

Faculty

- ✦ **Dr. Veena Bansal** : Document Processing, Information Technology
- ✦ **Prof. B. Chandra** : Neural Networks and Data Mining
- ✦ **Prof. Jayanta Chatterjee** : Knowledge Management, Entrepreneurship, Service Management.
- ✦ **Dr. P. Mehta** : Operations Management, Operations Research.
- ✦ **Prof. A. K. Mittal** : Operations Research, Operations Management, TQM, IPR.
- ✦ **Dr. B.V. Phani** : Finance and Accounting.
- ✦ **Dr. Runa Sarkar** : Environmental Policy, Managerial Economics, Social Informatics
- ✦ **Dr. R. N. Sengupta** : Statistical Analysis, Risk Management, Operations Management.
- ✦ **Prof. Kripa Shanker** : Operations Management, CIMS, Quantitative Decision Modeling.
- ✦ **Prof. N. K. Sharma** : Consumer Behaviour and Marketing
- ✦ **Prof. R. R. K. Sharma** : Quantitative Methods, Manufacturing Policy, Strategic Management.
- ✦ **Dr. Anoop Singh** : Infrastructure Finance & Regulation, Energy & Environment, Managerial Economics.
- ✦ **Prof. A. P. Sinha** : Strategic Management, International Business, Service Marketing.
- ✦ **Dr. Sanjeev Swami** : Quantitative Models in Marketing, Strategic Marketing, E-marketing
- ✦ **Prof. Rahul Varman** : Personnel Management & Industrial Relations, Organizational Behaviour.

Contact

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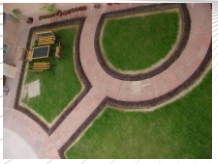
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Indian Institute of **IITK** Technology Kanpur

Industrial & Management Engineering



*For IIT Kanpur, expansion of its academic programs to encompass management education is viewed as a wholesome development. Along with biotechnology, management has been identified by the Institute as a key opportunity to add notable value to a modern engineer's education. Indeed, the complexity of today's marketplace, increased globalization of business operations, growing trade across national borders and major advances in technology and communication have all made a **technologically-endowed management degree** perhaps the soundest investment into a professional's future.*

The high esteem in which IIT Kanpur is held today worldwide may be traced to the intellectual rigor and sheer excellence it applies in imparting knowledge, values, skills and competence to the bright minds it nurtures. These same principles are the guiding beacon of the IIT Kanpur's management programmes, administered by the Department of Industrial and Management Engineering, IIT Kanpur.



Areas of Research

- ✦ *Operations Research*
- ✦ *Operations Management*
- ✦ *FMS/CIMS*
- ✦ *TQM*
- ✦ *Information Management and Information Technology*
- ✦ *Knowledge Management*
- ✦ *Service Management*
- ✦ *Strategic Management*
- ✦ *Infrastructure Policy Regulation and Finance*
- ✦ *Financial Management*
- ✦ *Risk Modelling*
- ✦ *Revenue and Yield Management*
- ✦ *Technology Management*
- ✦ *IPR*
- ✦ *Marketing of Services*
- ✦ *Marketing Science*
- ✦ *Consumer Behaviour*
- ✦ *Personnel Management and Industrial Relations*
- ✦ *Management of Change and Organisation Restructuring*

Salient Features

- ✦ Three different technologically-endowed management degrees including a 2-year MBA
- ✦ In-depth training in Operations Management, Entrepreneurship, IT/ERP and Infrastructure Management
- ✦ Top-notch faculty with hands-on industry experience and exceptional publication record
- ✦ State-of-art facilities augmented by IIT Kanpur's international calibre computing facilities, campus-wide internet access and Central Library

