BIRLA INSTITUTE OF TECHNOLOGY
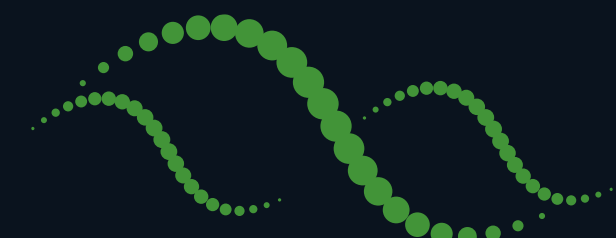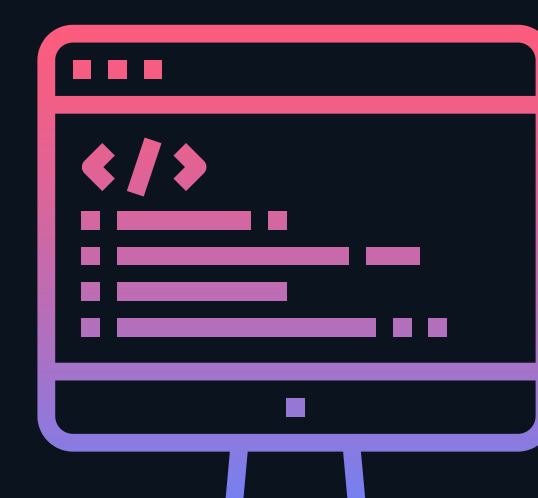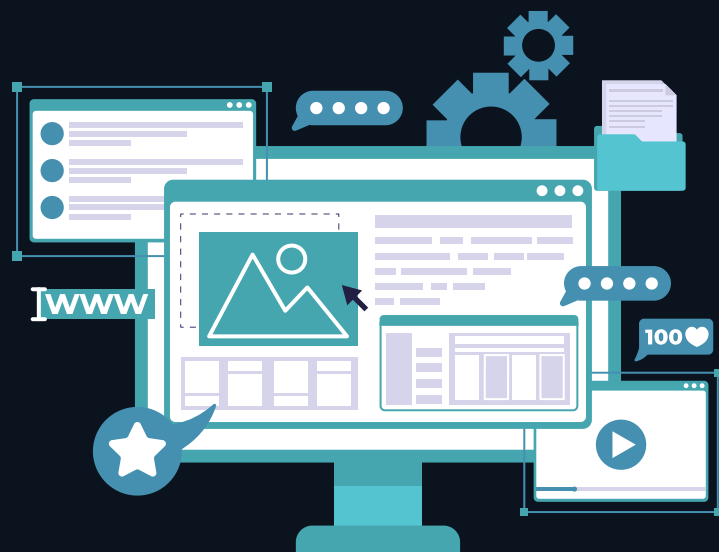
MESRA, RANCHI – 835215 | www.bitmesra.ac.in

Placement Brochure
BIOTECHNOLOGY
& BIOENGINEERING

Year: 2023–24

About the Department

The Department of Biotechnology and Bioengineering was established in 2002 with financial support from the Department of Agriculture, Government of Jharkhand, with objectives like providing education and training facilities, carrying out application-oriented research, developing in-house technologies, and promoting consultancy services in various areas of Biotechnology.

- **Independent building about 35000 sq. ft.**
- **Young, dynamic and learned faculty**
- **1 UG, 4 PG and, Ph.D. Program**
- **A Center of Excellence (COE) under TEQIP, Phase II sponsored by World Bank.**
- **BTISnet SubDIC Bioinformatics center for Jharkhand**
- **More than 50 externally funded projects from funding agencies like DST, DBT, UGC, AICTE, ICMR, CSIR, SERB etc.**
- **A mixed balanced of well recognized faculty members**
- **Rich academic and research profile**
- **All faculties with minimum Doctoral degree**

