

KRIPA SHANKER

Vice Chancellor, Gautam Buddh Technical University Lucknow
(Formerly Uttar Pradesh Technical University Lucknow)

(Professor, Industrial and Management Engineering Department
Indian Institute of Technology Kanpur)

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KRIPA SHANKER

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DATE OF BIRTH July 1, 1949 (Varanasi, India)

MARITAL STATUS Married, Prabha (wife), Awadhesh (son), Arvind (son)

AREAS OF INTEREST

Production/Operations Management,
Manufacturing Systems Management,
Supply Chain and Logistical Management,
Quantitative and Statistical Decision Models,
Simulation, MIS and Systems Management,
Financial Engineering

EDUCATION

CORNELL UNIVERSITY, ITHACA, NEW YORK (1973-77)

- 1. Ph.D.** - Operations Research & Industrial Engineering (August 1977)
Major : Industrial Engineering
Minors: Applied Probability and Statistics,
Production & Operations Management
- 2. M.S.** - Operations Research (January, 1976)

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR (1970-73)

- 3. M.Tech.** - Mechanical Engineering (August, 1972)
Specialization: Production and Industrial Engineering.

BANARAS HINDU UNIVERSITY (BHU) (1965-70)

- 4. B.Sc. Engg.** (Mechanical Engineering) (July 1970)
- 5. Diploma in German Language** (April, 1969)

EDUCATIONAL STANDING

- 1975 M.S. (Operations Research) at Cornell University with GPA of 3.96 (out of 4.0).
1972 M.Tech. (Mechanical) at IIT Kanpur with a CPI of 9.6 (out of 10.0) and Thesis Grade: Excellent.
1970 Gold Medalist, First Class with Honors, First in B.Sc. Engg.(Mech.), (141 Candidates), Second in the Institute of Technology, BHU Varanasi (~1600 candidates). Highest index at the admission. First Rank in all examinations of the 5-year degree course.
1969 First Class in Diploma in German Language, BHU, Varanasi.
1965 First Division with Honors, 13-th in UP Board (~3 lacs candidates), National Merit Scholarship, Percentage of Marks = 78.8.
1963 First Division with Honors, 16-th in UP Board (~3 lacs candidates), First in Varanasi District, Awarded National Merit Scholarship, Percentage of Marks : 76.
1961 First Division, First in Varanasi District in Junior High School

HONORS AND AWARDS

- 2009 Recognition for Eminence and Significant Contributions in Mechanical Engineering, Institution of Engineers, New Delhi
2007 Distinguished Alumnus Award, Institute of Technology, Banaras Hindu University
2006 Fellow, Indian National Academy of Engineering
2001 ISTE National Award for Outstanding Academic
2000 ANBAR Citation for Excellent Paper published (1998, 2000)
1989 Gold Medal for Best Paper on Automation (1989)
1970 Prince of Wales Gold Medal (1970) - 1st Rank in Mechanical Engg., BHU, Varanasi
Iyengar Gold Medal (1970) - 2nd Rank in Institute of Technology, BHU, Varanasi

BHU Merit Scholarship (1966-70)

Cornell University Scholarship (1976)

Govt. of India National Scholarship for Studies Abroad (1973-77)

Govt. of India National Merit Scholarship (1963-65, 65-70)

- Keynote Speaker and Session Chair in many conferences and conventions.
- Rated as *Outstanding Teacher* several times at IIT Kanpur, AIT Bangkok and Cornell.
- Elected as Fellow and Life Members of several national and international societies.

PROFESSIONAL EXPERIENCE

INDIA

May 1978 - present

Indian Institute of Technology Kanpur

Department of Industrial & Management Engineering

Professor and Head (Jan. 1989-Jan 1992; Jan.2001- April 2002)

Professor (Feb. 1987 - till date),

Asst. Professor (Nov. 1979 - Feb. 1987), Lecturer (May 1978 - Nov. 1979)

Sept. 1977-Apr.78 Banaras Hindu University, Department of Mechanical Engineering

Lecturer (Sept. 1977 - April 1978)

Sept. 1971-Aug.73 Department of Mechanical Engineering, IIT Kanpur

Sr. Res. & Teaching Asst. (Part-time)

ABROAD

Aug. 1982 - July 84

(on leave from IIT/K)

Asian Institute of Technology, Bangkok

Division of Industrial Engineering and Management

Associate Professor and Chairman (Jan. 84 - July 84)

May 1998 - July 2000 (on leave from IIT/K) Visiting Professor AIT Bangkok	Asian Institute of Technology, Bangkok Visiting Professor, Industrial Engineering and Management May- July, 2001, Sept.-Dec.1990, May-Aug. 1987, May-July 1981, May-Aug.1980
Cornell University Cornell University	May-July 1990, June-Aug. 1992 School of Operations Research and Industrial Engineering, Research & Teaching Assistant (Part-time) June 1974 - Dec.76
Majandran University of Science and Technology, Babol, Iran	May-July 2005

TEACHING ACTIVITIES

MAJOR FIELDS

Supply Chain Management	Production/Operations Management
Materials Management & Inventory Control	Operations Research
Quality Control and Reliability	Applied Probability and Statistics
Quantitative Decision Models	Simulation, MIS and Database Management
Computer Programming and Languages	Robotics and Robot Applications
Computer-Integrated Manufacturing Systems	Flexible/Intelligent Manufacturing System.

CURRICULUM DEVELOPMENTAL ACTIVITIES (IIT Kanpur)

(a) *New Courses Introduced (at PG level)*

IME 609 : Materials Management	IME 622 : Advances in Production Management
IME 623 : Management of Inventory Systems	IME 636 : Simulation of Industrial Systems
ME 667 : Computer-Aided Manufacturing	IME 681 : Computer-Integrated Manufacturing Systems
IME 682 : Flexible Manufacturing Systems	IME 683 : Intelligent Manufacturing Systems
MBA 611: Production/Operations Management	MBA651 : Quantitative Methods for Decision Making
MBA 664: Supply Chain Management	MBA665 : Manufacturing Planning and Control
MBA 666: Project Management	MBA676 : Advanced Manufacturing Systems
IME 611 : Financial Engineering	

(b) *Courses Remodelled (at PG level)*

IME 602 : Applied Probability and Statistics	IME 631 : Analysis and Control of Quality
IME 624 : Computer-Aided Decision Systems	IME 642 : Design of Production Systems

(c) *Stream - Elective in Management (at UG level)*

IME 401 : Design of Production Systems
IME 431 : Robotics and Robot Applications
SE 266 : Computer-Aided Manufacturing

(d) *Engineering Management (Minor at UG Level)*

EM 303 : Quantitative Decision Models
EM 304 : Computer Methods for Engg. Management

CURRICULUM DEVELOPMENTAL ACTIVITIES (AIT Bangkok)

(a) *New Courses Introduced (at PG level)*

IE 41 : Introduction to Operations Research	IE 73 : Materials Management & Inventory Control
IE 98 : Discrete Event System Simulation	IE 981 : Selected Topics in Inventory Control
IE 982 : Linear Programming and Extensions	
AT03.13 : Materials Management and Inventory Control	
AT03.14 : Statistical Models and Design of Experiments	

(b) *Courses Remodelled (at PG level)*

IE 72 : Product Quality Management	IE 71 : Production Management
AT03.02 : Stochastic Decision Models	AT03.11 : Quality Management

RESEARCH ACTIVITIES

THESES SUPERVISED

Ph. D. Theses Supervised at IIT Kanpur	:	12 + (2 in progress)
M.Tech. Theses Supervised at IIT Kanpur	:	93
MBA Projects at IIT Kanpur	:	7
M. Sc. Maths (5-Year Integrated) Projects	:	2
National Productivity Council		1
M.Engg Research Study at AIT Bangkok (Aug. 82 - July 84):		8
Special Study (for course-option M.Engg. Program) :		11
M.Engg. Theses at AIT Bangkok (May 1998 - July 2000) :		8