Representative Industry Projects

- ✦ *Redesigning the farmer extension-agricultural research/education continuum in India with ICT mediated knowledge management under the National Agricultural Innovation Project (NAIP)*
- ✦ *Open Philosophies for Associative and Autopoietic far Associative and Autophoictie Learning Systems, a Network of Excellence project under Framework Program 6 of the European Union*
- ✦ *Marketing Research Study for Robot applications for M/s BHEL : A Techno Marketing Study for a large public sector industry.*
- ✦ *Optimization of Export Shipment of Plastic Rolls for M/s Polyplex Ltd.:* This project resulted in a 6% increase in the client's 40-foot container cargo load per shipment and a decision support system (DSS) software to help optimize container orders on line.
- ✦ *Optimization of Movie Screening Schedules:* This project resulted in the maximization of earnings turnover/campaign for a multiple-screen motion picture conglomerate. The DSS software is under field trial in the Netherlands .
- ✦ *Study of Role and Functions of Engineering Personnel* to help restructure UP Government's engineering departments.
- ✦ *Optimization of Blood Clotting Timer design by Taguchi Methods (Proprietary):* The project used statistical design of experiments to prototype a variety of candidate designs to minimize variability in clotting time readings obtained during open heart surgery.
- ✦ *Railway Freight Cost Modelling* for RDSO, Lucknow: This project led to a mathematical model to help minimize transportation, empty backhaul and delay-caused costs by using optimal routing.
- ✦ *Strategy Development for Organizational Restructuring* for Khairabad Eye Hospital: The project aimed at evolving strategies to help a charitable hospital transform itself into a professionally managed one as perceived by customers.
- ✦ *Development of Scheduling Algorithm and its Software Implementation for Multi-satellite Operations by Genetic Algorithms* for ISRO: Project involves optimization of support of satellites from ground stations by generating maximum total value of such support when demand is dynamic.
- ✦ *Post Processing for OCR for Hindi* : Sponsored by MIT: Project involves design and implementation of software for correcting optically read printed Hindi text.
- ✦ *Ready Reconnor for Software Patents in Manufacturing:* Sponsored by MCIT, Project aimed at the Management of Technology, using patent information.
- ✦ *SIDBI Innovation and Incubation Centre:* Sponsored by SIDBI, project aimed at cultivating innovation and creating incubation facilities.

MBA

This two-year degree programme comprises six distinct parts that include foundation courses in general management, summer internship in industry, specialized sectorial studies, advanced management electives, projects, and seminars. IIT Kanpur MBA Courses are offered such that one may develop a sectorial specialization in Manufacturing, or in growing Service Sector. A student may also specialize in the functional areas of Marketing, Operations, Systems and Finance.

M.Tech.

A two-year programme emphasizing in depth study of a functional area of Management followed by one year research project.

Ph.D.

A degree aimed at producing high caliber researchers for the nation's leading institutions and business firms. Candidates complete foundation course work in specialized areas and then engage in original state of the art research.



