

## Dr. Rakesh Kumar

(Associate Professor, Mechanical Engineering Department)  
Dean Accreditation and Autonomy [DAA]

Shaheed Bhagat Singh State Technical Campus (SBSSTC) Ferozepur  
NH-95 (Ferozepur Moga Road), Ferozepur, Punjab-152004.  
(An Integrated Technical Campus, Established by Government of Punjab)



Contact No.: 8288012020, e-mail: rakesh1607@gmail.com

### Personal Information

Birth Details July 16<sup>th</sup>, 1973, Hamirpur, Himachal Pradesh  
Marital Status Married  
Languages English, Hindi, Punjabi, Pahari, Tamil, Urdu

### Education

- **M.B.A. (HR)**, 2014  
DDE, Punjab Technical University, Punjab.
- **Ph.D.**, 2010  
Department of Mechanical and Industrial Engineering  
Indian Institute of Technology Roorkee (IITR), Utrakhand.
- **M.E. (Mechanical Engineering)**, 2001  
With Production Engineering Specialization  
GNDEC Ludhiana, Panjab University (PU), Chandigarh.
- **B.E. (Mechanical and Production Engineering)**, 1995  
With Distinction and University Merit Position  
Faculty of Engineering and Technology (FET)  
Annamalai University (AU), Tamilnadu.
- **Schooling**, 1977-1991  
10+2, Matriculation and Middle with Board Merit Positions and Scholarships  
Himachal Pradesh Board of School Education (HPBSE), Dharamshala, HP.

### Other Edifications

- Punjabi Language: Matriculation Level Punjabi Examination, PSEB, Mohali, 2010
- Urdu Language: Matriculation Level Examination, HPSEB, Dharamshala, 1988
- C-Programming Lang.: Certificate Course, Dept. of Computer Sc. & Engg., Annamalai University, 1994

### Career Chronology

June 1996 to present serving in same government institute. It was upgraded from an Engineering College (namely 'Shaheed Bhagat Singh College of Engineering and Technology Ferozepur', SBSCET) to a Multidisciplinary Integrated Technical Campus in January 2012 (named as 'Shaheed Bhagat Singh State Technical Campus Ferozepur', SBSSTC).

- **Associate Professor**, September 2009 to Present  
Mechanical Engineering Department,  
- Engineering Wing, SBSSTC, Ferozepur (January 2012 to Present)  
- SBSCET, Ferozepur (September 2009 to January 2012)
- **Assistant Professor**, September 2006-August 2009  
Mechanical Engineering Department,  
SBSCET, Ferozepur
- **QIP Research Fellow**, July 2006-July 2009  
Mech. and Ind. Engg. Dept.,  
Indian Institute of Technology (IIT), Roorkee (On deputation under QIP)
- **Sr. Lecturer**, September 2001-August 2006  
Department of Mechanical and Production Engineering,  
SBSCET, Ferozepur
- **Lecturer**, June 1996-August 2001

Department of Mechanical and Production Engineering,  
SBSCET, Ferozepur

## Career Summary

### (Major Assignments/Responsibilities undertaken)

- **Dean Accreditation and Autonomy**, September 2015 onwards
- **Head of the Department**, June 2015 to September 2015  
Mechanical Engineering Department, Engineering Wing, SBSSTC, Ferozepur
- **Dean Academics** (Affiliations & Approvals), March 2013 to Present
- **Dean Academics**, January 2011 to April 2013
- **Head of the Department**, October 2011 to January 2013  
Civil Engineering Department, Engineering Wing, SBSSTC, Ferozepur
- **Chairperson, Extra-Curricular Activities**, Dec. 2001 – July 2006

## Present Duties and Extra-Mural Responsibilities

- **Dean Academics** (Affiliations and Approvals)
- **Process Owner, ERP** (Campus Management Solution, CMS)
- **Convener, Institute NBA Accreditation Committee**
- **Member Secretary**, Institute Academic Council
- **Member**, Board of Governors
- **In-charge CADD Lab.**, Mechanical Engg. Dept.

## Experience: Teaching and Related activities

### Courses Taught

#### UG Courses

1. Operations Management, 2. CAD/CAM, 3. Computer Applications in Manufacturing, 4. Industrial Engineering, 5. Plant Layout and Material Handling, 6. Engineering Mechanics, 7. Strength of Materials-I, 8. Machine Design-I, 9. Engineering Graphics, 10. Production Planning and Control, 11. Manufacturing Practices-1, 12. Manufacturing Practices-2, 13. Industrial Engineering and Management

#### PG Courses

1. Modeling and Simulation, 2. Mechatronics, 3. CAD, 4. Production Planning and Control, 5. Optimization Techniques

#### Interdepartmental Courses

1. Entrepreneurship (Open Elective), 2. Graphic Statics (Common Basic Course), 3. Comp. Graphics (CSE), 4. Fundamentals of Computer Programming and Information Technology (Common Course), 5. Strength of Materials (Civil Engg.), 6. Strength of Materials (Chem. Engg.).

