# **RESUME**

Name : DR. INDERPREET SINGH AHUJA

**Designation** : **PROFESSOR** 

**Department** : **Department** of Mechanical Engineering

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### ACADEMIC QUALIFICATIONS:

Course/ Degree	Stream	University / Institution	Year	CGPA (%age)	Division
Ph.D.	Mechanical Engineering	Department of Mechanical Engineering, Punjabi University, Patiala	2008		
M.Tech.	Industrial Engineering	Thapar Institute of Engineering & Technology, Patiala	1998	CGPA- 9.27 (83.43%)	1 <sup>st</sup> with Distinction
Bachelor of Engineering (B.E.)	Mechanical Engineering	Thapar Institute of Engineering & Technology, Patiala	1993	CGPA- 9.65 (86.85%)	1 <sup>st</sup> with Distinction Gold Medallist

# **AREA OF SPECIALIZATION:**

- PH.D. TOPIC: Strategic Implementation of Total Productive Maintenance in Indian Manufacturing Industry for enhanced Competitiveness (Completed December 2008)
- PRIMARY RESEARCH AREA: Production & Industrial Engineering, Total Productive Maintenance, Lean Manufacturing, Total Quality Management, ISO 9000, 5S, Technology Management
- **SECONDARY RESEARCH AREA:** Hard Turning, 3D Printing, Rapid Prototyping.

### **SUBJECTS TAUGHT:**

- Industrial Engineering
- Plant Layout & Materials Handling
- Facilities Layout & Design
- Manufacturing Processes
- Manufacturing Technology
- Non-Traditional Machining Processes
- Refrigeration & Air Conditioning
- Operations Research
- ➢ Thermodynamics
- Engineering Drawing
- Machine Drawing

### **EMPLOYMENT HISTORY:**

- Lecturer at Thapar Institute of Engineering & Technology, Patiala from August 1993 January 1995.
- Scientific Officer-C at Centre for Advanced Technology, Department of Atomic Energy, Indore from January 1995 – November 1996.
- Lecturer at Thapar Institute of Engineering & Technology, Patiala from December 1996 July 2005.
- Reader at University College of Engineering, Punjabi University, Patiala from July 2005 July 2008.
- Associate Professor at University College of Engineering, Punjabi University, Patiala from July 2008 – July 2011
- Professor Mechanical Engineering at University College of Engineering, Punjabi University, Patiala from July 2011 – September, 2013.
- Professor at Department of Mechanical Engineering, Punjabi University, Patiala since September, 2013.

### MEMBERSHIP OF PROFESSIONAL BODIES/ORGANISATIONS

- Life Member, Indian Society of Heating Refrigeration and Air Conditioning (ISHRAE)
- ► Life Member, Indian Society of Technical Education, (ISTE)

### MEDALS/AWARDS/HONOURS/RECEIVED

- Received Institute Gold Medal from Thapar Institute of Engineering & Technology, Patiala for securing 1st position in B.Tech. (Mechanical Engineering) for batch 1989-1993
- Received HMT Gold Medal from Thapar Institute of Engineering & Technology, Patiala for securing 1st position in B.Tech. (Mechanical Engineering) for batch 1989-1993

### ADMINISTRATIVE RESPONSIBILITIES

- In charge, Department of Mechanical Engineering, Punjabi University, Patiala from September, 2008 to May, 2011
- Head, Department of Mechanical Engineering, Punjabi University, Patiala from 16 September, 2016 to 15 September, 2019
- Chairman, Administrative Committee of Department, Department of Mechanical Engineering, Punjabi University, Patiala from September, 2016 to September, 2019
- Member, Administrative Committee of Department, Department of Mechanical Engineering, Punjabi University, Patiala from September, 2009-10, 2013-18, 2020-21, 2022-23

#### ACADEMIC RESPONSIBILITIES

- Member, Board of Studies, Department of Mechanical Engineering, Punjabi University, Patiala from September, April, 2006 to 2024
- Chairman, Board of Studies, Department of Mechanical Engineering, Punjabi University, Patiala from September, 2016 to September, 2019
- Member, Faculty of Engineering, Department of Mechanical Engineering, Punjabi University, Patiala from September from December, 2010 to 2024
- Member, Board of Post Graduate Studies and Research, Department of Mechanical Engineering, Punjabi University, Patiala from September, 2011 to 2023
- Member, Ph.D. Coursework Committee, Department of Mechanical Engineering, Punjabi University, Patiala from September, 2010 to 2022
- Member, Administrative Committee of Department, Department of Mechanical Engineering, Punjabi University, Patiala from 2009-10, 2013-18, 2020-21, 2022-23
- Expert, Faculty of Engineering & Technology, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab from July 2022 to July 2024
- Expert, Undergraduate Board of Studies, Automobile Engineering (Vocational), Khalsa College, Punjab from 2018 to 2024
- Expert, Board of Studies, Department of Mechanical Engineering, Desh Bhagat University, Mandi Gobindgarh, Punjab from 2022 to 2023
- Expert, Board of Studies, Department of Mechanical Engineering, RIMT University, Mandi Gobindgarh, Punjab from 2017 to 2021

# **RESEARCH PROFILE**

<ul><li>Publications in International Journals</li></ul>	:	198
<ul><li>Publications in National Journals</li></ul>	:	07
Patents Accepted/Published	:	01
<ul> <li>Consultancy Projects Handled</li> </ul>	:	03
<ul> <li>Publications in International Conferences</li> </ul>	:	21
<ul> <li>Publications in National Conferences</li> </ul>	:	25
Books Published	:	07
<ul><li>Chapters in Books</li></ul>	:	45
<ul> <li>AICTE Course Material Published</li> </ul>	:	01
> Ph.D. Guidance	:	16, 02 (Registered)
<ul><li>M.Tech. Thesis Guided</li></ul>	:	19
<ul> <li>Invited Lectures and Chairmanships at National or International Conferences/Seminars/Faculty Development Programs</li> </ul>	:	48

# **GOOGLE SCHOLAR PROFILE:**

https://scholar.google.com/citations?user=6sCtdsEAAAAJ&hl=en

# LINKEDIN PROFILE

https://www.linkedin.com/in/ahujaips/

### **ORCID ID**

https://orcid.org/0000-0002-7055-1428

### **SCOPUS ID**

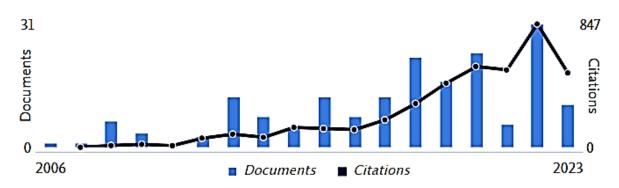
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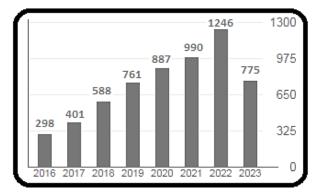


# Inderpreet Singh Ahuja 🖉

Professor in Mechanical Engineering Verified email at pbi.ac.in

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Cited by		VIEW ALL
	All	Since 2018
Citations	7391	5255
h-index	38	33
i10-index	122	104



# TOP CITED RESEARCH PAPERS

TITLE	CITED BY	YEAR
Total productive maintenance: literature review and directions IPS Ahuja, JS Khamba International journal of quality & reliability management 25 (7), 709-756	1053	2008
Recycling of plastic solid waste: A state of art review and future applications N Singh, D Hui, R Singh, IPS Ahuja, L Feo, F Fraternali Composites Part B: Engineering 115, 409-422	979	2017
5S–a quality improvement tool for sustainable performance: literature review and directions JS Randhawa, IS Ahuja International Journal of Quality & Reliability Management 34 (3), 334-361	262	2017
Strategies and success factors for overcoming challenges in TPM implementation in Indian manufacturing industry IPS Ahuja, JS Khamba Journal of Quality in Maintenance Engineering 14 (2), 123-147	229	2008
An evaluation of TPM implementation initiatives in an Indian manufacturing enterprise IPS Ahuja, JS Khamba Journal of quality in maintenance engineering 13 (4), 338-352	219	2007
An evaluation of TPM initiatives in Indian industry for enhanced manufacturing performance IPS Ahuja, JS Khamba International Journal of Quality & Reliability Management 25 (2), 147-172	195	2008
An empirical investigation of dynamic capabilities in managing strategic flexibility in manufacturing organizations D Singh, J Singh Oberoi, I Singh Ahuja Management Decision 51 (7), 1442-1461	160	2013
An evaluation of the synergic implementation of TQM and TPM paradigms on business performance M Kaur, K Singh, I Singh Ahuja International Journal of Productivity and Performance Management 62 (1), 66-84	140	2012
A case study of total productive maintenance implementation at precision tube mills IPS Ahuja, P Kumar Journal of Quality in Maintenance Engineering 15 (3), 241-258	131	2009
Assessment of contributions of successful TPM initiatives towards competitive manufacturing IPS Ahuja, JS Khamba Journal of Quality in Maintenance Engineering 14 (4), 356-374	131	2008
Weldability of thermoplastic materials for friction stir welding-A state of art review and future applications R Kumar, R Singh, IPS Ahuja, R Penna, L Feo Composites Part B: Engineering 137, 1-15	128	2018

# **RESEARCH PUBLICATIONS**

### **PUBLICATIONS IN REFEREED INTERNATIONAL JOURNALS (198)**

- 1. Ahuja, I.P.S. and Khamba, J.S. (2007), "An Evaluation of TPM Implementation Initiatives in an Indian Manufacturing Enterprise", Journal of Quality in Maintenance Engineering (JQME), Vol. 13, No. 4, pp. 338 – 352. (ISSN: 1355-2511) (EMERALD 2022 IF: 1.5)
- Ahuja, I.P.S. and Khamba, J.S. (2008), "An Evaluation of TPM Initiatives in Indian Industry for Enhanced Manufacturing Performance", International Journal of Quality and Reliability Management (IJQRM), Vol. 25, No. 2, pp. 147 – 172. (ISSN: 0265-671X) (EMERALD 2022 IF: 2.5)
- 3. Ahuja, I.P.S. and Khamba, J.S. (2008), "Total Productive Maintenance Implementation in a Manufacturing Organization", International Journal of Productivity and Quality Management (IJPQM), Vol. 3, No. 3, pp. 360 – 381. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) INDERSCIENCEANKING OF
- 4. Ahuja, I.P.S. and Khamba, J.S. (2008), "An Assessment of Maintenance Management Initiatives in the Indian Manufacturing Industry", International Journal of Technology, Policy, Management (IJTPM), Vol. 8, No. 3, pp. 250 – 278. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) INDERSCIENCE
- 5. Ahuja, I.P.S. and Khamba, J.S. (2008), "Strategies and Success factors for overcoming Challenges in TPM Implementation in Indian Manufacturing Industry", Journal of Quality in Maintenance Engineering (JQME), Vol. 14, No. 2, pp. 123 147. (ISSN: 1355-2511) (EMERALD 2022 IF: 1.5)
- 6. Ahuja, I.P.S. and Khamba, J.S. (2008), "Justification of Total Productive Maintenance Initiatives in Indian Manufacturing Industry for achieving Core Competitiveness", Journal of Manufacturing Technology Management (JMTM), Vol. 19, No. 5, pp. 645 669. (ISSN: 1741-038X) (EMERALD 2022 IF: 7.6)
- 7. Ahuja, I.P.S. and Khamba, J.S. (2008), "Total Productive Maintenance Literature Review and Directions", International Journal of Quality and Reliability Management (IJQRM), Vol. 25, No. 7, pp. 709 – 756. (ISSN: 0265-671X) (EMERALD 2022 IF: 2.5)
- Ahuja, I.P.S. and Khamba, J.S. (2008), "Assessment of contributions of successful TPM Initiatives towards Competitive Manufacturing", Journal of Quality in Maintenance Engineering (JQME), Vol. 14, No. 4, pp. 356 – 374. (ISSN: 1355-2511) (EMERALD 2022 IF: 1.5)
- Ahuja, I.P.S. and Khamba, J.S. (2009), "Evolving the indigenous TPM Methodology for the Indian Manufacturing Industry", International Journal of Technology, Policy and Management (IJTPM), Vol. 9, No. 1, pp. 29 – 73. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) INDERSCIENCE
- Ahuja, I.P.S. and Khamba, J.S. (2009), "Investigation of Manufacturing Performance Achievements through Strategic Total Productive Maintenance Initiatives", International Journal of Productivity and Quality Management (IJPQM), Vol. 4, No. 2, pp. 129 – 152. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) INDERSCIENCE
- Ahuja, I.P.S. and Kumar, P. (2009), "A case study of total productive maintenance implementation at Precision Tube Mills", Journal of Quality in Maintenance Engineering (JQME), Vol. 15, No. 3, pp. 241 – 258. (ISSN: 1355-2511) (EMERALD 2022 IF: 1.5)

- 12. Ahuja, I.P.S. (2011), "Managing Research & Development for Core Competence Building in an Organization", Journal of Technology Management and Innovation (JOTMI), Vol. 6, No. 1, pp. 58 – 65. (ISSN-0718-2724)
- Ahuja, I.P.S. (2011), "Quality assurance in technical education system through TQM paradigm", International Journal of Business Continuity and Risk Management (IJBCRM), Vol. 2, No. 1, pp. 42 – 55. (ISSN-Online: 1758-2172, ISSN-Print: 1758-2164) (INDERSCIENCE)
- 14. Ahuja, I.P.S. (2011), "Manufacturing excellence through total productive maintenance paradigm", International Journal of Technology, Policy and Management (IJTPM), Vol. 11, No. 1, pp. 1 10. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- 15. Ahuja, I.P.S. (2011), "Total productive maintenance practices in manufacturing organisations: literature review", International Journal of Technology, Policy and Management (IJTPM), Vol. 11, No. 2, pp. 117 138. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- Amandeep Singh, R. Kumar and I.P.S. Ahuja (2011), "Examination for shell wall thickness of Magnesium alloy using Three Dimensional Printing", International Journal of Science, Technology & Management, Vol. 2, No. 1, pp. 61 – 68. (ISSN: 0976-2140)
- Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2011), "A Survey of Literature of Conceptual Frameworks Assessing Supply Chain Flexibility", International Journal of Applied Engineering Research, Vol. 2, No. 1, pp. 172 – 182. (ISSN-Online: 0976-4259)
- Rupinder Singh, I.P.S. Ahuja and Jasbirpal Singh (2011) "Investigating the machining characteristics of HCHCr with Electric Discharge Machining", International Journal of Materials Science and Engineering, Vol. 2, Nos. 1-2, pp. 29 31. (ISSN No. 0976-6243)
- Sanjeev Saini, I.P.S. Ahuja and Vishal S. Sharma (2012), "The effect of cutting parameters on surface integrity in hard turning", Applied Mechanics and Materials: Mechanical and Aerospace Engineering, Vol. 110-116, pp. 751 – 757. (ISSN: 1662-7482, Trans Tech Publications).
- Ahuja, I.S. (2012), "Total quality management implementation for reducing percent process defects in a manufacturing organization", International Journal of Business Performance Management, Vol. 13, No. 1, pp. 1 17. (ISSN-(Online): 1741-5039, ISSN-Print: 1368-4892). (INDERSCIENCE)
- Ahuja, I.P.S. and Pragat Singh (2012), "Application of Analytical Hierarchy Process for Justification of TPM Implementation in Manufacturing Organizations", International Journal of Technology, Policy and Management (IJTPM), Vol. 12, No. 1, pp. 37 – 47. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322). (INDERSCIENCE)
- 22. Gurinder Singh and Inderpreet Singh Ahuja (2012), "Just-In-Time Manufacturing: Literature Review and Directions", International Journal of Business Continuity and Risk Management (IJICBM), Vol. 3, No. 1, pp. 57 – 98. (ISSN-Online: 1758-2172, ISSN-Print: 1758-2164) (INDERSCIENCE)
- 23. Kanwarpreet Singh and Inderpreet Singh Ahuja (2012), "Justifying TQM-TPM Implementation in Manufacturing Organizations using AHP: A Decision Making Approach under Uncertainty", International Journal of Productivity and Quality Management (IJPQM), Vol. 10, No. 01, pp. 69 84. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) (INDERSCIENCE)
- 24. Sanjeev Saini, I.P.S. Ahuja and Vishal S. Sharma (2012), "Residual Stresses, Surface Roughness and Tool Wear in Hard Turning: A Comprehensive Review",

Materials and Manufacturing Processes, Vol. 27, No. 6, pp. 583 – 598. (ISSN-(Online): 1532-2475, ISSN-Print: 1042-6914). (**Taylor & Francis 2022 IF: 4.8**)

