

A Five-Day **NATIONAL LEVEL** Workshop & Hackathon on
AI *for* Biomedical Data

AI4BIOMED26

(3-Day Hands-On Training + 2-Day Hackathon)

27-31 OCT 2026

Training 27-29 · Hackathon 30-31

HYBRID MODE

VFSTR, Vadlamudi · Last date 26 Oct

BIO AI HACKATHON

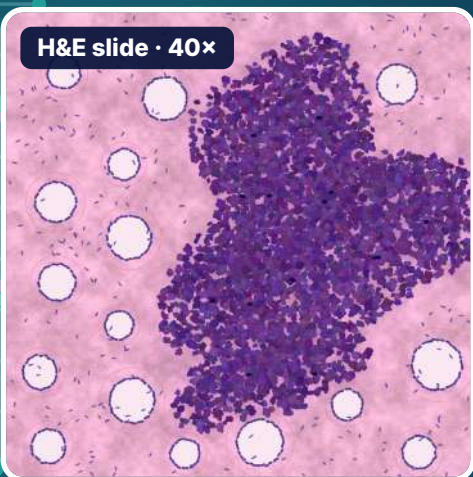
TRACK 1 · Digital Pathology (CNN)

TRACK 2 · Single-Cell & Spatial

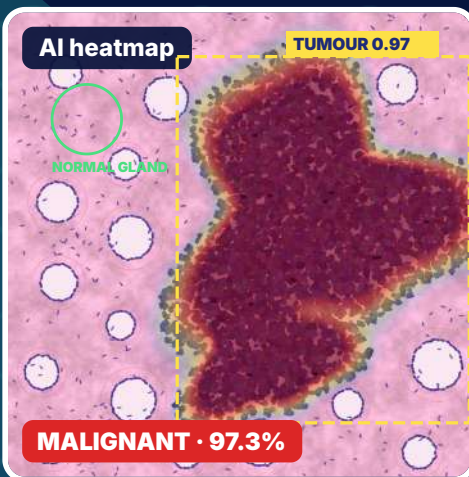
TRACK 3 · LLM Agents

TRACK 4 · Open

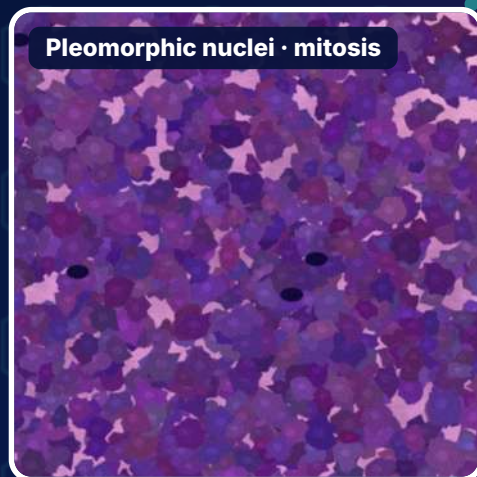
H&E slide · 40×



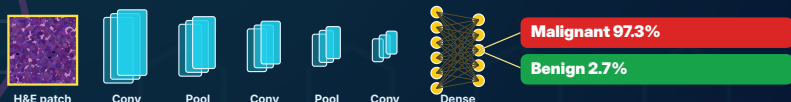
AI heatmap



Pleomorphic nuclei · mitosis



CNN CLASSIFIER



LLM PATHOLOGY AGENT

Cancer: YES — invasive carcinoma, high-grade. Crowded pleomorphic nuclei, loss of gland architecture, frequent mitosis in tumour region.