### Lab. Development

*CAD Lab.-II.* (2010- Till date)

*Computer Aided Drafting & Design Lab.* (Aug. 2001 – May 2006)

*Strength of Materials Lab.* (Jun. 1996 - Jun. 1999)

### University Exam Duties

#### Competitive Examinations

- IIT-JEE Supervisor, 2009 (Dehradun), 2010 (Saharanpur)
- Observer, PTU-CET, 2001 (Patiala), 2002 (Delhi), 2003 (Delhi), 2004 (Delhi), 2005 (Delhi), 2006 (Ludhiana)
- Supdt., SLIET-CET, 2005; SLIET-CET, 2011; Punjab-PMT, 2012; PTU-MET, 2012

#### University Examinations

- Observer PTU Exams, Dec 2010
- Incharge Nodal Center, 2012
- Head Examiner, Nodal Evaluation Center, 2012
- Exams Supt./ Dy. Supdt, PTU Exams, Jun-Jul. 1999, May-Jun. 2000, May-Jun. 2001, Feb. 2002, May-Jun. 2002,

May-Jun. 2004, Oct-2005, May-Jun2005, Sep 2010, March 2011.

- Flying Squad Jul.1997, May1998, Feb.1999, Jul1999, May2002

#### *Other*

- University Examination Paper Setter for PU and PTU.
- Regular Examiner for University Viva Exams (UG and PG)
- Member Punjab University affiliated Engineering Colleges Moderation Committee, 1996 – 1998.

#### **Responsibilities/Duties undertaken at Institution Level**

- AUTOCAD Training during summer vacations to first year students, Jul1999, Jul2000, Jul2001, Jul2002, Jul2003, Jul2004, Jul2005
- In charge, Computer Aided Drafting & Design Lab, Aug. 2001 –May2006
- In charge Strength of Materials Lab, Jun. 1996 – Jun.1999.

### **Experience: Co-Curricular Activities**

- Coordinator, MED Academics, Aug-Dec 2010
- Coordinator, MED Industrial Training, Aug-Dec 2009
- In charge, Academics, Production Engineering, Jan. 2004 – May2006, Jul. 1998 – Feb. 2000
- Development of Syllabi of 3 PTU, B-Tech Production Engineering Courses, Dec.1997 – Jan.1998.

### **Experience: Extra Mural Responsibilities**

#### ***Web Site Development***

- Coordinator, Institution Web Site,2010-2012

#### ***TEQIP-II***

- Member of HODs committee for TEQIP-II implementation
- Member Purchase Committees
- Member Pedagogic Development Committee
- Member Committee for Final TEQIP-II report

#### ***Admissions***

- B.Tech: 2011 Coordinator, 2012 Coordinator, 2013 Member
- M.Tech: 2011 Member, 2012 Member, 2013 Member, 2015 Member

#### ***IGNOU-VIEP Programme Study Center***

- Coordinator, 2011-2012 (Founder)  
Started the first batch of students with three streams Mechanical Engg., Electrical Engg. and ECE.

#### ***NBA Accreditation Committee***

- Convener Institute NBA Accreditation Committee, 2013
- Chairperson, NBA Accreditation Committee, 2009

#### ***General Fitness Evaluation***

- General Fitness Evaluation Committee, Chairman, 2003-2006; Member, 1998-2000.

#### ***Time Table***

- Member Time-Table Committee, Jun. 2000 - May. 2002, Jan. 1997 - Dec. 1998

#### ***Students Activities***

- Member, ISTE Event Management Committee, Institute Student chapter, 2013
- Officer-in charge, Extra-Curricular Activities; Dec. 2001 – July 2006.
- Chairperson, Society for Extra-Curricular Activities (S.E.C.A.) Dec.2001–July 2006 (*Founder*)
- In charge, College Personality Development Club, CHAZZANS, 1996-1999 (*Founder*)
- MOKSHA-The college Music Group 1997 (*Founder*)

### ***Institution Publications***

- Redesigned and upgraded College Information Brochure in 2011-12 and revised in 2012-13
- Coordinator and Editor, Institution bi-monthly Newsletter, VERONIKA, 2011-12
- Coordinator and Editor, Institution Magazine, MANTHAN, 2011-12
- Member Editorial Board, College Magazine, MANTHAN, 1998-1999 (Founder Member)
- Editor - College Monthly Newsletter, CAHIER, 1998-1999 (Founder)

### ***National Service Scheme(NSS)***

- Programme Officer National Service Scheme (N.S.S.); Feb.2000 – July2006 (Founder)
- Secretary, N.S.S. Advisory Committee; Dec. 2001- July 2006  
-Received best NSS Unit Recognition from PTU in 2002

### ***Hostels***

- Warden, Sutlej Bhawan Hostel, Sep.2014-till date
- Assistant Warden, Sutlej Hostel, Jul.1996-Aug.1997

