



**GITAM**  
(DEEMED TO BE UNIVERSITY)

VISAKHAPATNAM | HYDERABAD | BENGALURU

# BiMed BHARAT

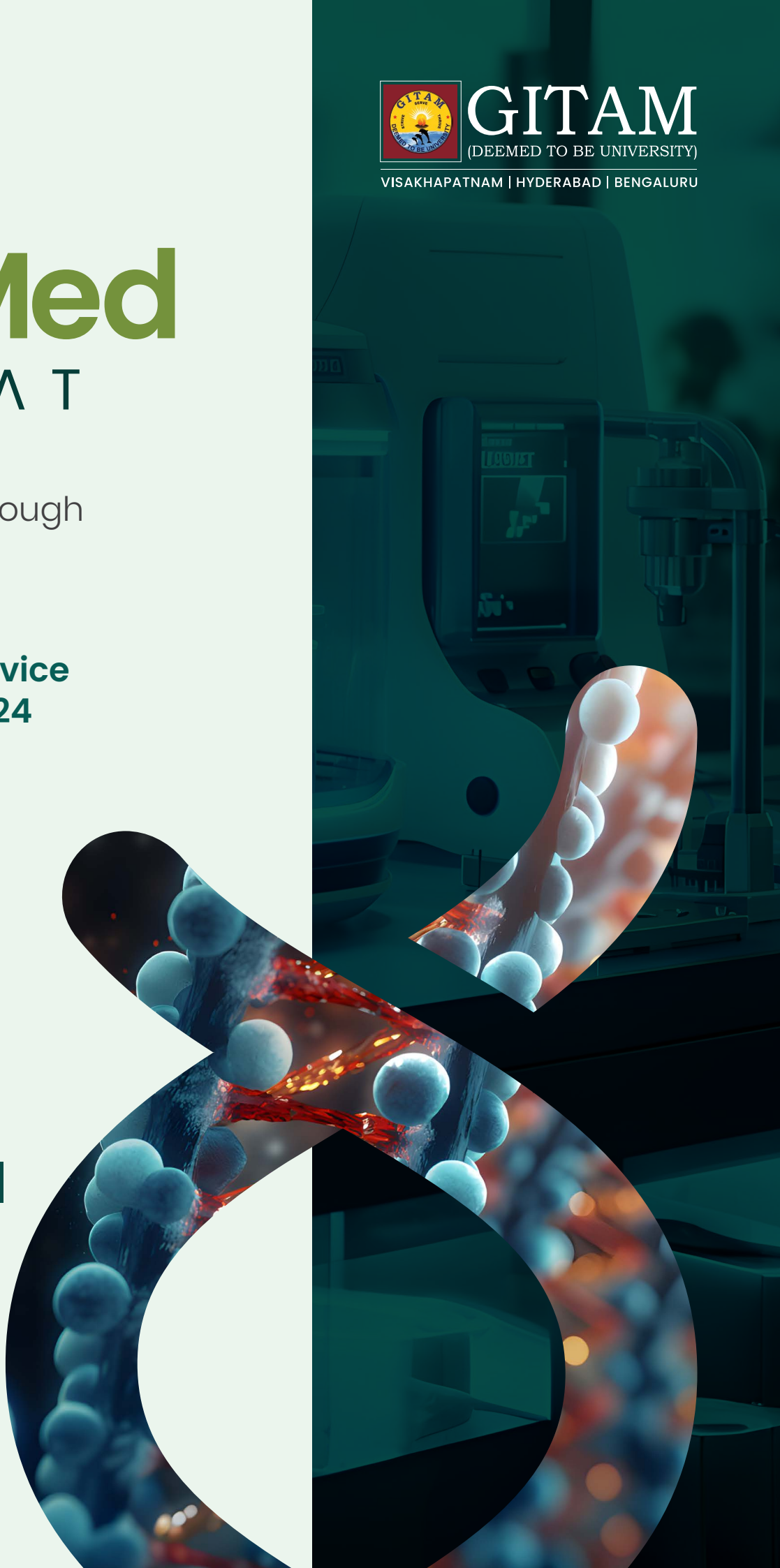
Innovating  
Healthcare Through  
Technology

**Biomedical Device  
Hackathon 2024**

**PRIZE**  
MONEY  
**₹ 7.5**  
LAKHS

Registration deadline

**15<sup>th</sup> December,  
2023**



# About GITAM

GITAM (Deemed to be University) is a hub of knowledge, research, and innovation. By providing a comprehensive educational experience that prepares our students for the future, we aim to achieve global leadership in education. Our state-of-the-art facilities and specialized programmes are a crucial step towards realizing this vision.

## What is BioMed Bhārat?

Affordable healthcare is one of the top most priority areas for the India growth story. With about ₹ 63,200 crores of medical device imports during the year 2021-22, the need for innovation, design and manufacturing of medical devices in India, has never been more urgent.

BioMed Bhārat is the flagship and inaugural Biomedical Device Design Hackathon being organized by GITAM School of Technology (GST) & GITAM Institute of Medical Science and Research (GIMSR) of GITAM (Deemed to be University) to drive innovation in healthcare. This immersive event invites brilliant minds to craft cutting-edge solutions through innovation, to solve clinical needs relevant for India.

