



PLACEMENT BROCHURE

CENTRE FOR QUANTITATIVE
ECONOMICS & DATA SCIENCE

BIRLA INSTITUTE OF TECHNOLOGY

2024-2025





ABOUT THE DEPARTMENT

The Centre for Quantitative Economics and Data Science was established in the year 2021 with the aim to provide fundamental knowledge and problem solving skills, recognising the need for better data driven decision making. The Centre focuses on disseminating the acquired knowledge towards improving analytical skills, research, and practical applications.

PROGRAMS OFFERED

INTEGRATED PROGRAMMES

Five year Integrated M.Sc. programme in Quantitative Economics & Data Science

DOCTORAL PROGRAMMES

PhD in various branches of the subject

COURSES OFFERED

Quantitative Economics

- Microeconomics
- Macroeconomics
- International Trade
- Econometrics
- Economic Development & Demography
- Psychology
- Sociology & Political Science

Statistics

- Statistical Methods
- Linear Models & Regression Analysis
- Stochastic Processes
- Sampling Techniques & Design of Experiments
- Multivariate Data Analysis
- Parametric & Non-parametric Inference
- Categorical Data Analysis
- Large Sample Theory

Applied Mathematics

- Real Analysis
- Linear Algebra, Vectors & Matrices
- Differential Equations
- Optimization
- Game Theory
- Probability

Data Science

- Programming & Data Structures
- Programming Languages & Database Management System
- Statistical Machine Learning
- Algorithms for Big Data
- Data Mining & Data Visualizations
- Business Intelligence & Data Engineering
- Big Data Analytics
- Deep Learning

RESEARCH AREAS

- **Hyperspectral Data Analytics**
- **Climate Change Analytics**
- **Web Services Recommendation**
- **Geo-Spatial Informatics**
- **Digital Image Processing**
- **Artificial Intelligence**
- **Vehicular Communication Networks**
- **Data Mining**
- **Pattern Recognition**
- **Machine Learning**
- **Cloud Computing**
- **Natural Language Processing**
- **Social Network Analytics**
- **Big Data Analytics**
- **Computational Intelligence**
- **Business Analytics (HR, Operations, Health & Marketing Analytics)**
- **Development Economics**
- **Political Economy**
- **Social Networks**
- **International Trade policy**
- **Monetary policy**
- **Export promotion**
- **Labour Migration**
- **Mathematical Demography**
- **Optimization theory**
- **Portfolio optimization**
- **Interval matrices**
- **Statistical Inference and Multivariate Techniques**
- **Applied Probability**
- **Mathematical Statistics**
- **Reliability Theory**
- **Censored Data Estimation**
- **Computational Statistics**
- **Bayesian Inference**
- **Decision Theoretic Estimation Procedure**



LABORATORIES & FACILITIES

- **Digital Innovation Lab**
[Sponsored by Adrosonic]
- **Advanced Data Science Lab**
[Sponsored by State Bank of India]
- **Applied Data Science Lab**
- **State of the art chair to provide a repository to conduct research in Quantitative Economics**
- **State of the art QEDS Laboratory**

ACHIVEMENTS

- Nishant Sharma secured the first prize in a hackathon to develop and design a dashboard by the Ministry of Cooperation, Government of India.
- Ritik Kumar secured the 1st rank in internal hackathon for Kavach 2023 & 3rd prize in the House of Hackers Hackathon 2023 organized by IIIT Ranchi.
- Parth Suryadhvaj, Harsh Ranjan, Yaagik Maurya & Navneet Kumar showcased their projects at Adrosonic's 10th Anniversary Elevate's innovation fair to clients. Their project V.I.S.I.O.N. was adjudged as runners-up among industry projects.
- Shreyas, Chinmay Nandan & Sahil Ritolia bagged the first rank in the regional round of RBI Policy Challenge 2023.
- Shreyas & Yaagik Maurya stood 4th in the Anwasha Quiz 2022 organized by NSSO, Ranchi.
- Nishant Sharma has been accepted as a fully-funded MITACS Globalink Fellow at Athabasca University Edmonton (Canada) for 2024.
- Chinmay Nandan, Ashutosh Kumar, Prabhat Kumar & Pratham Shaha were ranked 2nd in the Hack 24 hackathon organized by Society for Data Science, 2024.
- Chinmay Nandan & Shreyas achieved ranks 107 & 170 in Joint Admission Test for Masters 2024 [Statistics]. Ramavath Bhanuprakash achieved category rank 4 in Economics.
- Sudhanshu Kumar achieved rank 252 [Statistics] & Chinmay Nandan achieved rank 557 [Data Science] in GATE 2024.

TRAINING & INTERNSHIPS

- Ritik Kumar & Nishant Sharma bagged research internships at IIT Bombay & IIT Indore respectively.
- Nishant Sharma was accepted for a 12 week fully funded research internship at Athabasca University, Edmonton, Canada.
- The Centre has organized several sponsored research training programs including HYDA 2022 & VRITIKA 2024 on Hyperspectral Data Analytics & National Workshop on Data Analytics for Efficient Decision Making.
- The Centre has organized the 1st Annual QEDS Conference 2024 including speaker sessions & paper presentations.



Let's Get In Touch

CONTACT US



+91651-2275566



placement@bitmesra.ac.in



www.bitmesra.ac.in



Ranchi, Jharkhand, 835215