### ***Miscellaneous Duties***

- Member/Chairman of various purchase/inspection/enquiry committees
- Auto-CAD Training to ITI Instructors at SBSCET, Ferozepur. under Directorate, Technical Education, Punjab, Aug.1998 - Sept. 1998

### ***Government/Election Duties***

- Returning Officer/ PRO (Panchayat Elections - June/July 2013)
- Counting Supervisor ( Zila Parishad & Panchayat Samiti Elections-May 2013)
- Supervisor ( Zila Parishad & Panchayat Samiti Elections- May 2013)
- Counting Supervisor (Punjab Assembly –06 March 2012)
- Liaison Officer with Observer/Sector Officer (Punjab Assembly – 30 Jan 2012)
- Presiding Officer (SGPC Elections – 2011)
- Presiding cum Returning Officer (Panchayat Elections - 29 June 2003)
- Presiding Officer (Parliament Elections - 05 Sep 1998)
- Presiding cum Returning Officer (Panchayat Elections - 21 June 1998)
- Counting Supervisor (Parliament Elections - 25 Feb 1998)
- Presiding Officer (Parliament Elections - 16 Feb 1998)

## **Professional Memberships**

Member-*Indian Society of Technical Education(ISTE)*, Member Number: LM31004

Member-International Association of Engineers(IAENG), Member Number: 140818

## **Summary of Professional Accomplishments**

### **Area(s) of Interest/Specialization**

- Cultural evolution and emergence of paradigms of Manufacturing Systems
- Social Media and Manufacturing Systems
- Modeling and Simulation of Manufacturing Systems
- Manufacturing Systems (RMS, CMS ets.)/ G.T.
- Cleaner Production Systems/ C.P.A.
- Operations Management

### **Software Proficiency**

AUTOCAD, Inventor, Pro-Model, C++ , FORTRAN, BASIC, MAT LAB, MAT LAB Clustering Tool, MATLAB Optimization Tool, APT

### **Thesis/Projects Supervised**

Ph.D. Thesis

10 In progress

M.Tech. Dissertations

02 + 01 in progress

M.B.A. Projects	01
B.Tech. Projects	25 + 02 in progress
<b>Short Term Courses (STC)/Workshops/Conferences Attended</b>	<b>Organized</b>
STC/FDP/SDP: 37	STC/FDP/SDP: 04
Workshops: 06	Workshops: 04
Conferences: 08	Conferences: 02
<b>Publications</b>	
Books/Monographs: 01 in Progress	
Journal Papers: 07 + 03 in Progress	
Conference Papers: 41	
<b>Guest Lectures/Invited/Expert Talks: 11</b>	
<b>Conference Session Chair: 04</b>	

## STC/FDP/SDP

### Organized

Total: 04 Courses
[04] <b>"Research Techniques"</b> , AICTE sponsored Faculty Development Programme at SBSSTC Ferozepur, 27/04/2015 to 08/05/2015.
[03] <b>"Research Methodology: Tools and Techniques"</b> , TEQIP (Phase-II) short term course at Shaheed Bhagat Singh State Technical Campus Ferozepur, 03/11/2012 to 07/11/2012.
[02] <b>"Intelligent Computational Techniques"</b> , AICTE sponsored staff development programme organized by Shaheed Bhagat Singh State Technical Campus Ferozepur, 04/07/2011 to 15/07/2012.
[01] <b>"Auto-CAD Training"</b> for ITI Instructors at SBSCET, Ferozepur. Under Directorate, Technical Education, Punjab, Aug.1998 – Sept. 1998

