Set up in 1974, the Department of Industrial and Management Engineering (IME) at IIT Kanpur is one of the first in the country to recognize the strength of combining the training of engineers with management education. The class being a heterogeneous mix of engineers from diverse fields naturally enriches the learning environment, turning it into a fountainhead of vibrant ideas.

The MTech program is the flagship program of IME department. It is one of the oldest to introduce industrial engineering in India. The program provides a perfect blend of industrial engineering and management science to its students. The well-defined structure of course work and a year-long thesis work provides in-depth knowledge of concepts to students. The intervening summer internships is used for practical project work in industries.

The program focuses on developing expertise in Analytics and Operations fields. It covers diverse topics from both the management and engineering paradigms. Statistical Modelling, Improvement of Productivity, Quality and Profitability in the Manufacturing sector, Supply Chain Management and application of Optimization Techniques and Business Intelligence Tools in economics, finance, marketing and IT are some of the areas to which students are exposed.
IIT Kanpur boasts of world class infrastructure facilities. The department has been endowed with enviable computational facilities. In addition the department is equipped with the latest tools and systems used in the industries for the students to obtain hands-on experience. Having some of the most complicated software like product life cycle management, simulation, statistical analysis, financial modeling, process design and control, etc. in the well-equipped laboratories allow the students to learn the vital skills allowing them to succeed in future; both in industry and academia.

The IME department has the following labs
- Energy Analytics Lab
- Smart Systems and Operations Lab
- Product Lifecycle Management Lab
- Management Computing Lab
- Virtual Lab– Production Shop Simulation Lab of MHRD
- Management Simulation Lab
- Departmental Library
DEPARTMENTAL ACTIVITIES

Technologies Developed
Department of Industrial and Management Engineering (DIME) at IIT Kanpur as developed the following technologies.
- Train Running and Loco Performance Simulation Software (RDSO & BHEL)
- TrackSafe: Decision Support System to Enhance Safety of Railway Track WorkersISTP-GITA

Research And Development
- Sponsored projects (in 5 yrs.) worth : **350 Million INR**
- Total papers published : **58**

Events/ Conferences/ Workshops
- IME Doctoral Colloquium 2018
- GIAN Courses- Multi-objective Optimization Using Metaheuristic
- Data Analytics For Operations Research
- Industrial visits
- Weekly industrial and academic seminars on Analytics, Operations and Finance from recognized speakers.
- Prabandhan - National level Management Festival

Extra Curricular Activities
- Students of IME have active participation in Student’s Senate, Counseling Service Team & Overall Coordinators, Hall Executive Committee, Entrepreneurship Cell Executives.
- They also participate in Annual Cultural and Tech Fest- Antaragni and Techkriti.
- Some students have excelled in the field of adventure sports (trekking etc.)
CURRICULUM

OPERATIONS
• Operations Research For Management
• Advanced Decision Models
• Supply Chain Management
• Design Of Production Systems
• Operations Management
• Total Quality Management
• Project Management

MANAGEMENT
• Financial Engineering,
  Financial Modelling
• Simulation And Optimization
• Human Resources Management
• Business Process Management
• Business Management Using Cloud
• Software Project Management

ANALYTICS
• Probability And Statistics
• Statistical Modeling For Business Analytics
• Data Mining And Knowledge Discovery
• Big Data For Management
• Marketing Research
• Advanced Statistical Methods For Business Analytics
• Applied Machine Learning
• Introduction To Stochastic Processes
• Economic Analysis For Management
• Introduction To Game Theory

COMPUTING
• Introduction To Computing
• Computer Aided Decision Support Systems

TOOLS/SOFTWARE
• PYTHON
• R
• JAVA
• SPSS
• SAS
• GAMS
• POM-QM
• PHP
• SQL
• Hadoop

SUMMER INTERNSHIP
The two year MTech program requires students to do a compulsory summer internship at the end of first year between May-July for a period of two to Three months. To cater to the growing industry demand most of the students undergo internship in the field of Data Science, Business Analytics, Marketing, Finance and Operations.

THESIS
One year long thesis work is aimed at providing means to get deeper knowledge in the field of interest. These thesis cover exhaustive areas of analytics, industrial engineering and management science such as Market Basket Analysis, NLP, Big Data Analytics, Financial Analytics, Optimization, ERP, Heuristic development, Simulation of business systems and Supply Chain Management.
Areas of Interest

- Data Science
- Analytics
- Operations
- Product Management
- Consulting
- Finance
- Marketing

BATCH PROFILE
2019-21

Abhinav Pateria
Abhishek Rai
Ashish Ubana
Arun Kumar
Divya Sharma
Faraz Ahmad
Pradnesh Lachake
Ravi Gunjan
Saurabh Gupta
Saurabh Patare
Shivam Sharma
Shubham Sahu
Souradip Patra
Sunil Kushwaha
Uday Kumar
Vipul Kumar
Vivek Prajapat
Yash Panchal
End-to-End Chat-bot Preparation for Agricultural Financial Organisation and Deployment in UI