- 25. Ahuja, I.P.S. (2012), "Realizing Quality Assurance in Indian Technical Education", International Journal of Indian Culture and Business Management (IJICBM), Vol. 05, No. 04, pp. 472 488. (ISSN-Online: 1753-0814, ISSN-Print: 1753-0806). (INDERSCIENCE)
- 26. Ahuja, I.S. (2012), "Exploring the impact of effectiveness of Total Productive Maintenance strategies in Manufacturing Enterprise", International Journal of Productivity and Quality Management (IJPQM), Vol. 9, No. 4, pp. 486 501. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) (INDERSCIENCE)
- Sanjeev Saini, Inderpreet Singh Ahuja and Vishal S. Sharma (2012), "Influence of cutting parameters on tool wear and surface roughness in hard turning of AISI H11 tool steel using ceramic tools", International Journal of Precision Engineering and Manufacturing, Vol. 13, No. 8, pp. 1295 1302. (ISSN-(Online): 2005-4602, ISSN-Print: 2234-7593). (SPRINGER 2022 IF: 4.2)
- Parlad Kumar, I.P.S. Ahuja and Rupinder Singh (2012), "Application of Fusion Deposition Modelling for Rapid Investment Casting - A Review", International Journal of Materials Engineering Innovation (IJMATEI), Vol. 3, No. 3/4, pp. 204 – 227. (ISSN-Online: 1757-2762, ISSN-Print: 1757-2754) (INDERSCIENCE)
- Sanjiv Kumar Jain and Inderpreet Singh Ahuja (2012), "An evaluation of ISO 9000 initiatives in Indian industry for enhanced manufacturing performance", International Journal of Productivity and Performance Management, Vol. 61, No. 7, pp. 778 804. (ISSN-Online: 1741-0401) (EMERALD 2022 IF: 3.1)
- Sanjeev Saini, Inderpreet Singh Ahuja and Vishal S. Sharma (2012), "Modeling, Optimisation and Experimental Validation of Cutting Parameters to achieve minimum Tool Wear and Surface Roughness in Hard Turning of AISI H11 Tool Steel", International Journal of Materials Engineering Innovation (IJMatEI), Vol. 3, No. 3/4, pp. 295 – 315. (ISSN-Online: 1757-2762, ISSN-Print: 1757-2754) (INDERSCIENCE)
- Kanwarpreet Singh and I.P.S. Ahuja (2012), "Transfusion of Total Quality Management and Total Productive Maintenance: A Literature Review", International Journal of Technology, Policy and Management (IJTPM), Vol. 12, No. 4, pp. 275 – 311. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- Sanjiv Kumar Jain and Inderpreet Singh (2012), "ISO 9000 Quality Management System: Literature Review and Directions", International Journal of Technology, Policy and Management (IJTPM), Vol. 12, No. 4, pp. 312 – 343. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- 33. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2012),
   "Assessing strategic flexibility of manufacturing organisations using AHP",
   International Journal of Agile Systems and Management, Vol. 5, No. 4, pp. 319 –
   329. (ISSN-Online: 1741-9182, ISSN-Print: 1741-9174) (INDERSCIENCE)
- 34. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2012), "A conceptual examination of impact of dynamic capabilities in managing strategic flexibility in manufacturing sector", International Journal of Business Continuity and Risk Management (IJBCRM), Vol. 3, No. 3, pp. 187 205. (ISSN-Online: 1758-2172, ISSN-Print: 1758-2164) (INDERSCIENCE)
- 35. Sanjiv Kumar Jain and Inderpreet Singh Ahuja (2012), "Application of analytical hierarchy process for justification of ISO 9000 implementation in manufacturing organisations", International Journal of Business Continuity and Risk Management (IJBCRM), Vol. 3, No. 3, pp. 221 233. (ISSN-Online: 1758-2172, ISSN-Print: 1758-2164) (INDERSCIENCE)

- 36. Mandeep Kaur, Kanwarpreet Singh and Inderpreet Singh Ahuja (2013), "An evaluation of the synergic implementation of TQM and TPM Paradigms on Business Performance", International Journal of Productivity and Performance Management (IJPPM), Vol. 62, No. 1, pp. 66 84. (ISSN-Online: 1741-0401) (EMERALD 2022 IF: 3.1)
- 37. Gurinder Singh and Inderpreet Singh Ahuja (2013), "Strategies and Success Factors for overcoming challenges in JIT implementation in Indian Manufacturing Industry", International Journal of Technology, Policy and Management (IJTPM), Vol. 13, No. 1, pp. 15 – 33. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- Rajesh Kumar, Rupinder Singh and I.P.S. Ahuja (2013), "Execution of Rapid Prototyping Technology - An Indian Manufacturing Industry's Perspective", International Journal of Indian Culture and Business Management (IJICBM), Vol. 6, No. 2, pp. 162 – 184. (ISSN-Online: 1753-0814, ISSN-Print: 1753-0806). (INDERSCIENCE)
- 39. Sanjeev Saini, Inderpreet Singh Ahuja and Vishal S. Sharma (2013), "Modelling the effects of cutting parameters on residual stresses in hard turning of AISI H11 tool steel", International Journal of Advanced Manufacturing Technology, Vol. 65, No. 5-8, pp. 667 678. (ISSN-(Online): 1433-3015, ISSN-Print: 0268-3768). (Springer 2022 IF: 3.4)
- Inderpreet Singh Ahuja and Pragat Singh (2013), "Total Productive Maintenance A Tool for envisaging manufacturing competence", International Journal of Technology, Policy and Management, Vol. 13, No. 2, pp. 107 – 120. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- 41. Kanwarpreet Singh and I.P.S. Ahuja (2013), "Synergistic suitability of Transfusion of TQM-TPM for Indian Manufacturing Industries using Fuzzy Based Model Simulation", International Journal of Business Continuity and Risk Management (IJBCRM), Vol. 4, No. 1, pp. 36 53. (ISSN-Online: 1758-2172, ISSN-Print: 1758-2164) (INDERSCIENCE)
- Sanjiv Kumar Jain and Inderpreet Singh Ahuja (2013), "Strategies and Success Factors for overcoming challenges in ISO 9000 implementation in Indian Manufacturing Industry", International Journal of Technology, Policy and Management (IJTPM), Vol. 13, No. 2, pp. 121 – 139. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- Kanwarpreet Singh and I.P.S. Ahuja (2013), "Implementing TQM and TPM paradigms in Indian Context: Critical success factors and barriers", International Journal of Technology, Policy and Management (IJTPM), Vol. 13, No. 3, pp. 226 244. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- 44. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2013), "An empirical examination of barriers to strategic flexibility in Indian manufacturing industries using analytical hierarchy process", International Journal of Technology, Policy and Management (IJTPM), Vol. 13, No. 4, pp. 313 327. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- 45. Sanjiv Kumar Jain and Inderpreet Singh (2013), "Evaluation of ISO 9000 implementation aptness for Indian Manufacturing Industries using Fuzzy Simulation", International Journal of Business Continuity and Risk Management (IJBCRM), Vol. 4, No. 2, pp. 139 154. (ISSN-Online: 1758-2172, ISSN-Print: 1758-2164) (INDERSCIENCE)
- 46. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2013), "An empirical investigation of dynamic capabilities in managing strategic flexibility in manufacturing organizations", Management Decision, Vol. 51, No. 7, pp. 1442 1461. (ISSN-Online: 0025-1747) (EMERALD 2022 IF: 4.6)

- 47. Kumar, Parlad, Singh, Rupinder and Ahuja, IPS (2013), "A Framework for Developing a Hybrid Investment Casting Process", Asian Review of Mechanical Engineering, Vol. 2, No. 2, pp. 49 55. (ISSN 2249 6289) (Publisher The Research Publication)
- 48. Kanwarpreet Singh and Inderpreet Singh Ahuja (2014), "Assessing the Business Performance Measurements for Transfusion of TQM and TPM initiatives in the Indian manufacturing industry", International Journal of Technology, Policy and Management (IJTPM), Vol. 14, No. 1, pp. 44 – 82. (INDERSCIENCE) (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- 49. Inderpreet Singh Ahuja (2014), "An Evaluation of Impact of Technology Upgradations on Manufacturing Performance", International Journal of Indian Culture and Business Management (IJICBM), Vol. 09, No. 02, pp. 229 247. (ISSN-Online: 1753-0814, ISSN-Print: 1753-0806). (INDERSCIENCE)
- 50. Gurinder Singh and Inderpreet Singh Ahuja (2014), "An Evaluation of Just-in-Time (JIT) implementation on manufacturing performance in Indian Industry", Journal of Asia Business Studies, Vol. 8, No. 3, pp. 278 – 294. (EMERALD 2022 IF: 2.9) (ISSN: 1558-7894).
- 51. Kanwarpreet Singh and Inderpreet Singh Ahuja (2014), "Effectiveness of TPM implementation with and without integration with TQM in Indian manufacturing industries", Journal of Quality in Maintenance Engineering, Vol. 20, No. 4 pp. 415 435. (EMERALD 2022 IF: 1.5) (ISSN- 1355-2511).
- Rajesh Kumar, I.P.S. Ahuja and Rupinder Singh (2014), "Experimental and Analytical Analysis of Light Alloy Shell Castings Using Three Dimensional Printing", International Journal of Advance Research and Innovation (IJARI), Vol. 2, No. 3, pp. 650 – 662. (ISSN 2347 - 3258).
- 53. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2014), "A rule-based fuzzy-logic approach for evaluating the strategic flexibility in manufacturing organizations", International Journal of Strategic Change Management (IJSCM), Vol. 5, No. 4, pp. 281 296. (INDERSCIENCE) (ISSN online: 1740-2867; ISSN print: 1740-2859).
- 54. Arashdeep Singh and Inderpreet Singh Ahuja (2014) "Evaluating the impact of 5S methodology on manufacturing performance", International Journal of Business Continuity and Risk Management, Vol. 5, No. 4, pp. 272 305 (ISSN-Online: 1758-2172, ISSN-Print: 1758-2164) (INDERSCIENCE)
- 55. Kanwal Jeet Singh and Inderpreet Singh Ahuja (2014), "Ultrasonic Machining Processes- Review Paper", International Journal for Multi Disciplinary Engineering and Business Management, Vol. 2, No. 3, pp. 57 – 66. (ISSN: 2348 -2249)
- 56. Gurinder Singh and Inderpreet Singh Ahuja (2014), "Selection of Performance Measure in JIT through Fuzzy Logic Based Simulation", Asian Journal of Management Science and Applications, Vol. 1, No. 4, pp. 374 – 387. (ISSN online: 2049-8691, ISSN print: 2049-8683) (INDERSCIENCE)
- 57. Gurinder Singh and Inderpreet Singh Ahuja (2014), "Analytical Hierarchy Process for justification of JIT implementations in Indian manufacturing industries", Asian J. of Management Science and Applications, Vol. 1, No. 4, pp. 388 402. (ISSN online: 2049-8691, ISSN print: 2049-8683) (INDERSCIENCE)
- 58. Mandeep Kaur, Kanwarpreet Singh, I.P.S. Ahuja and Pragat Singh (2015), "Justification of synergistic implementation of TQM-TPM paradigms using Analytical Hierarchy Process", International Journal of Process Management and Benchmarking, Vol. 5, No. 1, pp. 1 – 18. (ISSN-Online: 1753-8440, ISSN Print: 1753-8432) (INDERSCIENCE)

- 59. Rajesh Kumar, Rupinder Singh and I.P.S. Ahuja (2015), "Modeling of dimensional accuracy in three dimensional printing for light alloy casting", Materials Science Forum Advancement in Manufacturing Processes., Vol. 808, pp. 65 78. (ISSN-978-3-03835-350-8).
- 60. Parlad Kumar, Rupinder Singh and I.P.S. Ahuja (2015), "Investigations for mechanical properties of hybrid investment casting: A case study", Materials Science Forum Advancement in Manufacturing Processes, Vol. 808, pp. 89 95. (ISSN- 978-3-03835-350-8).
- 61. Gurinder Singh and Inderpreet Singh Ahuja (2015), "Validation of JIT performance measure model through Structural Equation Modeling", International Journal of Process Management and Benchmarking, Vol. 5, No. 2, pp. 211 228 (INDERSCIENCE) (ISSN online: 1741-816X; ISSN print: 1460-6739)
- Kanwarpreet Singh and Inderpreet Singh Ahuja (2015), "An Evaluation of Transfusion of TQM-TPM implementation initiative in an Indian Manufacturing Industry", Journal of Quality in Maintenance Engineering, Vol. 21, No. 2, pp. 134 153. (ISSN- 1355-2511) (EMERALD 2022 IF: 1.5)
- 63. Rajesh Kumar, Rupinder Singh and I.P.S. Ahuja (2015), "Modeling and Analysis for Hardness and Structure of Nonferrous Alloy castings produced using Zcast Metal casting Process through Response Surface Methodology", International Journal of Advance Research and Innovation (IJARI), Vol. 3, No. 1, pp. 232 – 241. (ISSN 2347 - 3258)
- 64. Gurinder Singh and Inderpreet Singh Ahuja (2015), "An Evaluation of Just-in-Time initiatives in the Indian Industries", International Journal of Quality & Reliability Management (IJQRM), Vol. 32, No. 6, pp. 559 – 588. (EMERALD 2022 IF: 2.5) (ISSN: 0265-671X)
- 65. Raminder Kaur, Gurinder Singh, Inderpreet Singh Ahuja (2015) "Justification of JIT study through Structural Equation Modelling (SEM) of JIT model using AMOS for Indian Manufacturing Industries" International Journal of Process Management and Benchmarking, Vol. 5, No. 3, pp. 298 330. (INDERSCIENCE) (ISSN online: 1741-816X, ISSN print: 1460-6739)
- 66. Sanjiv Kumar Jain and Inderpreet Singh (2015), "Implementation model of ISO 9000 for achieving business performance in Indian manufacturing organizations", International Journal of Process Management and Benchmarking (IJPMB), Vol. 5, No. 3, pp. 331 351. (INDERSCIENCE) (ISSN online: 1741-816X, ISSN print: 1460-6739)
- Arashdeep Singh and Inderpreet Singh Ahuja (2015) "Review of 5S methodology and its contributions towards manufacturing performance", International Journal of Process Management and Benchmarking (IJPMB), Vol. 5, No. 4, pp. 408 424. (INDERSCIENCE) (ISSN online: 1741-816X, ISSN print: 1460-6739)
- Upkar Singh and Inderpreet Singh Ahuja (2015) "Evaluating the contributions of total productive maintenance on manufacturing performance" International Journal of Process Management and Benchmarking (IJPMB), Vol. 5, No. 4, pp. 425 455. (INDERSCIENCE) (ISSN online: 1741-816X, ISSN print: 1460-6739)
- 69. Kanwarpreet Singh and Inderpreet Singh Ahuja (2015) "Synergizing the effects of Transfusion of TQM and TPM for Indian Manufacturing Industries: A tactical TQM-TPM model", International Journal of Process management and Benchmarking, Vol. 5, No. 4, pp. 456 482. (INDERSCIENCE) (ISSN online: 1741-816X, ISSN print: 1460-6739)
- 70. Rajesh Kumar and I.P.S. Ahuja (2015), "Modeling for Surface roughness of nonferrous alloy castings using response surface methodology" International Journal of Materials Engineering Innovation, Vol. 6, No. 4, pp. 257 – 271.. (ISSN online: 1757-2762; ISSN print: 1757-2754; INDERSCIENCE)