### Attended

Total: 37 Courses
[37] <b>"Administrative Capacity Building"</b> , a Management Development Programme conducted by Indian Institute of Management Lucknow (IIML) at Noida Campus, 10/03/2014 to 14/03/2014.
[36] <b>"Strengthening Industry-Institute Interaction"</b> , TEQIP-II sponsored STC conducted by Entrepreneurship Development & Industrial Coordination Department, NITTTR Chandigarh at Shaheed Bhagat Singh Sate Technical Campus (SBSSTC) Ferozepur, 23/09/2013 to 27/09/2013
[35] <b>"Role of Industrial Engineering and Design in Present Scenario"</b> , TEQIP-II sponsored FDP at Shaheed Bhagat Singh Sate Technical Campus (SBSSTC) Ferozepur, 16/09/2013 to 20/09/2013
[34] <b>"Managerial Skills"</b> , TEQIP-II sponsored STC conducted by Education and Educational Department, NITTTR Chandigarh at Shaheed Bhagat Singh Sate Technical Campus (SBSSTC) Ferozepur, 09/09/2013 to 13/09/2013
[33] <b>"Soft Skills for Technical Teachers"</b> , TEQIP-II sponsored FDP at Shaheed Bhagat Singh Sate Technical Campus (SBSSTC) Ferozepur, 02/09/2013 to 06/09/2013
[32] <b>"New Computing &amp; Emerging Technologies in ICT"</b> , TEQIP-II sponsored FDP at Shaheed Bhagat Singh Sate Technical Campus (SBSSTC) Ferozepur, 26/08/2013 to 30/08/2013
[31] <b>"Ansys Structural Training"</b> , training programme at Bangalore, 22/07/2013 to 26/07/2013
[30] <b>"Management Effectiveness, Focus: Cost Management"</b> , short term course organized by National Productivity Council (NPC) Jaipur, 14/06/2013 to 18/06/2013.
[29] <b>"Nature Inspired Computational Intelligence"</b> , AICTE-TEQIP sponsored Faculty Development Programme, organized by SBSSTC Ferozepur, 06/05/2013 to 17/05/2013.
[28] <b>"Being Masterful Teacher"</b> , Training Programme organized by Connect, Dharwad, 03/04/2013 to 05/04/2013
[27] <b>"Engineering Materials"</b> , TEQIP (Phase-II) short term course organized by Dept. of applied Sc. & Humanities at Shaheed Bhagat Singh State Technical Campus Ferozepur, 17/12/2012 to 21/12/2012.
[26] <b>"Research Methodology: Tools and Techniques"</b> , TEQIP (Phase-II) short term course at Shaheed Bhagat Singh State Technical Campus Ferozepur, 03/12/2012 to 07/12/2012.
[25] <b>"Applied Soft Computing"</b> , TEQIP (Phase-II) short term course organized by Department of Electronics & Comm. Engineering at Shaheed Bhagat Singh State Technical Campus Ferozepur, 26/11/2012 to 30/11/2012.
[24] <b>"Recent Developments in Mechanical Engineering"</b> , under Faculty Development Programme of TEQIP-

II/AICTE organized by Dept. of Mech. Engg., PEC university of Technology Chandigarh, 11/06/2012 to 22/06/2012.
[23] <b>“Current and Emerging Trends in IT”</b> , faculty development programme, organized by Punjab Technical University, Jalandhar at DBFGOI Moga, 04/06/2012 to 08/06/2012.
[22] <b>“Multi-Criteria Optimization Tools in Research”</b> , AICTE sponsored staff development programme organized by Shaheed Bhagat Singh State Technical Campus Ferozpur, 21/05/2012 to 01/06/2012.
[21] <b>“Soft Computing Techniques”</b> , short term course conducted by Electronics & communications Engg. Dept., NITTTR Chandigarh, 14/05/2012 to 18/05/2012.
[20] <b>“Refresher Course in Mechanical Engineering”</b> , short term course conducted by Mech. Engg. Dept., NITTTR Chandigarh, 10/10/2011 to 21/10/2011.
[19] <b>“Mechatronics”</b> , short term course conducted by Mech. Engg. Dept., NITTTR Chandigarh, 25/07/2011 to 29/07/2011.
[18] <b>“Intelligent Computational Techniques”</b> , AICTE sponsored staff development programme organized by Shaheed Bhagat Singh State Technical Campus Ferozpur, 04/07/2011 to 15/07/2011.
[17] <b>“Geoinformatics: Technology and Applications”</b> , AICTE sponsored faculty development programme held at Civil Engg. Dept., Deenbandhu Chottu Ram University of Science and Technology, Murthal, 14/06/2011 to 25/06/2011.
[16] <b>“Numerical Computations Using Software Tools”</b> , course held at QIP centre, Indian Institute of Technology, Roorkee in the Dept. of Mathematics, 14/07/2007 to 18/07/2007.
[15] <b>“Product Design and Development”</b> , course held at QIP centre, Indian Institute of Technology, Roorkee in the Depts. of Mech. & Ind. Engg. and Arch. & Planning, 09/07/2007 to 13/07/2007.
[14] <b>“Advanced AUTOCAD”</b> conducted by Mech. Engg. Dept., NITTTR, Chandigarh at SBSCET Ferozpur, 27/02/2006 to 03/03/2006.
[13] <b>“MAT LAB”</b> conducted by Dept. of Mech. Engg., NITTTR Chandigarh at SBSCET Ferozpur, 30/01/2006 to 03/02/2006.
[12] <b>“Computer Aided Design”</b> conducted by Mech. Engg. Dept., NITTTR Chandigarh at SBSCET Ferozpur, 14/03/2005 to 18/03/2005.
[11] <b>“Robotics and Automation”</b> , short term course at QIP Centre for Development of Technical education, Indian Institute of Technology, Kanpur, 07/07/2003 to 18/07/2003.
[10] Ministry of Science and Technology, <b>“Faculty Development Programme for Entrepreneurship Development”</b> Organized by NITCON Chandigarh at Bathinda, 15/08/2002 to 24/08/2002.
[09] <b>“Total Quality Management and ISO 9000 Quality Systems”</b> , AICTE/ISTE sponsored short term training programme organized by Dept. of Mech. & Prod. Engg., SBSCET, Ferozpur, 01/07/2002 to 12/07/2002.
[08] Ministry of Culture, Youth Affairs & Sports , <b>“Training and Orientation Programme of National Service Scheme (NSS)”</b> at GNDU, Amritsar, 15/02/2002 to 24/02/2002
[07] <b>“Induction Training for Teachers in Engineering Education- A staff Development Programme ”</b> , AICTE sponsored course at NIT (Erstwhile REC), Jalandhar, 27/02/2001 to 20/03/2001.
[06] <b>“Productivity Enhancement through Resource Waste Reduction”</b> , ISTE sponsored short term course at Thapar University (Erstwhile TIET), Patiala, 18/12/2000 to 29/12/2000.
[05] <b>“Mechatronics: Applications; Motion Control and Process Control”</b> , ISTE/AICTE sponsored short term course at GNDEC, Ludhiana, 17/07/2000 to 28/07/2000.
[04] <b>“A workshop on System Simulation”</b> , ISTE/AICTE sponsored winter school at GNDEC, Ludhiana, 27/12/1999 to 07/01/2000.
[03] <b>“Strategies for Maximizing Human Resource Productivity in Technical Institutes”</b> , ISTE/AICTE sponsored winter school at NIT (Erstwhile REC), Hamirpur, 06/12/1999 to 18/12/1999.
[02] <b>“AUTOCAD”</b> , organized by Directorate Technical Education, Chandigarh at NIT (Erstwhile REC), Jalandhar, August, 1998.
[01] <b>“Industrial Training”</b> at ACC, Gagal Cement Works, 08/06/1994 to 08/07/1994.