Impact of Cheap Data Availability on the Lives of People in Different Strata

Twitter Match Making and Tagging Local officials, Location scraping, Followers list

Building Valuation and Farm Score

Logistics Management

Application of Supervised and Unsupervised Deep Learning Techniques on Crop Geospatial Data

Process Mining and Process Simulation; Module preparation and integration with ML pipeline

AWS Marketplace: Personal Identifiable Information Data Scrubber

Building Footprint Regularisation and Programmable WhatsApp Messaging

Information Extraction from Files and Data Augmentation for NLP

Entity Based Summarization and Word Level Data Augmentation

Build Chat-bot using Dialog-Flow & Python

Video/Voice Profiling Model
The Batch of 2018-20 had young energetic and dynamic candidates from different streams of engineering.

A few students of the batch also had prior work experience in different Industries.

The students of MTech, IME Department were offered various roles and profile based on their chosen area of interest.

**Total Number of Students** 24
**Placement Percentage** 100%
**Highest CTC** 21.5 LPA
**Top 30% CTC** 17.24 LPA
**Median CTC** 12 LPA

**Profiles Offered**
- Associate Product Manager
- CCB Risk
- Business Analyst
- Data Analyst
- Data Engineer
- Data Scientist
- Analyst
- Manager - Business Intelligence

Dr. Anoop Singh  
**Fellow in Management (IGIDR Mumbai)**


Dr. Faiz Hamid  
**Fellow in Management (IIM Lucknow)**

**Areas of interest:** Combinatorial Optimization, Network Optimization, Artificial Intelligence, Fuzzy Logic, Data Mining, Recommender Systems

Dr. Deepu Philip  
**Ph.D (MSU Bozeman USA)**

**Areas of Interest:** Business Intelligence, Production and operations management, Systems engineering and simulation, Local search and optimization, Unmanned Aerial System

Dr. Devlina Chatterjee  
**Ph.D (IISc Bangalore)**

**Areas of Interest:** Managerial Economics, Applied Econometrics, Rural Economics, Empirical Finance.  
**Specialization areas:** Applied Economics, Statistical Modelling, Rural and Agricultural Markets.

Dr. B.V Phani  
**Ph.D (IIM Calcutta)**

**Areas of interest:** Financial Analytics, Credit Risk Modelling, Securitization, Entrepreneurial Finance, Innovation and Entrepreneurship, Market microstructure and valuation.  
- Associate Dean, Innovation & Incubation IIT Kanpur

Dr. Vanamalla V  
**Ph.D (IISc, Bangalore)**

**Areas of interest:** Applied Operations Research, Optimization and Game Theory.

Dr. Subhas C Misra  
**Ph.D (Carleton University)**

**Areas of interest:** Business Process Management, Enterprise Resource Planning (ERP), ERP and Supply Chain Management, Business Analytics/Data Analysis, e-Governance, Project Management
Dr. R.R.K Sharma  
FPM (IIM Ahmedabad)  

Areas of interest: Operations Research, Operations Management, Strategy. 117 publications (24 book chapters; 16 international conferences published and 57 journal publications) till date. Published two books (one on MRP systems and one on management control systems of organizations).

Dr. Avijit Khanra  
Fellow (Ph.D) (IIM Ahmedabad)  

Areas of interest: Inventory and Demand Management; Stochastic Modelling, System Analysis and optimization.

Dr. Amit Shukla  
Fellow in Management (IIM Lucknow)  

Gold Medallist, B.Tech ISM Dhanbad 2001

Dr. Raghu Nandan Sengupta  
Fellow in Management (IIM Calcutta)  


Dr. Shankar Prawesh  
Ph.D (Muma College of Business, USA)  

Areas of interest: Big Data, Recommender Systems, Social Media, Agent Based Simulation.

Dr. Rahul Varman  
Fellow in Management (IIM Ahmedabad)  

Areas of Interest: Organisation Theory, Industrial Relations, Business & Society. Founding head of the incubation center at IIT Kanpur.

Dr. Vipin B  
Ph.D(IIT Madras)  

PAST RECRUITERS

McKinsey & Company

Flipkart

KPMG

HSBC

accenture

CREDIT SUISSE

AMERICAN EXPRESS

genpact

MasterCard

pwc

Ford

HSBC

Walmart

OPTYM

Sigmoid

Goldman Sachs

IBM

ICICI Lombard

TATA MOTORS

GE Capital

HDFC Life

JPMorgan Chase & Co.

CapitalOne

dunnhumby

ORACLE

fractal

Bridge2i

Mphasis

Northern Trust

APL Logistics
CONTACT

FACULTY STUDENT PLACEMENT ADVISOR
Name: Dr. Amit Shukla
Phone: +91-0512-259-6876
Email id: skamit@iitk.ac.in

DEPARTMENT PLACEMENT COORDINATOR
Name: Ashish Ubana
Phone: +91-8387907993, +91-8005885207
Email: ubana@iitk.ac.in