Courses Offered

Undergraduate programmes
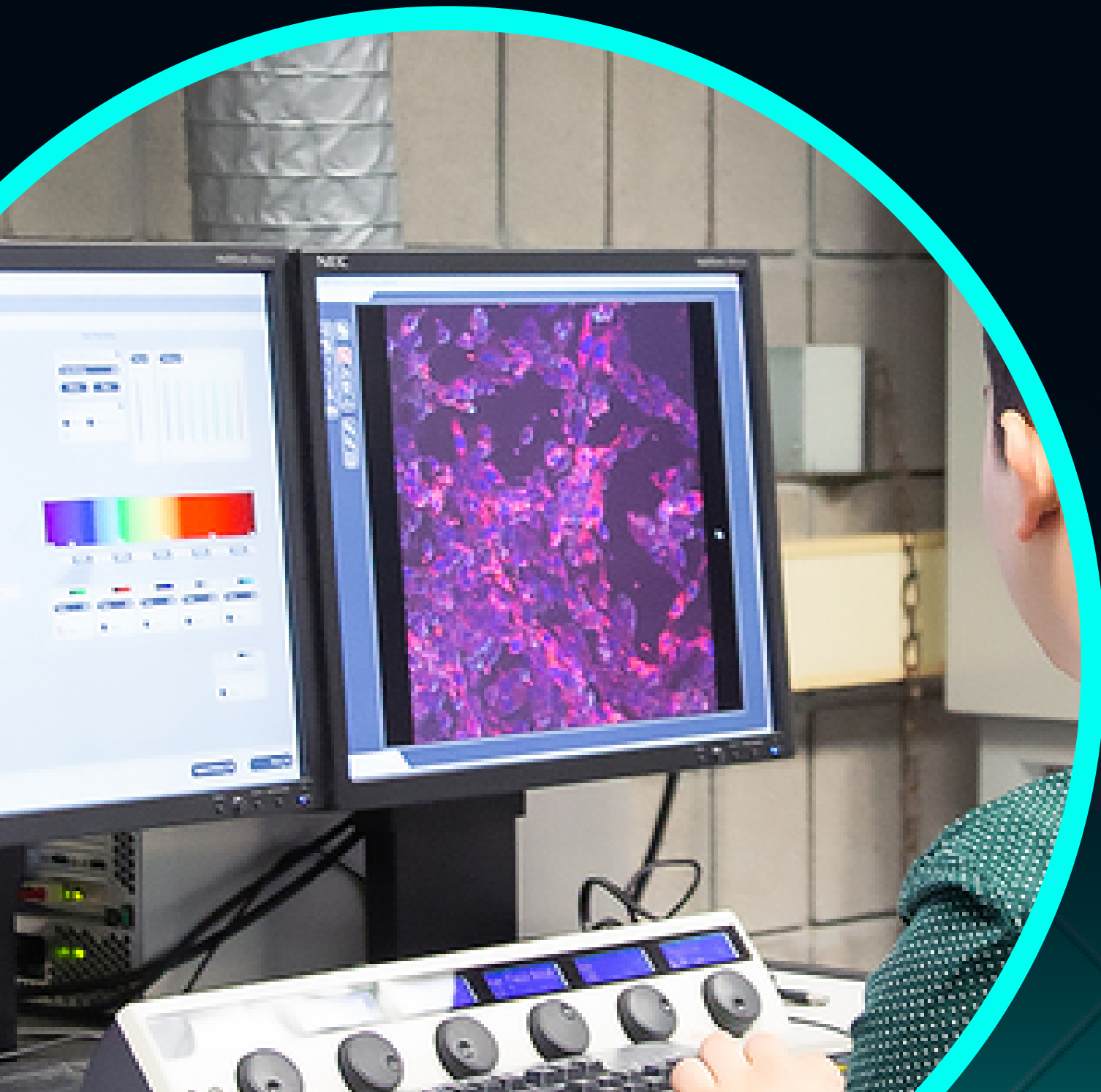- B.Tech. Biotechnology (4 years)

Post-graduate programmes
- M.Sc. Biotechnology (2 years)
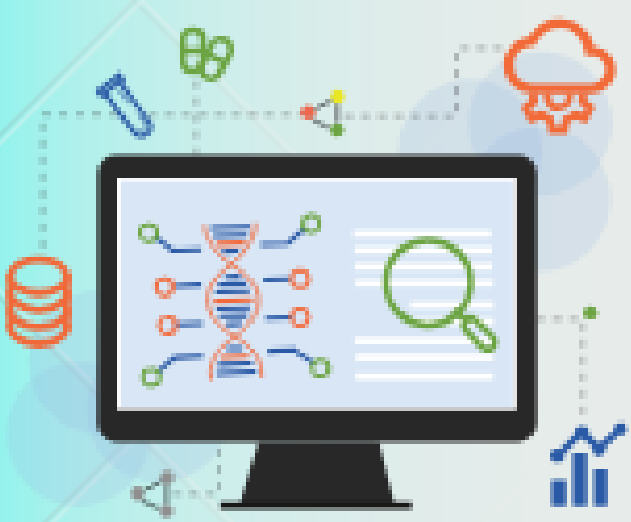- M.Tech. Biotechnology (2 years)

Doctoral Degree
- Ph.D

Laboratories and Facilities

12 well equipped high end research laboratories dedicated to Molecular Biology, Genetic Engineering and Cell Biology, Plant and Animal Biotechnology, Microbiology, Biochemistry, Proteomics, Bioinformatics, Bioprocess Engineering, Chemical Engineering, Environmental Biotechnology, Biomedical Instrumentation and Imaging

- MegaBACE Automated DNAsequencer
- GC–Mass Spectrophotometer
- GC (FID)
- Real–Time PCR
- HPLC
- Typhoon Laser imager
- Lypholizer
- Thermal cyclers
- Gene Pulser
- Microplate reader
- 2D electrophoresis system
- Chromatography system
- Spectrophotometers
- Fluorimeters
- Leica microscope with colony counter
- Leica fluorescence microscope
- Lab and Pilot scale Bioreactors
- Cross–flow filtration systems.