- Parlad Kumar, Rupinder Singh and I.P.S. Ahuja (2015), "Investigations on dimensional accuracy of the components prepared by hybrid investment casting", Journal of Manufacturing Processes, Vol. 20, pp. 525 533. (ISSN: 1526-6125). (Elsevier 2022 IF: 6.2)
- 72. Sanjiv Kumar Jain and Inderpreet Singh Ahuja (2016) "Evaluation of Business Performance Measurements for ISO 9000 Initiatives in Indian Manufacturing Industry" International Journal of Process Management and Benchmarking (IJPMB), Vol. 6, No. 1, pp. 29 – 56. (ISSN online: 1741-816X, ISSN print: 1460-6739) (INDERSCIENCE)
- 73. Parlad Kumar, Rupinder Singh and I.P.S. Ahuja (2016), "Experimental investigations on hardness of the biomedical implants prepared by hybrid investment casting", Journal of Manufacturing Processes, Vol. 21, pp. 160 171. (ISSN: 1526-6125). (Elsevier 2022 IF: 6.2)
- 74. Rajesh Kumar, Rupinder Singh and I.P.S. Ahuja (2016), "Process capability study of three dimensional printing as casting solution for non-ferrous alloys", Rapid Prototyping Journal, Vol. 22, No. 3, pp. 474 486. (ISSN: 1355-2546). (EMERALD 2022 IF: 3.9)
- 75. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2016), "Evaluating the status of dynamic capabilities and flexibility at strategic level in Indian Manufacturing Industry", International Journal of Process Management and Benchmarking (IJPMB), Vol. 6, No. 4, pp. 512 – 543. (ISSN online: 1741-816X, ISSN print: 1460-6739) (INDERSCIENCE)
- 76. Rajesh Kumar, Rupinder Singh and Inderpreet Singh Ahuja (2016), "Modeling and Analysis for Hardness and Structure of Nonferrous Alloy castings produced using Zcast Metal casting Process through Response Surface Methodology", Advanced Materials Research, Vol. 1137, pp. 101-116. Trans Tech Publications, Switzerland, (ISSN: 1662-8985)
- 77. Rupinder Singh, Narinder Singh, Francesco Fabbrocino, Fernando Fraternali, I.P.S. Ahuja (2016), "Waste management by recycling of polymers with reinforcement of metal powder", Composites Part B: Engineering, Vol. 105, pp. 23–29. (ISSN: 1359-8368) (Elsevier 2022 IF: 13.1)
- 78. Rupinder Singh, Piyush Bedi, Fernando Fraternali, I.P.S. Ahuja (2016), "Effect of single particle size, double particle size and triple particle size Al2O3 in Nylon-6 matrix on mechanical properties of feed stock filament for FDM", Composites Part B: Engineering, Vol. 106, pp. 20–27. (ISSN: 1359-8368) (Elsevier 2022 IF: 13.1)
- 79. Parlad Kumar, Rupinder Singh and I.P.S. Ahuja (2016), "Effect of process parameters on surface roughness of hybrid investment casting", Progress in Additive Manufacturing, Vol. 1, No. 1, pp. 45 53. (ISSN-Print: 2363-9512, ISSN-Online: 2363-9520). (SPRINGER)
- 80. Kanwal Jeet Singh, Inderpreet Singh Ahuja, and Jatinder Kapoor (2016), "Chemical-Assisted Mixed Abrasive Slurry Influence on Machining Physiognomies of Polycarbonate Bullet Proof Glass & Acrylic Heat Resistant Glass in Ultrasonic Machining", Journal of Machining and Forming Technologies, Vol. 8, No. 3-4, pp. 103-112 (ISSN: 1947-4369) (Nova Science Publishers)
- 81. Kanwal Jeet Singh, Inderpreet Singh Ahuja, and Jatinder Kapoor (2016), "Taguchi Method for Optimization of Material Removal Rate in USM of Polycarbonate Bullet Proof Glass and Acrylic Heat Resistant Glass", Journal of Machining and Forming Technologies, Vol. 8, No. 3-4, pp. 113-124. (ISSN: 1947-4369) (Nova Science Publishers)
- Randhawa, J.S. and Ahuja, I.S. (2017), "5S implementation methodologies: literature review and directions", International Journal of Productivity and Quality Management (IJPQM), Vol. 20, No. 1, pp. 48 – 74. (ISSN-Online: 1746-6482,

ISSN-Print: 1746-6474) https://doi.org/10.1504/IJPQM.2017.080692

- 83. Kanwarpreet Singh and Inderpreet Singh Ahuja (2017), "Evaluating exploits of Indian entrepreneurs through maintenance practices, for realizing the overall organizational goals and objectives", International Journal of Process Management and Benchmarking (IJPMB), Vol. 7, No. 1, pp. 1 19. (ISSN online: 1741-816X, ISSN print: 1460-6739) (INDERSCIENCE)
- Randhawa, J.S. and Ahuja, I.S. (2017), "5S A quality improvement tool for sustainable performance: Literature Review and Directions", International Journal of Quality & Reliability Management (IJQRM), Vol. 34, No. 3, pp. 334 361. (ISSN: 0265-671X) (EMERALD 2022 IF: 2.5)
- Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Study the effect of Abrasive (AL2O3 & SIC) in Ultrasonic Machining of Plain Glass", International Journal of Manufacturing Science and Engineering, Vol. 8, No. 1, pp. 7 11. (ISSN: 0976-6812) (International Science Press-Serial Publications) (COPE-2016)
- 86. Narinder Singh, Rupinder Singh and IPS Ahuja (2017), "Effect of reinforcement on Thermal and Mechanical behaviour of Recycled HDPE", International Journal of Manufacturing Science and Engineering, Vol. 8, No. 1, pp. 89 – 93. (ISSN: 0976-6812) (International Science Press-Serial Publications) (COPE-2016)
- 87. Piyush Bedi, Rupinder Singh and Inderpreet Singh Ahuja (2017), "Thermal characterisation of Recycled HDPE reinforced with AL2O3", International Journal of Manufacturing Science and Engineering, Vol. 8, No. 1, pp. 107 111. (ISSN: 0976-6812) (International Science Press-Serial Publications) (COPE-2016)
- Ranvijay Kumar, Rupinder Singh and IPS Ahuja (2017), "A Framework for welding of dissimilar Polymers by using Metallic Fillers", International Journal of Manufacturing Science and Engineering, Vol. 8, No. 1, pp. 101 – 105. (ISSN: 0976-6812) (International Science Press-Serial Publications) (COPE-2016)
- 89. Kanwal Jeet Singh, Inderpreet Singh Ahuja, Jatinder Kapoor, and Danish Kapoor (2017), "A Study on the Tool Geometry and Stresses Induced in Tool in Ultrasonic Machining Process Applied for the Tough and Brittle Materials", International Journal of Engineering and Advanced Technology (IJEAT), Vol. 06, No. NASET17, pp. 143 – 147. (ISSN: 2249 – 8958).
- 90. Anuj Singla, IPS Ahuja, APS Sethi (2017), "The effects of demand pull strategies on sustainable development in manufacturing industries", International Journal of Innovations in Engineering and Technology, Vol. 8, No. 2, pp. 27 – 34. (ISSN: 2319-1058)
- 91. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Grey Relational Analysis of Chemical Assisted USM of Polycarbonate Bullet Proof (UL-752) & Acrylic Heat Resistant (BS-476) Glass", American Journal of Mechanical Engineering, Vol. 5, No. 3, pp. 94 109. (ISSN Print: 2328-4102; ISSN Online: 2328-4110).
- 92. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Mathematical Modeling for Material Removal and Optimization of Ultrasonic Drilling of Polycarbonate and Acrylic Glass for Surface Roughness by GRA Approach", International Journal of Mechanical Engineering and Applications, Vol. 5, No. 3, pp. 136 – 154. (ISSN Print: 2330-023X; ISSN Online: 2330-0248).
- 93. Tejinderpal Singh and Ahuja, I.P.S. (2017), "Evaluating manufacturing performance through strategic Total Productive Maintenance implementation in a Food Processing Industry", International Journal of Productivity and Quality Management (IJPQM), Vol. 21, No. 4, pp. 429 442. (ISSN-Online: 1746-6482,

ISSN-Print: 1746-6474) https://doi.org/10.1504/IJPQM.2017.085253

- 94. Narinder Singh, David Hui, Rupinder Singh, I.P.S. Ahuja, , Luciano Feo, Fernando Fraternali (2017), "Recycling of plastic solid waste: A state of art review and future applications", Composites Part B: Engineering, Vol. 115, pp. 409-422. (ISSN: 1359-8368) (Elsevier 2022 IF: 13.1)
- 95. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Multi-response analysis of Chemical assisted Ultrasonic Machining of UL-752 and BS 476 glass by GRA approach", International Journal of Materials Engineering, Vol. 7, No. 2, pp. 33 43. (ISSN Print: 2166-5389; ISSN Online: 2166-5400).
- 96. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Ultrasonic machining of Polycarbonate bullet proof & Acrylic heat resistant glass and optimization by Grey Relational Analysis", International Journal of Lean Thinking, Vol. 8, No. 1, pp. 1 – 15. (ISSN: 2146-0337).
- 97. Randhawa, J.S. and Ahuja, I.S. (2017), "Examining the role of 5S practices as a facilitator of Business Excellence in Manufacturing Organizations", Measuring Business Excellence, Vol. 21, No. 2, pp. 191 206. (ISSN: 1368-3047) EMERALD, Emerging SCI
- 98. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Optimization of Process Parameters for Surface Roughness in Ultrasonic Machining of Polycarbonate Bullet Proof Glass and Acrylic Heat Resistant Glass By Taguchi and Grey Relational Analysis Approach", Advanced Engineering Forum, Vol. 23, pp. 21 – 44. (Trans Tech Publication) (ISBN-13: 978-3-0357-1286-5)
- 99. Randhawa, J.S. and Ahuja, I.S. (2017), "An assessment of contributions of 5S initiatives in the Indian manufacturing industry", International Journal of Technology, Policy and Management (IJTPM), Vol. 17, No. 04, pp. 297 336. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) (INDERSCIENCE)
- 100. Randhawa, J.S. and Ahuja, I.S. (2017), "Evaluating impact of 5S Implementation on business performance", International Journal of Productivity and Performance Management, Vol. 66, No. 7, pp. 948 978. (ISSN-Online: 1741-0401) (EMERALD 2022 IF: 3.1)
- 101. Parlad Kumar, Rupinder Singh and I.P.S. Ahuja (2017), "Multi-objective optimization of dimensional accuracy, surface roughness and hardness of hybrid investment cast components", Rapid Prototyping Journal, Vol. 23, No. 5, pp. 845 857. (ISSN: 1355-2546). (EMERALD 2022 IF: 3.9)
- 102. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Optimization of material removal rate in ultrasonic machining of polycarbonate bullet proof glass and acrylic heat resistant glass by Taguchi method", Multidiscipline Modeling in Materials and Structures, Vol. 13, No. 04, pp. 612 – 627. (ISSN: 1573-6105). (EMERALD 2022 IF: 2)
- 103. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Experimental Investigation and Study the Effect of Hydro Fluoric Acid in Ultrasonic Machining of Polycarbonate Bullet Proof UL-752 and Acrylic Heat Resistant BS-476 Glass", Advanced Engineering Forum, Vol. 24, pp. 24 – 39. (Trans Tech Publication) (ISSN: 2234-991X)
- 104. Randhawa, J.S. and Ahuja, I.S. (2017), "Structural Equation Modeling for validating impact of 5S implementation on Business Excellence of Manufacturing Organizations", International Journal of Quality & Reliability Management (IJQRM), Vol. 34, No. 09, pp. 1592 1615. (ISSN: 0265-671X) (EMERALD 2022 IF: 2.5), Emerging SCI

- 105. Anuj Singla, IPS Ahuja, APS Sethi (2017), "An examination of effectiveness of Demand Pull practices for accomplishing Sustainable Development in manufacturing industries", Journal of High Technology Management Research, Vol. 28, No. 02, pp. 142 – 158. (ISSN: 1047-8310) (Elsevier)
- 106. Anuj Singla, Amanpreet Singh Sethi and Inderpreet Singh Ahuja (2017), "An Examination of Technology Push and Demand Pull Strategies for Accomplishing Sustainable Development in Manufacturing Organizations", International Journal of Advanced Mechatronics and Robotics, Vol. 09, No. 02, pp. 1 8. (ISSN: 0975-6108) Serial Publication, International Science Press
- 107. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Powder Mixed Electric Discharge Machining of High Speed Steel", International Journal of Material Science & Engineering, Vol. 08, No. 02, pp. 127 – 133. (ISSN: 2315-4527) Serial Publication, International Science Press
- 108. Jugraj Singh Randhawa, Inderpreet Singh Ahuja and Kanwarpreet Singh (2017), "Evaluation the Impact of 5S Implementation on Business Excellence Performance Parameters through Structural Equation Modelling", International Journal of Advanced Mechatronics and Robotics, Vol. 09, No. 02, pp. 17 – 25. (ISSN: 0975-6108) Serial Publication, International Science Press
- 109. Narinder Singh, Rupinder Singh and IPS Ahuja (2017), "Effect of Banana Fibre Reinforcement on Mechanical and Thermal Properties of Recycled HDPE", International Journal of Material Science & Engineering, Vol. 08, No. 02, pp. 179 – 183. (ISSN: 2315-4527) Serial Publication, International Science Press
- 110. Nishant Ranjan, Rupinder Singh, Inderpreet Singh Ahuja and Jatenderpal Singh (2017), "A Framework for Development of Biocompatible Feedstock Filament of Polymers by Reinforcement of Fillers for FDM", International Journal of Material Science & Engineering, Vol. 08, No. 02, pp. 185 – 189. (ISSN: 2315-4527) Serial Publication, International Science Press
- 111. Piyush Bedi, IPS Ahuja and Rupinder Singh (2017), "Effect of Banana Fibre Reinforcement on Mechanical and Thermal Behaviour of Recycled LDPE", International Journal of Material Science & Engineering, Vol. 08, No. 02, pp. 191 – 196. (ISSN: 2315-4527) Serial Publication, International Science Press
- 112. Ranvijay Kumar, Rupinder Singh and IP S Ahuja (2017), "Development of Al Reinforced ABS and PA6 Prototypes by TSE and FDM for Solid State Welding Applications", International Journal of Material Science & Engineering, Vol. 08, No. 02, pp. 197 – 202. (ISSN: 2315-4527) Serial Publication, International Science Press
- 113. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2017), "Chemical Assisted Ultrasonic Machining of Polycarbonate Glass and Optimization of Process Parameters by Taguchi and Grey Relational Analysis", Advances in Materials and Processing Technologies, Vol. 3, No. 4, pp. 563 – 585. (Print ISSN: 2374-068X, Online ISSN: 2374-0698). (TAYLOR & FRANCIS)
- 114. Ranvijay Kumar, Rupinder Singh, IPS Ahuja, Ada Amendola, Rosa Penna (2018), "Friction welding for the manufacturing of PA6 and ABS structures reinforced with Fe particles", Composites Part B: Engineering, Vol. 132, pp. 244–257. (ISSN: 1359-8368) (Elsevier 2022 IF: 13.1)
- 115. Ranvijay Kumar, Rupinder Singh, I.P.S. Ahuja, Rosa Penna, Luciano Feo (2018), "Weldability of thermoplastic materials for friction stir welding- A state of art review and future applications", Composites Part B: Engineering, Vol. 137, pp. 1– 15. (ISSN: 1359-8368) (Elsevier 2022 IF: 13.1)
- 116. Anuj Singla, IPS Ahuja, APS Sethi (2018), "Validation of Technology Push strategies for achieving Sustainable Development in manufacturing organizations through Structural Equation Modelling", World Journal of Science, Technology

and Sustainable Development, Vol. 15, No. 01, pp. 72 – 93. (ISSN: 2042-5945) EMERALD

- 117. Ranvijay Kumar, Rupinder Singh, IPS Ahuja (2018), "Investigations of mechanical, thermal and morphological properties of FDM fabricated parts for friction welding applications", Measurement, Vol. 120, pp. 11 20. (ISSN: 0263-2241) (Elsevier 2022 IF: 5.6)
- Randhawa, J.S. and Ahuja, I.S. (2018), "Empirical investigation of contributions of 5S practice for realizing improved Competitive Dimensions", International Journal of Quality & Reliability Management (IJQRM), Vol. 35, No. 3, pp. 779 – 810. (ISSN: 0265-671X) (EMERALD 2022 IF: 2.5), Emerging SCI
- Anuj Singla, IPS Ahuja, APS Sethi (2018), "Technology Push and Demand Pull practices for achieving Sustainable Development in manufacturing industries", Journal of Manufacturing Technology Management, Vol. 29, No. 2, pp. 240 272. (ISSN: 1741-038x) (EMERALD 2022 IF: 7.6)
- 120. Randhawa, J.S. and Ahuja, I.S. (2018), "An investigation into manufacturing performance achievements accrued by Indian Manufacturing Organization through strategic 5S Practices", International Journal of Productivity and Performance Management, Vol. 67, No. 4, pp. 1 34. (ISSN-Online: 1741-0401) (EMERALD 2022 IF: 3.1)
- 121. Randhawa, J.S. and Ahuja, I.S. (2018), "Analytical Hierarchy Process for selecting best attributes for successful 5S Implementation", International Journal of Productivity and Quality Management (IJPQM), Vol. 24, No. 1, pp. 33 – 58. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) INDERSCIENCE
- 122. Randhawa, J.S. and Ahuja, I.S. (2018), "An evaluation of effectiveness of 5S implementation initiatives in an Indian Manufacturing Enterprise", International Journal of Productivity and Quality Management (IJPQM), Vol. 24, No. 1, pp. 101 133. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) INDERSCIENCE
- 123. Narinder Singh, Rupinder Singh and I.P.S. Ahuja (2018), "Recycling of polymer waste with SiC/Al2O3 reinforcement for rapid tooling applications", Materials Today Communications, Vol. 15, pp. 124 127. (ISSN: 2352-4928) (ELSEVIER)
- 124. IPS Ahuja, Sukhjinder Singh and Gurinder Singh (2018), "Evaluating just in time implementation implications in an Indian Manufacturing Industry", International Journal of Process Management and Benchmarking, Vol. 8, No. 3, pp. 367 – 392. (ISSN online: 1741-816X, ISSN print: 1460-6739)
- 125. Inderpreet Singh Ahuja, Jaspreet Singh and Gurinder Singh (2018), "An investigative study to evaluate the impact of lean manufacturing in indian manufacturing industry", International Journal of Process Management and Benchmarking (IJPMB), Vol. 8, No. 4, pp. 408 442. (ISSN online: 1741-816X, ISSN print: 1460-6739)
- 126. Rupinder Singh, Piyush Bedi and IPS Ahuja (2018), "Effect of SiC/Al2O3 Particle Size Reinforcement in Recycled LDPE Matrix on Mechanical Properties of FDM Feed Stock Filament", Virtual and Physical Prototyping, Vol. 13, No. 4, pp. 246 – 254. (Print ISSN: 1745-2759 Online ISSN: 1745-2767) (Taylor & Francis) Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering, COPEN 10, 2017, 07 - 09 December 2017, IIT Madras, Chennai
- 127. Ranvijay Kumar, Rupinder Singh and IPS Ahuja (2018), "Friction stir welding of ABS-15Al sheets by introducing compatible semi-consumable shoulder-less pin of PA6-50Al", Measurement, Vol. 131, pp. 461–472. (ISSN: 0263-2241) (Elsevier 2022 IF: 5.6)
- Randhawa, J.S. and Ahuja, I.S. (2018), "An approach for justification of success 5S program in manufacturing organisations using fuzzy-based simulation model", International Journal of Productivity and Quality Management (IJPQM), Vol. 25,

