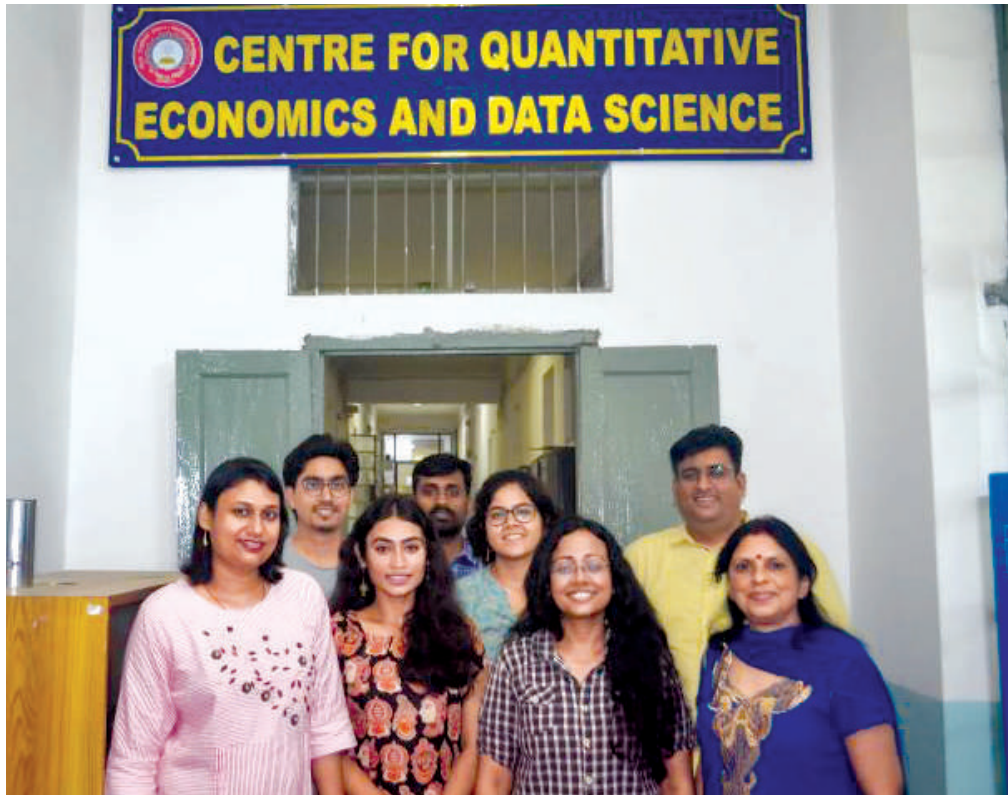


Centre for Quantitative Economics and Data Science

SECTION 1

DEPARTMENTAL PROFILE



1. 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 in the area of Quantitative Economics and Data Sciences. This will help in disseminating the acquired knowledge towards improving analytical skills, research and practical application.

The Centre is recognized at par with existing leading Centres in terms of available computational facilities and academic & research infrastructure. The Centre remains committed to its two-fold mission.

Department:

Vision

To become a globally recognized centre of excellence in teaching and research by producing academicians, professionals, and innovators

to create a better world where a profound understanding of the field of Quantitative Economics and Data Sciences drives positive change in business and society.

Mission

- To set-up a world-class Quantitative Economics and Data Science centre by producing original & robust research insights, delivering high-quality & evidence-based education and engaging with people & organisations worldwide, across the private & public sectors, who are motivated to transform the world by tackling real world challenges.
- To intellectually transform students for productive and stimulating careers by providing them a strong grasp of fundamentals through a diverse living environment, exposure to new ideas and interaction with people who come from different walks of life and have evolving identities.



SECTION 2 RESEARCH PROJECTS

2.1 Sponsored Projects (Research and Consultancy):

a) Ongoing Projects:

Sr. No.	Project Title	PI / Co PI / Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Development and Validation of Graph Optimization Based Multi-Sensor Fusion Algorithm to Establish Real-Time Connections between Climatic Variables in Himalayan Ecohydrological Process Networks for Future Climate Projections.	Dr Manish Kumar Pandey (PI)	BIT Mesra	27th Sept. 2022	₹ 5,00,000.00	2 Years
2.	Microwave satellite data assimilation in Weather Research & Forecasting model through deep learning for improved forecasting of surface and sub-surface soil moisture conditions	Dr Manish Kumar Pandey (Co-PI)	Science and Engineering Research Board (SERB) Sponsored CRG	March 2023	₹ 25,41,240.00	3 Years

b) Projects Completed:

Sr. No.	Project Title	PI / Co PI / Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Techniques and Applications of Hyperspectral Data Analytics	Event Organizer	Science and Engineering Research Board (SERB)	04 th July 2022	₹ 5,00,000.00	7 th August 2022

c) Consultancy Projects carried out/ongoing:

Sl. No.	Title of Project	Funding Agency	Duration		Grant mobilized. (Rs. lakhs)	Principal Investigator / Co-Investigator	Ongoing / Completed*
			from	to			
1.	Execution of Digital Innovation Lab	Adrosonic IT Consultancy Pvt Ltd	1st March 2023	28th February 2024	₹ 10,62,000.00	Dr Manish Kumar Pandey	Ongoing



SECTION 3

SEMINAR / CONFERENCE

3.1 Seminar / Conferences / Short – Term Courses Conducted:

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1	Techniques and Applications of Hyperspectral Data Analytics	Dr Manish Kumar Pandey	Science and Engineering Research Board (SERB) Sponsored High-End workshop (KARYASHALA)	25th July 2022 to 7th August 2022.