Publications

- ✦ Gupta, B., & Sharma, N. K. (2008). Compliance with bases of power and subordinates' perception of superiors: Moderating effect of quality of interaction. *Singapore Management Review*, 30 (1), 1-24.
- ✦ Khan, A., Sharma, N. K., & Dixit, S. (2007). Relationship between prospective and retrospective memory: A Questionnaire Based Study. *Psychological Studies*, 52 (2), 134-137.
- ✦ Khan, A., & Sharma, N. K. (2007). Role of Meta-memory and demography in prospective and retrospective memory. *Journal of Psychosocial Research*, 2 (2), 63-75.
- ✦ Sharma, R.R.K. and Berry, V. "Developing New Formulations and Relaxations of Single Stage Capacitated Warehouse Location Problem (SSCWLP): Empirical Investigation for Assessing Relative Strengths and Computational Effort", *European Journal of Operational Research*, 2007, V 177, pp. 803-812.
- ✦ Singh, Anoop, "Power Sector Reform in India: Current Issues and Prospects", *Energy Policy*, Volume 34, Issue 16, November 2006.
- ✦ Kandathil, George Mathew & Varman, Rahul 2007, Contradictions of Employee Involvement, Information Sharing, and Expectations: A Case Study of an Indian Worker Cooperative. *Economic and Industrial Democracy* 2007, 28, 1, 145-179.
- ✦ Varman, Rahul 2006, Why are we Against the Reservations? E- Social Sciences, http://www.esocialsciences.com/articles/displayArticles.asp?Article_ID=530
- ✦ Varman, Rohit and Ram Manohar Vikas (2007) "Freedom And Consumption: Toward Conceptualizing Systemic Constraints For Subaltern Consumers In A Capitalist Society." *Consumption, Markets and Culture*, 10 (2): 117-131.
- ✦ Ram Manohar Vikas and Rohit Varman (2007) "Erasing Futures: Ethics of Marketing An Intoxicant To Homeless Children." *Consumption, Markets and Culture*, 10 (2): 189-202.
- ✦ Veena Bansal and Vivek Pandey, A Decision-Making Framework for IT Outsourcing using the Analytic Hierarchy Process, *Journal of Academy of Business and Economics South Stockholm University, Sweden*, 2006.
- ✦ Veena Bansal, Evaluation, Rating and Certification of Web Documents, *Journal of Tehnology, Knowledge and Society*, organized by Common Grounds, Melbourne, Australia, at Hyderabad, Dec 12-15, 2006
- ✦ Veena Bansal and A K Mittal, Mining the Patent Database, *Directions, Indian Institute of Technology*, vol 7, no 3, pp 62-69, Feb 2006.
- ✦ Anoop Singh, Economic Policy and Regulatory Initiatives to Address Technical Challenges in the Indian Power Sector", *Directions IIT Kanpur*.
- ✦ Ashok K Mittal,, Bhuvanesh Mirdha Technology Mapping using patent literature for supply chain Management, *Int. J. Logistics and Management* , V3 N4 2007.
- ✦ I Mahdavi, J Rezaeian, Kripa Shanker and Z Raftani Amiri, A Set Partitioning based Heuristic Procedure for Incremental Cell Foramtion with Routing Flexibility, *International Journal of Production Research*, Vol. 44, No 24, pp 5343-361, 2006.
- ✦ Sharma, R.R.K. and Chaudhary, R., "ERP implementation and its effect on a few variables of organization structure and manager's job", *Journal of Academy of Business and Economics*, Volume V, Number 3, 2005, pp. 140-149.
- ✦ Iraj Mahdavi, Sharma, R.R.K. and Amiri, Z.R., "Formulation of web document classification: Transforming the quadratic problem into 0-1 integer linear", *International Journal of Digital Management*, ISSN 1738-8554, V1, No. 1, Jan 2006, pp. 63-70.
- ✦ RN Sengupta, S Chattopadhaya and Sujay Datta. "Asymmetric Penalized Prediction Using Adaptive Sampling Procedures"; *SEQUENTIAL ANALYSIS*, 2005, 24, 1, 23-43.
- ✦ RN Sengupta and S Chattopadhaya. "Three-Stage and Accelerated Sequential Point Estimation of the Normal Mean Using LINEX Loss Function"; *STATISTICS*, 2006, 40, 1, 39-49.
- ✦ Varman Rohit, Russell W. Belk and Janeen A. Costa (2006) "Recapturing Humanity: Embedded Market Community," *Academy of Marketing Science Review*, 2006 (4).
- ✦ Varman Rohit and Ram Manohar Vikas (2006) "The Unfree Consumer: Consumption and Freedom under Subaltern Conditions," *Academy of Marketing Science Review*, 2006 (4).
- ✦ Khan, A., Sharma, N. K., & Dixit, S. (2006). Effect of cognitive load and paradigm on time perception. *Journal of the Indian Academy of Applied Psychology*, 32 (1), 37-42.
- ✦ Varman, Rahul (2006) Approaching Human Phenomena: A Methodological Note. *Bharatiya Samajik Chintan*, IV, 4, 236 - 243.

Facilities Available

The department is equipped with state-of-the art facilities for computational support. The system optimization laboratory provides computational support both for teaching and for research. It includes Pentiums and workstations connected to form a Local Area Network, and to access the IIT Kanpur computing facilities and Internet.