No. 3, pp. 331 – 348. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) INDERSCIENCE

- 129. Rupinder Singh, Ranvijay Kumar and Sandeep Grover Inder Preet Singh Ahuja (2018), "Process Capability Analysis for Frictionally Welded Dissimilar Polymeric Materials", Materials Today: Proceedings, Vol. 5, No. 9, pp. 18502–18509. (8th International Conference on Materials Processing and Characterization, ICMPC 2018, Hyderabad, India, March 16-18, 2018) (ISSN: 2214-7853, ELSEVIER) (Scopus)
- 130. Inderpreet Singh Ahuja, Harwinder Singh (2018), "Evaluating the effectiveness of 5S implementation practices in Indian Manufacturing Industry", International Journal of Productivity and Quality Management, Vol. 25, No. 4, pp. 506 – 555. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) INDERSCIENCE
- 131. Anuj Singla, IPS Ahuja, APS Sethi (2018), "Comparative analysis of Technology Push strategies influencing Sustainable Development in Manufacturing Industries Using TOPSIS and VIKOR Technique", International Journal for Quality Research, Vol. 12, No. 1, pp. 129 – 146. (ISSN: 1800-6450; e-ISSN: 1800-7473)
- 132. Kanwal Jit Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2018), "Ultrasonic, Chemical-Assisted Ultrasonic and Rotary Ultrasonic Machining of Glass: A Review Paper", World Journal of Engineering, Vol. 15, No. 6, pp. 751 – 770. (ISSN: 1708-5284) (EMERALD 2022 IF: 1.9)
- 133. Ranvijay Kumar, Rupinder Singh, IPS Ahuja (2018), "Mechanical, thermal and melt flow of aluminum-reinforced PA6/ABS blend feedstock filament for fused deposition modeling", Rapid Prototyping Journal, Vol. 24, No. 09, pp. 1455 1468. (ISSN: 1355-2546). (EMERALD 2022 IF: 3.9), https://doi.org/10.1108/RPJ-05-2017-0094
- 134. Anuj Singla, APS Sethi, Inderpreet Singh Ahuja (2018), "A study of Transitions between Technology Push and Demand Pull strategies for accomplishing Sustainable Development in manufacturing industries", World Journal of Science, Technology and Sustainable Development, Vol. 15, No. 4, pp. 302 – 312. (ISSN: 2042-5945) EMERALD https://doi.org/10.1108/WJSTSD-09-2017-0028
- 135. Ranvijay Kumar, Rupinder Singh, IPS Ahuja (2018), "Melt Processing for Enhancing Compatibility of Aluminum Reinforced Acrylonitrile-Butadiene-Styrene and Polyamide 6 for Friction Welding Applications", Journal of the Brazilian Society of Mechanical Sciences and Engineering, Vol. 40, No. 8, Paper-378 pp. 1 – 10. (Print ISSN: 1678-5878, Online ISSN: 1806-3691) (SPRINGER 2022 IF: 2.2) https://doi.org/10.1007/s40430-018-1298-y
- 136. Anuj Singla, APS Sethi, Inderpreet Singh Ahuja (2018), "An empirical examination of Critical barriers in Transitions between Technology Push and Demand Pull strategies in manufacturing organizations", World Journal of Science, Technology and Sustainable Development, Vol. 15, No. 3, pp. 257 277. (ISSN: 2042-5945) (EMERALD) https://doi.org/10.1108/WJSTSD-10-2017-0040
- 137. Anuj Singla, IPS Ahuja, APS Sethi (2018), "Validation of Demand Pull strategies for accomplishing Sustainable Development in manufacturing organizations through Structural Equation Modelling", Management Decision, Vol. 56, No. 05, pp. 1135 – 1156. (ISSN-Online: 0025-1747) (EMERALD 2022 IF: 4.6)
- 138. Singh, N., Singh, R. & Ahuja, I.P.S. (2018), "On Development of Functionally Graded Material Through Fused Deposition Modelling Assisted Investment Casting from Al2O3/SiC Reinforced Waste Low Density Polyethylene", Transactions of the Indian Institute of Metals, Vol. 71, pp. 2479–2485 (2018). https://doi.org/10.1007/s12666-018-1378-9 (SPRINGER 2022 IF: 1.6) (Electronic ISSN: 0975-1645; Print ISSN: 0972-2815)

- 139. Simranjit Singh Sidhu, Kanwarpreet Singh and I.P.S. Ahuja (2018), "Manufacturing performance enhancement through various maintenance practices in Indian SMEs: A Literature Review", Asian Journal of Engineering and Applied Technology, Vol. 7, No. S2, pp. 1 – 5. (ISSN: 2249-068X)
- 140. Ranvijay Kumar, Rupinder Singh, IPS Ahuja (2019), "Mechanical, thermal and micrographic investigations of friction stir welded: 3D printed melt flow compatible dissimilar thermoplastics", Journal of Manufacturing Processes, Vol. 38, pp. 387 – 395. (ISSN: 1526-6125). (Elsevier 2022 IF: 6.2)
- 141. Anuj Singla, Inderpreet Singh Ahuja, Amanpreet Singh Sethi (2019) "An evaluation of status of Technology Push and Demand Pull practices for Sustainable Development in manufacturing industries", International Journal of Technology, Policy, Management (IJTPM), Vol. 19, No. 01, pp. 32 71. (ISSN-Online: 1741-5292, ISSN-Print: 1468-4322) INDERSCIENCE
- 142. Anuj Singla, Inderpreet Singh Ahuja, Amanpreet Singh Sethi (2019) "An examination of effectiveness of Technology Push strategies for achieving Sustainable Development in manufacturing industries", Journal of Science and Technology Policy Management, Vol. 10, No. 1, pp. 73 101. (ISSN: 2053-4620) (EMERALD 2022 IF: 2.3), https://doi.org/10.1108/JSTPM-10-2017-0048
- 143. Narinder Singh, Rupinder Singh, I.P.S. Ahuja, Ilenia Farina, Fernando Fraternali (2019), "Metal matrix composite from recycled materials by using additive manufacturing assisted investment casting", Composite Structures, Vol. 207, pp. 129 135. (ISSN: 0263-8223) (ELSEVIER 2022 IF: 6.3) https://doi.org/10.1016/j.compstruct.2018.09.072
- 144. Anuj Singla, I.P.S. Ahuja, A.P.S. Sethi (2019), "Technology push strategies and their consequences on sustainable development in manufacturing industries", International Journal of Process Management and Benchmarking (IJPMB), Vol. 09, No. 03, pp. 351 – 376. (ISSN online: 1741-816X, ISSN print: 1460-6739) INDERSCIENCE
- 145. Piyush Bedi, Rupinder Singh and IPS Ahuja (2019), "Investigations for tool life of 3D printed HDPE and LDPE composite based rapid tooling for thermoplastics machining applications", Engineering Research Express, Vol. 1, No. 1, pp. 1 13. (Article 5003) IOPscience (Online ISSN: 2631-8695) https://iopscience.iop.org/article/10.1088/2631-8695/ab29ab
- 146. Narinder Singh, Rupinder Singh, Ranvijay Kumar and IPS Ahuja (2019), "Recycled HDPE reinforced Al2O3 and SiC three dimensional printed patterns for sandwich composite material", Engineering Research Express, Vol. 1, No. 1, (Article 5007) pp. 1 – 12. IOPscience (Online ISSN: 2631-8695) https://iopscience.iop.org/article/10.1088/2631-8695/ab2609
- 147. Nishant Ranjan, Rupinder Singh and IPS Ahuja (2019), "Investigations for mechanical properties of PLA-HAp-CS based functional prototypes", Materials Today: Proceedings, 18 (2019), pp. 2329–2334. (ISSN: 2214-7853, ELSEVIER)
- 148. Ranvijay Kumar, Rupinder Singh, IPS Ahuja and KN Karn (2019), "Processing of Melt Flow Compatible Thermoplastic Composites for Solid State Welding Applications", Materials Today: Proceedings 18 (2019), pp. 3167–3173. (ISSN: 2214-7853, ELSEVIER)
- 149. Nishant Ranjan, Rupinder Singh, IPS Ahuja (2019), "Investigations on joining of orthopaedic scaffold with rapid tooling", Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, Vol. 233, No. 7, pp. 754–760. (Print ISSN: 0954-4119, Online ISSN: 2041-3033) (SAGE 2022 IF: 1.8) https://doi.org/10.1177/0954411919852811
- 150. Nishant Ranjan, Rupinder Singh, Inderpreet Singh Ahuja (2018), "Investigations for In-house prepared Biocompatible Feed Stock Filament of Fused Deposition

Modelling: A Process Capability study", Journal of Mechanical Engineering, Vol. 48, No. 1, pp.18-23 (ISSN: 0379-4318) April 2019 (DOI: 10.3329/jme.v48i1.41090) (Published April 2019)

- 151. Jatinderpal Singh, Nishant Ranjan, Rupinder Singh, I.P.S Ahuja, and (2019), "Multifactor Optimization for Development of Biocompatible and Biodegradable Feed Stock Filament of Fused Deposition Modeling", Journal of The Institution of Engineers (India): Series E, Vol. 100, No. 2, pp. 205–216. (SPRINGER) (Print ISSN: 2250-2483, Online ISSN: 2250-2491)
- 152. Piyush Bedi, Rupinder Singh & I P S Ahuja (2019), "Investigations for machinability of primary recycled thermoplastics with secondary recycled rapid tooling", Sādhanā 44, Article No. 210 (2019), pp. 1-13. DOI:10.1007/s12046-019-1190-1 (Print ISSN: 0256-2499; Online ISSN: 0973-7677) (SPRINGER 2022 IF: 1.6)
- 153. Narinder Singh, Rupinder Singh, I.P.S. Ahuja (2019), "Thermomechanical investigations of SiC and Al2O3-reinforced HDPE", Journal of Thermoplastic Composite Materials, Vol. 32, No. 10, pp. 1347–1360. (eISSN: 1530-7980, ISSN: 0892-7057) (SAGE 2022 IF: 3.3), https://doi.org/10.1177/0892705718796544
- 154. Kanwarpreet Singh and Indepreet Singh Ahuja, (2020), "Structural equation modelling of transfusion of TQM-TPM model for Indian manufacturing industries", International Journal of Management Practice, Vol. 13, No. 1, pp. 47–73, (INDERSCIENCE) (ISSN Online : 1741-8143, ISSN print : 1477-9064)
- 155. Kumar, Vinay; Singh, Rupinder; Ahuja, IPS and Hashmi, M.S.J (2020), "On technological solutions for repair and rehabilitation of heritage sites: a review", Advances in Materials and Processing Technologies, Vol. 6, No. 1, pp. 146–166. ISSN: 2374-068X (Print) 2374-0698 (Online) (TAYLOR & FRANCIS)
- 156. Kumar, Vinay; Singh, Rupinder; Ahuja, IPS (2020), "Effect of extrusion parameters on primary recycled ABS: mechanical, rheological, morphological and thermal properties", Materials Research Express, Vol. 7, No. 1, pp. 1–16. (Online ISSN: 2053-1591) (**IOP Publishing 2022 IF: 2.3**)
- 157. Nishant Ranjan, Rupinder Singh, I. P. S. Ahuja, Ranvijay Kumar, Jatenderpal Singh, Anita K. Verma & Ankita Leekha (2020), "On 3D printed scaffolds for orthopedic tissue engineering applications", SN Applied Sciences, 2, Article number: 192, pp. 1-8. (Print ISSN: 2523-3963, Online: 2523-3971) (A Springer Nature Journal)
- 158. Nishant Ranjan, Rupinder Singh, IPS Ahuja (2020), "Development of PLA-HAp-CS-based biocompatible functional prototype: A case study", Journal of Thermoplastic Composite Materials, Vol. 33, No. 3, pp. 305–323. (eISSN: 1530-7980, ISSN: 0892-7057) (SAGE 2022 IF: 3.3) Online 11.10.2018, https://doi.org/10.1177/0892705718805531
- 159. Kumar, Vinay; Singh, Rupinder; Ahuja, IPS (2020), "On mechanical and thermal properties of cryo-milled primary recycled ABS", Sādhanā, Vol. 45, No. 1, pp. 1-13. (Article 80) https://doi.org/10.1007/s12046-020-1317-4 (Print ISSN: 0256-2499; Online ISSN: 0973-7677) (SPRINGER 2022 IF: 1.6)
- Ranvijay Kumar, Rupinder Singh, I.P.S. Ahuja & M.S.J. Hashmi (2020), "Processing Techniques of Polymeric materials and their reinforced composites", Advances in Materials and Processing Technologies (TMPT), Vol. 6, No. 3, pp. 591–607. (Print ISSN: 2374-068X, Online ISSN: 2374-0698). (TAYLOR & FRANCIS), https://doi.org/10.1080/2374068X.2020.1728989 (Published online: 17 Feb 2020)
- 161. Rupinder Singh, Piyush Bedi, Ranvijay Kumar, Sunpreet Singh and IPS. Ahuja (2020), "Wear properties of rapid tooling prepared by reinforcement of SiC/Al2O3 in HDPE domestic waste", Materials Today: Proceedings, Vol. 33, Part 3, pp.

1468-1471.(ISSN:2214-7853,ELSEVIER)https://doi.org/10.1016/j.matpr.2020.02.007(Available online 10 March 2020)

- 162. Ranvijay Kumar, Rupinder Singh, IPS Ahuja (2020), "Repair of automotive bumpers and bars with modified friction stir welding", Journal of Central South University, Vol. 27, pp. 2239–2248. (Electronic ISSN: 2227-5223, Print ISSN: 2095-2899) (SPRINGER 2022 IF: 4.4) https://doi.org/10.1007/s11771-020-4445-4
- 163. Kumar, Ranvijay, Singh, Rupinder, Ahuja, IPS, Fortunato, Antoio (2020), "Thermo-mechanical investigations for the joining of thermoplastic composite structures via friction stir spot welding", Composite Structures, Vol. 253, No. 04, 112772 (ISSN: 0263-8223), (Elsevier 2022 IF: 6.3) DOI: https://doi.org/10.1016/j.compstruct.2020.112772 (Published Online: 02.08.2020)
- 164. Ranvijay Kumar, Rupinder Singh and IPS Ahuja (2021), "Friction stir welding of 3D printed melt flow compatible dissimilar thermoplastic composites", Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Vol. 235, No. 10, pp. 1878–1890, (ISSN: 0954-4062, Online ISSN: 2041-2983) First Published May 2, 2019, DOI link: https://doi.org/10.1177/0954406219848465, (SAGE 2022 IF: 2)
- 165. Nishant Ranjan, Rupinder Singh, I.P.S. Ahuja, Ranvijay Kumar, Divya Singh, Seema Ramniwas, A.K.Verma, Disha Mittal (2021), "3D printed scaffolds for tissue engineering applications: mechanical, morphological, thermal, in-vitro and in-vivo investigations", CIRP Journal of Manufacturing Science and Technology, Vol. 32, pp. 205-216. ISSN: 1755-5817 (ELSEVIER 2022 IF: 4.8) https://doi.org/10.1016/j.cirpj.2021.01.002
- 166. Nishant Ranjan, Rupinder Singh & I. P. S. Ahuja (2021), "Mechanical, Rheological and Thermal Investigations of Biocompatible Feedstock Filament Comprising of PVC, PP and HAp", Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, Vol. 91, pp. 159-168. (Print ISSN: 0369-8203; Online ISSN: 2250-1762) (Springer 2022 IF: 0.9) https://doi.org/10.1007/s40010-020-00664-2 (Published online February 07 2020)
- 167. Rupinder Singh, Ranvijay Kumar & I. P. S. Ahuja (2021), "Friction Welding for Functional Prototypes of PA6 and ABS with Al Powder Reinforcement", Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, Vol. 91, pp. 351–359. (Print ISSN: 0369-8203; Online ISSN: 2250-1762) (Springer 2022 IF: 0.9) https://doi.org/10.1007/s40010-020-00659-z (Published online February 07 2020)
- Piyush Bedi, Rupinder Singh and I.P.S. Ahuja (2020), "Multifactor optimization of FDM process parameters for development of rapid tooling using SiC/Al2O3reinforced LDPE filament", Journal of Thermoplastic Composite Materials, Vol. 33, No. 05, pp. 581–598. (eISSN: 1530-7980, ISSN: 0892-7057, SAGE 2022 IF: 3.3) First Published October 30, 2018, https://doi.org/10.1177/0892705718808572
- 169. Kumar, Vinay, Singh, Rupinder, Ahuja, I.P.S., and Davim, J. Paulo (2021), "On Nanographene-Reinforced Polyvinylidene Fluoride Composite Matrix for 4D Applications", Journal of Materials Engineering and Performance, Vol. 30, No. 7, pp. 4860 4871. (Print ISSN: 1059-9495), SPRINGER, ASM International, (SPRINGER 2022 IF: 2.3) DOI: https://doi.org/10.1007/s11665-021-05459-z, Published online 20 January 2021
- 170. Simranjit Singh Sidhu, Kanwarpreet Singh, Inderpreet Singh Ahuja (2022), "An empirical investigation of Maintenance Practices for enhancing manufacturing performance in Small and Medium Enterprises of Northern India", Journal of Science and Technology Policy Management, Vol. 13, No. 01, pp. 132 153.