PUBLICATIONS

(a) Papers (75)

Refereed Journals	:	33	(International: 31, Indian: 2)
Book Chapters	:	3	
Conference Proceedings	:	63	
Presented in Conference	:	5	

(b) Technical Reports : 2

(c) Monographs : 6

Publications: Area-wise

Manufacturing Automation & Robotics	:	5
Manufacturing Processes	:	1
Probability Theory	:	1
Inventory Control & MRP	:	8
Repair and Maintenance	:	3
Quality Control	:	4
Computer Aided Process Planning	:	13
FMS Scheduling/Loading	:	15
FMS Simulation	:	4
Cellular Manufacturing	:	6
AGV Based Materials Handling System	:	3
Supply Chain Management	:	20
General	:	5

SPONSORED PROJECTS/CONSULTANCY

Completed [10]

- (1) 1983-86 Computer-Aided Enumeration and Classification of Mechanisms Using Group Technology, sponsored by the Department of Science and Technology, Govt. of India, New Delhi (Rs. 2.3 lacs) [Co-Principal Investigator]
- (2) 1987-90 Computer-Aided Manufacturing (CAM) Project, on Development of Software Technology in CAM, sponsored by Ministry of Human Resources and Development, Govt. of India, New Delhi (Rs. 20 lacs). [Principal Coordinator]
- (3) 1988-92 Computer-Aided Tool Inventory System (CATIS), sponsored by Aeronautical Development Agency (ADA), Bangalore, (Rs. 6.7 lacs). [Principal Coordinator]

- (4) 1989-93 National Technical Manpower Information System (NTMIS) sponsored by the Institute of Applied Manpower Research, Govt. of India, New Delhi, (Rs. 18.0 lacs).
Principal Coordinator]
- (5) 1990-94 Computer Integrated Manufacturing System on Development of Teaching Aids sponsored by the Ministry of Human Resource Development, Govt. of India, New Delhi, (Rs. 18.0 lacs).
[Principal Coordinator]
- (6) 1992-95 Computer-Aided Tool Inventory Systems with Graphical Aids (CATIS-G) sponsored by Aeronautical Development Agency (ADA), Bangalore, (Rs. 2.67 lacs).
[Principal Coordinator]
- (7) 1994-99 Integrated Design and Competitive Manufacturing (IDCM), Technology Development Mission, sponsored by the Planning Commission, New Delhi, (Rs.75 lacs).
[Associate Coordinator - CIMS]
- (8) 1995-98 Flexible Manufacturing System, sponsored by the All India Council for Technical Education, New Delhi, (Rs. 8.25 lacs)
[Principal Coordinator]
- (9) 1997-03 Development of a Fused Deposition Modelling and Micro Welding Scheme Using Electrochemical Discharge, sponsored by Department of Science and Technology, New Delhi, (Rs 27.5 lacs)
[Co-Principal Investigator]
- (10) 2002-04 Development of Ready Reference of Global Software Patents in Manufacturing Sector, sponsored by Ministry of Information Technology, Government of India, New Delhi, (Rs. 15. 65 lacs)
[Co-Principal Investigator]

CONSULTANCY PROJECTS

- (11)1997-98 Process Planning of Rolling Mills, Tata Iron and Steel Company (TISCO) Jamshedpur (Rs 3.0 lacs)
[Co-Principal Investigator]

CONTINUING EDUCATION ACTIVITIES

(A) Long Term Courses for Executives from Industry

1. Visionary Leadership Programme in Manufacturing - One year Certificate Programme jointly coordinated by IIM Calcutta, IIT Kanpur and IIT Madras (Coordinator and Faculty – CIMS module , 2009, 2010)
2. Long Term Certificate Programme for Officers of Ordnance Factories of India in Manufacturing Management (Co-Coordinator 2009, Cordinator Manufacturing Systems Module 2009, 2010)

(B) Quality Improvement Programme (QIP) Courses Sponsored by Govt. of India for Teachers from Engineering Colleges and Executives from Industry

QIP/ISTE Courses Organized (and also participated as faculty) (*: jointly with other faculty)

1. Intensive Course on Management of Inventory Systems, IIT Kanpur (Dec. 1 - 14, 1980).
2. Intensive Course on Quality Control and Reliability, IIT Kanpur (Dec.1-15, 1981).
- 3.*. Intensive Course on Decision Support System, IIT Kanpur (May 19 - 31, 1986)
- 4.* Intensive Course on Computer-Integrated Manufacturing Systems (May 2 - 14, 1988)
- 5.* Intensive Course on Flexible Manufacturing Systems, IIT Kanpur (Dec.7 - 8, 1992)
6. Intensive Course on Intelligent Manufacturing Systems, IIT Kanpur (Dec.5 - 12, 1995).

QIP/ISTE Courses - participated as a faculty

1. Intensive Course on Applied Operations Research, IIT Kanpur (May 15 - 27, 1978).
2. Intensive Course on Traffic Flow Analysis, IIT Kanpur (Dec. 3-15, 1979).
3. Tolerance Analysis and Fixture Design in Computer-Aided Process Planning, ISTE Summer School, Department of Mechanical Engineering, Institute of Technology, Banaras Hindu University, May 12-25, 2001.

(C) Courses for Executives from Industry and Civil Administrators

Courses Organized (and also participated as faculty)

1. Robotics and Flexible Automation: An Overview, Oct. 27-29, 1988.
2. Robotics and Flexible Automation: An Overview, Jan. 14-16, 1989, (for Defence Officers).
3. Introduction to Robotics and Robot Applications, Feb. 22- March 4, 1990.
4. Robotics and Flexible Automation: An Overview, Feb. 20-22, 1990.
5. Introduction to Simulation using GPSS, May, 1990, (for officers of RDSO Lucknow)
6. Advances in Automated Manufacturing System, February 8-12, 1994.

Courses - participated as faculty

1. Programme on Project Management, Tehri, (May 29-June 9, 1978). Participants: Senior Engineers of UP Govt. Irrigation Dept.
2. Intensive Course on PERT/CPM Methods, IIT/K (Oct. 2-7, 1978). Participants: Executives from Industries.
3. Training Course on Project Implementation, Monitoring and Evaluation, State Planning Institute, Lucknow (July 12-26, 1979).
4. Intensive Workshop on Computers for Management, Institution of Engineers (India), IIT Kanpur, (Sept.7-9, 1984).
5. Management Development Programme, Institute of Management Development, UP (IMDUP), Lucknow, (Feb. 1985).
6. Computers for Executives, National Productivity Council, Delhi (Dec. 1985).
7. Winter School on CAD in Mechanical Engineering, IIT Kanpur, (Jan. 1986). Participants: Executives from the Industries.
8. Introduction to Robotics and Robot Applications, IIT Kanpur (January 1986). Participants: Executives from Industries.
9. Winter School on CAD in Mechanical Engineering, IIT Kanpur, (March 1986). Participants: Executives from the Industries.
10. Management Development Programme, Institute of Management Development, (IMDUP), Lucknow, (Sept./Oct. 1986, Sept. 1987, Oct. 1987, Nov. 1987). Participants: Sr. Officers from UP Govt.
11. Introduction to Robotics and Robot Applications, IIT Kanpur (Sept./Oct. 1986). Participants: Engineers from Industries.
12. Dynamics, Control, Simulation and Programming of Robots, IIT Kanpur, (Oct. 1987). Participants: Engineers from Industries.
13. Forecasting Techniques: Applications, Allen Bradley & Company, New Delhi, Jan. 1989.
14. Project Implementation and Scheduling, State Planning Institute, Lucknow, Feb. 1990, Participants: Sr. Officers from UP Govt.
15. Project Formulation & Appraisal and Cost Benefit Analysis, U P State Academy of Administration, Nainital, July 15-20, 1996, Participants: Sr. Officers from UP Govt.
16. CPM and PERT Modelling in Project Management, U P State Academy of Administration, Nainital, October 7-9, 1996, Participants: Sr. PCS Officers from UP Govt
17. Quantitative and Statistical Models, and Computer Applications, Small Industrial Bank of India Course for Small Scale Industry Entrepreneurs, April-May, 1997.
18. Production Management, Small Industrial Bank of India Course for Small Scale Industry Entrepreneurs, April-May, 1997
19. Quality Management and Expert System in Information Technology and Management, Continuing Education Centre, Asian Institute of Technology, Bangkok, Nov. 2-13, 1998.
20. Quality Management in Information Technology and Management, Continuing Education Centre, Asian Institute of Technology, Bangkok, Nov. 1-12, 1999.
21. Course on Materials Management for Indian Railways Probationers, Indian Institute of Technology Kanpur Sept-Oct 2004.

