

Visit Report: Meri College of Engineering and Technology Students' Visit to CSIR-IGIB

Date: 15th March 2024

Venue: CSIR-Institute of Genomics and Integrative Biology (Division 4: Big Data & Analytics), South Campus, Mathura Road, New Delhi.

Introduction: On the 15th of March 2024, a group of 117 students from Meri College of Engineering and Technology embarked on a remarkable educational journey to CSIR-IGIB. This visit was a gateway for students to delve into the captivating realm of data science and big data analytics within the context of biological research.

Exploration of Big Data & Analytics in Biological Research: The students were introduced to the groundbreaking work being conducted at CSIR-IGIB, particularly focusing on the intersection of big data analytics and biological research. They were enlightened about the institution's in-house Tejas computer cluster, designed specifically for handling big data computation workloads. With a peak computing capacity of 100 Teraflops and equipped with powerful GPUs for demanding machine learning algorithms, the Tejas cluster showcased the immense computational power harnessed in the field of biological data analysis.

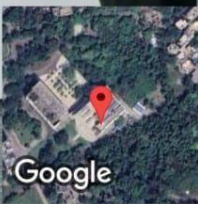
Learning Experience: The visit provided an invaluable learning experience for the students, offering insights into various domains within cognitive sciences through the utilization of multimodal sensor biomedical data. They were engaged in practical exercises focusing on the detection of fatigue and stress, underscoring the practical applications of data analytics in real-life scenarios.

Understanding Supercomputing in Computational Science: Furthermore, the students were acquainted with the concept of supercomputers and their significance in computational science. They gained a comprehensive understanding of how supercomputers are utilized across diverse fields, ranging from quantum mechanics to weather forecasting. The tour highlighted the pivotal role of supercomputers in accelerating research endeavors by performing complex calculations at an unprecedented speed, measured in floating-point operations per second (FLOPS).

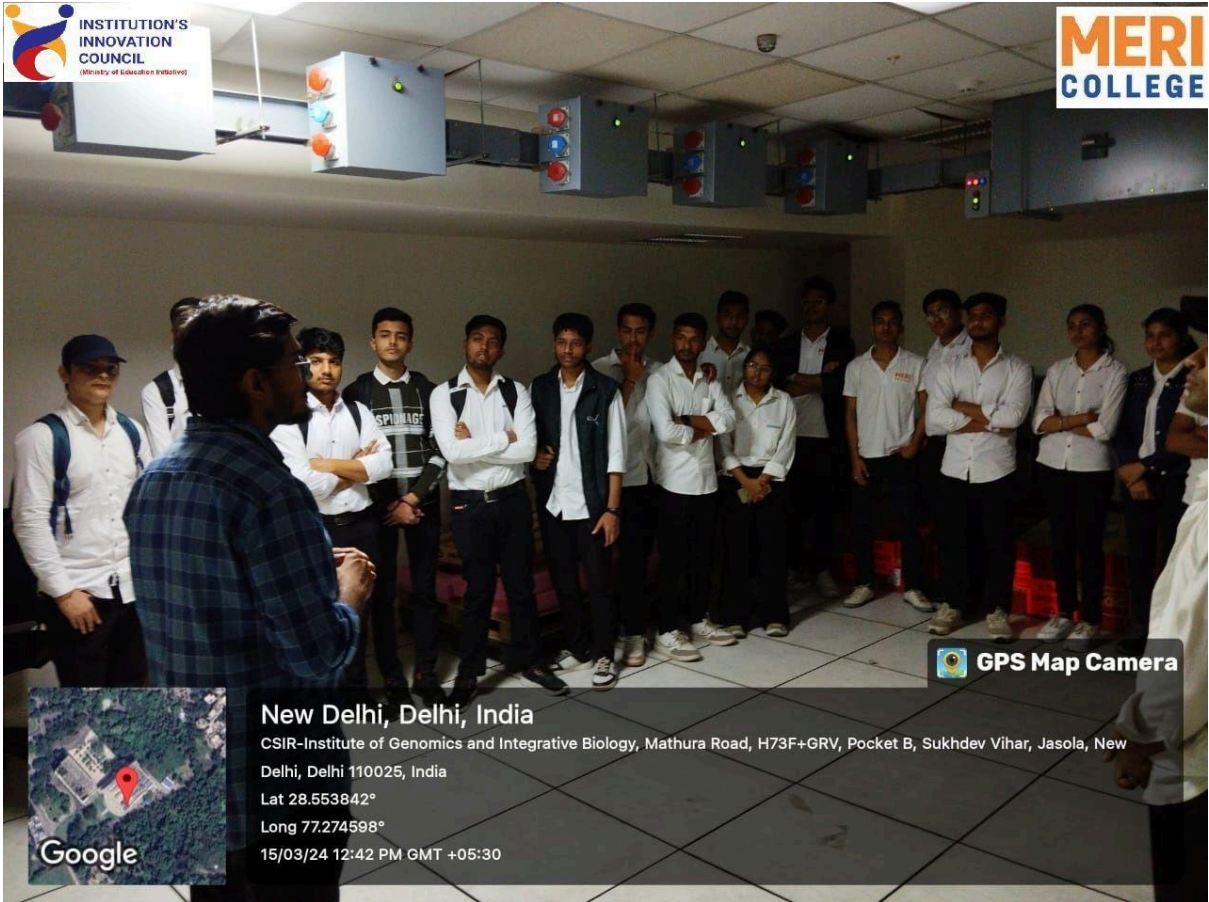
Insights into Genetics and Genome Sequencing: The visit also provided students with valuable insights into genetics and genome sequencing, shedding light on the revolutionary advancements facilitated by AI in disease detection and monitoring. The students were immersed in the intricacies of handling and interpreting vast biological data, fostering a deeper understanding of the complexities underlying genetic research.