(**EMERALD 2022 IF: 2.3**), ISSN: 2053-4620, Accepted 29.12.2020, DOI: https://doi.org/10.1108/JSTPM-11-2019-0109

- 171. Simranjit Singh Sidhu, Kanwarpreet Singh, Inderpreet Singh Ahuja (2022), "Design of an intelligent decision-making system for Maintenance Practices using Fuzzy Inference System in Northern Indian SMEs", Journal of Quality in Maintenance Engineering (JQME), Vol. 28, No. 01, pp. 154 – 179. (ISSN: 1355-2511) (EMERALD 2022 IF: 1.5) DOI: https://doi.org/10.1108/JQME-05-2020-0043
- 172. Simranjit Singh Sidhu, Kanwarpreet Singh, I.P.S. Ahuja (2022), "Ranking of Implementation Dimensions for Maintenance Practices in Northern Indian SMEs Using Integrated AHP-TOPSIS Approach", Journal of Small Business & Entrepreneurship, Vol. 34, No. 02, pp. 175 – 194. (Print ISSN: 0827-6331 Online ISSN: 2169-2610) Published online: 03 Sep 2020 (Taylor & Francis) https://doi.org/10.1080/08276331.2020.1809220
- 173. Kumar, Vinay, Singh, Rupinder and Ahuja, Inderpreet Singh (2022), "On programming of polyvinylidene fluoride–limestone composite for four-dimensional printing applications in heritage structures", Proceedings of the Institution of Mechanical Engineers, Part L: Journal Of Materials: Design and Applications, Vol. 236, No. 02, pp. 319 333. (Print ISSN: 1464-4207, Online ISSN: 2041-3076). (SAGE 2022 IF: 2.4), DOI: https://doi.org/10.1177/14644207211044298, First Published: November 20, 2021
- 174. Kumar, Vinay, Singh, Rupinder, and Ahuja, IPS (2022), "On 4D capabilities of chemical assisted mechanical blended ABS-nano graphene composite matrix", Materials Today: Proceedings, Vol. 48, No. 05, pp. 952 957. (Print ISSN: 1059-9495), (ISSN: 2214-7853, ELSEVIER) https://doi.org/10.1016/j.matpr.2021.05.678, Available online 9 June 2021
- 175. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, (2022), "On 3D printing of electro-active PVDF-Graphene and Mn-doped ZnO nanoparticle-based composite as a self-healing repair solution for heritage structures", Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, Vol. 236, No. 8, pp. 1141 1154. First Published: November 30, 2021, (ISSN: 0954-4054, Online ISSN: 2041-2975), https://doi.org/10.1177/09544054211060912, (SAGE, 2022 IF: 2.6)
- 176. Jagmeet Singh, I.P.S. Ahuja, Harwinder Singh, Amandeep Singh (2022), "Development and Implementation of Autonomous Quality Management System (AQMS) in an Automotive Manufacturing using Quality 4.0 – A Case Study", Computers & Industrial Engineering, Vol. 168, Article 108121, pp. XXX – XXX. (ISSN: 0360-8352) (ELSEVIER, 2022 IF: 7.9) https://doi.org/10.1016/j.cie.2022.108121
- 177. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, (2022), "3D printed innovative customized solution for regulating weathering effect on heritage structures", Materials Letters, Vol. 324, Article No. 132717, pp. 1-3. (ISSN: 0167-577X) (ELSEVIER, 2022 IF: 3) Available online 22 June 2022, https://doi.org/10.1016/j.matlet.2022.132717 (October 2022)
- 178. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, (2022), "On 3D printed meta-structure-based functional prototype as an innovative solution for repair and online health monitoring of heritage structures", Materials Letters, Vol. 326, Article No. 132950, pp. 1-4. (ISSN: 0167-577X) (ELSEVIER, 2022 IF: 3) Available online 22 June 2022, https://doi.org/10.1016/j.matlet.2022.132950 (November 2022)
- 179. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, (2022), "On rheological, thermal, mechanical, morphological, piezoelectric properties and one-way

programming features of PVDF-CaCO3 composites", Journal of Materials Engineering and Performance, Vol. 31, pp. 4998–5012. (Print ISSN: 1059-9495) (JMEP-21-10-2573) (**SPRINGER, 2022 IF: 2.3**), https://doi.org/10.1007/s11665-021-06532-3, Accepted November 26, 2021, Published Online 22 January, 2022.

- Kumar, Vinay; Singh, Rupinder; Ahuja, IPS (2022), "Secondary recycled 180. acrylonitrile-butadiene-styrene and graphene composite for 3D/4D applications: Rheological, thermal, magnetometric, and mechanical analyses", Journal of Thermoplastic Composite Materials, Vol. 35, No. 06, pp. 761-781. https://doi.org/10.1177/0892705720932621 (eISSN: 1530-7980, ISSN: 0892-7057) (SAGE 2022 IF: May 3.3), First Published 18. 2020, https://doi.org/10.1177/0892705720925114
- 181. Kumar, Vinay; Singh, Rupinder; Ahuja, IPS (2022), "On cryogenic milling of primary recycled ABS: Rheological, morphological, and surface properties", Journal of Thermoplastic Composite Materials, Vol. 35, No. 09, pp. 1303-1318. https://doi.org/10.1177/0892705720932621 (eISSN: 1530-7980, ISSN: 0892-7057) (SAGE 2022 IF: 3.3), https://doi.org/10.1177/0892705720932621, First Published June 15, 2020, Issue published: September 1, 2022
- 182. Simranjit Singh Sidhu, Kanwarpreet Singh, I.P.S. Ahuja (2022), "A study on the assessment of maintenance practices on business performance in Northern Indian SMEs", International Journal of Process Management and Benchmarking, Vol. 12, No. 04, pp. 436 470. (ISSN-Online: 1753-8440, ISSN Print: 1753-8432) (INDERSCIENCE) Accepted 23.06.2020, https://doi.org/10.1504/IJPMB.2020.10033370
- 183. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, (2022), "Online health monitoring of repaired non-structural cracks with innovative 3D printed strips in heritage buildings", Materials Letters, Vol. 327, Article No. 133033, pp. 1-3. (ISSN: 0167-577X) (ELSEVIER, 2022 IF: 3) Available online 22 June 2022, https://doi.org/10.1016/j.matlet.2022.133033 (November 2022)
- 184. Piyush Bedi, Singh Rupinder, Inderpreet Singh Ahuja, M.S.J Hashmi (2022), "Rapid tooling through micro additive manufacturing with reinforcement of SiC/Al2O3 in LDPE domestic waste", Advances in Materials and Processing Technologies (TMPT), Vol. 08, No. 01, pp. 909-916. Article ID: TMPT 1835015, 22nd International Conference on Advances in Materials and Processing Technology (AMPT 2019), October 20-24, 2019, Taiwan (Paper ID - 06), https://doi.org/10.1080/2374068X.2020.1835015, Published Online 20.10.2020
- 185. Rupinder Singh, Ranvijay Kumar, Inderpreet Singh Ahuja, M.S.J Hashmi, (2022), "Friction-stir-spot welding of 3D printed ABS and PA6 composites: flexural, thermal and morphological investigations", Advances in Materials and Processing Technologies (TMPT), Vol. 08, No. 01, pp. 917-926. Article ID: TMPT 1835014, https://doi.org/10.1080/2374068X.2020.1835014, 22nd International Conference on Advances in Materials and Processing Technology (AMPT 2019), October 20-24, 2019, Taiwan (Paper ID - 07), Published online: 19 October 2020
- Vinay Kumar, Rupinder Singh & I.P.S. Ahuja (2022), "On correlation of 186. rheological, thermal, mechanical and morphological properties of chemical assisted mechanically blended ABS-Graphene composite as tertiary recycling for 3D printing applications", Advances in Materials and Processing Technologies (TMPT), Vol. 8, No. 8, pp. 2476 – 2495. (Print ISSN: 2374-068X, Online ISSN: 2374-0698). (TAYLOR FRANCIS) & https://doi.org/10.1080/2374068X.2021.1913324, 2 Accepted April 2021, Published online: 26 April 2021
- 187. Jagmeet Singh, Inderpreet Singh Ahuja, Harwinder Singh, and Amandeep Singh (2023), "Application of Quality 4.0 (Q4.0) and Industrial Internet of Things (IIoT)

in Agricultural Manufacturing Industry", AgriEngineering, Vol. 5, No. 1, pp. 537– 565. (MDPI, SCOPUS, ISSN: 2624-7402), https://doi.org/10.3390/agriengineering5010035

- 188. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, (2023), "Multi-material printing of PVDF composites: A customized solution for maintenance of heritage structures", Proceedings of the Institution of Mechanical Engineers, Part L: Journal Of Materials: Design and Applications, Vol. 237, No. 03, pp. 554–564. (Print ISSN: 1464-4207, Online ISSN: 2041-3076). (SAGE 2022 IF: 2.4), DOI: https://doi.org/10.1177/14644207221118748, First Published August 4, 2022, March 2023
- 189. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, (2023), "Secondary recycled polyvinylidene–limestone composite in 4D printing applications for heritage structures: Rheological, thermal, mechanical, spectroscopic, and morphological analysis", Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, Vol. 237, No. 02, pp. 300 311. (ISSN: 0954-4089, Online ISSN: 2041-3009) (SAGE, 2022 IF: 2.4) https://doi.org/10.1177/09544089221104771, First Published June 14, 2022, April, 2023
- 190. Vinay Kumar, Rupinder Singh and Inderpreet Singh Ahuja (2023), "3D Printed Meta-structure-Inspired Sensors of PVDF-Graphene-Mn-Doped ZnO for Heritage Structures", National Academy Science Letters, Vol. 46, pp. 199 – 202. (E-ISSN: 2250-1754, Print ISSN: 0250-541X), (SPRINGER, 2022 IF: 1.1), https://doi.org/10.1007/s40009-023-01216-z, Accepted: 11 January 2023. Published: 31 January 2023
- 191. Vinay Kumar, Rupinder Singh and Inderpreet Singh Ahuja (2023), "On Multi-layered PVDF composites-based 3D printed solution for repair of non-structural cracks in heritage buildings", National Academy Science Letters, Vol. xx, No. xx, pp. xx xx. (E-ISSN: 2250-1754, Print ISSN: 0250-541X), (SPRINGER, 2022 IF: 1.1), https://doi.org/10.1007/s40009-023-01266-3, Accepted: 24 April 2023, Published: 11 May 2023
- 192. Simranjit Singh Sidhu, Kanwarpreet Singh, I.P.S. Ahuja (2023), "A study of challenges in successfully implementing maintenance practices in northern Indian small and medium manufacturing companies", Journal of Quality in Maintenance Engineering, Vol. 29, No. 3, pp. 683 707. (ISSN: 1355-2511) (EMERALD 2022 IF: 1.5), https://doi.org/10.1108/JQME-04-2022-0023, Accepted 09.11.2022, Article publication date: 28 February 2023
- 193. Vinay Kumar, Rupinder Singh and Inderpreet Singh Ahuja (2023), "On Debris Reinforced-PVDF, Composite-Based 3D Printed Sensors for Restoration of Heritage Building", National Academy Science Letters, Vol. 46, No. 4, pp. 329 332. (E-ISSN: 2250-1754, Print ISSN: 0250-541X), (SPRINGER, 2022 IF: 1.1) https://doi.org/10.1007/s40009-023-01222-1, Accepted: 18 January 2023, Published: 06 February 2023
- 194. Vinay Kumar, Rupinder Singh and Inderpreet Singh Ahuja (2023), "3D Printed Thermoplastic Composite-Based Innovative Solutions for Heritage Structures: A Review on Technology to Application", Journal of The Institution of Engineers (India): Series C, Vol. 104, No. 5, pp. 1091 – 1112. (SPRINGER) E-ISSN: 2250-0553, Print ISSN: 2250-0545, https://doi.org/10.1007/s40032-023-00981-6, Published: 23 July 2023
- 195. Simranjit Singh Sidhu, Kanwarpreet Singh, I.P.S. Ahuja (xxxx), "Performance enhancement of a manufacturing organization by the implementation of maintenance practices: A case study", International Journal of Productivity and Quality Management, Vol. xx, No. xx, pp. xx – xx. (ISSN-Online: 1746-6482,

ISSN-Print: 1746-6474) INDERSCIENCE Accepted 14.06.2022, https://doi.org/ 10.1504/IJPQM.2022.10055990

- 196. Simranjit Singh Sidhu, Kanwarpreet Singh, I.P.S. Ahuja (xxxx), "A SWOT analysis of maintenance practices for enhancing the business performance of Small Scale Industry: A case study", International Journal of Productivity and Quality Management, Vol. xx, No. xx, pp. xx xx. (ISSN-Online: 1746-6482, ISSN-Print: 1746-6474) INDERSCIENCE Accepted 10.09.2022, IJPQM-117527, https://doi.org/10.1504/IJPQM.2023.10055953
- 197. Simranjit Singh Sidhu, Kanwarpreet Singh, I.P.S. Ahuja (2023), "Analysis of the impact of different maintenance practices on business performance of SMEs using structural equation modeling", International Journal of Business Excellence, Vol. xx, No. xx, pp. xx xx. (ISSN online: 1756-0055, ISSN print: 1756-0047), INDERSCIENCE Accepted 23.10.2022, IJBEX-108414, https://doi.org/10.1504/IJBEX.2023.10055141
- 198. Vinay Kumar, Rupinder Singh and Inderpreet Singh Ahuja (2023), "PVDF Composite as the 4D Solution For Heritage Structures", Journal of The Institution of Engineers (India): Series C, Vol. xx, No. xx, pp. xx xx. (SPRINGER) E-ISSN: 2250-0553, Print ISSN: 2250-0545, https://doi.org/10.1007/s40032-023-00991-4, Accepted: 18.08.2023, Published: 05.09.2023

### PUBLICATIONS IN REFEREED NATIONAL JOURNALS (07)

- 1 I.P.S. Ahuja, Tarun Nanda (2003), "An Insight into low Growth of Technical Education in India" Indian Journal of Technical Education, July September, Vol. 26, No. 3, pp. 29 37. (ISSN: 0971-3034)
- I.P.S. Ahuja, T.P. Singh (2004), "Strategies for affecting Quality Improvement in Technical Education", Indian Journal of Technical Education, January-March, Vol. 27, No. 1, pp. 56 – 65. (ISSN: 0971-3034)
- 3 Dr T. P. Singh, I.P.S. Ahuja (2004), "Administration of Technical Education on the Pattern of Manufacturing Industry for Quality", Indian Journal of Technical Education, April-June, Vol. 27, No. 2, pp. 113 – 118. (ISSN: 0971-3034)
- 4 I.P.S Ahuja, T.P. Singh, Sushil, A. Wadood (2004), "Total Productive Maintenance implementation at Tata Steel for achieving Core Competitiveness", Productivity, October-December, Vol. 45, No. 3, pp. 422 – 426. (ISSN: 0032-9924)
- 5 V.K. Jadon, Ravinder Kumar Duvedi, Inderpreet Singh Ahuja (2006), "Need to Reorient the Mechanical Engineering Curriculum", Indian Journal of Technical Education, January-March, Vol. 29, No. 1, pp. 41 – 47. (ISSN: 0971-3034)
- I.P.S. Ahuja, J.S. Khamba (2008), "Strategic Implementation of Total Productive Maintenance in an Indian Manufacturing Organization A Case Study", Manufacturing Technology Today, CMTI, Vol. 7, No. 2, pp. 34 41. (ISSN: 0972-7396)
- Ahuja, I.P.S. (2012) "Education in the 21st Century: The changing realities", Indian Journal of Technical Education, Vol. 35, No. 4, pp. 10 16. (October-December) (ISSN: 0971-3034)