BIO AI HACKATHON · 30-31 OCT

₹10,000

PRIZE POOL

2
₹3,000

1
₹5,000

3
₹2,000



HACKATHON WINNERS GET A CHANCE TO AVAIL A

6-MONTH INTERNSHIP at SecuAI Solutions

Registration Fee	Full Track
UG Students	₹200
PG / Research Scholars	₹300
Faculty / Industry	₹500
Hackathon team of 4 + free workshop (online/offline)	₹500

Last date: 26 Oct 2026 · Spot registrations available

Email: aibiomed.vfstr@gmail.com

A/C 0195005900000047 · IFSC PUNB0019500

(PNB)

Venue: VFSTR, Vadlamudi, Guntur ·

www.vignan.ac.in

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education



REGISTER



PAY (UPI)

ABOUT THE DEPARTMENT

The Department of Biotechnology, School of Biotechnology & Pharmaceutical Sciences, VFSTR, is accredited by **ABET** and **NBA**. It focuses on Bio-Innovations for Health, Environment and Agriculture aligned with the UN SDGs, with research strengths in nanozymes, probiotics, environmental and medical biotechnology, plant and industrial biotechnology, NGS data analysis, and AI & ML for drug design.

The department offers B.Tech. in Biotechnology and Bioinformatics, M.Tech. in Biotechnology (including an industry-collaborated track with Virchow Biotech) and Ph.D. programmes. Its industry-aligned curriculum integrates AI/ML, bioprocess engineering, bioinformatics and computer-aided drug design with a semester-long industry or research internship, supported by the Advanced Research Centre (ARC) for Bio-resource Utilization, cell culture laboratories and genetic engineering instrumentation. The department has completed 11 externally funded projects and is currently executing 6 projects worth ₹739 lakhs funded by ICMR, CSIR and DST, along with 3 consultancy projects worth ₹7 lakhs, with close student involvement.

DEPARTMENT OF BIOTECHNOLOGY

Vision

To be a centre of excellence in Biotechnology by promoting high-quality education, cutting-edge research for producing globally competent, ethical and entrepreneurial professionals contributing to sustainable development.

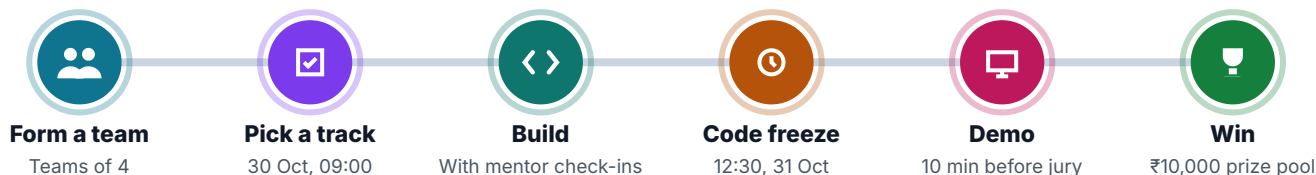
Mission

- To design and deliver an outcome-based curriculum aligned with industry requirements and Sustainable Development Goals (SDGs) in Biotechnology.
- To establish state-of-the-art laboratory facilities and research ecosystem that drives bio-innovations, interdisciplinary collaboration and entrepreneurship.
- To produce globally competent, ethical and socially responsible professionals through extracurricular enrichment and industry interaction enabling leadership and lifelong learning.

ABOUT THE PROGRAMME

A single pathology slide is a gigapixel image, a single tissue section yields expression for thousands of cells, and the literature grows faster than anyone can read it. This hands-on programme tackles all three in three days using free, open-source tools, then gives participants two days to build their own solution in the Bio AI Hackathon. Every session is streamed live. **Industry Partner: SecuAI Solutions** — Founder & CEO **Kesava Mullati** delivers the inaugural keynote and chairs the hackathon jury.

BIO AI HACKATHON — HOW IT WORKS



HACKATHON TRACKS & EXAMPLE IDEAS

TRACK 1 · DIGITAL PATHOLOGY (CNN)



TumourSpot

Classifies H&E tiles as tumour or normal and overlays a heatmap.

TRACK 2 · SINGLE-CELL & SPATIAL OMICS



NicheFinder

Annotates cell types and maps immune niches on tissue.

