PLAKSHA UNIVERSITY

Data Science, Economics & Business

BTech in Data Science, Economics and Business (DSEB) at Plaksha empowers students to harness data-driven insights for solving real-world economic and business challenges. By integrating data science, economic principles and business acumen, this stream nurtures leaders, critical thinkers and innovators poised to advance frontiers of policy and research, and drive impactful decision-making.

DSEB **stream outcomes**

01

Build expertise in the theoretical and methodological foundations of data science and economics.

02

Integrate new knowledge from data science and economics to advance frontiers of business, policy and academic research.

03

Understand the complementarities of economics and data science and apply interdisciplinary approaches for business and policy.

04

Create new data-driven solutions using economic theory and data science that address real-world problems for social good applying principles of responsible data science, environmental, health, development and personnel economics.

Admissions **process**

Plaksha has a holistic two-stage admissions process. Exceptional, curious students who demonstrate strong academic rigor and excel in co-curricular and extracurricular activities are shortlisted. The process includes an online application, a personalized one-on-one interview and technical assessment. Applicants must have studied Mathematics until Class 12 to be eligible for the DSEB stream.

Scan to read the admissions policy.

Curriculum **structure**

The first three semesters at Plaksha are known as Freshmore where students study foundational STEM subjects including mathematics, computing, data science as well as design thinking, communication and social sciences. This enables exploration and informed decision making about the stream they want to choose. From semester four, the DSEB curriculum builds a solid foundation in mathematics, statistics and computing.

Students gain expertise in

Core Data Science

Machine Learning, AI, Deep Learning, Geospatial Data Science.

Economics & Policy

Microeconomics, Macroeconomics, Econometrics, Experimental Economics, Development Economics, Environmental Economics.

Business & Strategy

Finance, Personnel Economics, Industrial Organization, Forecasting, Corporate Strategy, Financial Econometrics.

Computational Tools

Programming, Databases, Datamining, Designing Algorithms, Game Theory.

Capstone & Industry Projects

Real-world problem-solving with companies and research organizations.

Course **details**

- **Data Science Courses**

  Data Mining | Machine Learning and Pattern Recognition
  Design and Analysis of Algorithms | Advanced Statistics
  Deep Learning | Time Series Analysis | Financial Econometrics
  Geospatial Data Science

- **Economics Courses**

  Macroeconomics | Econometrics | Advanced Microeconomics
  Game Theory | Experimental Economics
  Microeconomics of Development | Macro Development
  Environmental Economics

- **Business Courses**

  Finance | Industrial Organization | Personnel Economics

- **Open Electives**

  Reinforcement Learning | ML in Dynamic Environments
  Human-Tech Interaction

- **Industry Exposure**

  Industry internship/ project options

Projects for **hands-on learning**

The DSEB stream fosters a hands-on learning environment where students actively engage in impact-driven projects. Through collaborations with industry, government and academia, they gain insights into practical applications and contribute to cutting-edge research.

- **IPO success classification using pre-event financial and sentiment analysis**

  Eshani Parulekar, Michele Daroowala and Varun Arora (from BTech Class of 2027) are redefining how investors assess IPOs. Their hybrid machine learning framework predicts IPO listing success by combining financial indicators, red herring prospectus text data, and investor sentiment from public forums.

- **Parkinson's detection on the fly using wearables**

  Devam Agarwal, Rhea Singh and Trusha Maheshwari (from BTech Class of 2027) developed a lightweight machine learning model for early Parkinson's detection using wearable sensor data and self-reported symptoms. Their multimodal pipeline enables real-time, interpretable diagnosis on consumer-grade devices making early detection scalable and accessible.

- **Personalized fashion marketing recommender system**

  Muskaan Sahni and Sara Goyal (from BTech Class of 2027) are personalizing online shopping with a recommender system that understands both style and spending. Their model integrates budget preferences with product data using text-based feature extraction and gradient boosting models.

Global
Scaling Challenge, Mexico

A team of four students, Advait Sharma, Aditya Shangari, Ahaan Choksi and Tanushi Khandelwal, made it to the top five at the Global Scaling Challenge Finals, by University of New Mexico. They competed against MBA and graduate student teams from across the world.

“After my second year, for my summer internship, I worked in the strategy consulting department and I was onboarded for a project for market expansion. It was a great learning experience.”

Tanushi Khandelwal
Class of 2026

“My favorite subjects in DSEB have been machine learning & pattern recognition, deep learning and personnel economics. I like personnel economics because it helps me understand about organizations, their economic behavior in these organizations and things like hiring practices.”

Priyanshu Singhal
Class of 2026

Faculty
research spotlight

Priyanshu Singhal from the founding BTech cohort, co-authored a study examining the causal impact of terrorism on firms' investment decisions, with Prof Prakarsh Singh and co-author Rohit Duwadi. The paper finds strong negative effects on new capital investments and total wages in Jammu and Kashmir, with variations across industries and locations.

The research received excellent feedback at the 24th Jan Tinbergen Conference held at Universitat de Barcelona – a leading global forum for quantitative peace science and the economics of conflict.

Other initiatives

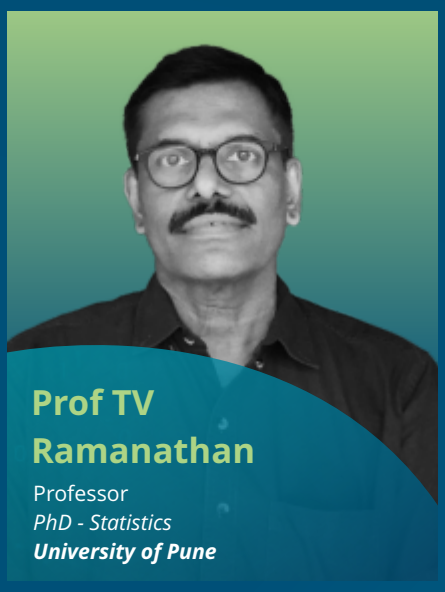
- At the annual **LEO Economics Conference** participants present research papers in economics and behavioral studies.
- The Data Science track under Plaksha's **High School Program** is a residential experience for students passionate about data science, economics and finance.

Faculty behind **DSEB**

Faculty at Plaksha are equally brilliant as teachers, researchers and practitioners. They have trained and worked at some of the world's best universities.

Prof Prakarsh Singh
Chair Professor
PhD - Economics,
London School of Economics

Specializes in data-driven insights, strategy and economic modeling, with 14+ years of experience at Amazon and in academia.



Prof TV Ramanathan
Professor
PhD - Statistics
University of Pune

Brings global experience in statistics and data science, with research spanning multivariate analysis, statistical modeling and interdisciplinary applications.

Dr Vasudha Chopra
Assistant Professor
PhD - Economics
University of Tennessee

Studies environmental and organizational economics through experiments on group dynamics, survey design and behavioral insights.

Dr Abhishek Dureja
Assistant Professor
PhD – Economics
Indira Gandhi Institute of Research Development

Researches health, development and insurance economics, using data-driven methods to inform policy.

Dr Karan Babbar
Assistant Professor
PhD – Applied Microeconomics
Indian Institute of Management Ahmedabad

Specializes in applied microeconomics, development economics and public policy in India across health, education, gender equality and development.

Dr Alok Rajan
Assistant Professor
PhD - Public Finance
University of Illinois Urbana-Champaign

Researches labor, political, public and urban economics, examining how institutions and policies influence economic behavior, transparency, governance and inequality.

Scan to know more about the DSEB stream.

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Scan to apply.