATNAM

15 LIFE
ON LAND



SDG # 15 :: Progress Report : AY 2023 - 24

GITAM University – SDG #15- Life on Land -Progress report 2023-24

Introduction:

Sustainable Development Goal 15 (SDG 15), titled "Life on Land," focuses on the urgent need to protect, restore, and promote the sustainable use of terrestrial ecosystems. This goal is centered around maintaining the health and vitality of the world's land-based ecosystems, including forests, deserts, mountains, grasslands, wetlands, and other critical landscapes. It also seeks to halt biodiversity loss, combat land degradation, and ensure the responsible management of natural resources to sustain life on Earth. SDG 15 is vital because land ecosystems play a central role in sustaining life. They provide essential ecosystem services such as clean water, fertile soil for agriculture, carbon sequestration, flood regulation, and habitat for wildlife. These ecosystems are the basis of food security, livelihoods, cultural practices, and global biodiversity. However, human activities such as deforestation, overexploitation of land, pollution, and climate change are driving the destruction and degradation of these ecosystems at an alarming rate. Achieving SDG 15 is therefore essential not just for the environment, but also for human wellbeing and the sustainable future of the planet.

Research:

GITAM has been immensely supportive of this research by providing laboratory infrastructure and essential equipment to establish the research program, along with a seed grant that helped initiate the work. The university has also funded the Ph.D. student contributing to the project's early findings. Beyond funding, GITAM fosters a warm, collaborative, and flexible environment that encourages innovation and sustained research growth.

- ☞ The Evolutionary Story of the Eastern Ghats Project at GITAM published phylogenies of reptiles and amphibians are brought together, with additional

species added to fill existing gaps. Timelines are refined to estimate when different groups split from one another. This evolutionary framework is then combined with current distribution and habitat data to trace the origins of these lineages and how various groups of amphibians and reptiles dispersed and diversified over the last 30 million years. Together, these analyses offer a window into the deep evolutionary history of the Eastern Ghats. This helps to provide insights into the unique evolutionary history of the Eastern Ghats, strengthening arguments for conserving its habitats and biodiversity.



<https://www.gitam.edu/research/research-projects/eastern-ghats#:~:text=Overview,has%20changed%20over%20deep%20time.>

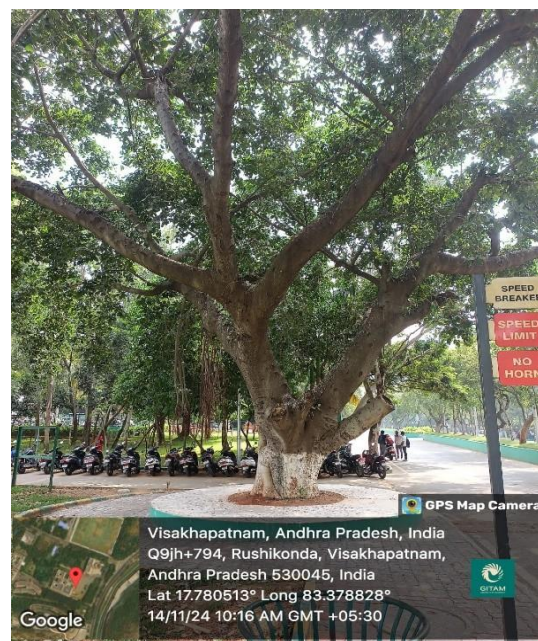
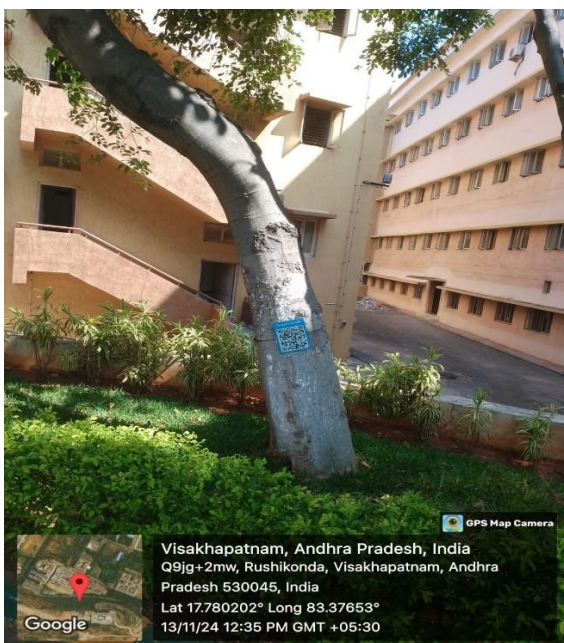
- ☞ Research Publications in Scopus Index: GITAM has a relative activity index of 0.55 in its Scopus indexed publications relating to SDG15 during the reference period of 2021-2023.
- ☞ Dr. Nasim Akhtar: Studies on micropropagation of Red Sandalwood (*Pterocarpus santalinus* L.) through induction of somatic embryogenesis. Red Sandalwood is a valuable species, and this research aims to promote its sustainable cultivation, conserving this resource, especially given its endangered status. The development of effective micropropagation techniques supports biodiversity conservation and ecosystem restoration.
- ☞ Dr. R Gyana Prasuna: Isolation and Identification of Potential Cyanobacterial Biofertilizers from Coastal Rice Fields. The use of

biofertilizers can help reduce the carbon footprint of agriculture, as synthetic fertilizers are associated with greenhouse gas emissions.