PARTICIPATION IN CONFERENCE/WORKSHOP/SYMPOSIUM

(A) CONFERENCE/WORKSHOP/SYMPOSIUM ORGANIZED

1. Workshop on Inventory Control and Materials Handling, Asian Institute of Technology, Bangkok, March 22, 1983 (*Coordinator*).
2. Symposium on Business Software Development, (with Thailand Management Development Production Center, Bangkok), July 28, 1983 (*Co-Coordinator*).
3. First National Symposium on Robotics and Robot Applications, IIT Kanpur, December 1984 (*Member, Organizing Committee and Chairman, Technical Committee*).
4. Institution of Engineers (India) Convocation & Fourth Technicians' / Students' Convention, IIT Kanpur, October 24 -25, 1996 (*Vice - Chairman*).
5. XI National Production Engineer Convention, Institution of Engineers (India) IIT Kanpur, October 25 -26, 1996 (*Chairman*).
6. Special International Conference on Production Research (ICPR) 2000, Bangkok, August 2-4, 2000 (*General Chair Technical Arrangements*).
7. International Conference on Computing and Communications, Indian Institute of Technology, February 3-6, 2005 (*Member, Organizing Committee*).

(B) CONFERENCE / WORKSHOP / SYMPOSIUM

(i) National Conference/Workshop/Symposium Attended

1. First National Conference on Quality and Reliability, Indian Institute of Technology, Bombay, November 1978 (Paper).
2. Second Conference on Mechanical Engineering, Institute of Technology, BHU, Varanasi, January 1979, (Session Vice-Chairman and paper).
3. Case Studies on Design of Experiments Using Orthogonal Array Technique, Bharat Heavy Electricals Limited, Hyderabad, Jan. 1980, (Invited Delegate).
4. Ninth All India Machine Tool Design and Research Conference, Indian Institute of Technology, Kanpur, December 1980 (Paper).
5. Conference on Modern Production and Management Technique for Business and Industry, Chulalongkorn University, Bangkok, July, 1983 (3 papers).
6. National Symposium on Robotics and Robot Applications, IIT Kanpur, December, 1984 (Member, Organizing Committee and Paper).
7. Workshop on Engineering Software - Applications and Research, IIT Kanpur, January, 1985 (Paper).
8. XVII Annual Convention of Operational Research Society of India, IIM Ahmedabad, December, 1984 (Paper).
9. Symposium on System Improvement Through Operational Research/System Analysis (OR/SA), Vigyan Bhawan, New Delhi, February, 1985 (Invited Delegate).
10. XVIII Annual Convention of Operational Research Society of India, Jamshedpur, December, 1985, (Session Rapporteur and Paper).
11. Seminar on Industrial Automation, FMS and Robotics, Bhiwani, September, 1986 (Invited Paper).
12. National Workshop on CAD/CAM, KNIT Sultanpur, January, 1993 (Key Note Lecture)
13. Second National Conference on CAD/CAM, Coimbatore, August, 1994 (paper).
14. AICTE Workshop on Planning and Management of Technical Education, Banaras Hindu University, April 15-16, 1995 (Invited Delegate).
15. 1999 IE Network National Conference, Khon Kaen, Thailand, October 1999 (paper)
16. AICTE Seminar on National Board of Accreditation (NBA) Awareness, IIT Kanpur, January 12-13, 2001 (Invited Keynote Speaker).

(ii) International Conference/Workshop/Symposium Attended

1. International Conference on Industrial Systems Engineering and Management in Developing Countries, Asian Institute of Technology, Bangkok, November, 1980 (Invited Delegate and paper).

2. International Conference on Marketing Management, Institute of Marketing and Management, New Delhi, January, 1981 (Delegate).
3. Asia Pacific Conference on Operational Research, Singapore, November, 1982 (Paper).
4. AIT Bangkok-IIT Kanpur Seminar on CAD/CAM, Madras, Sept. 1986 (Paper).
5. Seminar on Applications of CAD/CAM in Industry, Asian Institute of Technology, Bangkok, September, 1986 (Invited Speaker).
6. Third ORSA/TIMS Special Interest Conference on Flexible Manufacturing Systems: Operations Research Models and Applications, MIT, Cambridge, August 14-16, 1989 (Paper).
7. International Conference on Engineering Software - 89, IIT Delhi, December 4-7, 1989 (Paper and Session Chairman).
8. Indo-US Workshop on CAD/CAM & Robotics, IIT Delhi, December 1991 (Delegate).
9. UNESCO Workshop on Management Education in Engineering, IIT Delhi, February 16-18, 1993 (Delegate).
10. 2nd International Conference on Computer Integrated Manufacturing, Singapore, September, 1993 (Paper).
11. Asian Productivity Organization Seminar on Computer Integrated Manufacturing (CIM) Systems, Seoul, Korea, June 18-24, 1996 (Country delegate and Paper).
12. 4th International Conference on Computer Integrated Manufacturing, Singapore, October 1997 (Papers and Session Chairman).
13. First Asian Symposium on Industrial Automation and Robotics, BITECH, Bangkok, May 1998 (Paper, Session Chair and Local Arrangement).
14. 3rd World Congress on Intelligent Manufacturing Processes and Systems, MIT, Cambridge, June 28-30, 2000 (Paper and Session Chair).
15. Special International Conference on Production Research (ICPR) 2000, Bangkok, August 2-4, 2000 (Papers (3), Session Chair and General Chair Technical Arrangements).
16. PAN IIT-2004, Pragati Maidan, New Delhi, December 2004.
17. IIT Everywhere – Making a Difference, IIT Alumni Singapore August 2006.
18. PAN IIT – 2006, Mumbai, December 2006.
19. The 7th Asia Pacific Industrial Engineering and Management Systems Conference, Bangkok, 17-20 December 2006, Session Chair.

INVITED/KEYNOTE LECTURES IN CONFERENCES/WORKSHOPS/MEMORIALS (only selected ones)

1. Implementation of CAD/CAM Systems in Industry, Seminar on Applications of CAD/CAM in Industry, Asian Institute of Technology, Bangkok, September 1986.
2. Applications of Operations Research in Production Planning and Control, GEC Allahabad, April 1991
3. Integrated Technology, Vishwesariya Memorial Lecture, Institution of Engineers, Kanpur September, 1991.
4. Computer Integrated Manufacturing - Integration of CAD/CAM, National Workshop on Computer Aided Design and Manufacture, KNIT Sultanpur, January 1993.
5. Decision Support System in Industrial Decision Making, Seminar on Improving Organizational Efficiency, HBTI Kanpur, March 1993.
6. Flexibility and Automated Manufacturing Systems, F.W. Taylor Memorial Lecture, Institution of Engineers, Allahabad, July, 1993.
7. Computer Integrated Manufacturing, XI National Production Engineers Convention, Institution of Engineers, Kanpur, October 25-26, 1996.
8. Total Quality Management and Automation, National Seminar on Total Quality Management and Indian Industry, HBTI Kanpur, Nov. 24, 1996.
9. ISO9000: An Overview and Implementation, Seminar on Eco-Friendly Textiles and Implementation of ISO-9000 Quality Assurance System in Textiles, Textiles Committee, Ministry of Textiles, Government of India, organized at Kanpur, September 6, 1997.

