M.Tech Brochure 2019-20
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
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
- Introduction To Stochastic Processes
- Economic Analysis For Management
- Introduction To Game Theory

COMPUTING
- Computer Aided Decision Support Systems
- Introduction To Computing

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 & Business Analytics, Operations and Finance.

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, Recommender Systems, Financial Analytics, Optimization, ERP, Heuristic development, simulation of business systems and Supply Chain Management.
Dr. Anoop Singh
Associate Professor
Fellow in Management (IGIDR Mumbai)

-Former Deputy Director Economics, Haryana Electricity Regulatory
-Member of the Working Group on Power for the 12th Five-Year Plan, Planning Commission

Dr. Faiz Hamid
Assistant Professor
Fellow in Management (IIM Lucknow)

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

Dr. Deepu Philip
Assistant Professor
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
Assistant Professor
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
Associate Professor
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
Assistant Professor
Ph.D (IISc, Bangalore)


Dr. Subhas C Misra
Assistant Professor
Ph.D (Carleton University)

Dr. R.R.K Sharma  
Professor  
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  
Assistant Professor  
Fellow (Ph.D) (IIM Ahmedabad)

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

Dr. Amit Shukla  
Assistant Professor  
Fellow in Management (IIM Lucknow)

- Gold Medallist, B.Tech ISM Dhanbad 2001

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

Areas of interest: Sequential Estimation, Statistical and Mathematical Reliability Theory, Risk Analysis and its Optimization Techniques in Finance, Meta Heuristic Techniques

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

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

Dr. Rahul Varman  
Professor  
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  
Assistant Professor  
Ph.D(IIT Madras)

Areas of interest: Decision Theory, Behavioral Operations Management, Supply Chain Contracts, Optimization in Operations Management
Name: P N Sarwade  
Year: 1976  
Organization: Tech Mahindra  
Designation: VP Technology Procurement

Name: Khem Aithani  
Year: 1983  
Organization: ITC  
Designation: Senior VP

Name: Vishnu Potty  
Year: 1990  
Organization: Cognizant Tech Solutions  
Designation: VP

Name: Mukul Srivastava  
Year: 1992  
Organization: Crompton greaves  
Designation: VP

Name: Sharat Sinha  
Year: 1994  
Organization: VMware, Singapore  
Designation: VP

Name: Deepak Saxena  
Year: 1994  
Organization: Ericsson  
Designation: Account Director

Name: Shobhit Mathur  
Year: 1996  
Organization: eRx Solutions Pvt Ltd.  
Designation: Co-Founder & Director

Name: Manish Gupta  
Year: 1997  
Organization: Microsoft  
Designation: Director

Name: Vikas Wadhwani  
Year: 2000  
Organization: aPriori INC  
Designation: Director, Workday Integrations

Name: Shobhit Shrotriya  
Year: 2001  
Organization: Accenture, Bangalore  
Designation: VP

Name: Vaibhav Dobriyal  
Year: 2004  
Organization: Crisp Analytics  
Designation: Founder & CPO

Name: Sachin Namdeo  
Year: 2005  
Organization: Citi  
Designation: SVP, Digital Marketing & Media

Name: Ashish Chandra  
Year: 2005  
Organization: United HealthCare Corporation  
Designation: Associate Director

Name: Saurabh Aggarwal  
Year: 2006  
Organization: Wipro Limited  
Designation: Managing Consultant

Name: Abir Mukherjee  
Year: 2006  
Organization: Citi  
Designation: VP

Name: Vipul Agarwal  
Year: 2007  
Organization: Citi  
Designation: Vice President

Name: Prabhakar Rao Koyyana  
Year: 2007  
Organization: Citi, Mumbai  
Designation: VP & Site Leader

Name: Ekta Gupta  
Year: 2009  
Organization: Fiserv  
Designation: Senior Business Analyst

Name: Deborshi Mallick  
Year: 2013  
Organization: Goldman Sachs  
Designation: Business Analyst - Equity Research

Name: Hemendra Pandey  
Year: 2014  
Organization: Amazon  
Designation: Program manager
DEPARTMENTAL ACTIVITIES

Technologies Developed

The Department of Industrial and Management Engineering (IME) at IIT Kanpur has developed the following technologies.

- Train Running and Loco Performance Simulation Software (RDSO & BHEL)
- TrackSafe: Decision Support System to Enhance Safety of Railway Track Workers ISTP-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 Metaheuristics**, **Data Analytics For Operations Research**
- Industrial visit to Tata Motors, Lucknow
- 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, Hall Executive Committee.
- They also participate in Annual Cultural and Tech Fest - Antaragni and Techkriti.
- Some students have excelled in the field of adventure sports (trekking etc.)
PLACEMENT STATISTICS (2017-19 BATCH)

- The Batch of 2017-19 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.

<table>
<thead>
<tr>
<th>Total Number of Students</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest CTC</td>
<td>16 LPA</td>
</tr>
<tr>
<td>Top 50% CTC</td>
<td>14.4 LPA</td>
</tr>
<tr>
<td>Top 30% CTC</td>
<td>15.1 LPA</td>
</tr>
<tr>
<td>Average CTC</td>
<td>11.5 LPA</td>
</tr>
</tbody>
</table>
BATCH PROFILE 2018-20

ABHISHEK VERMA
Interests: Analytics, Operations

ADITYA GUPTA
Interests: Analytics

AKASH KUMAR
Interests: Analytics, Operations

ASHWANI PRABHAKAR
Interests: Analytics, Operations

ASHWIN ASHOK KUMAR
Interests: Analytics, Operations

DANISH NAWAZ
Interests: Analytics, Operations

DHARUV PATEL
Interests: Analytics, Finance

INDRAJIT BARUAH
Interests: Analytics, Finance

KARTHIK RAMAKRISHNAN
Interests: Analytics, Operations

KAWALJEET KAUR
Interests: Analytics, Operations

MOHAMMAD AMIR
Interests: Analytics, Operations

MOTILAL MEHER
Interests: Analytics, Finance

PARAS ARORA
Interests: Analytics, Finance

PRATIKSHA SAHARE
Interests: Analytics, Operations

PRIYANK DUBEY
Interests: Operations, Analytics

RAHUL KARNA
Interests: Operations, Analytics

ROHIT GUPTA
Interests: Operations, Supply Chain, Analytics

SAURABH SHERWAL
Interests: Operations, Analytics

SHIRISH BHARTI
Interests: Analytics, Operations

SHIVAM TYAGI
Interests: Analytics, Operations

SHOBHIT PANDEY
Interests: Analytics, Operations

SHUBHAM SHUKLA
Interests: Analytics, Operations

SOMYA SHARMA
Interests: Operations, Analytics, Production Management

YOGENDRA VYAS
Interests: Analytics, Operations
PAST RECRUITERS
CONTACT

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

DEPARTMENT PLACEMENT COORDINATOR
Name: Danish Nawaz
Phone: +91-8582952206
Email: danisn@iitk.ac.in