Some glimpses of the event are below

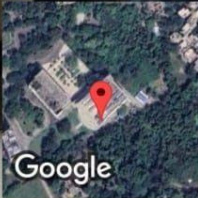




New Delhi, Delhi, India
CSIR-Institute of Genomics and Integrative Biology, Mathura Road, H73F+GRV, Pocket B, Sukhdev Vihar, Jasola, New
Delhi, Delhi 110025, India
Lat 28.553909°
Long 77.274632°
15/03/24 01:26 PM GMT +05:30



 GPS Map Camera



New Delhi, Delhi, India

CSIR-Institute of Genomics and Integrative Biology, Mathura Road, H73F+GRV, Pocket B, Sukhdev Vihar, Jasola, New Delhi, Delhi 110025, India


Lat 28.553842°

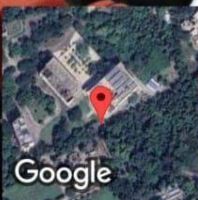
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Google



 GPS Map Camera



New Delhi, Delhi, India

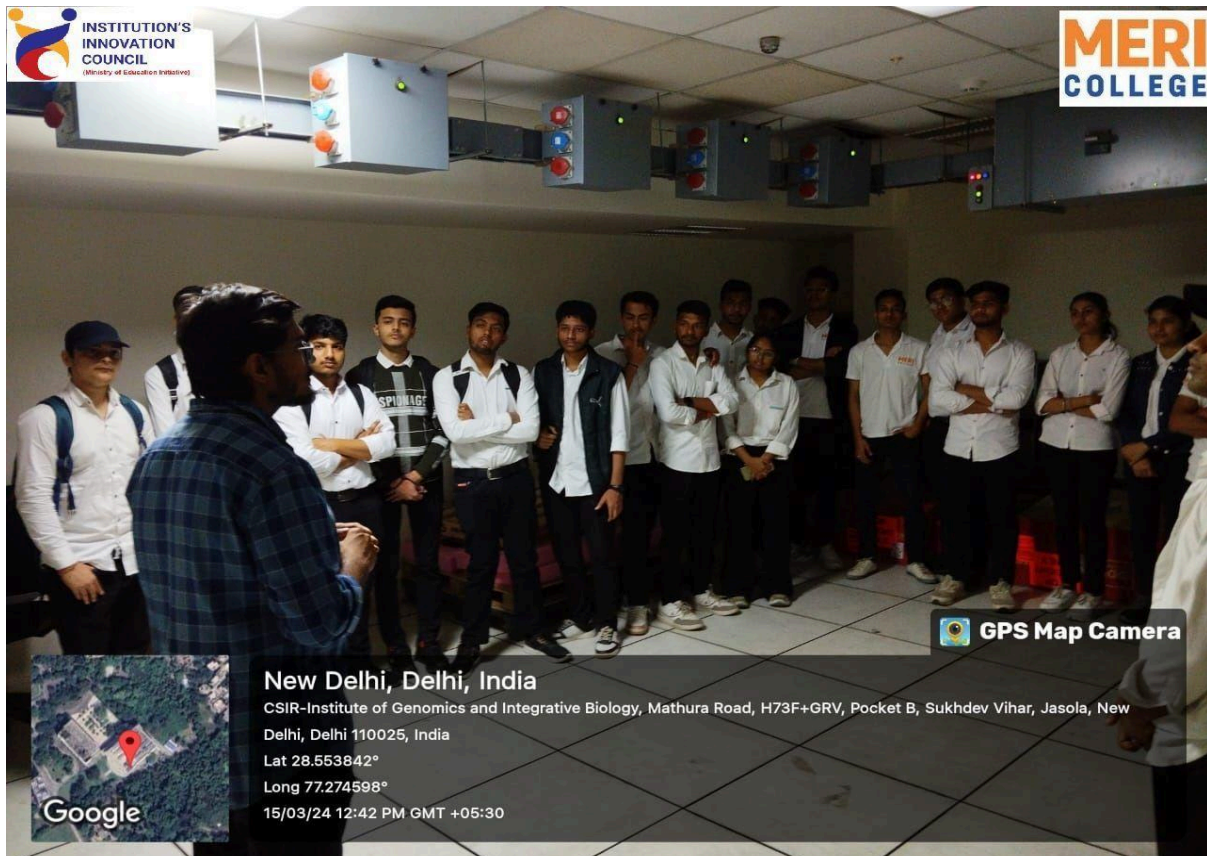
CSIR-Institute of Genomics and Integrative Biology, Mathura Road, H73F+GRV, Pocket B, Sukhdev Vihar, Jasola, New Delhi, Delhi 110025, India

Lat 28.553658°

Long 77.274469°

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Acknowledgments: A heartfelt appreciation was extended to CSIR-IGIB for graciously hosting the educational visit, providing students with an enriching experience. Special thanks were extended to Ms. Beena Pillai and Dr. Kumardeep Chaudhary, PhD, for their invaluable contributions in organizing and facilitating this enlightening opportunity.

In conclusion, the visit to CSIR-IGIB proved to be an enlightening and enriching experience for the students of Meri College of Engineering and Technology, opening new vistas to the fascinating world of data science and its applications in biological research. It served as a testament to the transformative potential of interdisciplinary collaboration in advancing scientific knowledge and innovation.

Mr. Pardeep

AP, Department of ME,

MERI-CET

Mrs. Aditi Sharma

AP, Department of ECE

MERI-CET