10. Innovations in Manufacturing for Global Competitiveness, Vishwesariya Memorial Lecture, Institution of Engineers, Kanpur, IIT Kanpur, Engineers Day, September 15, 2000.
11. Evaluation of Administration and Management in Technical Institution, AICTE, NBA Awareness Seminar, IIT Kanpur, 12-13 January, 2001
12. Tolerance Analysis and Fixture Design in Computer-Aided Process Planning, ISTE Summer School, Department of Mechanical Engineering, Institute of Technology, Banaras Hindu University, May 12-25, 2001.

Invited Lectures (Institutions, Industry, Associations, etc.)

1. Value Engineering, Defence Tent Factory, Kanpur, February, 1981.
2. Operations Research, Regional Engineering College, Rewa, August, 1981.
3. Inventory Control - Theory and Practice, Faculty of Commerce and Accounting, Thammasat University, Bangkok, August, 1983.
4. Japanese Management System, Institution of Engineers (Kanpur Chapter), April, 1985.
5. Japanese Management System and Quality Circles, IIT Kanpur Alumni Association (Delhi Chapter), Oct. 1985.
6. Flexible Manufacturing System (FMS) - What, Why and How? Small Scale Industries Service Institute, Bhiwani, September, 1986.
7. Integrated Technology, Vishwesariya Memorial Lecture, Institution of Engineers, Kanpur, September, 1991.
8. Decision System and Information Management in Production and Materials Management, Mechanical Engineering Department, Banaras Hindu University, Feb 15, 1997.
9. Consumer Welfare and Quality, Golden Jubilee Celebration of Bureau of Standards, Kanpur, Sept. 22, 1997.
10. A Vision for the IIT s – Collaboration with Industry, IIT Everywhere – Making a Difference, IIT Alumni Singapore August 2006.

MEMBERSHIP OF PROFESSIONAL ORGANIZATIONS

Operations Research Society of America	(1978 - 82)
Operations Research Society of India	(1972 - 73, 1984 -)
Institute of Industrial Engineers	(1973 - 78, Sr. Member 1983 -)
Institution of Engineers, India	(1986 -) Fellow (1991-) Life Member
Indian Institution of Industrial Engineers	(1986 -) Life Member
Indian Society for Technical Education	(1990 -) Life Member
Institute of Electronics and Telecommunication Engineers	(2002 -) Hon Fellow
Indian National Academy of Engineering	(2006-) Fellow

REVIEWER OF JOURNALS

International Journal of Production Research
 International Journal of Production Economics
 International Journal of Operations Management
 International Journal of Flexible Manufacturing Systems
 European Journal of Operational Research
 International Journal of Industrial Engineering
 Journal of Institution of Engineers (India)
 OPSEARCH (Operations Research Society of India)

MAJOR ADMINISTRATIVE/EXECUTIVE RESPONSIBILITIES

Major Responsibilities at the National Level

1. Vice Chancellor, U P Technical University (now Gautam Buddh Technical University) , Lucknow, (July 2009 - till date).
2. Chairman, Board of Apprenticeship and Training, Northern Region, (2005-2008).
3. Member Expert on National Vishwakarma Rashtriya Puraskar and National Safety Awards Committee, Ministry of Labour and Employment, Government of India (2009 – till date).
4. Member, AICTE Appellate Committee, (2009- till date).
5. Member, Northern Regional Committee, AICTE (2003- till date).
6. Member, Board of Governors, MNIT Bhopal (2002- till date).
7. Visitors' Nominee, Faculty Selection, NIT Patna (2009 – till date)
8. Member, All India Board of Management Education, AICTE (2003- 2006).
9. Member, AICTE National Board of Accreditation of Management Institutions (1989 -92).
10. Member, AICTE National Board of Accreditation (2005-2008).
11. Chairman, Northern Regional Subcommittee, AICTE, (2003- 2006).
12. Member, Board of Governors, NIT Patna (2004- 2008)
13. Member, Delegation of Association of Indian Universities to France, January 2005.
14. Member, Faculty of Engineering and Technology, BHU (2003-2006)
15. Chairman, Institution of Engineers (India) Kanpur Local Centre (1996-98).
16. Member, CII National Committee on Technical Education and Training (1989-98).
17. Member, Board of Governors, KNIT Sultanpur, (1995-98).
18. Member, Board of Studies Mechanical Engineering, Institute of Technology, BHU (2000-03).
19. Chair/Member, Project Review Committee DST, AICTE, MHRD (1987-till date)
20. Member, Faculty Selection Committees IITs, IIMs, NITs (1990-till date).
21. Examiner, Ph D Theses, IITs, IIMs, NITs (1988-till date)

Major Responsibilities at the State Level (Uttar Pradesh)

1. Vice Chancellor, U P Technical University (now Gautam Buddh Technical University), Lucknow, (July 2009 - till date).
2. Chairman, Expert Committee of Engineering & Technology, UP Council of Science & Technology (2003- 2006, 2009- till date).
3. Member, Academic Committee, PNBIIT Lucknow (2004- till date).
4. Member, Board of Studies, U P Technical University, (2004-2008).

Major Institute Responsibilities

(a) Institute Level

1. Deputy Director (April 2002-July2005, July 2005 – Sept 2008)
2. Dean, Students Affairs (1994-96).
 - Chairman, Senate Students Affairs Committee (1993-96).
 - Chairman, Foreign Language Programme Committee, (1993-96).
 - Chief Counselor, Students Gymkhana, (1993-96)
3. Head, Industrial and Management Engineering Department (1989-92, 2001-2002).
4. Head, Counselling Service (1992-94).
5. Vice Chairman, GATE (1986-87, 1987-88).
6. Head, Data Processing Centre (1979-82, 1986-89, 1993-96).
7. Coordinator, Office Automation (2004- till date)
8. Convener, Institute Advisory Committee (1990-92, 2001-2002).
9. Warden, Hall of Residence No. V, (1979-82). Warden-in-Charge (1981-82).
10. Chairman, Motor and transport User Committee (1986-87, 1993-97).
11. Member, Institute Manpower Planning Committee (1979-82).
12. Member (nominated) Academic Senate (1979-80, 1986-87).

13. Chairman, TECHKRITI '97, the Annual Technological Exhibition and Students Competition at IIT Kanpur.

(b) Departmental Level

1. Head, Industrial and Management Engineering Department (1989-92), (2001-2002).
2. Convener, Departmental Post-Graduate Committee (1979- 81, 1986-89, 1997-98).
3. Convener, Departmental Library Committee (1978-79, 1988- 92).
4. Convener, Departmental Students Placement & Training Committee (1979-82, 84 -86).
5. Convener, Departmental Under-Graduate Committee (1986-88, 92-94).
6. Coordinator, IME Laboratory (1986-1987, 1995-97).

(c) Miscellaneous

1. Member, National Service Scheme Committee (1979 - 81).
2. Convener, Computer Usage, IME Programme (1980 - 82).
3. Member, Senate Committee on SC/ST Students (1980 - 82).
4. Member, Senate Students' Affairs Committee (1981 - 82, 1987 - 88).
5. Member, Senate Scholarship and Prize Committee (1987-88).
6. Member, Institute Purchase Committee (1985 - 94).
7. Member, Committee on Negotiations with Institute Employees (1990-92)

(d) At Asian Institute of Technology, Bangkok (198-84)

1. Chairman, Division of Industrial Engineering and Management (Jan.'84-Aug.'84).
2. Chairman, Faculty/Students Liaison Committee, (1983 - 84).
3. Chairman, Advisory Committee on Regional Computer Centre (1983).
4. Member, Academic Senate (1982 - 84).

