



Medical Technology and Interdisciplinary Healthcare Innovation From Observation to Impact

*How GITAM Faculty Can Transform Research
into Real-World Healthcare Solutions*

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Innovation

Impact

Interdisciplinary Healthcare

What you'll *take away*.

Actionable insights. A clear pathway. The right support.

01



See Problems Differently

Learn how everyday observations can become innovations

- Identify unmet clinical needs
- Recognize innovation opportunities
- Develop a problem-first mindset

02



Navigate the Innovation Journey

Understand the pathway from idea to healthcare adoption

- Ideation & Pre-incubation
- Prototyping & Validation
- Regulatory & Commercialization

03



Know Where Support Exists

Connect with the ecosystem that accelerates innovation

- VDC
- Makers Space
- MedTech Incubation Centre
- IEC / Ethics Committee
- Industry & Funding Partners



OBSERVE



BUILD



VALIDATE



APPROVE



DEPLOY

What is Medical Technology?

Medical Technology refers to technologies that **diagnose, monitor, treat, and improve** a person's health and well-being.



It encompasses a wide range of medical devices, from simple everyday tools to advanced life-saving innovations, all working together to **improve patient outcomes and quality of life.**



FROM SIMPLE TO EVERYDAY TOOLS

- Tongue depressors
- Surgical gloves
- Thermometers



TO ADVANCED INNOVATIONS

- Pacemakers
- Insulin pumps
- AI diagnostics
- Telemedicine platforms



THE INNOVATION-TO-IMPACT PATHWAY

From Clinical Observation to Healthcare Adoption

 ENSURING SAFETY • FUNCTIONALITY • RELIABILITY • SUITABILITY

PERFORMED PRIOR TO REGULATORY APPROVAL & COMMERCIALISATION.



WHERE IT IS DONE



“

*Every stage has a custodian.
No innovator walks this path alone.*

”



From observation to impact—*innovating responsibly*, delivering trust.

Humans are involved. *Rights. Safety. Dignity. Well-being.*



IEC • INSTITUTIONAL ETHICS COMMITTEE

Clinicians • Engineers • Scientists • Legal experts • Social experts • Lay persons



01

PIS — Participant Information Sheet

Document that explains the study — purpose, procedure, duration.



02

Informed Consent

Voluntary agreement of the participant after reading the PIS.

NO COERCION • INFORMED • COMPETENT • DOCUMENTED



03

IEC Approval

Validity • Protection • qualifications • privacy.

APPROVE / MODIFY / DEFER / REJECT



04

CTRI — Clinical Trials Registry • India

Official registry by ICMR. Ensures transparency, accountability, public access, regulatory compliance.



05

Clinical Study

Monitoring process, protocol deviations, adverse events if any. Comprehensive evaluation and feedback.



06

CDSCO Registration

Registration of medical device with CDSCO as per applicable rules and requirements for marketing in India.



ETHICS QUERIES &
SUBMISSIONS

For queries, submissions, or guidance regarding ethics approvals, please contact:

gimsrethics@gitam.edu



A bridge between *innovation* and a *market-ready product*.



ENSURING SAFETY • FUNCTIONALITY • RELIABILITY • SUITABILITY

PERFORMED PRIOR TO REGULATORY APPROVAL & COMMERCIALISATION.

01



Access to Mentors

Entrepreneurs, clinicians, faculty, biomed expert.

02



Access to IRRB

INSTITUTIONAL RESEARCH REVIEW BOARD

Recommendation, assessment, improvement, guidance.

03



Ethical Guidance

PIS sheets, consent forms, BR applications, risk-benefit analysis, event reporting.

04



Clinical Collaborators

Connect with hospitals, colleges, doctors, clinical investigators.

05



Access to Databases

Clinical · Research · Patent · Regulatory · Market.

06



Expert Guidance

Confluence of multidisciplinary experts.

07



Investors

Angel Investors, VC firms, CSR funding, Govt funding, corporate innovation funding.

08



Industry Partners

Device manufacturers, pharma firms, healthcare providers, distribution networks.



Connecting innovators with the right people, *expertise*, and resources to bring groundbreaking MedTech innovations to market.



GITAM – MedTech Incubation Centre



Core Team



**Dr. Gitanjali
Batmanabane**
*ProVC, Medical
Sciences, GITAM*



Dr. Raja Phani Pappu
*Dean, School of Business, GITAM
Professor of Entrepreneurship and
experienced Startup mentor*



Dr. Hyandavi Balla
*Assistant Professor, Oral
Pathology and Microbiology,
GITAM Dental College and
Hospital*



**Dr. Raja Kumar
Bollem**
*Principal Venture Coach,
Venture Development Centre,
GITAM*

Support Team

Clinician expert committee (through G-MIC) | Ethics Committee
(gimsrethics@gitam.edu) | Venture Development Centre | G-TEC
(vsrivast@gitam.edu) Makerspace(rbollem@gitam.edu) |
Faculty from various schools | Student Volunteers

No Discipline Solves Healthcare Problems Alone

Your expertise is one essential piece of a larger puzzle.