Accomplishments in the field of Data Science, Machine Learning and Artificial Intelligence
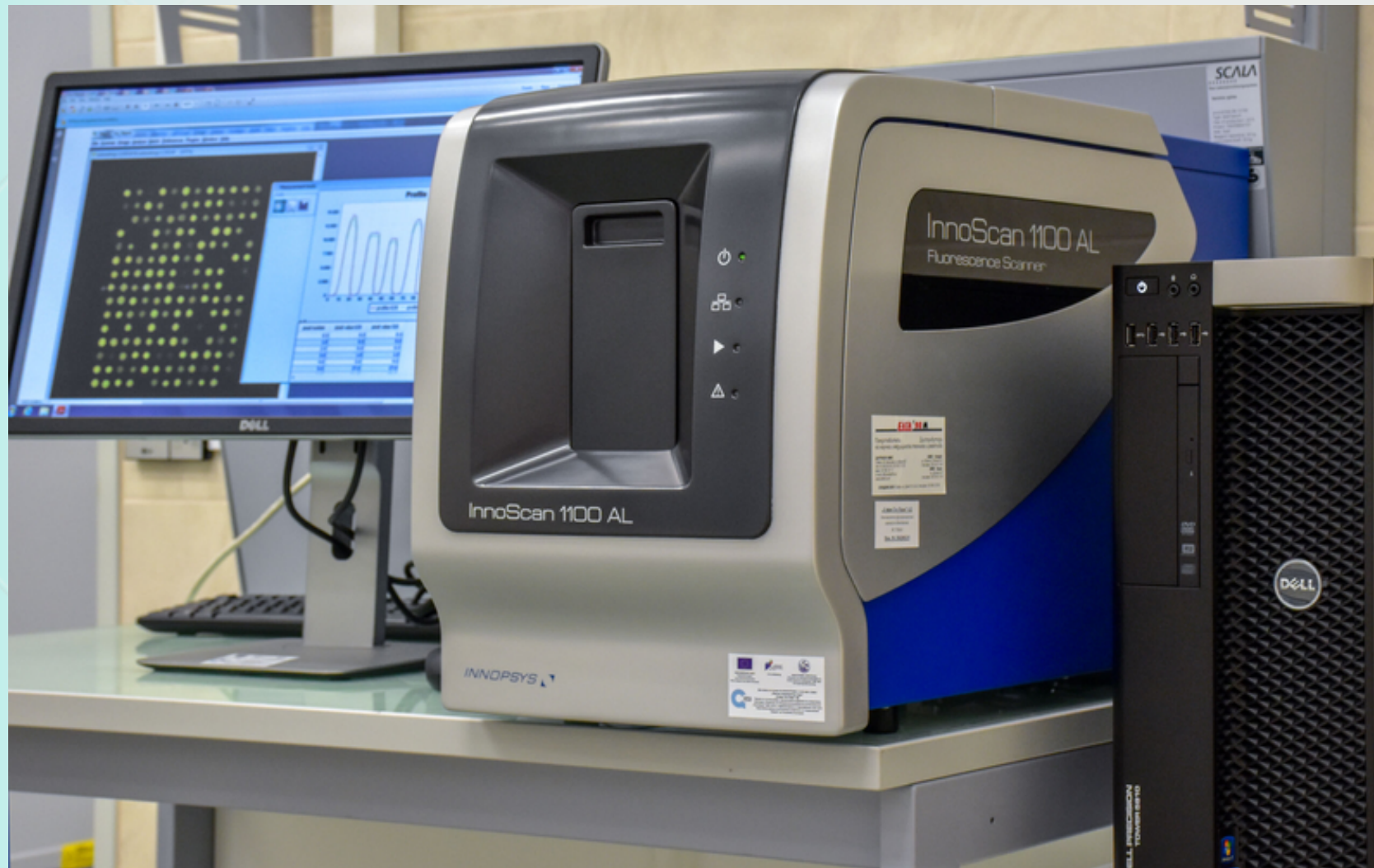
- We have the following tools or software for big data analysis and BIOMARKER design.
- CLC WORKBENCH, GENE ONTOLOGY ANALYSIS, PRIMER DESIGNING: RT PCR, Next-generation sequence analysis pipeline
- Schrodinger and DS MODELLER for high through put moleculer screening, Modelling and drug designing supported with high end workstation and server.
- BIOPHOTONICS with ultrafast real-time fluorescence and tomographic imaging of optical coherence Tomography and scanning laser microscope.
- Multi spctral imaging and biosignal analysis of EEG , ECG AND BRAIN COMPUTER INTERFACE .
- Control theory, biognal analysis, bioanalytical techniques etc.
- Indigenous development of low-cost, portable, high-speed confocal Scanning Laser Ophthalmoscopy (cSLO) system for fluorescence angiographic and photoreceptor imaging of the human eye.