(e) Extra-Curricular Activities

1. Member, Engineering Students Society, BHU (1965-68).
2. Convener, General Affairs Council and President, Mess Secretary, Hall IV, IIT/K (1971-73).
3. President, Cornell India Association (1974-76).
4. Chairman, Cornell International Students' Activities Group (1975-77).
5. Member, IIT Kanpur Alumni Association (1978-)
6. Member Faculty Club, IIT Kanpur (1978-).
7. Member, Faculty Forum IIT Kanpur (1978 -)
8. Treasurer, IIT Kanpur Alumni Association (1979-81)
9. Member, IIT Kanpur Team to provide graphic and statistical support for Punjab Assembly Elections, Dordarshan Kendra, Jalandhar, 1996.
10. Secretary, Alumni Association IIT Kanpur. 2008-

MAJOR DEVELOPMENTAL ACTIVITIES

(a) Industrial Engineering and Management Courses

Several new courses introduced, and courses remodelled and restructured. Active participation in structuring the curriculum at various institutions.

(b) New Programme – 2 year MBA

As a Head of Department for the second term, was given as a major responsibility of starting 2-Year MBA programme at the Institute. Organized admission process, curriculum development and placement activities.

(c) Emerging Areas of Teaching and Research

Computer-Integrated Manufacturing Systems

Taught for the first time at the Institute a PG level course on Computer-Aided Manufacturing (CAM). Introduced a Postgraduate level course on Computer-Integrated Manufacturing Systems. Supervised several M.Tech. and Ph.D. theses in the areas of CIMS/CAM/FMS. Coordinator of five sponsored projects: (i) Development of Software Technology in CAM, and (ii) Computer-Aided Process

Planning and Tool Inventory Systems, (iii) Development of Teaching Aids for CIMS, (iv) Development of Software Technology for CIMS for Technology Development Mission and (v) Analysis and design of FMS. Major research emphasis is on the development of decision systems for Computer-Aided Management of Manufacturing Systems. Organized several two-week continuing courses on CIMS, FMS, and IMS. A CIMS laboratory is developed for teaching and research.

Supply Chain Management

Developed and taught a post graduate level course in supply chain and logistical management for MBA students at IIT Kanpur. Established interactions with many societies and organizations in the field of supply chain management. Gave several invited talks and seminars on the subject.

Financial Engineering

Developed and taught a post graduate level course in financial engineering at IIT Kanpur. The course was taken as elective course by MBA, M Tech, and senior undergraduate students.

(d) Students Affairs Management

As Head Counselling Service, strengthened the counseling activities. Introduced departmental counsellors and senior faculty counsellors system.

As Dean of Students Affairs, re-organized students registration process, hall management, students' amenities, foreign language programme, students benefit funds, students scholarships, etc. Introduced All India Annual Technological Exhibition and Students Competition (TECHKRITI), Dean's Capital Fund, Hall Development Funds, Year Book, Institute Tie and Calendar. Formalized Students Governance through Institute Senate.

(e) Data Processing Centre and Office Automation

Served as the Convener of the Institute Task Force for streamlining the accounting procedure (1979 - 80). Was given the major responsibility for the development of the Institute Data Processing Centre intended to cater the entire data processing needs of the Institute. System analysis and design were carried out and computerization completed for accounting, academic and administrative activities such as payroll, provident funds, travel allowances, course-registration, academic grade processing, employees database, and leave records. Suitable input forms and output formats were designed. Procedure manuals were also prepared. Served as Head of the Centre (1979 - 82, 1986 - 1989, 1995-96). After the transformation of the Centre as Office Automation, served as its Coordinator (2004-2008).

APPENDIX A

COURSES TAUGHT

(* Taught jointly, F: Fall, S: Spring ; At AIT Bangkok, J : Jan. Term, M : May Term, S : Sept. Term)

[1] BANARAS HINDU UNIVERSITY - September 1977 to April 1978.

Undergraduate: ME 346 : Systems Dynamics ME 521 : Industrial Engg.

[2] INDIAN INSTITUTE OF TECHNOLOGY, KANPUR - May 1978 till date

Under-Graduate

IME 609 : Materials Management (S82)

IME 401 : (*also* SE 702) Design of Production Systems (F85, F86, F88)

EM 303 : Quantitative Decision Models (F 91, F96, F97)

EM 304 : Computers for Management (S93, S96, S97)

Laboratory Tutor : ME 471 : Machine Elements (S81)

TA 203 : Manufacturing Processes (F81, FY0)

Post-Graduate

IME 601 : Mathematics for Industrial Management (F79*)

IME 602 : Applied Probability and Statistics (F79, F84, F87, F89, F91,F08)

IME 603 : Computer Programming and Languages (F80,F81,F87,F88,F95)

IME 605 : Operations Research for Management (F86*,F88,F90,F93,F96)

IME 612 : Advanced Operations Research (S79)

IME 622 : (*also* IME 643) Advances in Production Management (F78,S85,86,87,88)

IME 623 : Management of Inventory Systems (S79,S80,S81)

IME 631 : Analysis & Control of Quality (F78,F79,F80,F81,S82)

IME 636 : Simulation of Industrial Systems (S80)

IME 641 : Design of Production Systems (F85,F86,F88, F91,F92, F94,F97,F01)

IME 642 : Operations Management (S85, S86, S88)

IME 624 : Computer-Aided Decision Systems (F84,F85,F86,S89*, S93, S96*, S97*, SY0*, S01*, S05,S06, S07,S08,S09))

IME 681 : Network Models in Management (S79*)

IME 681 : Computer Integrated Manufacturing System (S90,S92,S93,S94,S95,S96,S97,S98,SY0,S04)

IME 611 : Financial Engineering (F07)

ME 667/SE 266 : Computer-Aided Manufacturing (S86)

SE 762 : Robotics and Robot Applications (S89)

MBA 661: Productions/ Operations Management (S02)

MBA664 : Supply Chain Management(F02, F03, F04)

MBA676 : Advanced Manufacturing Technologies (S03)

[3] ASIAN INSTITUTE OF TECHNOLOGY, BANGKOK (Aug.1982-July1984 & Summer Terms)

Post-Graduate

(May Terms 80,81,83,87 and September Term 1990, September 82- August 1984)

IE 41 : Introduction to Operations Research (S82,*M87)

IE 71 : Production Management (S82)

IE 72 : Product Quality Management (S82, S83)

IE 73 : Materials Management and Inventory Control (J83,J84)

IE 98 : Discrete Event System Simulation (M83, M84)

CA 21 : Information System Analysis and Design (M83*)

IE 981 : Selected Topics in Inventory Control (M80)

IE 982 : Linear Programming and Extensions (M81)

IE 981 : Advanced Production Management (M87)

IE98 : Flexible Manufacturing Systems (M90)

(May 1998-July 200, May Term 02)

AT03.02 : Stochastic Decision Models (M98, M99, MY0, M03)

AT03.11 : Quality Management (J99)

AT03.12 : Industrial Project management (S98*)

AT03.13 : Materials Management and Inventory Control (S98, S99)

AT03.14 : Statistical Models and Design of Experiments (J99, S99)

AT04.12 : Engineering Measurements and Analysis (MY0*)

[3] ASIAN INSTITUTE OF TECHNOLOGY Centre in Vietnam at Hanoi, (May1998-July2000, May 2003)

AT03.02 : Stochastic Decision Models (M98,M99,M03)

AT03.04 : Analytical Decision Models (M98*)

AT03.03 : Economic Evaluation of Industrial Systems (S98*)

AT03.10 : Deterministic Decision Models II (S98*)

AT03.11 : Quality Management (J99)

AT03.13 : Materials Management and Inventory Control (S99)

[4] CORNELL UNIVERSITY, Ithaca, NY, USA

OR&IE410 : Industrial Systems Analysis (Sum 90, Sum 92)

APPENDIX B

THESIS SUPERVISED

(*: jointly with some other faculty members)