TRACK 3 · LLM BIOMEDICAL AGENTS



EvidenceBot

Answers gene questions with cited PubMed evidence.

TRACK 4 · OPEN TRACK



Your own idea

Any biomedical AI idea on real data: genomics, drug discovery, clinical text.

HACKATHON RULES

1. Teams of four from any branch or institution; mixed biology + computing teams are encouraged.
2. Each team picks one of the four tracks; tracks are locked at 09:00 on 30 October.
3. Every submission must run on real biomedical data — public datasets are allowed and must be cited.
4. Only open-source tools and libraries; all code is written during the hackathon.
5. Code freeze at 12:30 on 31 October, followed by a 10-minute live demo before the jury.
6. The jury's decision is final.

JUDGING

Working demo	35%
Biomedical data use	25%
Technical depth	20%
Stated limitations	10%
Clarity of demo	10%

₹5,000

1st

₹3,000

2nd

₹2,000

3rd

Winners get a chance to avail a **6-MONTH INTERNSHIP** at SecuAI Solutions

REGISTRATION DETAILS

Category		Fee	
		Per Person	Per Team of Four
Full Track Workshop + Hackathon	UG Students	₹ 200/-	—
	PG Students / Research Scholars	₹ 300/-	—
	Faculty / Industry Professionals	₹ 500/-	—
Hackathon Team (4 members) Includes free access to the workshop — online or offline		—	₹ 500/-

BANK DETAILS

Account Name	VFSTR MISCELLANEOUS
A/C No	0195005900000047
Bank Name	PUNJAB NATIONAL BANK
Branch	Station Road, Guntur
IFSC	PUNB0019500

Note: Payment proof such as the transaction no. / screenshot of the payment should be entered during registration.

PROGRAMME AT A GLANCE

Day 1 — Tue, 27 Oct · Whole Slide Imaging	
09:00–09:45	Inauguration & industry keynote — Kesava Mullati, SecuAI Solutions
09:45–11:15	WSI formats; opening a gigapixel slide with OpenSlide and QuPath
11:30–13:00	Tiling, stain normalisation and tile-level quality control
14:00–15:15	Training a patch-level CNN classifier
15:15–16:00	Attention-MIL and pathology foundation models — CLAM, UNI / CONCH
Day 2 — Wed, 28 Oct · Single-Cell & Spatial Transcriptomics	
09:00–10:30	Count matrix to clusters — Scanpy QC, HVGs, PCA, Leiden, UMAP
10:45–12:30	Automated cell-type annotation with CellTypist
13:30–14:45	Visium and Xenium with Squidpy; mapping clusters onto tissue
14:45–16:00	Spatially variable genes, deconvolution, niches, ligand–receptor
Day 3 — Thu, 29 Oct · Building Biomedical LLM Agents	
09:00–10:30	The agent loop — tool calling, plan–act–observe
10:45–12:30	A typed tool catalogue with replayable logging
13:30–14:45	Grounding in evidence — PubMed tool, scispaCy and FAISS
14:45–16:00	LangGraph orchestration, memory and MCP; hackathon briefing
Day 4 — Fri, 30 Oct · Bio AI Hackathon, Day 1	
09:00–16:00	Tracks locked at 09:00 · mentor checkpoints at 11:00 and 15:00
Day 5 — Sat, 31 Oct · Hackathon Day 2 & Valedictory	
09:00–12:30	Final build · code freeze at 12:30
13:30–15:30	Demonstrations before the industry jury
15:30–16:00	Valedictory — results, prize distribution, certificates

WHO SHOULD ATTEND

UG and PG students of any branch, research scholars, faculty and industry professionals — no discipline restriction and no prior coding needed. **Bring:** a laptop and a Google account.

WHAT YOU TAKE AWAY

Working pathology, single-cell and spatial pipelines, an LLM agent that calls your own tools, all scripts and datasets, and a certificate of participation.