# PATENTS ACCEPTED/PUBLISHED (01)

### 1. DESIGN PATENT APPLICATION DETAILS

TITLE	: U-BOLT TURNING MACHINE
APPLICATION NUMBER	: 344857-001
CBR NO.	: 204376
CBR DATE	: 17.06.2021
Class	: 15-09

### **Patent and Design Journal**

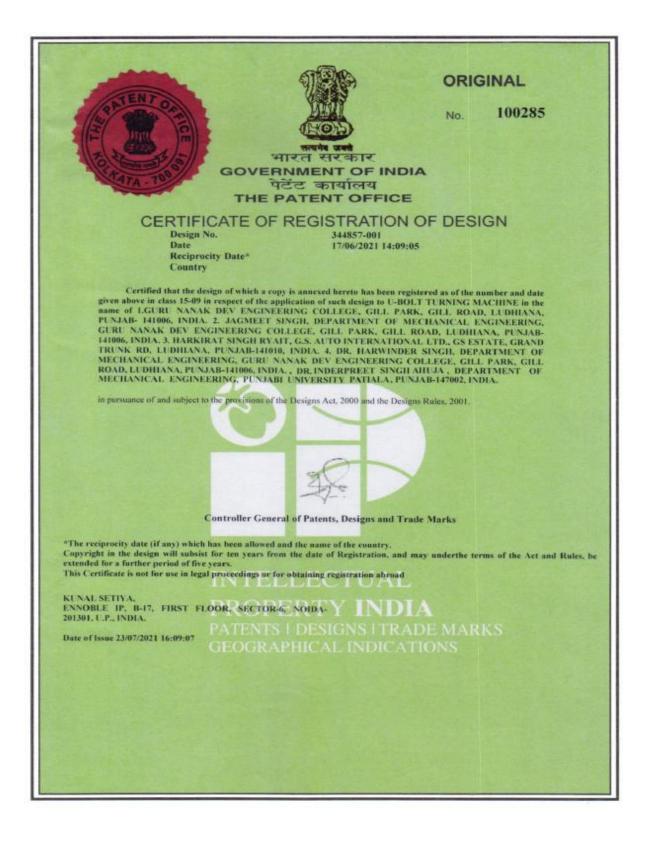
Journal No. 31/2021, dated 30.07.2021, Part-3 Designs https://search.ipindia.gov.in/IPOJournal/Journal/Patent

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Design Application Details	
Application Number:	344857-001
Cbr Number:	204376
Cbr Date:	6/17/2021 2:09:05 PM
Applicant Name:	<ol> <li>Guru Nanak Dev Engineering College,</li> <li>Jagmeet Singh,</li> <li>Harkirat Singh Ryait,</li> <li>Dr. Harwinder Singh,</li> <li>Dr. Amandeep Singh,</li> <li>Dr. Inderpreet Singh Ahuja,</li> </ol>
Design Application Status	
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3	32/2021	06/08/2021	06/08/2021	Part-3_Designs 📻 Part-2 📻 Part-1 👼	Patent Agent Examination
4	31/2021	30/07/2021	30/07/2021	Part-1 and Part-2 and Part-3 Designs and	Roll of Scientific Advisers
5	30/2021	23/07/2021	23/07/2021	Part-1 👼 Part-2 👼 Part-3_Designs 👼	

# Patent and Design Journal, Journal No. 31/2021, dated 30.07.2021, Part-3 Designs

https://search.ipindia.gov.in/IPOJournal/Journal/Patent



### **CONSULTANCY PROJECTS HANDLED (03)**

- Design and Development of Smart Manufacturing System in the Conventional Machine Tool Unit, Machtech International, Ludhiana, Rs 6.25 Lacs, Project Completed: 21.10.2021
  - The objectives of current research project included: 1) Investigation of the factors impacting the existing machine tool performance; 2) Design and simulation of smart machine health monitoring system with the aim to improve machine tool efficiency; and 3) Development and implementation of smart machine health monitoring system in existing unit.
- Implementation of Autonomous Quality Monitoring System in Automotive Manufacturing Unit, GS Engitech. Pvt. Ltd., Ludhiana, Rs 7.20 Lacs, Project Completed: 19.11.2021
  - This research project aimed at: a) Assessment of traditional quality measurement system; b) Design and implementation of autonomous quality monitoring system; and c) PPM (part per million) comparison between traditional and implemented quality monitoring system.
- Implementation of I 4.0 on the conventional machine tool unit under the manufacturing organization's smart factory concept, Machtech International, Ludhiana, Rs 2.75 Lacs, Project Completed: 23.11.2021
  - Implementation of I 4.0 on the conventional machine tool unit.

### **PUBLICATIONS IN REFEREED INTERNATIONAL CONFERENCES (21)**

- I.P.S. Ahuja, T.P. Singh, J.S. Khamba (1999), "Technology Upgradation for Cost Effective Competitiveness", Int. Conference & Exhibition on Research & Development: R & D Vision 21<sup>st</sup> Century National Foundation of Indian Engineers (NAFENS), New Delhi, 15-16<sup>th</sup> Jan., 1999, pp. 121 – 126.
- J.S. Khamba, I.P.S. Ahuja, T.P. Singh (1999), "Implementation of Total Productive Maintenance in an Engineering Organization", Int. Conference on Operations Management for Global Economy: Challenges & Prospects (POMS-99) I.I.T., New Delhi, 21-24<sup>th</sup> Dec. 1999, pp. 685 – 691.
- I.P.S. Ahuja, T.P. Singh, J.S. Khamba (2000), "Technology Adoption & Adaptation Key Issues", Global Conference: New Business Paradigm: Global, Virtual & Flexible, I.I.T., New Delhi, 17<sup>th</sup> -20<sup>th</sup> Dec., 2000, pp 425 – 431.
- 4. I.P.S. Ahuja (2003), "Quality Improvement in Technical Education", Int. Conference in "Quality Improvement in Educational Systems", Bharathidasan University, Tiruchirappalli, 22-23 Feb., 2003.
- Wadood A, Pankaj Kumar, I.P.S Ahuja, T.P. Singh, Sushil (2004), "Total Productive Maintenance Implementation in Indian Manufacturing Industry for Sustained Competitiveness", 34th International Conference on "Computers and Industrial Engineering", San Francisco, California, USA, November 14 - 16, 2004, pp. 602 – 607.
- T.P. Singh, I.P.S. Ahuja (2004), "An Integrated SQC PERT approach for reduction of Manufacturing Time of Large assembly products", 34th International Conference on "Computers and Industrial Engineering", San Francisco, California, USA, November 14 - 16, 2004, pp. 205 – 210.
- I.P.S. Ahuja, T. P. Singh, Kishore Khanna, Jatin Arora (2005), "Education in the 21<sup>st</sup> Century: The Changing Realities", International Conference on Beyond Chalk & Talk: Challenges and Opportunities for Teaching in the Digital Age, Bharathidasan University, Tiruchirappalli, March 5, 6 2005, pp. 52.
- I.P.S. Ahuja, J.S. Khamba, and R. Choudhary (2006), "Improved Organizational Behavior Through Strategic Total Productive Maintenance Implementation", 2006 ASME International Mechanical Engineering Congress and Exposition (IMECE), at Chicago, Illinois (U.S.A.), November 5–10, 2006, pp. 91–98. (Paper Registration No. IMECE2006–15783).
- 9. Sanjeev Saini, I.P.S. Ahuja and Vishal S Sharma (2011), "The effect of cutting parameters on surface integrity in hard turning", The 2011 International Conference on Mechanical and Aerospace Engineering, Bangkok, Thailand, July 29-31, 2011, pp. xxx-xxx.
- Doordarshi Singh, Jaspreet Singh Oberoi, Inderpreet Singh Ahuja (2012), "An AHP approach to evaluate the manufacturing flexibility in manufacturing organizations", Twelfth Global Conference on Flexible Systems Management – Systemic Flexibility and Business Agility (GLOGIFT 12), University of Vienna, Austria, July 30 – August 1, 2012, pp. 837 – 844. (Technical Session 8-A, Theme IX: Agility/Flexibility in Manufacturing Systems, Paper MS-I).
- Doordarshi Singh, Jaspreet Singh Oberoi, Inderpreet Singh Ahuja (2012), "Impact of Technological Capability and Competency in Managing Strategic Flexibility in Indian Manufacturing Industry - An Empirical Study", Twelfth Global Conference on

Flexible Systems Management – Systemic Flexibility and Business Agility (GLOGIFT 12), University of Vienna, Austria, July 30 – August 1, 2012, pp. 501 – 510. (Technical Session Technical Session 5-A, Theme V: Flexibility/Agility in Technology and Innovation, Paper FT-I).

- 12. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2013), "Manufacturing Flexibility of Organizations: A Review", VI IBA International Conference on the theme 'Situating New Management Philosophy: Nature Mind and Technology' (SNMPNMT'13) at Indus Business Academy, Bangalore, Feb 20-22 2013 (Paper 99), pp. 1-11.
- 13. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2013), "An Empirical Examination of Supply Chain Flexibility in Manufacturing Organizations", VI IBA International Conference on the theme 'Situating New Management Philosophy: Nature Mind and Technology' (SNMPNMT'13) at Indus Business Academy, Bangalore, Feb 20-22 2013 (Paper 83), pp. 1-9.
- 14. Kumar, Parlad, Singh, R. and Ahuja, I.P.S. (2013), "A Framework for Developing a Hybrid Investment Casting Process", International Conference on 'Advancements and Futuristic Trends in Mechanical and Materials Engineering' (AFTMME'13), October 3-6, 2013, Punjab Technical University, Jalandhar, pp. 515-521.
- 15. Kaur, Raminder and Ahuja, I.S. (2013), "Evaluating the contributions of Just-in-Time Manufacturing on Manufacturing Performance in Indian Manufacturing Industry", Proceedings of International Conference on Research and Innovations in Mechanical Engineering (ICRIME 2013), October 24-26, 2013, Guru Nanak Dev Engineering College, Ludhiana, Springer, Lecture Notes in Mechanical Engineering, Edited by Khangura, S.S., Singh, P., Singh, H., Brar, G.S., 2014, ISBN: 978-81-322-1858-6), pp. 639-646.
- 16. Anuj Singla, Amanpreet Singh Sethi and Inderpreet Singh Ahuja (2015), "Technology-Push and Demand-Pull forces in Manufacturing Industry - A Literature Review", Fifteenth Global Conference on Flexible Systems Management, Theme: Flexibility for Manufacturing Excellence and Resource Management, October 23 – 25, 2015, Symbiosis Institute of Technology, Symbiosis International University, Pune, India, pp. 451 – 459.
- 17. Kuldeep Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja (2015), "Developing Supply Chain Agility through Dynamic Capabilities and Supplier Integration Capabilities in Manufacturing Organisations: A Conceptual Perspective", Fifteenth Global Conference on Flexible Systems Management, Theme: Flexibility for Manufacturing Excellence and Resource Management, October 23 – 25, 2015, Symbiosis Institute of Technology, Symbiosis International University, Pune, India, pp. 609 – 626.
- Fatehbir Singh Dhillon, Inderpreet Singh Ahuja and Kanwarpreet Singh (2016), "Measuring the effectiveness of Total Productive Maintenance in Indian Manufacturing Organizations", Proceedings of 4th International Conference on Advancements in Engineering & Technology (ICAET-2016), Bhai Gurdas Institute of Engineering & Technology, Sangrur–148001 (Punjab), India, March 18–19, 2016, pp. 1632 – 1640. ISBN No. 978-81-924893-1-5
- 19. Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2016), "Comparative study between Conventional Machining, Chemical Ultrasonic Machining and Ultrasonic Machining of plain glass, polycarbonate, acrylic, bullet proof and heat resistant glass" International Conference on latest developments in materials,

manufacturing and quality control (ICMMQC-2016), ISBN 978-93-5212-858-7, 12th - 13th February, 2016, Giani Zail Singh Campus College of Engineering & Technology, Bathinda, Punjab India, pp. 320-329.

- 20. APS Sethi, Ahuja IPS & Anuj Gupta (2016), "Shifts between Technology Push and Market Pull Strategies for Sustainable Development in Manufacturing Industries", Proceedings of Sixteenth Global Conference on Flexible Systems Management, The Future of Manufacturing, Global Value Chains, Smart Specialisation and Flexibility, University of Technology, Sydney, December 4-6, 2016.
- Rupinder Singh, Narinder Singh and IPS Ahuja (2016), "Recycling of Plastic Solid Waste for Additive Manufacturing Applications", Proceedings of 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016), College of Engineering, Pune, Maharashtra, INDIA, December 16-18, 2016, ISBN: 978-93-86256-27-0, pp. 27-29.

### **PUBLICATIONS IN REFEREED NATIONAL CONFERENCES (25)**

- Jatinder Kumar, I.P.S. Ahuja and T.P. Singh (2003), "Competitive Manufacturing through Total Productive Maintenance", National Conference on Recent Developments in Mechanical Engineering (NCME 2003), TIET, Patiala, Oct. 31- Nov. 1, 2003, pp. 354 – 359.
- Tarun Nanda, T.P. Singh and I.P.S. Ahuja (2003), "Technology Development for Core Competence building in Indian Manufacturing Industry: Status and Available Options", National Conference on Recent Developments in Mechanical Engineering (NCME 2003), TIET, Patiala, Oct. 31-Nov. 1, 2003, pp. 368 – 371.
- T.P. Singh, I.P.S. Ahuja and H.S. Bawa (2003), "Resource Mobilization for Technical Education", Second TIET Foresight Symposium (TFS – II) "Higher Technical Education – Issues of Access & Delivery", TIET, Patiala, Nov. 22 – 23, 2003, pp. 241 – 247.
- I.P.S. Ahuja, Jatinder Kumar, T.P. Singh and Sushil (2003), "Total Productive Maintenance Implementation for achieving business excellence in an Indian Manufacturing Industry", All India Conference on "Maintenance and Reliability", Indian Institute of Production Management, IIPM, Kansbahal, Orissa, Nov. 28 – 29, 2003, pp. 186 – 197.
- I.P.S. Ahuja and J.S. Khamba (2007), "An Assessment of contributions of TPM Implementation in Indian Manufacturing Enterprises", National Conference on Futuristic Trends in Mechanical Engineering, Shaheed Udham Singh College of Engineering & Technology, Tangori, Sept. 13 – 14, 2007, pp. 229 – 234.
- 6. Kanwarpreet Singh, Amardeep Singh and I.P.S. Ahuja (2010), "A comparative review of TQM and TPM quality drives", National Conference on Advances in Mechanical Engineering (AME-2010), Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Feb. 26–27, 2010, pp. 133 138. (ISBN: 978-81-920451-0-8).
- Doordarshi Singh, J.S. Oberoi and I.P.S. Ahuja (2010), "Role of dynamic capabilities in manufacturing industry: A review", National Conference on Advances in Mechanical Engineering (AME-2010), Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Feb. 26 – 27, 2010, pp. 139 – 143. (ISBN: 978-81-920451-0-8).
- Kanwarpreet Singh and I.P.S. Ahuja (2010), "Transfusion of TQM and TPM for manufacturing performance enhancement", National Conference on Global Trends in Mechanical Engineering (GTME-10), Rayat & Bahara Institute of Engineering & Bio-Technology, Sahauran, Mohali, April 16 – 17, 2010, pp. 42 – 47.
- I.P.S. Ahuja and Kanwarpreet Singh (2010), "Achieving business excellence through Total Productive Maintenance Implementation", National Conference on Global Trends in Mechanical Engineering (GTME-10), Rayat & Bahara Institute of Engineering & Bio-Technology, Sahauran, Mohali, April 16 – 17, 2010, pp. 80 – 86.
- Rajesh Kumar, Rupinder Singh and I.P.S. Ahuja (2010), "Rapid Prototyping Technology – A Review", National Conference on Global Trends in Mechanical Engineering (GTME-10), Rayat & Bahara Institute of Engineering & Bio-Technology, Sahauran, Mohali, April 16 – 17, 2010, pp. 282 – 288.
- I.P.S. Ahuja (2010), "Accruing total plant performance advantages through Total Productive Maintenance", Futuristic Trends in Mechanical Engineering, Department of Mechanical Engineering, Guru Nanak Dev Engineering College, Ludhiana, Oct. 29-30, 2010, pp. 183 – 191. (ISBN: 978-93-80697-24-6).
- 12. Rajesh Kumar, Rupinder Singh and I.P.S. Ahuja (2010), "Rapid Prototyping Technology – Contemporary Tool for Manufacturing Industry", Futuristic Trends in Mechanical

Engineering, Department of Mechanical Engineering, Guru Nanak Dev Engineering College, Ludhiana, Oct. 29-30, 2010, pp. 247 – 255. (ISBN: 978-93-80697-24-6).