## Workshops/Conferences

### Conferences Organized: 02

[02] TEQIP-II sponsored 2<sup>nd</sup> National Conference on **Advances in Manufacturing Systems (CAMS-2015)**, 23-24, December 2015.



[01] TEQIP-II and AICTE sponsored National Conference on **Advances in Manufacturing Systems (CAMS-2014)**, 05-06, September 2014.

#### **Workshops Organized: 04**

During July-Dec., 2014

[01] TEQIP-II sponsored one day workshop on 'Tools for Competitive Exams'.

[02] TEQIP-II sponsored one day workshop on 'Soft Computing'.

[03] TEQIP-II sponsored one day workshop on 'Soft Skills'.

[04] TEQIP-II sponsored one day workshop on 'Modelling and Simulation'.

#### **Workshops Attended: 06**

[06] **"Physical Modeling of Power Systems with SimPowerSystems"**, organised by Mathwork at Shaheed Bhagat Singh State Technical Campus Ferozepur (under TEQIP-II), 29/11/2013

[05] **"Physical Modeling of Multidomain Systems with SimScape"**, organised by Mathwork at Shaheed Bhagat Singh State Technical Campus Ferozepur (under TEQIP-II), 28/11/2013

[04] **"SIMULINK for System and Algorithm Modeling"**, organised by Mathwork at Shaheed Bhagat Singh State Technical Campus Ferozepur (under TEQIP-II), 27/11/2013

[03] **"MATLAB Fundamentals"**, organised by Mathwork at Shaheed Bhagat Singh State Technical Campus Ferozepur (under TEQIP-II), 25/11/2013 to 26/11/2013

[02] NBA workshop on **"Workshop for Evaluators/Stakeholders on outcome based Accreditation Process & Parameters for UG Engineering Programme"** held at NBC Nodal Center, Thapar University, Patiala, 29/04/2013 onwards.

[01] Indo-US workshop on **"Smart Machine Tools, Intelligent Machining Systems and Multi-scale Manufacturing"** held at PSG College of Technology, Coimbatore, 18/12/2008 to 20/12/2008.

## **Publications**

#### **Books/Monographs: 00**

Published:00, In pipeline: 01

[01] Preparing for Accreditation: A workbook (in pipeline)

#### **Journal Papers**

Published:07, In pipeline: 03

[10] **"Development of Implementation plan for achieving flexibility and competitiveness leading to higher business performance in Indian manufacturing industries using analytical hierarchy process"**, (Communicated)  
Co-authors: Shakunpreet Kaur, Jatinder Kumar

[09] **"An empirical examination of sources and drivers of flexibility and competitiveness leading to higher business performance in Indian manufacturing industries"**, (Communicated)  
Co-authors: Shakunpreet Kaur, Jatinder Kumar

[08] **"Adopting flexibility - An opportunity for Indian Manufacturing SMEs"**, (Accepted for publication in International Journal)

[07] **"Impact of Flexibility of Manufacturing System Components on Competitiveness of SMEs in Northern India"**, Journal of Engineering, Project, and Production Management, 6(1), 63-76, ISSN 2221-6529, EISSN 2223-8379