[A] DOCTOR OF PHILOSOPHY (Ph.D.) AT IIT KANPUR – completed 12, (in progress – 02)

Generalized Grouping in FMS	2	AGV-Based Materials Handling Systems	1
CAPP System for Extrusion	1	FMS Workload Balancing	1
Optimization of Machining Process	1	Fixture Planning	1
Supply Chain Management	2	Cellular Manufacturing	1
Production/Operations Management Strategies	1	Service Quality	1
		Financial Engineering	1

1. Anil K Agrawal, Generalized Grouping and Loading Problems in FMS: Models and Methodologies, 1990.
- 2*. Sunil Rajotia, Some Issues in Design and Operational Characterization of AGV Based Material Handling Systems in FMS Environment, 1995.
3. Kutub Uddin, Generalized Grouping: Some Models and Methodologies, 1995.
4. Neeraj Kumar, Workload Balancing in FMS Loading: A study of Imbalance Measures, 1998
- 5*. Santosh Kumar, A Generative, Interactive and Feature Based Computer Aided Planning System for Cold Extrusion, 1998
- 6*. Rajive Gupta, Optimization of Machining Conditions in Multi Pass Turning with Constraints – A Simplified Approach, 2000.
- 7*.Srikant Bansal, A Neutral Foprmat Part Model Based Integrated Fixure Planning System for Minimum Tolerance, 2006.
- 8*. Sunil Agrawal, A Study of Impact of Various Parameters of Demand and Lead Time on the Bullwhip Effect in a Serial Supply Chain System, 2007.
9. P C Kulkarni, Development and Analysis of Heuristics for Manufacturing Cell Formation, 2009.
10. Gyan Prakash, Achieving Competitive Advantage and Organizational Performance: Role of Service Quality in Manufacturing Supply Chains, 2009.
11. J K Jha, Modeling and Solution Methodologies for an Integrated Production, Inventory and Distribution-Routing Problem in a Two-Echelon Supply Chain, 2010.
- 12*. Devjani Chatterjee, Relating Strategies of Organizations to their Management Control Systems, Leaderships and Cultures, 2011.
- 13*. Tyaghranj : Integrating Production and Marketing
- 14*. S S Patra : Financial Engineering Models

[B] MASTER OF TECHNOLOGY (M.TECH.) AT IIT KANPUR Completed - 93

Inventory Management	8	Materials Requirement Planning	7
Quality Control	4	Maintenance and Repair Management	3
Production Planning & Control	8	Database and Information System	6
Decision Support System	4	Simulation and Wargaming	3
Flexible Manufacturing Systems	10	Computer-Aided Process Planning	16
GT/Cellular Manufacturing	7	Supply Chain Management	3
General	14		

- 1*. Alok Chakravarti, Approaches for 2-Echelon Multi-Item Deterministic Inventory System, 1979.

2. Sharad K Pande, Some Deterministic Models for Single Location Inventory Systems for Recoverable Items, 1980.
3. U C Ray, Coordinated Replenishment Policies in Multi-Item Inventory Systems, 1980.
- 4*. N Bolloju, Design and Implementation of Indian Institute of Technology Kanpur Alumni Database, 1980.
5. Pradeep Kumar, Coordinated Repair Policies for a Group of Equipment, 1981.
6. A R Venkatesh, Optimal Quality Control Design for Multistage Manufacturing Systems, 1981.
7. P V L N Rao, Design and Development of Database for Materials Management, 1981.
8. P R Srinivasan, Design and Implementation of Information Systems for IIT Kanpur Academic Section, 1981.
9. S K Nigam, Inventory Models with Substitution, 1981.
- 10*. S Ravishankar, Design and Implementation of Data Base for IIT Kanpur Employees, 1982.
11. P Gopinathan, Multi Item Lot-Sizing in Material Requirements Planning, 1982.
12. Ishwar B Hemrajani, Inspection Errors and Sampling Plans, 1982.
(on leave to AIT Bangkok, Aug.1982 - July 1984)
- 13*. J Sunderson, Lot Sizing in MRP under Capacity Constraints, 1984.
14. A Srinivasulu, Loading Problem in Random Flexible Manufacturing System, 1986.
- 15*. C N Gupta, A Decision Support System for Inventory Control, 1986.
16. B V Gopinath, Design and Development of Database for Tool Planning and Control in FMS, 1986.
- 17*. V N Vittal, A Computer-Aided Process Planning System for Rotational Parts in FMS Environment, 1987.
- 18*. Madhusudhana, H.K., An Interactive Simulation Model with Graphics Animation for Scheduling in FMS, 1987.
- 19*. Joydip Ghosh, Integration of Group Technology and Material Requirements Planning for Efficient Lot Sizing, 1987.
- 20*. Ajay K. Chitta, A Decision Support System for Process Planning, 1987.
21. K V S Prasad, Design and Implementation of an Expert System for Process Planning of Axisymmetric Parts, 1987.
22. Bakul P Joshi, Design of an MIS for MRP and Purchasing Subsystems: A Micro-Computer Implementation, 1987.
23. A Venkatasubramanian, Inventory Control under Demand Substitution: Some New Additions, 1987.
24. S Sudhakar, Design and Development of Decision Support System for Maintenance Management, 1988.
25. Capt AV Malhotra, Computer Simulation Study of a Combat Wargaming Model, 1988.
26. S Rajamarthandan, Loading Problem in FMS - Part Movement Minimization, 1988.
- 27*. Girish Thakkar, Design and Development of Database for Process Planning and NC Part Program Generation for Rotational Components, 1988.
28. Nama Kishan, Development of Management Information System for Tool Planning and Control, 1988.
29. Arun Kumar, A Simulation Based DSS for the Management of Deteriorating Inventories, 1988.
- 30*. Anabrasu, P., Design and Implementation of an Expert System for Fine Surface Grinding, 1989.
31. V Ratna Kumar, Design & Implementation of an Integrated MRP-GT System for CIMS Environment, 1989.
32. Sunil Kumar, Certain Aspects of Production Scheduling and Loading Functions in FMS, 1989.
- 33*. M Radhakrishnan. Design and Development of Process Planning System and Cutter Path Simulation for Rotational Components, 1989.
- 34*. G Sankara Narayana, Computer-Aided Process Planning for Machining of Rotational and Prismatic Parts, 1989.
- 35*. K Prafulla Aherrao, Generative Process Planning System for Milling Operations, 1989.
- 36*. Sanjay D Apte, Development and Implementation of a Part Feature Recognition System for Process Planning of Prismatic Parts, 1989
- 37*. V Srinivas Rao, Computer Aided Process Planning for Fine Grinding, 1990.
- 38*. R V S Subramanyam, Design and Development of MIS for FMS and CIM, 1990.

