About BIT Mesra

The Birla Institute of Technology was established in 1955 at Mesra, Ranchi, Jharkhand by the philanthropist and industrialist Mr. BM Birla, in the year 1955, as part of his lifelong commitment towards building a technologically advanced and industrially strong India. The achievements of the institute, both in terms of research and excellent standards of academic programs led to it attaining the status of a Deemed University under the UGC Act of the Government of India, in 1986, and one of the top Technical Institutes of the country today.

BIT offers undergraduate, postgraduate as well as doctoral level programmes in all major branches of engineering and technology, architecture, pharmaceutical sciences as well as management. The institute has laterally expanded through establishment of several extension centers, both in India and abroad. In India BIT has extension centres at Noida, Lalpur- Ranchi, Jaipur, Deoghar, and Patna

About Department of Computer Science And Engineering, BIT Mesra

The Department of Computer Science & Engineering was established in the year 1983 and is now recognized as one of the leading departments with infrastructure and facilities to match the very best in the country. The department remains committed to its mission which is two-fold. One to impart quality education and equip the students with strong foundation that could make them capable of handling challenges of the new century. The other goal is to maintain state-of-the-art research facilities and facilitate interaction with the world's leading universities, industries, and research organization for constant improvement in the quality of education and research. The department strives to be recognized for outstanding education and research, leading to excellent professionals and innovators in the field of Computer Science and Engineering, who can positively contribute to society. The Department offers two four-year (eight semesters) Bachelor of Technology Programmes B.Tech. in Computer Science and Engineering and B.Tech. in AIML, Two M.Tech. PG Programmes (2 years: 4-semesters) namely M.Tech. in Computer Science and Engineering and M.Tech. in AI&ML. Apart from these, the department also offers Master of Computer Applications (MCA) and Doctor of Philosophy (Ph.D.) as well.

Birla Institute of Technology

Organized By

Department of Computer Science and Engineering
BIRLA INSTITUTE TECHNOLOGY, RANCHI
https://www.bitmesra.ac.in

COORDINATORS:

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DR. SHASHANK PUSHKAR, (Associate Professor, Dept. of CSE, BIT Mesra)

IMPORTANCE AND SCOPE

Geospatial Data Analytics using Machine Learning is critically important in the current era of big spatial data generated from satellite missions of organizations such as NASA and Indian Space Research Organisation, UAV systems, GPS devices, and IoT-enabled sensors. The integration of GIS, remote sensing, and advanced machine learning techniques enables automated extraction of meaningful patterns from massive raster and vector datasets, supporting informed decision-making in agriculture monitoring, climate change assessment, urban planning, disaster management, environmental sustainability, and smart city development. Its scope extends to land use/land cover classification, change detection, thermal data downscaling, flood and drought prediction, vegetation health analysis, spatial regression modeling, and deep learning–based semantic segmentation using architectures such as CNNs and U-Net. With increasing demand for GeoAI solutions in research, governance, defense, and industry, this interdisciplinary domain offers vast opportunities for innovation, policy support, and sustainable development.

COURSE DESCRIPTION

The workshop is designed to provide participants with theoretical foundations and hands-on experience in applying Machine Learning and Deep Learning techniques to geospatial datasets.

The workshop integrates concepts from:

- Geographic Information Systems (GIS)
- Remote Sensing
- Machine Learning Algorithms
- Deep Learning Architectures
- Python-based Geospatial Programming

WHO CAN ATTEND?

UG and PG Students, Research Scholars, Faculty members, Scientists and Persons from industries.

Two-Day National Workshop on Geospatial Data Analytics using Machine Learning

24 -25 February 2026

Sponsored under SSR component of our ANRF-CRG sponsored project Titled '' Multi-Source Optimization using Deep Learning Framework for Downscaling Satellite-Derived Thermal Data''

And the Department Of CSE, BIT Mesra

ABOUT LOCATION AND TRAVEL

Birla Institute of Technology (BIT) is located at Mesra, about 16 kms from Ranchi, the Jharkhand state-capital. A hub of commercial and trade activities in Eastern India, Ranchi is well-connected to the rest of the country through regular flights from major airports as well as through well developed rail and road networks. The BIT 'more' on National Highway 33 is a well-known landmark from where a tree-lined avenue leads one to the grounds that are always abuzz with young voices. The sprawling campus is in a picturesque 780 acre setting at the confluence of the rivers Jumar and Subarnarekha.

ACCOMMODATION

Accommodation is available at Institute Guest Houses / Hostels on a payment basis.

RESOURCE PERSONS

Faculty from various recognized institutions like IITs, BIT Mesra and other institutions will deliver the lectures. The faculties are pioneers and experts in their respective fields of specialization.

Department of Computer Science and Engineering

FACILITIES

The department is equipped with specialized laboratories with over 400 computers available for conducting laboratory sessions in diverse areas.
Programming languages: C, C++, Java, and Oracle, Matlab for Soft Computing and Image Processing, Rational Rose for Software Engineering, Laboratories for Networking, Multimedia, Simulation, Parallel Computing etc.
All the laboratories are internally networked allowing students to remotely access resources at any point in time. The department has a High Performance Computing (HPC) resource, which provides support to numerous departmental and inter departmental research activities. Recently specialized labs for Machine Learning, Intelligence System, IoT and Computational Intelligence have been established to support teaching and research in novel areas.

NO COURSE FEES BEING CHARGED TO ATTEND THIS WORKSHOP BUT ONLY 40 SEATS ARE AVIALABLE ON FIRST COME FIRTH SERVE BASIS

Workshop does provide regular meals and accommodation but there will be a lunch on a suitable day during the workshop.

HOW TO APPLY

REGISTER NOW

Click to Register

ORGANISING COMMITTEE

Patron

Prof. (Dr.) Indranil Manna

Vice Chancellor, BIT Mesra, Ranchi

Chairman

Prof.(Dr.) Abhijit Mustafi

Prof. and Head, CSE, BIT Mesra, Ranchi

For any query, please contact the coordinators.

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