- I.P.S. Ahuja and Pragat Singh (2011), "Evaluation of endeavor of Indian manufacturing organizations towards TPM implementation", First National Conference on Advances in Mechanical Engineering (NCAME-2011), UIET, Punjab University, Chandigarh, May 20<sup>th</sup>-21<sup>st</sup> 2011, pp. 352 – 358. (EAN 8903072071843).
- I.P.S. Ahuja (2011), "Validating the effectiveness of total productive maintenance program using analytical hierarchy process", First National Conference on Advances in Mechanical Engineering (NCAME-2011), UIET, Punjab University, Chandigarh, May 20<sup>th</sup>-21<sup>st</sup> 2011, pp. 264 – 268. (EAN 8903072071843).
- 15. Rupinder Singh, I.P.S. Ahuja and Jasbirpal Singh (2011) "Investigating the machining characteristics of HCHCr with Electric Discharge Machining", Proceeding of National Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (Oct. 7-8, 2011), Punjab Technical University, Jalandhar, pp. 162 165.
- Manpreet Singh and Inderpreet Singh Ahuja (2014), "Scrap Reduction in Piston Manufacturing through Six Sigma", National Conference on Advancements in Simulation & Experimental Techniques in Mechanical Engineering (NCASEme-2014), Chandigarh University, Gharuan, Mohali, February 21-22, 2014, pp. 163 – 170.
- Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2015), "Ultrasonic machining of glass brittle material-Review Paper", TEQIP-II Sponsored National Conference on "Latest Developments in Materials, Manufacturing and Quality Control" on 19-20th February, 2015, Giani Zail Singh Singh Punjab Technical University Campus Bathinda. pp. 172 – 177. (ISBN 978-93-5196-055-3)
- Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor (2015), "Study the Effect of Abrasive and Hydrofluoric Acid in Ultra Sonic Machining of Plain Glass Material", TEQIP-II Sponsored National Conference on "Latest Developments in Materials, Manufacturing and Quality Control" on 19-20th February, 2015, Giani Zail Singh Singh Punjab Technical University Campus Bathinda. pp. 183 – 187. (ISBN 978-93-5196-055-3)
- Sanjiv Kumar Jain and Inderpreet Singh Ahuja (2015), "Analysis of ISO 9000 and Business Performance Relationship through Structural Equation Modeling in Indian Manufacturing Industry", National Conference on Advances in Mechanical, Industrial & Materials Engineering, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab – 140407, November 06-07, 2015, Enriched Publications Pvt. Ltd., New Delhi (ISBN: 978-194417156-8), pp. 69-90.
- Anuj Singla, A.P.S. Sethi and I.P.S. Ahuja (2015), "Role Of Technology-Push And Demand-Pull Scenarios in Manufacturing Industry - A Literature Review", National Conference on Advances in Mechanical, Industrial & Materials Engineering, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab – 140407, November 06-07, 2015, Enriched Publications Pvt. Ltd., New Delhi (ISBN: 978-194417156-8), pp. 121-130.
- Tejinder Pal Singh and Inderpreet Singh Ahuja (2015), "Evaluating the exploits of Total Productive Maintenance implementation in a Food Processing Industry", National Conference on Advances in Mechanical, Industrial & Materials Engineering, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab – 140407, November 06-07, 2015, Enriched Publications Pvt. Ltd., New Delhi (ISBN: 978-194417156-8), pp. 131-142.
- 22. Vinay Kumar, Rupinder Singh and Inderpreet Singh Ahuja (2021), "On parametric optimization of TSE for PVDF-Graphene-MnZnO Composite based filament

fabrication for 3D/4D printing applications", 7<sup>th</sup> National Conference on Advances in Manufacturing technology (NCAMT 2021) March 25-26, 2021

- 23. Vinay Kumar, Rupinder Singh and I.P.S Ahuja (2021), "On 4D capabilities of chemical assisted mechanical blended ABS-Nano Graphene composite matrix", National Conference on Advanced Studies in Mechanical Engineering (NCASME) July 7-9, 2021, Chandigarh University
- 24. Singh, J., Ahuja, I.P.S., Singh, H. (2022). Design and Development of Smart Machine Health Monitoring (SMHM) Device in an Automotive Manufacturing Organization. ICAPIE 2022, Delhi Technological University, Delhi, India, June 11-12, 2022
- Singh, J., Ahuja, I.P.S., Singh, H. (2022). Industry 4.0: Design and Development of Zero Defect Turning (ZDT) System in an Automotive Manufacturing Organization. 20th ISME Conference on Advances in Mechanical Engineering, Organized by Department of Mechanical Engineering, IIT, Ropar, May 19-21, 2022

### **PUBLICATIONS IN BOOK CHAPTERS (45)**

- I.P.S. Ahuja, "Affecting Quality improvement in Technical Education System: Key strategies", Quality Education: Opportunities And Challenges In The 21<sup>st</sup> Century, Edited by Ravishankar Kumar Singh, Abhijeet Publications, Delhi, 2003, ISBN: 81-88683-16-7, Chapter–6, pp. 53 78.
- I.P.S. Ahuja, "Financial Resource Generation for Technical Institutes in India", Economic Reforms in India, Edited by Ravishankar Kumar Singh, Abhijeet Publications, Delhi, 2004, ISBN No.: 81-88683-34-5 (Set), 81-88683-35-3 (Vol.-I), 81-88683-36-1 (Vol.-II), Chapter–31, pp. 621 – 661.
- I.P.S. Ahuja, "Total Productive Maintenance", Handbook of Maintenance Management and Engineering, SPRINGER, Ben-Daya, M.; Duffuaa, S.O.; Raouf, A.; Knezevic, J.; Ait-Kadi, D. (Eds.), 2009, XXVII, 741 p. 330 illus., Hardcover, ISBN No.: 978-1-84882-471-3, Chapter–17, pp. 417 – 459.
- 4. Doordarshi Singh, Jaspreet Singh Oberoi and Inderpreet Singh Ahuja, "A Conceptual Framework for Achieving Flexibility at Strategic Level in Large- and Medium-Scale Indian Manufacturing Organizations", Chapter 14 in Asian Business and Management Practices: Trends and Global Considerations, Edited by – Dasho Karma Ura & Patricia Ordoñez De Pablos, Business Science Reference (an imprint of IGI Global), Pennsylvania 17033-1240, USA (ISBN-13: 978-1466664418 ISBN-10: 146666441X) Idea Group, U.S., October 2014, pp. 174 – 189.
- Rupinder Singh, Narinder Singh, Piyush Bedi and I.P.S. Ahuja, "Polymer Single-Screw Extrusion With Metal Powder Reinforcement", In: Saleem Hashmi (editor-in-chief), Reference Module in Materials Science and Materials Engineering. Oxford: Elsevier; 2016. pp. 1-18. (ISBN: 978-0-12-803581-8) August 2016, https://doi.org/10.1016/B978-0-12-803581-8.04161-8
- Rupinder Singh, Ranvijay Kumar, Inderpreet Singh Ahuja (2017), "Thermal Analysis for Joining of Dissimilar Polymeric Materials Through Friction Stir Welding", In: Saleem Hashmi (editor-in-chief), Reference Module in Materials Science and Materials Engineering. Oxford: Elsevier; 2017. pp. 1-13. (ISBN Print: 978-0-12-803581-8) Copyright © 2017 Elsevier Inc., 16 December 2017, https://doi.org/10.1016/B978-0-12-803581-8.10390-X
- Sethi A.P.S., Ahuja I.P.S., Singla A. (2018), "Shifts between Technology Push and Market Pull Strategies for Sustainable Development in Manufacturing Industries. In: Connell J., Agarwal R., Sushil, Dhir S. (eds) Global Value Chains, Flexibility and Sustainability.

Flexible Systems Management. Springer, Singapore, Chapter 21, pp. 319-331. (Print ISBN 978-981-10-8928-2, Online ISBN 978-981-10-8929-9). https://doi.org/10.1007/978-981-10-8929-9\_21 (Proceedings of Sixteenth Global Conference on Flexible Systems Management, The Future of Manufacturing, Global Value Chains, Smart Specialisation and Flexibility, University of Technology, Sydney, December 4-6, 2016). (26.07.2018)

- Piyush Bedi, Rupinder Singh, Inderpreet S. Ahuja (2018), "Investigations for Rapid Tooling Prepared With Waste Polymer-Based Hybrid Filament", In: Saleem Hashmi (editor-in-chief), Reference Module in Materials Science and Materials Engineering. Oxford: Elsevier; 2018. Volume 1, pp. 385-402. (ISBN Print: 978-0-12-803581-8), https://doi.org/10.1016/B978-0-12-803581-8.10401-1 (MAY, 2018) ISBN Online: 978-0-12-813196-1
- Narinder Singh, Rupinder Singh, Inderpreet S. Ahuja (2018), "Investigations for Metal Matrix Composites Prepared by Using Waste Polymer-Based Sacrificial Rapid Pattern in Investment Casting", Reference Module in Materials Science and Materials Engineering, Encyclopedia of Renewable and Sustainable Materials, Volume 1, 2018, pp. 376-384, https://doi.org/10.1016/B978-0-12-803581-8.10400-X, ISBN Online: 978-0-12-813196-1, (ISBN Print: 978-0-12-803581-8)
- Nishant Ranjan, Rupinder Singh, I. P. S Ahuja, and Jatinderpal Singh (2019), "Fabrication of PLA-HAp-CS Based Biocompatible and Biodegradable Feedstock Filament Using Twin Screw Extrusion", B. AlMangour (ed.), Additive Manufacturing of Emerging Materials, Springer International Publishing AG, part of Springer Nature 2019, https://doi.org/10.1007/978-3-319-91713-9\_11, ISBN Print 978-3-319-91712-2; ISBN Online 978-3-319-91713-9, Chapter 11, pp. 325-348.
- Narinder Singh, Rupinder Singh, I. P. S Ahuja (2019), "Metal Matrix Composite from waste Thermoplastics", in book "Additive Manufacturing: Applications and Innovations", Edited by Rupinder Singh and J. Paulo Davim, CRC Press, Taylor & Francis Group, ISBN 9781315168678 (ebook), ISBN -13: 978-1-1380-5060-0 (Hardback), Chapter 5, pp. 187-210.
- Ranvijay Kumar, Rupinder Singh, I. P. S Ahuja (2019), "Joining of dissimilar thermoplastic with Friction welding through rapid tooling", in book "Additive Manufacturing: Applications and Innovations", Edited by Rupinder Singh and J. Paulo Davim, CRC Press, Taylor & Francis Group, ISBN 9781315168678 (ebook), ISBN -13: 978-1-1380-5060-0 (Hardback), Chapter 6, pp. 211-240.
- Ranvijay Kumar, Rupinder Singh and I. P. S. Ahuja (2018), "Investigating the Polymeric Composites for Online Repair and Maintenance", Futuristic Composites - Behavior, Characterization, and Manufacturing - Materials Horizons: From Nature to Nanomaterials, Editors - Sarabjeet Singh Sidhu, Preetkanwal Singh Bains, Redouane Zitoune & Morteza Yazdani, Springer, DOI: https://doi.org/10.1007/978-981-13-2417-8\_8, ISBN Print: 978-981-13-2416-1 ISBN 978-981-13-2417-8 (eBook), pp. 165-179.
- Ranvijay Kumar, Rupinder Singh, Inderpreet S. Ahuja, Kamal N. Karn, (2020) "Joining of 3D Printed Dissimilar Thermoplastics With Friction Welding: A Case Study", Reference Module in Materials Science and Materials Engineering, Encyclopedia of Renewable and Sustainable Materials, Elsevier, Vol. 3, pp. 97-108. DOI: https://doi.org/10.1016/B978-0-12-803581-8.11530-9, (ISBN: 9780128035818)
- Ranvijay Kumar, Rupinder Singh, Inderpreet S. Ahuja (2020). Joining of 3D Printed Dissimilar Thermoplastics With Consumable Tool Through Friction Stir Spot Welding: A Case Study. Reference module in materials science and materials engineering. Encyclopedia of Renewable and Sustainable Materials, https://doi.org/10.1016/B978-0-12-803581-8.11529-2, ISBN: 978-0-12-803581-8. (Elsevier Publications), Vol. 3, pp. 91 -96.

- Ranvijay Kumar, Rupinder Singh, Inderpreet S. Ahuja (2020). Joining of 3D Printed Dissimilar Thermoplastics With Nonconsumable Tool Through Friction Stir Welding: A Case Study. Reference module in materials science and materials engineering. Encyclopedia of Renewable and Sustainable Materials, https://doi.org/10.1016/B978-0-12-803581-8.11527-9, ISBN: 978-0-12-803581-8. (Elsevier Publications), Vol. 3, pp. 109-113
- Ranvijay Kumar, Rupinder Singh, Inderpreet S. Ahuja (2020). Experimental Investigations for Friction Stir Welded 3D Printed Dissimilar Thermoplastics With Consumable Tool. Reference Module in Materials Science and Materials Engineering, Encyclopedia of Renewable and Sustainable Materials, ISBN: 978-0-12-803581-8. (Elsevier Publications) https://doi.org/10.1016/B978-0-12-803581-8.11528-0, Vol. 3, pp. 79-82, 20 January 2020
- Narinder Singh, Rupinder Singh, Inderpreet Singh Ahuja, Ilenia Farina (2019), "On the Optimal Design of Metal Matrix Composites as Functionally Graded Innovative Materials for Sensor Devices", Key Engineering Materials, Vol. 826, Materials and Applications for Sensors and Transducers V, Trans Tech Publications, Ltd., Oct. 2019, pp. 45-54. (ISSN: 1662-9795) doi: https://doi.org/10.4028/www.scientific.net/KEM.826.45 (October, 2019) (ISBN-13 (softcover): 978-3-0357-1522-4; ISBN-13 (CD): 978-3-0357-2522-3; ISBN-13 (eBook): 978-3-0357-3522-2)
- Nishant Ranjan, Rupinder Singh, IPS Ahuja (2019), "Material Processing of PLA-HAp-CS-Based Thermoplastic Composite Through Fused Deposition Modeling for Biomedical Applications", Chapter, January 2019, Biomanufacturing, pp. 126-136. (Springer Nature Switzerland AG 2019) Print ISBN: 978-3-030-13950-6, Online ISBN: 9783-030-13951-3 (https://doi.org/ 10.1007/978-3-030-13951-3\_6)
- Nishant Ranjan, Rupinder Singh, Inderpreet S. Ahuja (2020). Preparation of Partial Denture with Nano HAp-PLA Composite under Cryogenic Grinding Environment Using 3D Printing. Reference Module in Materials Science and Materials Engineering, (ELSEVIER), Encyclopedia of Renewable and Sustainable Materials, Volume 4, 2020, pp. 517-522, Editors-in-Chief: Saleem Hashmi and Imtiaz Ahmed Choudhury, DOI: https://doi.org/10.1016/B978-0-12-803581-8.11240-8. (ISBN: 978-0-12-803581-8), Vol. 3, pp. 517-522.
- 21. Nishant Ranjan, Rupinder Singh, Inderpreet S. Ahuja (2020). Biocompatible Thermoplastic Composite Blended With HAp and CS for 3D Printing. Reference Module in Materials Science and Materials Engineering, (ELSEVIER), Encyclopedia of Renewable and Sustainable Materials, Volume 4, 2020, pp. 379-388. Editors-in-Chief: Saleem Hashmi and Imtiaz Ahmed Choudhury, (ISBN Online: 978-0-12-803581-8), DOI: https://doi.org/10.1016/B978-0-12-803581-8.11237-8
- Kumar, R., Singh, R. and Ahuja, I.P.S. (2020), "Friction Stir Welding of Three-Dimensional Printed Polymer Composites with Semi-Consumable Tool", Advances in Additive Manufacturing and Joining, Advances in Additive Manufacturing and Joining, (Proceedings of AIMTDR 2018), Editors: M. S. ShunmugamM. Kanthababu, Lecture Notes on Multidisciplinary Industrial Engineering. pp. 17-29. Online ISBN: 978-981-32-9433-2, Print ISBN: 978-981-32-9432-5 (Springer, Singapore) DOI: https://doi.org/10.1007/978-981-32-9433-2\_2
- Piyush Bedi, Rupinder Singh, Inderpreet S. Ahuja (2020), "A Comprehensive Study for 3D Printing of Rapid Tooling From Reinforced Waste Thermoplastics", Reference Module in Materials Science and Materials Engineering, Encyclopedia of Renewable and Sustainable Materials, https://doi.org/10.1016/B978-0-12-803581-8.11495-X, Volume 1, 2020, Pages 114-144, ISBN Print: 978-0-12-813196-1, (ISBN Online: 978-0-12-803581-8)