- 39*. Ashok K Khuntia, Feature Recognition, Operations Sequencing and NC Code Generation for Prismatic Parts, 1990.
- 40*. Manohar B, Feature Identification and Simulation of End Milling Process for Prismatic Parts, 1990.
- 41*. Awadhesh Bahadur, CAPEM: Computer Aided Process Planner for Electro Discharge Machining Process, 1990.
42. Vivek Bhagwat, Feature Recognition and Sequencing for CAPP of Prismatic Parts, 1990.
43. Bimal K Modi, Discrete Facilities Location and Allocation Problem: A Lagrangian Relaxation Approach, 1991.
- 44*. Atish S Ray, Design and Development of Computer Aided Process Planning System for Rolling, 1991
- 45*. B V Rao, Development and Implementation of Feature Recognition Algorithm for Prismatic Components, 1991.
46. Anant S Deshraj, Development of a Simulation Model for Comparison of Dispatching Rules in FMS, 1992.
47. Amarnath Reddy, Development of Generic Part Programmes for Various Geometries for CNC Turning and Milling, 1993
48. Mathew Cherian, Design and Development of a Database System for Manufacturing Planning and Control in a Make-to-Stock Environment, 1993.
49. Rakesh Kumar Verma, Algorithms for Integrated Feature Recognition, Machinability Check and NC Part Program Generation, 1993.
- 50*. Sudip K Majumder, Computer-Aided Process Planning System for Axi-Symmetric Components, 1994.
51. Capt. A V Ramesh, Design of a Manufacturing Information System for an Assemble-to-Order Environment, 1994.
52. Jayesh Sharma, Cell Formation - Algorithms and Comparisons, 1994.
- 53*. Neelesh Katiyar, An Expert System for Welding Process - THE WELDER, 1994.
54. Yashveer S Rathor, Technological Selection of Machines in Flexible Manufacturing Environment, 1994.
- 55*. Puneet Tandon, Computer-Aided Design of Modular Fixtures, 1995.
- 56*. Sumitesh Das, A Computer-Aided Process Planning for Injection Moulding, 1995.
57. Ashish Kumar Tewary, Optimum Job Sequencing and Process Design in a Flexible Machining Cell Environment using Genetic Algorithm, 1995.
58. Dhiresk Kumar, Application of Genetic Algorithm in Optimum Design of Control Charts and Sampling Plan, 1995.
59. Arvind Kumar Yadav, Optimal Lot Size for Vendor-Purchaser(s) Joint Inventory Control Problem, 1995.
- 60*. Ajay K Das, A Decision Support System for Powder Metallurgy Processing, 1995.
61. Rajiv Seth, Comparison of Cellular Manufacturing Design Algorithms, 1995.
- 62*. Neeraj Kumar Bansal, Knowledge-Based System for Welding Process, 1995.
- 63*. Vijaykumar S Kale, Computer-Aided Design and Manufacturing of Plate Cams, 1995.
- 64*. Narendra Kumar Gupta, Design and Implementation of a Knowledge-Based System for Antifriction Bearing selection, 1995.
65. Santosh Kumar Saxena, Object Oriented Simulation of Flexible Manufacturing System for Comparison of Dispatching Rules, 1996.
66. Capt. Vinod Kumar Tewari, Decline in the Organized Sector of Cotton Textile Industry in Kanpur : A Case of the Elgin Mills Co. Ltd., 1996.
67. Murari Prasad Barnawal, Models and Methodologies for Generalized Grouping Problem, 1996.
- 68*. Rajesh Kumar Burman, A CAPP System for Fine and Finish Grinding, 1996.
68. Prashant Kumar Jha, Statistical Process Control Techniques in Automated Manufacturing Systems, 1997.
69. Rabindra K Panigrahi, A Structured Approach to Develop Quality System in Service Industries: A Study on Hotels, 1997.

70. Mahesh Gupta, Due Date Assignment and Information System Design for Shop Floor Control in Job Shop Environment, 1997.
- 71* . H Ram Mohan, Object Oriented Feature Based Tool Selection for Sheet Metal Components, 1997.
- 72* . Manas De, Development of a CAPP System for Ultrasonic Machining, May 1997.
- 73* . Shivendra Shukla, Development of a CAPP System for Hot Extrusion Process, December 1997.
- 74* . Ajay Kumar, Parameter Optimization for CAPP of Tandem Cold Rolling Mill, January 1998.
75. Puneet Kumar Tyagi, Simultaneous Scheduling of Machines and AGVs in an FMS Environment: A Simulation Study, January 1998.
76. Snajay Mishra, Performance Evaluation of Assembly Line Balancing Lines: Cases of Single and Multi/Mixed Line Models, February 1998.
77. Suman Raaj, A Truncated Tree Search Approach for Generalized Grouping, April 1998.
(on leave to AIT Bangkok, May 1998 - July 2000)
78. Vishwesh Sudhakar Khandkar, Simulation Study of Single and Multi-Echelon Inventory Control Systems using Arena, May 2001.
79. Kalyan Chakravarthy B, AHP Algorithms for Cell Formation: A Bottleneck Machine Based Approach, 2001.
- 80* . Poshan Lal Sahu, Development of Graph Theoretic Procedure for Automated and Integrated Setup Planning and Fixture Design, February 2002.
- 81* . Amitabh Parashar, Interactive Computer Assisted Part Programming for CNC Lathe, February 2002.
82. Arun Pratap Singh, A Multi Functional and Multi Dimensional Framework for Measuring Performance of Supply Chain, 2003.
83. Sameer Sharma, Application of Parametric Control Charts for Gear Cutting and assembly Operations at TATA Engineering: A Case Study, 2003.
- 84* . Deepak Arzare, Feature Based Design for Injection Molding, 2003.
- 85* . Anurudh Keshwani, A Simulation Model for Arrivals and Handling for Indian Airlines, 2004.
- 86* .Rajesh Matai, A General Genetic Algorithm Based Heuristics for Solving Integer Linear Programming Problem, 2004.
87. Payal Rusia, An Operational Supply Chain Management with Activity-Based Costing, 2005.
88. Saurabh Aggarwal, Impact of Double Exponential Smoothing Forecast on Bullwhip Effect in a Single Echelon Supply Chain for AR(1) Demand Process, 2006
89. I V B Karthikeya, A Decision Support System for Vendor Selection Using Pairwise Comparison and Fuzzy TOPSIS, 2007
90. Venkataram Prasad G, Application of Fuzzy Set Theory in the Design of Option Contract for Coordinating a Supply Chain with Uncertain Cost Parameters, 2008
91. Shakir Riyaz Ahmed Juolay, Primal and Dual Simplex Based Computation of CVaR-Expected Return Efficient Frontier, 2009.
- 92*.Lokendran K Devangan, Supply Chain Contracts with Inventory Level Dependent Demand and Random Uncertainty, 2010.
- 93*.Abhishek Sanwaliya, Classification of Financial Articles : A Combined NBKNN Technique Analysis, 2010.

[C] MASTER OF BUSINESS ADMINISTRATION (MBA) PROJECTS

1. V Chandrasekar, Enterprise Resource Planning, 2002.
2. Navneet Kumar, Mass Customization, 2003.
3. Mayank Pande, Simulation of Transportation Costs for Dabur Pharmaceuticals Ltd., 2004

[D] M.Sc. MATHS (5-Year Integrated) PROJECTS

1. M. Mehrotra, Information System for Control Charts, 1987.
2. A.K. Dass, Information System for Sampling Plans, 1987.

NATIONAL PRODUCTIVITY COUNCIL

R Goamthi Nayakam, Reengineering Quality Control in Engineering Industry, August, 1996, Dr Ambedkar Institute of Productivity, National Productivity Council Madras, Chennai, 1996.

ASIAN INSTITUTE OF TECHNOLOGY BANGKOK (August '82 - July '84)

RESEARCH STUDIES (M Eng in Industrial Engineering & Management)

Inventory Management	3	Materials Requirement Planning	2
Database and Information System	2	Flexible Manufacturing System	1

1. Mohammad Saeed Ahmed, Computer Based Inventory Accounting Information System for the Physical Plant of AIT, M. Eng., December, 1983.
2. Md. Hasanuzzaman, Material Requirements Planning and Kanban Systems: Analysis, Planning and Implementation, M. Eng., December, 1983.
3. Rama Krishna Kasturi, Design and Development of Purchasing Information Systems, M. Eng., December, 1983.
4. Maung Lin, Analysis of Repairable Item Inventory Systems Using Graphical Evaluation and Review Technique (GERT), M. Eng., December, 1983.
5. Kasob Suphasidh, Behavior of Material Requirements Planning in Imperfect Information Environment, M. Eng., December, 1983.
6. Tzen Ya-Juei Jeffrey, Loading Problem in Flexible Manufacturing System, M. Eng., December, 1983.
7. Tissa J. Warusawithana, Inventory Control of Items under Demand Substitution, M. Eng., December, 1983.
8. Don N.D. Ramanayake, Information System for Asset Inventory of AIT, M.Sc., August, 1984.