Progress:

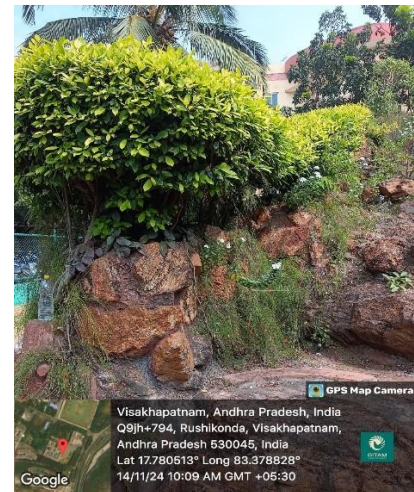
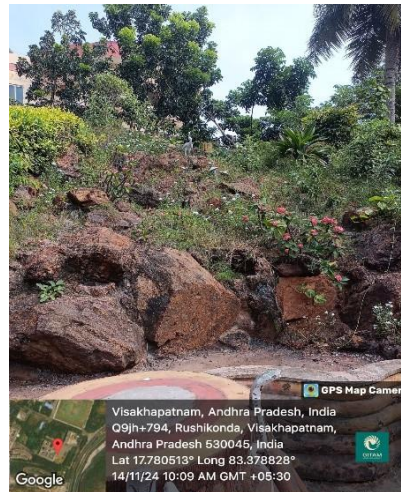
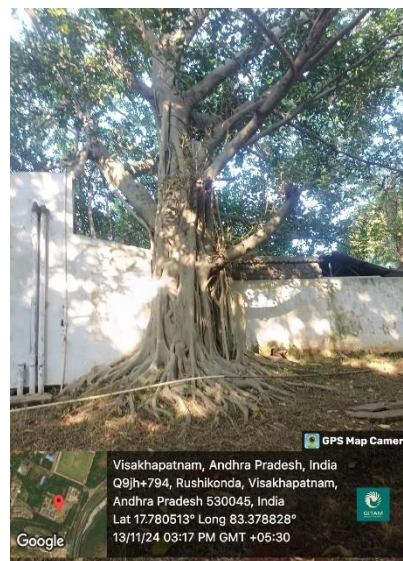
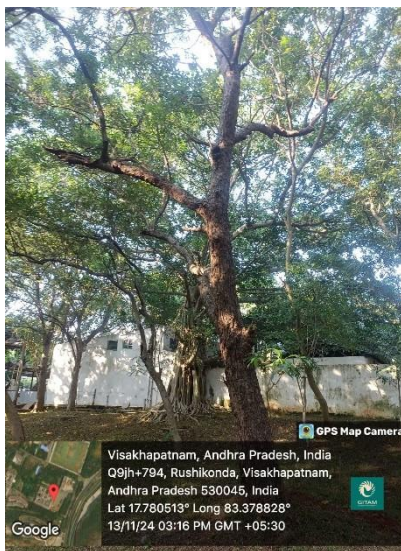
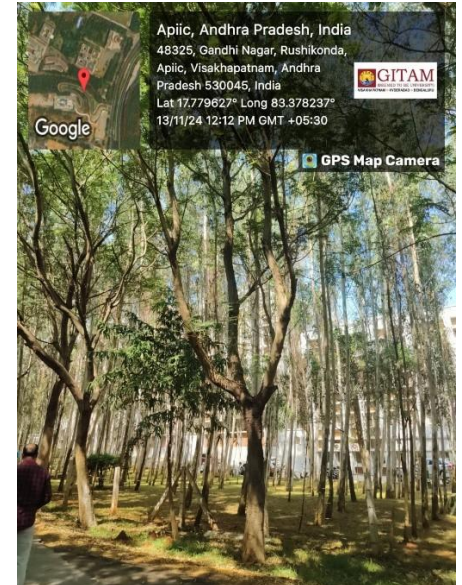
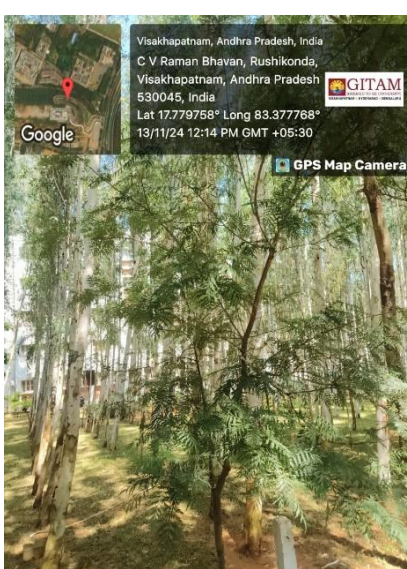
- ☞ GITAM has 88% of Open Space out of its total area 1033283 Sq. M
- ☞ Total forest area of the campus is 2,16,989.43 Sq.M
- ☞ Total Planted vegetation area for all campuses : 5,94,311 Sq.M