HOW TO REACH

By Air: Vijayawada International Airport (VGA). **By Train:** Tenali (TEL), Guntur (GNT) and Vijayawada (BZA) junctions. **By Bus:** Tenali, Guntur and Vijayawada bus stations, with local transport to VFSTR.

CONTACT

Email: aibiomed.vfstr@gmail.com · Scan the QRs on the back page to register and pay.

IMPORTANT		
26 th October, 2026	27 th –29 th October, 2026	30 th –31 st October, 2026
Last Date for Registration Spot registrations available	Hands-On Training	Bio AI Hackathon

CHIEF PATRONS

Dr. Lavu Rathaiah, Chairman, Vignan's Group
Dr. Pavuluri Subba Rao, Chancellor, VFSTR
Sri L. Sri Krishna Devarayulu, Vice-Chairman, Vignan's Group
Dr. K. Meghana, M.S., F.P.O.S., CEO, VFSTR

PATRONS

Prof. K. V. Krishna Kishore, Vice-Chancellor, VFSTR
Prof. P. M. V. Rao, Registrar, VFSTR

CO-PATRONS

Prof. D. Venkatesulu, Dean, R&D, VFSTR
Prof. Vijaya Ramu Dirisala, Dean, AAA, FA & SBPS, VFSTR

CONVENERS

Dr. T. C. Venkateswarulu, Professor
Dr. A. Ranganadha Reddy, Associate Professor

CO-CONVENERS

Dr. D. John Babu, Professor & Academic Lead
Dr. M. Indira, Associate Professor & Academic Lead

ORGANISING SECRETARIES / RESOURCE PERSONS

Dr. K. Abraham Peele, Associate Professor
Dr. K. Sudheer Kumar, Assistant Professor (Sr. Grade) & Academic Lead
Dr. A. Naga Lakshmi, Assistant Professor
Dr. N. Ravina Madhulitha, Assistant Professor

CO-ORGANISING SECRETARIES

Dr. D. Shyam Babu, Assistant Professor & Asst. Dean, IQAC
Dr. V. Chari, Assistant Professor

CHIEF GUEST

Dr. Venkata Dasu Veeranki, Ph.D., Professor, Department of Biotechnology, IIT Guwahati

INDUSTRY PARTNER

Kesava Mullati, Founder & CEO, SecuAI Solutions — Industry Keynote & Chair, Hackathon Jury



FACULTY ADVISORY & SUPPORT TEAM

Faculty Members, Department of Biotechnology and Bioinformatics, VFSTR

STUDENT COORDINATORS

Overall Coordinator

Gayathri Srihitha Surapaneni, IV BT

Overall Co-coordinators

Bhavishya Korrapati, IV BI
Kaila Divija Sree, IV BI-B
Daggubati Vyshnavi, IV BI-B
Chemarthi Varshitha, IV BI-B

Section Coordinators

Venna Venkata Sai Charan, IV BT
Giridhara Veerendra, IV BI-A
Gowra Bhargav Ram, IV BI
Kothapalli Chidvi Sai, IV BI
Tamma Chaitanya, IV BT
Dhulipalla Sailusha, IV BT
Ojaswi Munnangi, IV BI
Sri Sarayu, IV BI
Surya Santosh, II BT-A
Chandrika, II BT-A
Divya, II BT-B
Parmila, II BI
Prudhvi, III BI
Shaik Dayamani, III BI
Sk. Saif, III BT-A
Sri Latha, III BT-A
Narasimha, III BT-B
Bhavya, III BT-B

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CONTACT

Email: aibiomed.vfstr@gmail.com



₹10,000
PRIZE POOL

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₹3,000

₹2,000

1
2
3

+ Best-in-track certificates of merit



HACKATHON WINNERS GET A CHANCE TO AVAIL A

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Scan for Further Details

Registration Link



For Payment Code