SPECIAL STUDIES

1. Computerized Accounts Receivable System
2. Industrial Maintenance Management
3. Marketing Information System
4. Quality Control Circles
5. Production Planning and Control
6. Stochastic Network Analysis - GERT and its Applications
7. Line Balancing
8. Flexible Manufacturing System
9. Electrical Energy Management
10. Material Requirements Planning

MASTERS THESES at Asian Institute of Technology Bangkok (May 1998-July 2000)

Production Planning and Control	1	Project Scheduling	1
Quality Control	1	Inventory Control	1
Flexible Manufacturing System	1	Computer-Aided Process Planning	1
Vehicle Routing	1	Cellular Manufacturing	1

- 1*. Tran Thi Thu Ha, Multi-Level Lot Sizing in Multi-Stage Production-Inventory System, December 1998.
2. Ussanee, CUSUM and EWMA Control Charts for Process Control to Approach Six-Sigma Quality: A Case Study, 1999.
3. Pongsin, Design of an Effective Inventory Control Policy for Customer Supply Chain System: A Case Study, 1999.
4. Wahab M I M, Models for Measurement of Machine, Product, Mix Response and Routing Flexibilities in Flexible Manufacturing System, 1999.
5. Huy, Dynamic Multi-Mode Resource Constrained Project Scheduling: A Genetic Approach, 1999.
6. Thang, A Modified General Insertion (GENI) and Unstring (US) algorithm for Vehicle Routing with Backhauls, 1999.

7. Nepal B P, Development of Databases for Computer-Aided Process Planning, 2000.
8. Kwanniti, Heuristic Algorithms in Cellular Manufacturing System, 2000.

APPENDIX C

PUBLICATIONS

(a) Invited Paper

1. Kripa Shanker and A. Ghosh, Flexible Automation and Robotics in Manufacturing, *Jl. of Inst. of Electronics & Telecom Engrs.*, Vol. 35, No. 2 (Special Issue) pp. 185-195, 1989. (awarded gold medal for the best paper)

(b) Papers in Refereed Journals

2. Kripa Shanker and A Ghosh, A Study of Electro-Spark Machining Characteristics with Electromagnetic Spark- gap Controlling Mechanism, *International Journal of Machine Tool Design and Research*, Vol. 15, pp. 209-221, 1975.
3. Kripa Shanker, Some Probability Distributions at the Depot of a Two-Echelon Inventory System - Case of Poisson Arrivals at Bases, *International Journal of Systems Sciences*, Vol. 12, No. 2, pp. 227-233, 1981.
4. Kripa Shanker, Exact Analysis of a Two-Echelon Inventory System for Recoverable Items under Batch Inspection Policy, *Naval Research Logistics Quarterly*, Vol. 28, No. 4, pp. 579-601, 1981.
5. Kripa Shanker and Pradeep Kumar, A Deterministic Repair Model for Goods Producing Equipments, *IIE Transactions*, Vol. 16, No. 3, pp. 240-247, 1984.
6. J Ambali and Kripa Shanker, QC Circles in Japan: What Keeps Them Going? *Quality Progress*, Vol. 17, No. 10, pp. 52-55, October 1984.
7. Kripa Shanker and Ya-Juei Jeffrey Tzen, Loading and Dispatching in Random Flexible Manufacturing System, *International Journal of Production Research*, Vol. 23, No. 3, pp. 579-595, 1985.
8. Kripa Shanker and Pradeep Kumar, Coordinated Repair Scheduling for a Group of Service-Producing Equipments, *IIE Transactions*,
9. Kripa Shanker and A Srinivasulu, Some Solution Methodologies for Loading Problems in a Flexible Manufacturing System, *International Journal of Production Research*, Vol. 27, No. 6, pp. 1019-1034, 1989.
10. H K Madhusudana and Kripa Shanker, FMS Simulation Model using PC-SIMSCRIPT-II.5, *International Journal of Computer Integrated Manufacturing Systems*, Vol.3, No.3 pp. 150-156, 1990.
11. A K Chitta, Kripa Shanker and V K Jain, A Decision Support for Process Planning, *Computers in Industry*, Vol. 14, No. 4, pp. 307-318, 1990.
12. V N Vittal, V K Jain and Kripa Shanker, A Computer-Aided Process Planning System for Rotational Parts (CAPP-RP) for an FMS Environment, *International Journal of Computer Applications in Technology*, Vol. 3, No. 2 pp. 61-69, 1990.
13. Kripa Shanker and Sunil Kumar, An FMS Simulation Model using GPSS/PC, *Journal of Institution of Engineers*, Vol. 72, pp. 15-20 July 1991.
14. Kripa Shanker and Anil K Agrawal, Loading Problems and Resource Considerations in FMS : A Review, *International Journal of Production Economics*, Vol. 25, pp. 111-119, 1991
15. Girish Thakkar, Kripa Shanker and V K Jain, An Integrated Process Planning and NC Part Programming System for Rotational Components, *Computers in Industry*, Vol. 21, pp. 341-357, 1993.

16. Bimal K Modi and Kripa Shanker, A Formulation and Solution Methodology for Part Movement Minimization and Workload Balancing at Loading Decisions in FMS, *International Journal of Production Economics*, Vol. 34, pp. 73-82, 1994.
17. Bimal K Modi and Kripa Shanker, Methods and Solution Approaches for Part Movement Minimization and Load Balancing in FMS with Machine, Tool and Process Plan Flexibilities, *International Journal of Production Research*, Vol. 33 No. 7, pp. 1791-1816, 1995.
18. Kripa Shanker and Anil K Agrawal, Models and Solution Methodologies for Generalized Grouping Problem in Cellular Manufacturing, *International Journal of Production Research*, Vol. 35 No. 2, pp. 509-534, 1996.
19. Sunil Rajotia, Kripa Shanker and J L Batra, A Semi-Dynamic Time Window Constrained Routing Strategy in an AGV System, *International Journal of Production Research*, Vol. 36, No. 1, pp. 35-50, 1998. (ANABAR Citation for Excellence)
20. Sunil Rajotia, Kripa Shanker and J L Batra, Determination of Optimal AGV Fleet Size for an FMS, *International Journal of Production Research*, Vol. 36, No. 5, pp. 1177-1198, 1998.
21. Sunil Rajotia, Kripa Shanker and J L Batra, A Heuristic for Configuring a Mixed Uni/Bi Directional Flow Path for an AGV System, *International Journal of Production Research*, Vol. 36, No. 7, pp. 1779-1800, 1998.
22. Kripa Shanker and Bimal K Modi, A Branch and Bound Based Heuristic for Multi-Product Resource Constrained Scheduling Problem in FMS Environment, *European Journal of Operational Research*, Vol. 113, No. 1, pp. 80-90, 1999. (ANABAR Citation for Excellence)
23. Santosh Kumar, Kripa Shanker and G K Lal, A Feature Recognition Methodology for Extrudable Product Shapes, *International Journal of Production Research*, Vol. 37, No. 11, pp. 2519-2544, 1999.
24. Neeraj Kumar and Kripa Shanker, A Genetic Algorithm for FMS Part Type Selection and machine Loading, *International Journal of Production Research*, Vol. 38, No. 16, pp. 3861-3887, 2000.
25. Kutub Uddin and Kripa Shanker, Grouping Parts and Machines in Presence of Alternative Process Plans, *Journal of Mechanical Engineering*, Vol. ME 28, No 1 & 2, pp. 1-8, June & Dec. 2000
26. Neeraj Kumar and Kripa Shanker, Comparing the Effectiveness of Workload balancing Objectives in FMS Loading, *International Journal of Production Research*, Vol. 39, No. 5 pp. 843-871, 2001.
27. Santosh Kumar, Kripa Shanker and G K Lal, Analysis of Cold Extrusion of Non Re-entry Product Shapes, *Journal of Manufacturing Science and Engineering*, Vol. 124, No. 1, pp. 71-78, 2002.
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