GITAM's commitment to ecological health reflects in the near complete greenery at Visakhapatnam Campus. A variety of trees, especially Artocarpus, Mangifera, Anacardium, Pongamia, Azadirachta, Ficus and Syzium, known for their high wood density and consequent enhanced carbon sequestration potential stand testimony to GITAM's concern for ecological health.



- ☞ GITAM has a dedicated horticulture department which maintains the greenery in the campus by following sustainable and contributing the existing ecosystem

maintenance.





- GITAM has conducted a study of the existing plants, documented the details with their scientific name, family, origin, species, type, uses, medicinal values, specific features location in the campus etc. They are all QR coded and documented.



Engagement:

☞ The trees and shrubs in the GITAM campus are all geo-tagged and the botanical and common names have been populated with details. The Computer Science and Engineering Department at GITAM Deemed to be University, Bengaluru, has launched its "Plantation" initiative. Embarked on a green journey to celebrate the birthdays of esteemed faculty members starting in 2024. This eco-conscious endeavor reflects the department's dedication to environmental sustainability and aims to inspire a greener future. By planting tree saplings on each faculty member's special day, GITAM nurtured an eco-conscious culture among its students. NSS-hosted Plant Exhibition to create awareness about environmental conservation, native plant diversity, and sustainable land practices.

<https://www.instagram.com/p/C5xVDOxtuDZ/>



☞ The Computer Science and Engineering Department at GITAM Deemed to be University, Bengaluru has launched its "Plantation" initiative. Led by the department head, Dr. VAMSIDHAR YENDAPALLI, they embarked on a green



journey to celebrate the birthdays of esteemed faculty members starting in 2024. This eco-conscious endeavor reflects the department's dedication to environmental sustainability and aims to inspire a greener future. By planting tree saplings on each faculty member's special day, GITAM nurtured an eco-conscious culture among its students. Joining them in this green movement, we sowed the seeds for a brighter, greener tomorrow together.

☞ GITAM Students started '**Agrow club**' and the horticulture department tend the garden and grow various vegetables and fruits by adopting the organic farming



methods. This initiative inspires students to take an interest in the origins of



School or Dept. Name here



food, make better food choices and form an appreciation for the farming community. The initiative is also supported by the Center for Health and Wellness Initiative at GITAM, which is working on innovations in food science, nutrition, and allied areas. The GITAM garden will be used as a test bed for evaluating natural plant growth factors.

https://www.linkedin.com/posts/gitam-deemed-university_our-very-own-fruit-and-veggie-garden-activity-6998532193845211136-NGdK/



School or Dept. Name here



Policies on Waste disposal:

GITAM has adopted best practices and takes the responsibility of disposal of waste, minimizing the waste generation that prevents pollution to the ecology and harms the humans and living species on the earth.

- ☞ It tracks and measures all kinds of waste generated viz., organic, chemical, solid, biomedical, e-waste, food-waste, waste water etc.
- ☞ It has entered into the annual contracts with various authorized organized for the sustainable and scientific disposal of the waste generated.
- ☞ It has its own systems to recycle the waste wherever possible for its best reuse like STP plants for waste water treatment and reuse it for gardening purpose.

The brown and green waste is converted into compost, used as manure in the organic garden.

Community Outreach:

- ☞ GITAM entered into an MOU with ICAR-Central Agroforestry Research Institute, Jhansi (Uttar Pradesh), valid for a period of 5 years. The Parties have agreed to engage in a broad spectrum of joint activities in the field of ecosystem services based Sustainable Livelihood Promotion, in the East Coast of Andhra Pradesh. The ongoing projects in this collaboration are 1. integrating tree genomics with agroforestry systems. 2. Teak and neem germplasm conservation using RFID tagging technology for real-time genetic resource monitoring and improved tree management. In another project, In Alamanda, North-Coastal Andhra Pradesh, the GITAM researcher is empowering the tribal youth with agroforestry and livelihood activities.