Co-authors: Shakunpreet Kaur, Jatinder Kumar

[06] **"Impact of competitiveness on business performance: a case study of manufacturing SMEs in Northern India"**, International Journal. Indian Culture and Business Management, Vol. X, No. Y, pp.000-000 (in press) EISSN 1753-0814 ISSN: 1753-0806

Co-authors: Shakunpreet Kaur, Jatinder Kumar

[05] **"Impact of competitiveness on business performance: A Case Study of Manufacturing SMEs in Northern India"** (GIFT: under review)

Co-authors: Shakunpreet Kaur, Jatinder Kumar

[04] **"Recent Advancements in Electric Discharge Machining: A Review"**, International Journal of Modern Engineering Research, Volume 2, Issue 5, Sep-Oct 2012

Co-authors: Amandeep Singh, Neelkanth Grover

[03] **"Part Families and Machine Cell Formation in Reconfigurable Manufacturing System"**, The IUP Journal of Mechanical Engineering, Volume III, Issue 4. 2010

Co-authors: Uma Mahesh Kumar K., Jain P.K.

[02] **"A framework for simultaneous recognition of part families and operation groups for driving a Reconfigurable Manufacturing System"**, Advances in Production Engineering & Management Journal, Volume 5,

Issue 1, Feb. 2010.

Co-authors: Jain P.K., Mehta N.K.

[01 ] **"A Dynamic RMS framework for a highly dynamic environment of a subcontracting manufacturing enterprise"**, Journal of Mechatronics and Intelligent Manufacturing, Volume 1, Issue 3.

Co-authors: Jain P.K., Mehta N.K.

### Conference Papers

Published/Presented: 36, In pipeline: 00

[41] **"Designing and Solving Multiple Objective Optimization of Cellular Manufacturing system by various Methodologies: A Review"**, 2<sup>nd</sup> National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, December 23-24, 2015, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Gitesh Kumar, Kapil Kumar Goyal

[40] **"Optimization of Process Parameters in Wire Electrical Discharge Machining of MMC: A Review"**, 2<sup>nd</sup> National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, December 23-24, 2015, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Sunil Kumar, Kapil Kumar Goyal

[39] **"Reflection on Production Planning and Control in market perspective"**, 2<sup>nd</sup> National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, December 23-24, 2015, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Ajay Kumar Aggarwal

[38] **"Reconfigurable Manufacturing System-A new class of systems"**, 2<sup>nd</sup> National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, December 23-24, 2015, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Gazal Preet Arneja, Kamal Khanna

[37] **"Ready to eat foods at retail: A new era in food industry"**, 2<sup>nd</sup> National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, December 23-24, 2015, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Leena Kakkar, R.P. Singh

[36] **"Adopting flexibility - An opportunity for Indian Manufacturing SMEs"**, in Proceedings of 2<sup>nd</sup> International Conference on Recent Developments in Science, Engineering and Technology (REDSET 2015), G D Goenka University Gurgaon, India, October 2015, Pg 9-14. ISBN: 978-93-84869-85-4

Co-authors: Shakunpreet Kaur, Jatinder Kumar

[35] **"Application of Statistical Tools and Techniques for Achieving Different Sigma Levels"**, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Gazal Preet Arneja, Kamal Khanna

[34] **"Use of Reconfigurable Manufacturing Systems in Industries"**, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Gazal Preet Arneja, Kamal Khanna

[33] **"Analyzing the Interaction of Factors for Successful Implementation of Six Sigma"**, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Manjinder Singh

[32] **"Business Globalization and Evolution of 'Reconfigurable Manufacturing System' paradigm"**, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Manjinder Singh

[31] **"The Status of Manufacturing Sector in India: Parts I and II"**, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Shakun Preet Kaur, Jatinder Kumar and Rohit Monga

[30] **"Enhancement of EDM Surface Characteristics using Carbon Nano Tubes as dielectric- A Review"**, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozepur

Co-authors: Amandeep Singh and Neel Kanth Grover



<p>[29] <b>“A critical review of Electrochemical Machining”</b>, National Conference on Advances in Manufacturing Systems: Technology, Materials and Management, September 05-06, 2014, Department of Mechanical Engineering, SBS State Technical Campus, Ferozpur Co-authors: J.P. Misra and Umed Khod</p>
<p>[28] <b>“Simulation of Evaporation of Fuel Droplet in high pressure environment”</b>, International conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments, March 07-08, 2014, Department of Mechanical Engineering, Pomjesly Colleger of Engineering, Nagercoil, Tamilnadu, India. Co-authors: Neelkanth Grover and Rajiv Arora</p>
<p>[27] <b>“Surface modification of EDM process using cryogenic treatment”</b>, TEQIP-II sponsored National conference on Latest Developments in Materials, Manufacturing and Quality Control, February 13-14, 2014, Department of Mechanical Engineering , GZSCET, Bathinda Co-authors: Amandeep Singh and Neelkanth Grover</p>
<p>[26] <b>“The Status of Manufacturing Sector in India: A Survey”</b>, 2<sup>nd</sup> International Conference on Advances in Materials and Manufacturing Technology, October 06, 2012, School of Mechanical Engineering, Chitkara University, Rajpura. Co-authors: Shakun Preet Kaur and Jatinder Kumar</p>
<p>[25] <b>“Various Research Trends in Electric Discharge Machining”</b>, National Conference on Advances in Manufacturing Technology, 15-16 Mar, 2012, NITTTR Chandigarh. Co-authors: Amanpreet Singh, and Neelkanth Grover</p>
<p>[24] <b>“Flexibility in Manufacturing: A bird’s eye view”</b>, ICE-2011(International Conference), 17-19, Nov2011,SVNIT, Surat, Gujrat <b>Co-authors: Shakun Preet Kaur and Jatinder Kumar</b></p>
<p>[23] <b>“Evolution of Manufacturing Systems: An Overview”</b>, 1<sup>st</sup> International Conference on Advances in Materials and Manufacturing Technology, October 03, 2011, School of Mechanical Engineering, Chitkara University, Rajpura. Co-authors: Shakun Preet Kaur and Jatinder Kumar</p>
<p>[22] <b>“Manufacturing Planning for a Reconfigurable Manufacturing System: A new approach”</b>, International Conference on Emerging Trends in Mechanical Engineering (ICETME-2011), February 24-26, 2011, Department of Mechanical Engineering, Thapar University Patiala. Co-Authors: Jain P.K., Mehta N.K.</p>
<p>[21] <b>“Cleaner Production Management: Research Issues”</b>, UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout. Co-Authors: Preety Sharma, Sangeeta Arora</p>
<p>[20] <b>“Introduction to Social Media: A new marketing platform”</b>, UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout. Co-Authors: Preety Sharma, Raminder Pal Singh</p>
<p>[19] <b>“Six Sigma: A continuous process improvement technique”</b>, UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout. Co-Author: Gazal Preet Arneja.</p>
<p>[18] <b>“Soft Computing for Management Research: A Glance”</b>, UGC International Conference on India in Emerging Order – A Potential Market for World, February 25-26, 2011, Department of Economics, DAVC, Malout. Co-Author: Gazal Preet Arneja.</p>
<p>[17] <b>“A proposal for a new manufacturing strategy based on Reconfigurable manufacturing system paradigm”</b>, Proceedings of 3<sup>rd</sup> International and 24<sup>th</sup> All India Manufacturing Technology, Design and Research (AIMTDR-2010) Conference, Dec 13-15, 2010, Andhara University, Andhara Pradesh, India. Co-Authors: Uma Mahesh Kumar K., Jain P.K.</p>
<p>[16] <b>“Reconfiguration planning for a manufacturing system with movable machines”</b>, Proceedings of International Conference on Advances in Mechanical Engineering (ICAME-2010), Jan 4-6, 2010, SVNIT, Surat, Gujrat, India. Co-Authors: Jain P.K., Jain Pooja</p>
<p>[15] <b>“An Adaptation of Hierarchical Clustering for Simultaneous Recognition of RMS Part Families and Operation Groups Considering Alternative Operation sequences”</b>, Symposium on Group Technology and Cellular Manufacturing (GT/CM 2009) incorporating The 5th International Conference on Intelligent Manufacturing and</p>

Logistics Systems (IML 2009), Feb. 16-18, 2009, Waseda University, Kitakyushu, Japan.

Co-Authors: Jain P.K., Mehta N.K.

[14] "**Reconfigurable Manufacturing Paradigm: A Bird's Eye View**", National Conference on Robotics and Intelligent Manufacturing Process (RIMP-2009), Jan., 5-6, 2009, Centre for Intelligent Machines and Robotics, Corporate R&D Division, BHEL, Vikasnagar, Hyderabad, India.

Co-Authors: Jain P.K., Uma M.K.

[13] "**A Proposal for a Reconfigurable Subcontracting Manufacturing Enterprise and its Manufacturing Planning**", XII Annual International Conference of Society of Operations Management (AICSOM 2008), Dec. 19-21, 2008, Indian Institute of Technology, Kanpur, India.

Co-Authors: Jain P.K., Mehta N.K.

[12] "**A Dynamic RMS framework for a highly dynamic environment of a subcontracting manufacturing enterprise**", International Conference on Advances in Mechanical engineering (AME 2008), Dec. 15-17, 2008, SVNIT, Surat, India.

Co-Authors: Jain P.K., Mehta N.K.

[11] "**A systematic approach for selection and sequencing of part families in Reconfigurable Manufacturing Systems**", 2nd International & 23rd All India Manufacturing Technology Design and Research Conference (AIMTDR 2008), Dec. 15-17, 2008, IIT, Madras, Chennai, India.

Co-Authors: Jain P.K., Mehta N.K., Kumar M.

[10] "**Manufacturing cycle planning for a Reconfigurable Manufacturing System: A Genetic Algorithm based approach**", 2008 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2008), 8-11 Dec., 2008, Singapore.