***“Healthcare problems are interdisciplinary by nature.
Solutions must be interdisciplinary by design.”***

Clinicians

Engineers

Computer Scientists

Life Scientists

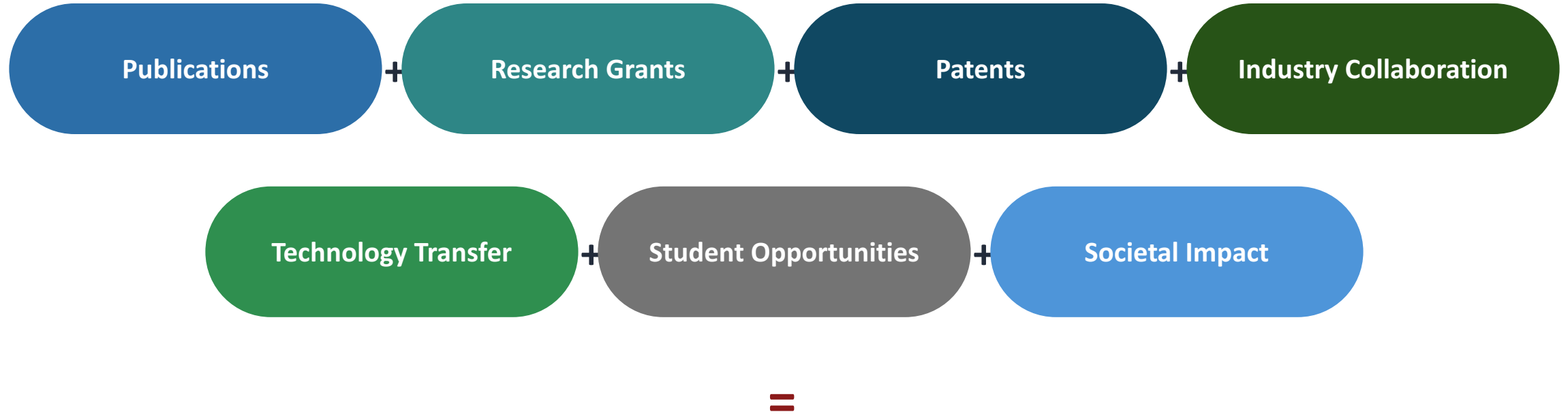
Designers

Students

Each discipline brings a viewpoint the others cannot see.

Why Should Faculty Innovate?

Innovation is not separate from academics — it strengthens academics.



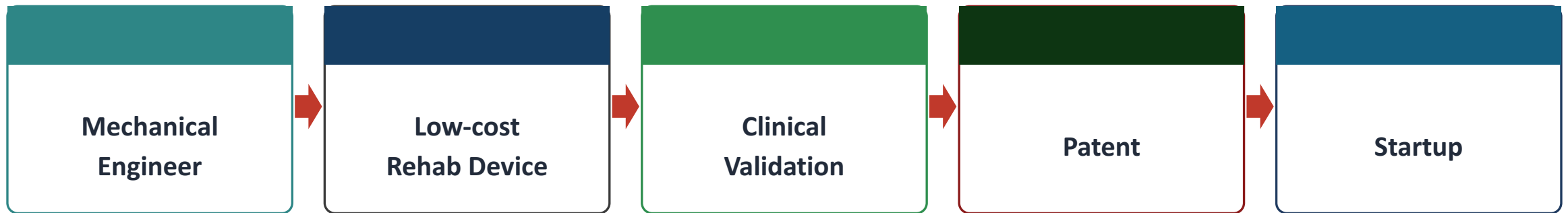
A STRONGER ACADEMIC IDENTITY

Innovation amplifies your research, your students, and your impact.

Faculty in Action

From Mechanical Engineering to a startup.

A faculty member observes a real clinical gap and walks the full path:



WHAT THIS LOOKS LIKE AT GITAM

Engineering faculty + Physiotherapy + Orthopaedics → affordable post-stroke rehab device, validated in a GITAM clinic, filed as an IP, spun out via the GITAM Incubator.

Faculty in Action

Different discipline. Same pattern: observation → impact.

Example 2 — Computer Scientist



Example 3 — Life Scientist



What Is Possible at GITAM

An ecosystem ready for your idea.