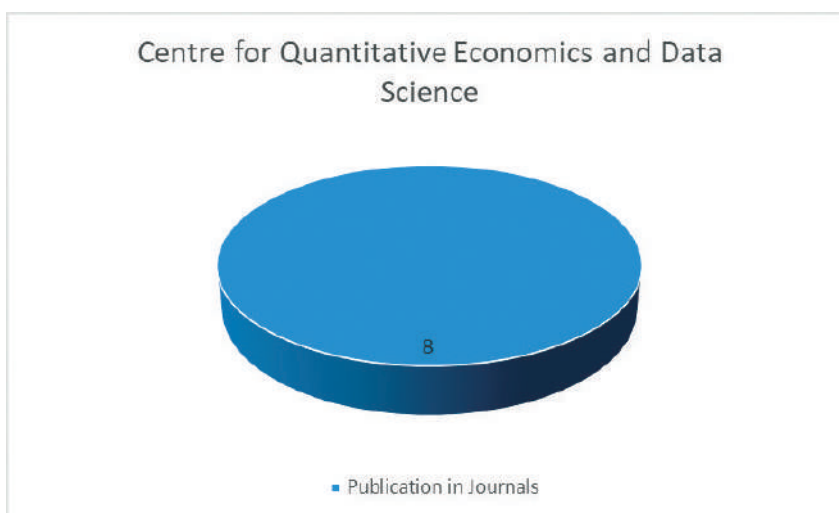
3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date (dd.mm.year)
1	Dr Manish Kumar Pandey	International Conference on Machine Learning and Data Engineering (ICMLDE 2022)	UPES in association with University of Dayton, United States.	UPES, Dehradun, India	UPES, Dehradun, India	07th to 08th September 2022

SECTION 4

RESEARCH PUBLICATIONS



SECTION 5

AWARD / PATENT / COLLABORATIONS

5.1 MoUs / Collaborations :

Sr. No.	Name of Organisation / University	Purpose / Area/Short Description	Year / Duration
1.	Jharkhand Police	Technology and knowledge partner	5 Years
2.	Floxus Education Pvt Ltd	Development of Course "Mastering Data Science"	1 Year



SECTION 6

ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

6.1. List of Faculties

Sr. No.	Name	Designation
1.	Dr. Manish Kumar Pandey	Assistant Professor
2.	Dr. Abhishek Naresh	Assistant Professor
3.	Dr. Tamalika Koley	Assistant Professor
4.	Dr. Mrinal Jana	Assistant Professor
5.	Dr. Surya Nath Maiti	Assistant Professor

6.2 List of Adjunct Faculties:

Sr. No.	Name	Designation	Affiliation
1.	Dr Deepali Aparajita Dungdung	Adjunct Faculty	Ranchi University

6.1 Board of Studies

Sr. No.	Name of the Member	Designation	Role
1	Prof. Kunal Mukhopadhyay	Professor, HOC, CQEDS, BIT Mesra	Chairman
2	Dr. Manish Kumar Pandey	Assistant Professor of Data Science CQEDS, BIT Mesra	Internal member
3	Dr. Abhishek Naresh	Assistant Professor of Economics CQEDS, BIT Mesra	Internal member
4	Dr. Tamalika Koley	Assistant Professor of Statistics CQEDS, BIT Mesra	Internal member
5	Dr. K. Sridhar Patnaik	Associate Professor, Department of Computer Science & Engineering, BIT Mesra	Internal member
6	Prof. S. Padhi	Professor, Department of Mathematics, BIT Mesra	Internal member
External Members (Any Two Members of the Following List)8			
7	Mr Mayank	CEO & Managing Director, Adrosonic	Member from Industry
8	Prof. Saikat Sinha Roy	Professor of Economics, Jadavpur University, Kolkata	Member from Academics
9	Prof. Mousumi Dutta	Professor of Economics, Presidency University, Kolkata	Member from Academics
10	Prof. Rahul Mukerjee	Professor of Statistics, Indian Institute of Management, Calcutta	Member from Academics
11	Prof. Pabitra Mitra	Professor of Computer Science IIT Kharagpur	Member from Academics

SECTION 7

OTHER INFORMATION

7.1 Distinguished Visitors from Industry/Academia/Research organizations

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Dr Lokesh Kumar Sinha, Ex Director Defence Geological Research Establishment	27th July 2023	
2.	Dr. Shubhajit Chakrabarty, Louisina State University	3rd January 2023	
3.	Dr Prashant K. Srivastava, Professor, IESD BHU and Collaborator, NASA Jet Propulsion Laboratory	3rd August 2022	
4.	Dr Manika Gupta, Professor, Delhi University and Collaborator, NASA Jet Propulsion Laboratory	5th August 2022	



वार्षिक प्रतिवेदन 2022-2023

5.	Dr P G Diwakar, ISRO Chair Professor, IAS (Online)	25th July 2023	
6.	Prof. R. N Sahoo, Principal Scientist, IARI, New Delhi	28th July 2022	
7.	Dr Himanshu Govil, Department of Applied Geology, NIT Raipur	6th August 2022	
8.	Dr Randall Perrey, Chief Software Engineering Officer at ADROSONIC	19th April 2023	



9.	Dr Parthsarathi Mukhopadhyay Senior Scientist IITM Pune	1st August 2022	
10.	Dr Amit Kumar, Central University of Jharkhand.	26th July 2023	

7.2 Infrastructure Development.

Development of Digital Innovation Lab in collaboration with ADROSONIC. The interiors of the lab and furnishing of the same is anticipated to be around ₹ 27.50 Lakh to be borne by Adrosonic. The total investment by ADROSONIC over next five years

would ₹ 3,01,26,563 including the lab development cost. The total investment would be distributed into Development cost, IT Infrastructure cost including hardware, software, consultancy charge, running cost, cost to students’ activities, engagement cost and maintenance cost.