Co-Authors: Jain P.K., Mehta N.K.

[09] "**Manufacturing of 'Fast Moving Industrial Goods' in Reconfigurable Manufacturing Systems: An Overview**", 3rd National Conference of Recent Developments in Mechanical Engineering (NVME 2008), Nov 14-15, 2008, Thapar University, Patiala, India.

Co-Authors: Jain P.K., Uma M.K.

[08] "**Various Manufacturing System Paradigms: A Bird's Eye View**", National Conference on Recent Developments in Mechanical Engineering (MANTHAN 2008), Nov. 8, 2008, GRKIST, Jabalpur, India.

Co-Authors: Jain P.K., Uma M.K.

[07] "**An approach for simultaneous part families recognition and operation sequence selection for Reconfigurable Manufacturing systems**", ISPE 24th International Conference on CAD/CAM, Robotics & Factories of the Future (CARS & FOF 2008), 29-31 July 2008, Nihon University, Koriyama, Japan.

Co-Authors: Jain P.K., Mehta N.K.

[06] "**A review of evolution of 'Reconfigurable Manufacturing System' paradigm on the landscape of business globalization**", 5th International Conference on Business Challenges & Strategies in Emerging Global Scenario (ICBCS 2008), 30 May 2008, PCET, Ludhiana, India.

Co-Authors: Jain P.K., Mehta N.K.

[05] "**'Reconfigurable Manufacturing System'- a manufacturing paradigm to meet global business challenges**", 5th International Conference on Business Challenges & Strategies in Emerging Global Scenario (ICBCS 2008), 30 May 2008, PCET, Ludhiana, India.

Co-Authors: Jain P.K., Mehta N.K., Kumar M.

[04] "**Reconfigurable Manufacturing Systems-An Emerging Manufacturing Paradigm**", Global Conference on Production and Industrial Engineering (CPIE 2007), 22-24 March, 2007, DIE, NIT, Jalandhar, India.

Co-Author: Jain P.K.

[03] "**Recent Progress in Interactive Droplet Vaporization and Combustion**", National Conference on Recent Developments in Mechanical Engineering, 31 Oct-01 Nov., 2003, Department of Mechanical Engineering, Thapar Institute of Technology, Patiala, India.

Co-Author: Grover N.K.

[02] "**Cleaner production-A Potential Tool to Waste Minimization**", National Seminar on Science and Technology

in Present Perspective, 26Oct., 2002, S.B.S. College of Engineering and Technology, Ferozepur, India.

Co-Aothors: Saluja K.K., Singh S.B.

[01] "**Cleaner Production - Issues and Recommendations**", 17th National Convention of Environment Engineers, ENVI-2001, 23-25 November, 2001, The Institution of Engineers Hall, Vellayambalam, Trivendaram, Kerala, India.

Co-Aothor: Singh S.B.

## Expert Talks Delivered

[11] "**Multi-Objective Optimizations**" 31<sup>st</sup> May 2013, TEQIP-II short term course on CAD/CAD at Beant College of Engineering and Technology, Gurdaspur

[10] "**Ant Colony Optimization**" 16<sup>th</sup> May 2013, AICTE-TEQIP-II short term course on Nature Inspired Computational Intelligence organized under TEQIP (Phase-II) at SBSSTC, Ferozepur.

[9] "**Multi-objective Optimization**" 6<sup>th</sup> December 2012, short term course on Research Technology: Tools and Techniques organized under TEQIP (Phase-II) at SBSSTC, Ferozepur.

[8] "**Ant Colony Optimization**" 29<sup>th</sup> November 2012, short term course on Applied Soft computing organized under TEQIP (Phase-II) at SBSSTC, Ferozepur.

[7] "**Optimization using GA**" 6<sup>th</sup> June 2012, faculty development programme, organized by Punjab technical University, Jalandhar at DBFGOI, Moga

[6] "**Multi Objective Optimization Using Evolutionary Computations**" 25<sup>th</sup> May 2012, AICTE sponsored two week SDP on Multi Criteria Optimization Tools in Research, SBSSTC, Ferozepur.

[5] "**Optimization in Engineering**" 16<sup>th</sup> May 2012, Faculty development programme, organized by Punjab technical University, Jalandhar at AIET Faridkot

[4] "**GA and Optimization**" 11<sup>th</sup> May 2012, AICTE sponsored two weeks SDP on the Advancements in Manufacturing and Energy Systems, Chandigarh Group of Colleges, Gharuan, Mohali.

[3] "**Genetic Algorithms**" 8<sup>th</sup> July 2011, AICTE sponsored two weeks SDP on Intelligent Computational Techniques, SBSSTC, Ferozepur

[2] "**Reconfigurable Factories of the Future**" Desh Bhagat Institute of Engineering and Management, Moga

[1] "**How to teach engineering graphics?**" Desh Bhagat Institute of Engineering and Management, Moga