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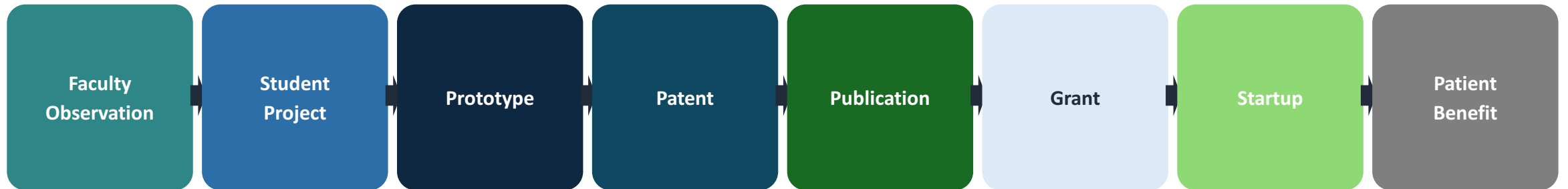
GITAM INNOVATION ECOSYSTEM

Five stakeholders. One mission. Endless possibilities.

Imagine the Next Five Years at GITAM

From observation to patient benefit — one connected journey.

One faculty observation can unlock this entire chain:



OUR SHARED FUTURE

Every faculty member's observation can become a published, patented, funded and lived solution.

The Innovation Gap

Why do most good ideas never become products?

100 Research Projects

20 Publications

5 Patents

1 Prototype

0–1 Commercial Product

What prevents ideas from reaching society?

What Problems Around You Need Solving?

Pause for 60 seconds. Pick just one.

Teaching

What does your class struggle to learn — and why?

Research

Which finding deserves to leave your lab?

Healthcare

What gap have your patients shown you?

Society

Whose problem keeps being ignored?

Industry

Which workflow could be cheaper, faster, fairer?

OVER TO YOU

*Identify ONE problem you have personally observed in the last 30 days.
Write it down. That is your starting point.*

From Clinical Need to Commercialization: Funding Pathway for MedTech Startups

● *Right Funding at the Right Stage of Innovation* ●

Stage	Startup Milestone	Typical Ticket Size	Funding Sources / Schemes
 1 Idea & Need Identification	Clinical problem identification, customer discovery, business model development	₹5 – 25 Lakhs	• BIRAC-SIPP • DST NIDHI-EIR • CSR Grants • Philanthropic Grants
 2 Proof of Concept (PoC)	Initial prototype and feasibility demonstration	₹5 – 25 Lakhs	• BIRAC BIG • NIDHI-PRAYAS • SPARSH • CSR Innovation Grants
 3 Prototype Development & Validation	Design refinement, testing, regulatory planning, pre-clinical validation	₹25 – 50 Lakhs	• SBIRI • BIPP • BIRAC CIIE • CSR Funding
 4 Pilot Manufacturing & Market Entry	Clinical validation, pilot manufacturing, first customers	₹50 Lakhs – ₹2 Crores	• Seed Funds • SAMRIDH • Angel Investors • Incubator Funds
 5 Scale-up & Commercialization	Commercial production, product launch, market expansion	₹2 – 10 Crores+	• Angel Networks • Venture Capital Funds • Strategic Investors

List of Problem Statement

1

Early Childhood Development and Nutritional Risk Screening Platform

Expected Outcome: Develop non-invasive child health screening platform that combines developmental milestone assessment, eye-tracking analytics, and Vitamin D risk evaluation



2

Longitudinal Clinical Investigation Intelligence System (LCIIS): An Intelligent Hospital-Based Laboratory Trend Analysis and Monitoring Platform

Expected Outcome: Develop an intelligent monitoring platform that integrates laboratory and physiological data to detect clinical deterioration trends and provide timely alerts to healthcare professionals



3

Smart Portable App-Based ENT Endoscopy System with Integrated Image Management and Teleconsultation Platform

Expected Outcome: Develop a pocket-sized ENT endoscopy and teleconsultation system, with a smartphone interface that securely acquires, stores, and transmits high-quality image and video taken with off-the-shelf ENT endoscopes to enable portable examination anywhere



BioMed Bharat 2026
Registrations Open

Selected teams may receive an opportunity for incubation at the **GITAM MedTech Incubation Centre** to further develop their solutions beyond the hackathon.

From Problem Statement → Hackathon → Incubation

OPEN CALL

GITAM RESEARCH
EXCELLENCE

Problem Statements

open throughout the year.

Share real-world challenges. Inspire impactful solutions.
Drive innovation in healthcare.



CONTACT

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THANK YOU