- Nishant Ranjan, Rupinder Singh and Inderpreet S. Ahuja (2020), "Development of HAp Reinforced Biodegradable Porous Structure Through Polymer Deposition Technology for Tissue Engineering Applications", Reference Module in Materials Science and Materials Engineering, Encyclopedia of Renewable and Sustainable Materials, Volume 1, 2020, Pages 196-215, (ELSEVIER), ISBN Online: 978-0-12-803581-8, https://doi.org/10.1016/B978-0-12-803581-8.11264-0
- Nishant Ranjan, Rupinder Singh, Inderpreet S. Ahuja, Ranvijay Kumar (2022). Joining of Thermoplastics with Friction Stir Welding for Minor Repair. Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 1, 2022, pp. 212-219, Encyclopedia of Renewable and Sustainable Materials, DOI: https://doi.org/10.1016/B978-0-12-820352-1.00015-8; Vol. XX, pp. 1-8. (Elsevier Publications). 2020, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- 26. Nishant Ranjan, Singh, R., Ahuja, I. P. S. Mustafizur Rahman, Seeram Ramakrishn (2020). PLA-HAp-CS-Based Biocompatible Scaffolds Prepared Through Micro-Additive Manufacturing: A Review and Future Applications. 3D Printing in Biomedical Engineering. Materials Horizons: From Nature to Nanomaterials, https://doi.org/10.1007/978-981-15-5424-7\_10; Chapter 10, pp 209-229. (Springer Publications). 2020, Print ISBN: 978-981-15-5423-0, Electronic ISBN: 978-981-15-5424-7
- Vinay Kumar, R Singh, Inder Preet S. Ahuja (2022), "Use of Thermosetting Polymers for Smart Civil Structures", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 1, 2022, pp. 662-669, Available online 23 November 2020, January 2020, DOI: https://doi.org/10.1016/B978-0-12-820352-1.00067-5, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- Vinay Kumar, Rupinder Singh, Inderpreet S. Ahuja (2022), "Smart Thermoplastics for Maintenance and Repair of Heritage Structures", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 1, 2022, pp. 524-532, Available online 14 December 2020, January 2020, DOI: https://doi.org/10.1016/B978-0-12-820352-1.00070-5, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- Vinay Kumar, Rupinder Singh, Inderpreet S. Ahuja (2022), "Comparison of mechanical blended and chemical assisted mechanical blended ABS-graphene reinforced composite for 3D printing applications", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 1, pp. 86-93. Available online 9 June 2021, January 2020, DOI: https://doi.org/10.1016/B978-0-12-820352-1.00091-2, ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- Vinay Kumar, Rupinder Singh, Inderpreet S. Ahuja (2022), "On Wear Properties of Mechanical Blended and Chemical Assisted Mechanical Blended ABS-Graphene Reinforced Composites", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 1, pp. 434-441. Available online 9 June 2021, January 2020, DOI: https://doi.org/10.1016/B978-0-12-820352-1.00109-7, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- 31. Nishant Ranjan, Ranvijay Kumar, Rupinder Singh and Inderpreet S. Ahuja (2022), "Fabrication of PLA-HAp-CS Based Feed-Stock Filament by Twin-Screw Extrusion Using Matrix Co-Relation", Encyclopedia of Materials: Plastics and Polymers, Elsevier, 388-396, online Volume 3, Available 10 August 2021 2021, pp. https://doi.org/10.1016/B978-0-12-820352-1.00181-4, ISBN: Hardcover 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- 32. Nishant Ranjan, Ranvijay Kumar, Rupinder Singh and Inderpreet S.Ahuja (2022), "Matrix Co-Relation for PLA-HAp-CS Based Scaffold for Rapid Joining Using Friction Stir Spot Welding", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 3, pp. 388-

396, Available online 10 August 2021, https://doi.org/10.1016/B978-0-12-820352-1.00183-8, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0

- 33. Nishant Ranjan, Rupinder Singh, Inderpreet S. Ahuja and Ranvijay Kumar (2022), "Optimization of FDM for Fabrication of PLA-HAp-CS Based Functional Prototypes/Scaffolds Using Matrix Co-Relation", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 3, pp. 475-484, Available online 10 August 2021, https://doi.org/10.1016/B978-0-12-820352-1.00182-6, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- 34. Vinay Kumar, Rupinder Singh, Inderpreet S. Ahuja (2022), "On Correlation of Rheological, Thermal, Mechanical and Morphological Properties of Mechanically Blended PVDF-Graphene Composite for 4d Applications", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 1, pp. 308-317, Available online 14 September 2021, DOI: https://doi.org/10.1016/B978-0-12-820352-1.00192-9, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- Vinay Kumar, Inderpreet S. Ahuja, Rupinder Singh (2022), "Multi-Factor Optimization for Preparation of Mechanical Blended and Chemical Assisted Mechanical Blended ABS-Graphene Composite for 3D Printing", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 1, pp. 281-287, Available online 12 November 2021, DOI: https://doi.org/10.1016/B978-0-12-820352-1.00216-9, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- 36. Vinay Kumar, Rupinder Singh, Inderpreet S. Ahuja, Suraj Parkash, Bahadur S. Pabla (2022), "Process Capability of Mechanical Blended and Chemical Assisted Mechanical Blended ABS-Graphene Composite", Encyclopedia of Materials: Plastics and Polymers, Elsevier, Volume 1, pp. 486-494, Available online 12 November 2021, DOI: https://doi.org/10.1016/B978-0-12-820352-1.00215-7, Hardcover ISBN: 978-0-12-820352-1, ISBN: 978-0-12-823291-0
- Vinay Kumar, Rupinder Singh, and I. P. S. Ahuja (2021), "Tertiary recycling of plastic solid waste for additive manufacturing", Additive Manufacturing for Plastic Recycling: Efforts in Boosting A Circular Economy, 2021, Chapter 6, (CRC Press, Taylor & Francis Publications), pp. 93-110, ISBN: 978-1-032-02609-1 (hbk), ISBN: 978-1-032-02610-7 (pbk), ISBN: 978-1-003-18416-4 (ebk), DOI: https://doi.org/10.1201/9781003184164
- 38. Vinay Kumar, Rupinder Singh, and I. P. S. Ahuja (2021), "Hybrid feedstock filament processing for preparation of composite structures in heritage repair", Additive Manufacturing for Plastic Recycling: Efforts in Boosting A Circular Economy, 2021, Chapter 10, (CRC Press, Taylor & Francis Publications), pp. 159-170, ISBN: 978-1-032-02609-1 (hbk), ISBN: 978-1-032-02610-7 (pbk), ISBN: 978-1-003-18416-4 (ebk), DOI: https://doi.org/10.1201/9781003184164
- 39. Vinay Kumar, Rupinder Singh and I.P.S. Ahuja (2022), "Graphene-reinforced acrylonitrile butadiene styrene composite as smart material for 4D applications", 4D Printing, Fundamentals and Applications, Additive Manufacturing Materials and Technologies Series Edited by: Rupinder Singh, Chapter 2, 1st Edition January 11, 2022, eBook ISBN: 9780128237267, Paperback ISBN: 9780128237250 (Elsevier Publications), Chapter 2, pp. 17-34. Published March 2022, https://doi.org/10.1016/B978-0-12-823725-0.00004-7, ISBN: 978-0-12-823725-0
- Vinay Kumar, Rupinder Singh and I.P.S. Ahuja (2022), "3D printed graphene-reinforced polyvinylidene fluoride composite for piezoelectric properties", 4D Printing, Fundamentals and Applications, Additive Manufacturing Materials and Technologies Series Edited by: Rupinder Singh, Chapter 4, 1st Edition - January 11, 2022, eBook ISBN: 9780128237267, Paperback ISBN: 9780128237250 (Elsevier Publications), Chapter 2, pp. 51-66. Published, https://doi.org/10.1016/B978-0-12-823725-0.00009-6, ISBN: 978-0-12-823725-0

- 41. Vinay Kumar, Rupinder Singh, and Inderpreet Singh Ahuja (2022), "On Parametric Optimization of TSE for PVDF-Graphene-MnZnO Composite Based Filament Fabrication for 3D/4D Printing Applications", Editors- Chander Prakash, Sunpreet Singh, Aminesh Basak, J. Paulo Davim, Numerical Modelling and Optimization in Advanced Manufacturing Processes, Materials Forming, Machining and Tribology, Springer Nature Switzerland AG 2022, pp. 75-91, https://doi.org/10.1007/978-3-031-04301-7\_5, (Online ISBN: 978-3-031-04301-7, Print ISBN: 978-3-031-04300-0), First Online: 27 May 2022, July 2022
- 42. N. Ranjan, R. Singh, and I. P. S. Ahuja (2022), "Multi-factor Optimization for Joining of Polylactic Acid-Hydroxyapatite-Chitosan Based Scaffolds by Rapid Joining Process", Editors- Chander Prakash, Sunpreet Singh, Aminesh Basak, J. Paulo Davim, Numerical Modelling and Optimization in Advanced Manufacturing Processes, Materials Forming, Machining and Tribology, Springer Nature Switzerland AG 2022, pp. 93-103, https://doi.org/10.1007/978-3-031-04301-7\_6, (Online ISBN: 978-3-031-04301-7, Print ISBN: 978-3-031-04300-0), First Online: 27 May 2022, July 2022
- 43. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, Sanjeev Kumar (2022), "Inhouse Development of Smart Materials for 4D Printing", 4D Imaging to 4D Printing, Biomedical Applications, Edited By Rupinder Singh, 1st Edition, CRC Press, Boca Raton, Chapter 6, pp. 85-101, https://doi.org/10.1201/9781003205531, eBook ISBN 9781003205531,
- 44. Vinay Kumar, Rupinder Singh, Inderpreet Singh Ahuja, Sanjeev Kumar (2023), "4D printed smart sensor, actuators, and antennas", in 3D Printing of Sensors, Actuators, and Antennas for Low-Cost Product Manufacturing (1st Edition), Edited By Rupinder Singh, Balwinder Singh Dhaliwal, Shyam Sundar Pattnaik, Published February 10, 2023 by CRC Press. Boca Raton. Chapter 123-135. 7, pp. https://doi.org/10.1201/9781003194224, 170 Pages, eISBN 9781003194224, ISBN 9781032046808
- 45. Singh, J., Ahuja, I. P. S. and Singh, H. (2022) 'Design and Development of Smart Machine Health Monitoring (SMHM) Device in an Automotive Manufacturing Organization', Advances in Transdisciplinary Engineering, Volume 27: Advanced Production and Industrial Engineering, R.M. Singari and P.K. Kankar (Eds.), pp. 354– 363. doi: 10.3233/ATDE220766, ISBN: 978-1-64368-336-2 (print), 978-1-64368-337-9 (online), IOS Press, Amsterdam.

### PUBLICATIONS IN BOOKS (07)

- 1. Kanwarpreet Singh and Inderpreet Singh Ahuja, "Manufacturing performance enhancement through TQM-TPM Paradigms", LAP LAMBERT Academic Publishing, Germany. (ISSN NO.: 978-3-659-17185-7), pp. 357. March 19 2014
- Pragat Singh and Inderpreet Singh Ahuja, "Achieving Manufacturing Excellence through TQM-TPM Paradigms", LAP LAMBERT Academic Publishing, Germany. (ISSN NO.: 978-3-659-55734-7), pp. 101. June 2014
- 3. Mandeep Kaur, Kanwarpreet Singh and Inderpreet Singh Ahuja, "Analyzing synergetic effect of TQM-TPM Paradigms on Business Performance", LAP LAMBERT Academic Publishing, Germany. (ISSN NO.: 978-3-659-20012-0), pp. 93. July 2014
- 4. Gurinder Singh and Inderpreet Singh Ahuja, "Evaluating Just in Time Implications in Indian Manufacturing Industry", LAP LAMBERT Academic Publishing, Germany. (ISSN NO.: 978-3-659-69970-2), pp. 249. July 2015.
- 5. Inderpreet Singh Ahuja, Jaspreet Singh and Gurinder Singh (2016), "Evaluating Impact of Lean Manufacturing Initiatives in Indian Industry", LAP LAMBERT Academic Publishing, Germany. (ISSN NO.: 978-3-659-97930-9), pp. 101. October 31 2016.
- Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor, "Ultrasonic Machining of Glass: Finite Element Analysis & Optimization of process Parameters involved in Ultrasonic machining of glass work material", LAP LAMBERT Academic Publishing, Germany. (ISSN NO.: 978-3-659-94579-3), pp. 132. March 19 2017
- Kanwal Jeet Singh, Inderpreet Singh Ahuja and Jatinder Kapoor, "Ultrasonic Machining: Case Studies", LAP LAMBERT Academic Publishing, Germany. (ISSN NO.: 978-3-330-06883-4), pp. 126. April 04 2017

### AICTE COURSE MATERIAL PUBLISHED (01)

Published 01 Course Material under AICTE Continuing Education Programme: Title of Course Material 'Quality Improvement in Technical Education'

# PH.D. THESIS GUIDED (16)

S.NO.	CANDIDATE NAME	RESEARCH TOPIC	
1.	Sanjeev Saini	Residual Stress Modeling for Hard Turning	22.08.2012
2.	Kanwarpreet Singh	Manufacturing Performance Enhancement through Total Quality Management and Total Productive Maintenance Paradigms	12.10.2013
3.	Doordarshi Singh	Impact of Dynamic Capabilities in managing Strategic flexibility in Manufacturing Industry	12.10.2013
4.	Sanjiv Kumar Jain	An Investigation of relationship between ISO 9000 Quality System and Business Performance in Indian Manufacturing Industry	07.03.2014
5.	Gurinder Singh	Evaluation of Just in Time Practices and its Implications in Indian Manufacturing Industry	22.08.2014
6.	Rajesh Kumar	Investigation for Optimizating Shell wall thickness in Three Dimensional Printing for Light Alloy Casting	02.12.2015
7.	Parlad Garg	Investigating the Mechanical and Metallurgical Properties of Hybrid Investment Casting	14.07.2016
8.	Kanwal Jeet Singh	Experimental Investigation into Ultrasonic Machining of Polycarbonate Bullet Proof Glass and Acrylic Heat Resistant Glass	06.02.2018
9.	Jugraj Singh Randhawa	Evaluation of 5S implementation in Indian Manufacturing Industry: Contextual factors and impact on Business Performance	13.03.2018
10.	Anuj Singla	Transitions Between Technology-Push And Demand-Pull Strategies For Sustainable Development In Manufacturing Industry	07.08.2018
11.	Narinder Singh	Investigations for Metal Matrix Composite prepared by using Waste Polymer based Sacrificial Rapid Pattern in Investment Casting	02.01.2019
12.	Piyush Bedi	Investigations for Rapid Tooling prepared with waste polymer based Hybrid Filament	22.01.2019
13.	Ranvijay Kumar	Welding of dissimilar plastic based materials by using Hybrid Filament of Fused Deposition Modelling	30.01.2020
14.	Nishant Ranjan	Investigation and Development of Poly Lactic Acid, Hydroxyapatite and Chitosan based functional prototypes for Biomedical Applications	21.06.2021
15.	Vinay Kumar	Investigations on debris reinforced Thermoplastic based 3D customized solution for Maintenance and Repair of Heritage Structures	26.05.2022
16.	Simranjit Singh Sidhu	Investigating the contributions of Maintenance Practices towards enhancing Manufacturing Performance of Small and Medium Enterprises in Northern India	27.03.2023

# M.TECH THESIS GUIDED (19)

S. No.	Name of the Student	Title of Thesis
1.	Bharat Bhushan (26/95)	TQM Tools Application for reducing the Percent Process Defects
2.	Jatinder Kumar (8007103)	Total Productive Maintenance in an Engineering Organization
3.	Amandeep Singh (10913002)	Examination for shell wall thickness of Magnesium Alloy using Three Dimensional Printing
4.	Jasbir Pal Singh (10913007)	Investigating the machining characteristics of HCHCr material with Electric Discharge Machining
5.	Pragat Singh (10913011)	Achieving Manufacturing Excellence Through Total Productive Maintenance Implementation
6.	Mandeep Kaur (11093010)	To analyze the synergic effect of TQM - TPM Paradigms on Business Performance
7.	Gurvinder Pal Singh (11093009)	The Evaluation of Contributions of Strategic Implementation of ISO Quality Systems in Manufacturing Organisations
8.	Raminderpal Kaur (11193034)	Evaluating the contributions of Just-in-Time Manufacturing on Manufacturing Performance in Indian Manufacturing Industry
9.	Jagjeet Singh (11193016)	'Comparative study of hard turning with coated and uncoated carbide tools on AISI H13 die steel
10.	Manpreet Singh	Scrap Reduction of Piston Manufacturing through Six Sigma
	(11173003)	
11.	Arashdeep Singh (11293034)	Evaluating the impact of 5S Methodology on Manufacturing Performance
12.	Upkar Singh (11173001)	Evaluating the contributions of Total Productive Maintenance on Manufacturing Performance
13.	Fatehbir Singh (11293004)	To study the effect of maintenance practices in small and medium scale industries in northern region of country
14.	Tejinder Pal Singh (11393041)	Evaluating the exploits of Total Productive Maintenance Implementation in a food manufacturing industry
15.	Sukhjinder Singh (11373003)	Evaluating the impact of Lean Implementation practices in Indian Manufacturing Industry
16.	Gurpinder Singh (11493018)	Evaluating the impact of the ISO9000:2008 Certification Process on Business Performance
17.	Jaspreet Singh (11373009)	Evaluating Just in Time Implementation implications in an Indian Manufacturing Industry
18.	Harwinder Singh (11593049)	Evaluating the effectiveness of 5S implementation practices in Indian Manufacturing Industry
19.	Rohit Pathak (11673001)	Optimization and characterization of Biodiesel production from waste Soybean Oil and Milk Sludge