GITAM

A CATEGORY - I
DEEMED TO BE UNIVERSITY

Bengaluru Hyderabad Visakhapatnam



**NAAC A++
ACCREDITED**



**WORLD
UNIVERSITY
RANKINGS**



<https://www.facebook.com/gitamdeemeduniversity/posts/dr-i-sarat-babu-and-the-team-of-researchers-at-the-gitam-have-been-granted-a-fun/871404631695936/>
<https://www.instagram.com/p/DPY-Jg5k675/?hl=en>



HUMANS OF GITAM



DR. I. SARAT BABU
HOD - Biotechnology
GITAM School of Technology
Visakhapatnam

Awarded a funding amount of ₹ 3.65 Cr
by Department of Science and Technology for
uplifting the socio-economic status of the
tribal population by setting-up a revenue
generating model.

Four Science Technology and Innovation Hubs (GITAM
STI Hubs) were established, focusing on economic
enterprises like Niger Seed Oil Mill Units, Honey
Processing Units, Solar Based Cold Storage Units, and
Vegetable Processing Units.



HUMANS OF GITAM



In Alamanda, North-Coastal Andhra Pradesh, he's revolutionizing livelihoods. Women once reliant on traditional methods now thrive with modern technologies.

At GITAM, innovation isn't just a buzzword. It's a way of life. Dr. I. Sarat Babu and his team are proof that when passion meets purpose, lives change for the better.

☞ GITAM organised a seminar that aims at providing knowledge for the agricultural intelligence for plant disease detection using Artificial intelligence, Internet of Things for the real-time applications in agriculture.



[https://gevents.gitam.edu/public/uploads/events/Plant Pathology Knowledge Series-II AI for Agriculture Data Labelling Annotation and Deep Learning 1761769521.pdf](https://gevents.gitam.edu/public/uploads/events/Plant_Pathology_Knowledge_Series-II_AI_for_Agriculture_Data_Labelling_Annotation_and_Deep_Learning_1761769521.pdf)

☞ As part of the national moth week, we organized moth watching in the GITAM University campus at Visakhapatnam, Andhra Pradesh. The participants included the members of the nature club—Green Poets' Society.

[https://zoosprint.org/index.php/zp/article/download/8005/7250#:~:text=Eac h%20team%20had%20to%20pick,mind%2Dblowing%20stories%20on%20moth s.&text=When%20we%20went%20back%20to,made%20the%20event%20a%20 success.&text=Citation:%20Pinto%2C%20M%20\(2025,\(8\):%2030%E2%80%9333](https://zoosprint.org/index.php/zp/article/download/8005/7250#:~:text=Eac h%20team%20had%20to%20pick,mind%2Dblowing%20stories%20on%20moth s.&text=When%20we%20went%20back%20to,made%20the%20event%20a%20 success.&text=Citation:%20Pinto%2C%20M%20(2025,(8):%2030%E2%80%9333)

Moth watching at GITAM University Campus, Visakhapatnam

Moths are a crucial part of our ecosystem. They function as pollinators, help maintain ecological balance, serve as indicators of ecosystem health and provide evolutionary insights. Yet, moths are rarely appreciated. In order to better understand moths, national moth week, a global event, is organized annually in the month of July.



As part of the national moth week, we organized moth watching in the GITAM University campus at Visakhapatnam, Andhra Pradesh. The participants included the members of the nature club—Green Poets’ Society.

We set up the white screen with LED lights to attract the moths. While we waited for the moths to get attracted to the lit screen, I briefed the participants about moths, their ecological importance and the prey-predator interactions between bats and moths.

After this, Dr. Harish Prakash organized a group game. The participants were divided into groups and were handed a printout containing movie posters related to moths. Each team had to pick a movie poster and come up with a movie plot based on the poster. The participants came up with unique, mind-blowing stories on moths.





Scorpion © Nikhil Biswas

When we went back to check the light screen, we did not find any moths. Rather, we found other insects such as rove beetles, winged ants, and forest cockroaches. We also examined the ground and trees nearby and found a scorpion, geckos, and mantis. Towards the end of the event, although we did not find any moths, we had a great time observing the nocturnal taxa around us. The moth watching event not only

ended up with participants appreciating moths, but all the tiny critters that live around us.

Acknowledgments:

I'm grateful to Dr. Harish Prakash for supporting me to lead the event. I'm also grateful to my fellow research scholars Yagnapathy Adari who helped me with purchasing the materials, and Abhisree M.K., who helped me with testing the initial setup. I would also like to thank the members of the Green Poets Society who helped with the planning of the event and whose participation made the event a success.



Light trap setup © Melito Pinto

Melito Pinto, Department of Life Sciences, GITAM School of Science, GITAM (Deemed to be) University, Visakhapatnam, Andhra Pradesh 530045, India

Citation: Pinto, M (2025). Moth watching at GITAM University Campus, Visakhapatnam. In: Zoo's Print 40(8): 30–31.