Research Areas

COMPUTATIONAL BIOLOGY LAB AT OUR DEPARTMENT

- Self-fitting 4D-Printed Smart Scaffolds with Efficient Bone Regenerative Potential
- Algal Biotechnology
- Animal & Plant Tissue Culture
- Biofuel Production
- Bioinformatics
- Bioprocess Engineering
- Biosensor & Nano-biotechnology
- Down Stream Processing
- Environmental Biotechnology
- Food Biotechnology
- Industrial Biotechnology
- Medicinal Plant
- Microbial Resources
- Microbial Biotransformation
- Biosignal Analysis
- Biomedical Instrumentation
- Artificial Intelligence in Healthcare
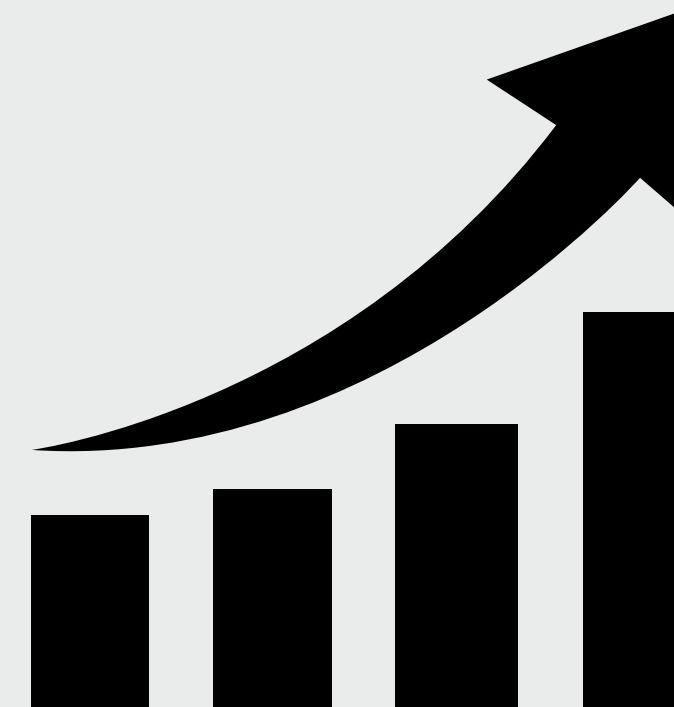- Systems Biology
- Electrophysiology

Achievements

- Ishita Hiremath has received offers for MS in biotechnology from Cornell University, McGill University , Hrithik Baradia (BTECH) has cleared GATE 2021 with an AIR of 24.
- Hrithik Shankar received an offer to work at the University of British Columbia – Okanagan Campus.
- Our K18 batch received one of the highest recorded placements of about 95%, followed by K19 getting an overall placement of 85%.
- Monica Rohini cleared XAT and received an offer from NTPC school of business for higher studies in energy management.
- Pre– final year students Ujjwal Kant and Hrithik Shankar cleared GATE 2021 with an AIR of 275 and 687.

Some well–recognized Databases and Software developed by the Department: –
1. Predict @proteommetal – A tool for prediction of metal binding domains in proteins
2. Swift – Modeller – Java based GUI application for Molecular Modelling
3. Infectious Disease Database (Best viewed in Mozilla Firefox and Opera)
4. Rice Single Exon Gene Database

Internships & Trainings

- Trilogy Innovations
- Goldman Sachs
- Bain Capability network
- Futures First
- Cognizant
- Infosys
- EXL services

- Nation with Namo
- Miebach Consulting
- Kantar
- ZS Internships & Trainings
- Nexus power
- Tredence
- Accenture

- Ugam solutions
- Wipro
- Amadeus software labs Tata Unistore
- Box8
- Google
- Axis Bank
- Pickrr techniologies

- BYJU's
- Capgemini
- Times Internet
- TATA IQ
- Teg analytics
- PwC
- Akash Institute
- HCL
- MiTacs Internship

Our Top Recruiters

Our Top Recruiters

Thank You

Our Contact

📞 : 2275566

🌐 : www.bitmesra.ac.in

📍 : Mesra, Ranchi

✉ : placement@bitmesra.ac.in