Join us in pushing the boundaries of creativity and problem-solving as we address real-world challenges in healthcare. BioMed Bhārat is your opportunity to make a lasting impact on medical device innovation through a holistic experience of ideation, design and prototyping, as you interact with clinical and engineering experts through this exhilarating journey.

#BioMedBhārat



## Eligibility

The hackathon is open to **full-time students** enrolled in a recognized university in India pursuing a UG/PG/PhD. Teams should consist of a minimum of two and a maximum of four members.



# Hackathon Competition Structure



## 1 Call for ideas

Each team may choose up to three problem statements, out of which they will be selected to compete for one.

- Teams may register by filling in their details on the [Google Form](#).
- Participants shall choose their problem statements and submit their details with a brief description of their approach towards the problem statement in Google Forms.
- Team leader/contact person for the team shall fill out the form.

## 2 Workshop – 1: Clarifications related to problem statements

- This will be an online event.
- The objective of this workshop is to provide clarifications through interaction with expert faculty mentors from GST and GIMSR.

## 3 First level idea Presentation & evaluation

- This is an online event.
- Each team must submit their understanding of the selected problem statement(s) and additional details using a presentation format. The specific template for this presentation will be accessible to the teams during the registration process.
- Each participating team may select up to three problem statements and upload separate presentations for each problem statement.
- The submitted presentations shall be evaluated by a team of experts. The decision by the evaluation team is final.
- In case multiple problem statements are chosen by a single team, only one shall be selected by the evaluation team.
- Selected teams shall move to the next stage and participate in the Boot camp.

## 4 Boot camp Interaction with the mentors

- This will be an online event.
- The objective is to help the participants to evaluate their ideas with the mentors, validate their feasibility and receive the feedback to refine their designs.

## 5 Final shortlist

- This will be an online event.
- Participating teams shall present the methodology and share the final Bill of Materials (BoM) to the evaluation team.
- The evaluation team will shortlist the teams for the final hackathon event, to be held at the GITAM (Deemed to be University), Visakhapatnam campus.
- The decision by the evaluation team is final.

## 6 Workshop – 2: Prototype development

- This is an in-person activity and part of the main event of the hackathon which involves the full prototype development.
- Teams that are selected shall participate in the final event at the GITAM (Deemed to be University), Visakhapatnam campus.

## 7 Grand finale

This involves the presentation and demonstration of the prototype by the participating teams to the evaluation team, followed by announcement of the winners.

### Timelines

DATE	DAY	EVENT
8 <sup>th</sup> Dec	Friday	Workshop – 1: Clarifications related to problem statements (Online)
15 <sup>th</sup> Dec	Friday	First level idea presentation & evaluation (Online)
22 <sup>th</sup> Dec	Friday	Announcement of the results
29 <sup>th</sup> Dec	Friday	Boot camp: Interaction with mentors (Online)
26 <sup>th</sup> Jan	Friday	Last day for submission of concept + Bill of Materials by participants (Online)
2 <sup>nd</sup> Feb	Friday	Final shortlist
1 <sup>st</sup> Mar – 2 <sup>nd</sup> Mar	Friday, Saturday	Workshop – 2, followed by the Grand finale

## Problem statements and the expected outcomes

1. A non-invasive device to monitor blood sugar in neonates born to diabetic mothers.

Expected outcome: Non-invasive and harmless device to monitor blood sugar levels in a neonate.



2. Portable audiometry device to measure the degree and type of hearing loss in patients.

Expected outcome: Portable, Lightweight, economically viable and short test-time device.

3. Design and fabrication of a shield to reduce the discomfort/pain caused during IM injection.

Expected outcome: To design a shield/tip to be integrated with/associated with the syringe tip for safe injection thus avoiding injury to neurovascular structures.



4. A portable device for monitoring Foetal Movement Count.

Expected outcome: Wearable device for Foetal Movement Count monitoring.

5. A portable device to identify organisms associated with wound infections quickly and accurately.

Expected outcome: A portable, sensitive, economically viable device that can rapidly and accurately identify the organism in wound infections.



**Venue:** GITAM (Deemed to be University),  
Visakhapatnam Campus

---

**Travel:** The cost of 3<sup>rd</sup> AC train tickets will be reimbursed to the teams that are selected for the final round.

---

**Accommodation:** Will be available at the GITAM, Visakhapatnam Campus, starting 24 hours prior to the event and extending until 24 hours after the event.

---

**Prize Money:** 1<sup>st</sup> prize – ₹1,00,000  
2<sup>nd</sup> prize – ₹50,000 for each problem statement

---



**GITAM**  
(DEEMED TO BE UNIVERSITY)

VISAKHAPATNAM | HYDERABAD | BENGALURU

**GIMSR**

Gandhi Nagar, Rushikonda, Visakhapatnam,  
Andhra Pradesh, India. Pin: 530045

0891 2866 450

[info.biomedbharat2024@gitam.edu](mailto:info.biomedbharat2024@gitam.edu)

For more info visit

<http://biomedbharat.gitam.edu/>

Scan to Register

