



Name : **PROMOD K. JAIN**

Designation : Associate Professor

Educational Qualifications :

Degree	Year	University	Specialization
Ph.D	1996	University of Roorkee	CAPP
M.E.	1989	University of Roorkee	Production Engg.
B.E.	1987	University of Roorkee	Industrial Engg.

Research Interests : CAD/CAM/CIM, Intelligent Manufacturing Systems,
Operations Management

Recent Publications:

Journals

In 2003

1. P.K.Jain, Y.Fukuda, M.Yamamoto, T.Fukuma,
“A manufacturing system development framework using data models driven approach”,
International Journal of Production Research, 2003, Vol.40, No.8, pp 1785-1809.
2. Pradeep K. Singh, Pramod K. Jain, Satish C. Jain,
“Tolerance analysis of mechanical assemblies using Monte Carlo simulation”,
International Journal of Industrial Engineering: Theory and Applications, 10(2), 2003,
188-196.
3. Singh, P. K., Jain, P. K., and Jain, S. C.,
“Simultaneous Optimal Selection of Design and Manufacturing Tolerances With
Different Stack up Conditions Using Genetic Algorithms”,
International Journal of Production Research, 2003, 41(11), 2411-2429.

4. Singh, P.K., Jain, S.C. and Jain, P.K.,
"Tolerance allocation with alternative manufacturing processes – suitability of Genetic Algorithm",
International Journal of Simulation and Modelling, 2003, Vol. 2, No. 1-2, 22-34.
5. Jain Ajai, Jain, P.K., and Singh, I.P.,
"Real Time Scheduling in FMS: An Investigation on Suitability and Effectiveness of Flexible Process Plans",
International Journal of Simulation and Modelling, 2003, Vol. 2, No. 3, 57-69.
6. P.K.Jain, and Y. Fukuda,
"A rule based approach for deadlock avoidance in cellular manufacturing", International Journal of Simulation and Modelling, 2003, Vol. 2, No. 4, 97-108.
7. Toshiko FUKUMA, P.K.JAIN and Masaaki YAMAMOTO,
"A study on MRP system behavior using lead-time and safety stock as control variables",
Journal of Japan Industrial Management Association, 54, 260-267, 2003. (In Japanese)

In 2004

1. Singh, P. K., Jain, S. C. and Jain, P. K.,
"Concurrent Tolerance Design with Alternative Processes (Machines)", International Journal of Simulation and Modeling, 2004, Vol. 3, No. 1, 5-16.

Conferences

1. Pradeep K. Singh, Pramod K. Jain, Satish C. Jain,
"An Algorithm for Tolerance Design of Mechanical Assemblies with Interrelated dimensional Chains Considering Process Bounds",
 International Conference of Production Research (ICPR - 2003), Virginia, USA,
 Aug. 3-7.
2. Singh, P.K., Jain, P.K., and Jain, S.C.,
"Manufacturing cost models in tolerance design of mechanical assemblies", International
 Conference on CAD, CAM, Robotics and Autonomous Factories (INCARF – 2003),
 Aug. 11-13, IIT Delhi, INDIA.
3. P.K.Jain, Reddy,
"Modelling and Performance Analysis of Re-configurable Assembly Line",
 CIRP 2nd International Conference on Reconfigurable Manufacturing, August 20-21,
 2003, The College of Engineering, University of Michigan, Ann Arbor, USA.
4. L. N. Pattanaik, P. K. Jain, and N. K. Mehta,
"A new cell design heuristic using operation sequence of parts",
 International Conference on CAD, CAM, Robotics and Autonomous Factories (INCARF
 – 2003), Aug. 11-13, IIT Delhi, INDIA.
5. L. N. Pattanaik, P. K. Jain, and N. K. Mehta,
"A new similarity-coefficient based heuristic for cell design",

- Annals of DAAAM and 14th International DAAAM Symposium, Oct. 22-25, 2003, Vienna, Austria.
6. Amol Singh, N.K.Mehta, and P.K.Jain,
“*Selective approach for re-routing in the presence of machine breakdowns*”,
Annals of DAAAM and 14th International DAAAM Symposium, Oct. 22-25, 2003, Vienna, Austria.
 7. Singh, P. K., Jain, S. C., and Jain, P. K.,
“*Optimal Tolerance Allocation of Mechanical Assemblies with Alternative Manufacturing Processes (Machines)*”,
Annals of DAAAM and Proceedings of 14th International DAAAM Symposium, 2003, Vienna, Austria, pp. 419-420.
 8. P.K.Jain,
“*Deadlock detection and resolution in AMS*”,
National Conference on Advances in Manufacturing Systems, AMS-2003, March 28-29, Jadavpur University, INDIA.
 9. P.K.Jain,
“*Buffer size optimisation of adaptive assembly line*”,
National Conference on Advances in Manufacturing Systems, AMS-2003, March 28-29, Jadavpur University, INDIA.
 10. L.N., Patnaik, P.K.Jain and N.K.Mehta,
“*Re-configurable manufacturing systems (RMS): The future trend in manufacturing*”,
National Conference on Advances in Manufacturing Systems, AMS-2003, March 28-29, Jadavpur University, INDIA.
 11. Amol Singh, N.K.Mehta and P.K.Jain,
“*Role of downtime in real time scheduling of unreliable machines*”,
National Conference on Advances in Manufacturing Systems, AMS-2003, March 28-29, Jadavpur University, INDIA.
 12. P.K.Jain, V.R. Komma,
“*Dead lock detection and resolution policies in AMS with alternate part routings*”,
33rd International Conference on Computers and Industrial Engineering, March 25-27, 2004, Ramada Plaza Hotel, Jeju, Korea.
 13. L.N., Patnaik, P.K.Jain and N.K.Mehta,
“*A system level design methodology for Re-configurable manufacturing system*”,
13th National Conference of ISME (ISME-2003), Dec. 30-31, 2003, INDIA.
 14. Amol Singh, N.K.Mehta and P.K.Jain,
“*Simulation study of real-time scheduling policies with machine break-down*”, 13th
National Conference of ISME (ISME-2003), Dec. 30-31, 2003, INDIA.

Current Students:

Name	Degree	Title of thesis
Mahendra Kumar Shakya	M.Tech.	Real Time Scheduling Considering Preventive Maintenance Schedules of Machines.
Vijay S.Soni	M.Tech.	Performance Evaluation of Reconfigurable Assembly Line.
Arivazhagan A.	Ph.D.	Computer Aided Manufacturing
V.R.Komma	Ph.D.	Shop Floor Control in Automated Manufacturing Systems
Amol Singh	Ph.D.	Computer Aided Process Planning for Prismatic Parts
L.N.Pattanaik	Ph.D.	Model of CMS with Re-Configurable Characteristics
P.K.Singh	Ph.D.	Tolerance Design of Mechanical Assemblies

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