

Dr. Jitesh J. Thakkar

Ph. D. (Supply Chain Management) IIT/D

M. Tech. (Industrial Engineering) IIT/D

B.E. (Mechanical Engineering, Gold Medallist) BVM, SPU



Associate Professor

Department of Industrial and Systems Engineering

Indian Institute of Technology Kharagpur

Kharagpur 721 302, India

Administrative Responsibilities

2015 - 2017	Warden, Azad Hall of Residence
2013 - 2015	Assistant Warden, BCR Hall of Residence
2016 - till date	T&P In-charge, ISE Department
2010 - 2016	Exam In-charge, ISE Department

Areas of Interest

- ❖ Operations Management
- ❖ Supply Chain Management
- ❖ Project Management
- ❖ Service Operations Management
- ❖ Six Sigma
- ❖ Lean Manufacturing
- ❖ Operations Research
- ❖ Industry: Small and Medium Enterprises (SMEs), Manufacturing, Automotive, Agriculture, Healthcare, Education, R&D, Infrastructure

Contact Information

Phone: + (91) (3222) 281830 (Office) 281831 (Residence)

E-mail: jt@iem.iitkgp.ac.in, jtiitkgp@gmail.com

Home Page: <http://iitkgp.ac.in/department/IM/faculty/im-jt>

CV : <http://www.iitkgp.ac.in/cv/im-jt>

Google Scholar: <https://scholar.google.co.in/citations?user=5ih0yloAAAAJ&hl=en>

ORCID ID: <https://orcid.org/0000-0001-6415-1981>

Vidwan ID: <https://vidwan.inflibnet.ac.in/profile/96272>

Educational Qualifications

Doctor of Philosophy	Indian Institute of Technology (IIT) Delhi	Supply Chain Management
Master of Technology	Indian Institute of Technology (IIT) Delhi	Industrial Engineering
Bachelor of Engineering (Gold Medallist)	Birla Vishvakarma Mahavidyalaya, Government Engineering College, Sardar Patel University, Gujarat	Mechanical Engineering

Honours & Professional Contributions

❖ **Associate Editor, OPSEARCH**, Journal of the Operational Research Society of India, Springer Publisher.

❖ **Editorial Board Member:**

1. International Journal of Productivity and Performance Management (IJPPM), Emerald Publisher.
2. International Journal of Quality & Reliability Management (IJQRM), Emerald Publisher.
3. Journal of Manufacturing Technology Management (JMTM), Emerald Publisher.
4. International Journal of Lean Six Sigma (IJLSS), Emerald Publisher.
5. Journal of Operations and Strategic Planning (JOSP), SAGE Publisher.

❖ **Guest Editor**

S. No.	Journal	Title of Special Issue	Year
1.	International Journal of Productivity and Performance Management, Emerald	TBL (Triple Bottom Line) sustainability and CSR (Corporate Social Responsibility) driven performance measurement systems	2018-19
2.	International Journal of Quality & Reliability Management, Emerald	Issues and challenges in implementing "Zero Defect, Zero Effect" for the manufacturing and service industry in a developing country	2018-19
3.	International Journal of Lean Six Sigma, Emerald	Lean and Six Sigma Implementation Challenges in Developing Countries	2016-18

❖ **Faculty Expert:** IIT Kanpur, IIT Madras, IIM Indore, IIT Jodhpur, NITIE Mumbai, BITS Pilani, NIT Surat, Institute of Rural Management Anand (IRMA), Ahmedabad Management Association (AMA), BCCI Kolkata, Adani Institute of Infrastructure Management (AIIM), L&T Project Management Institute, Chennai

Courses Taught (UG/PG/EMBA/Online)

- ❖ Six Sigma (**Online-SWAYAM-NPTEL**)
- ❖ Project Management
- ❖ Design of Experiment
- ❖ Operations Research
- ❖ Operations Management
- ❖ Supply Chain Management
- ❖ Service Operations Management
- ❖ Statistical Quality Control

Research Publications

Publication Profile

Research papers have appeared in the Journals:

Publication Statistics	
International Journal Publications (SCI/ SCOPUS)	65
H-index	23
Citations	2450

Journal	SCI-IF	ABDC Ranking
Journal of Cleaner Production	6.395	A
International Journal of Production Economics	4.998	A
Expert Systems with Applications	4.292	A
Transportation Research - Part E	4.253	A*
Computers & Industrial Engineering	3.518	A
Resources Policy	3.185	B
International Journal of Production Research	3.199	A
International Journal of Advanced Manufacturing Technology	2.496	-
Electronic Commerce Research and Applications	2.911	C
Journal of Enterprise Information Management	2.126	A
Production Planning and Control	3.340	A
Journal of Manufacturing Technology Management	2.642	B
Operational Research	2.604	C
International Journal of Logistics Management	2.226	A
Multimedia Tools and Applications	2.101	-
Asia Pacific Journal of Marketing and Logistics	1.276	A
International Journal of Quality and Reliability Management	ESCI	B
International Journal of Productivity and Performance Management	ESCI	B

Classification of Published Research Papers

Year	No. of Papers	Discipline	No. of Papers	Industry	No. of Papers	Methodology	No. of Papers
2020	04	Supply Chain Management	23	Manufacturing	18	Multi-criteria Decision Making	25
2019	15						
2018	09	Lean, Six Sigma and Performance Measurement	17	SMEs	17	Optimization	13
2017	06						
2016	06	Service Operations Management	05	Agriculture	07	Literature Review/ Conceptual	06
2015	02						
2014	02	Risk Management	07	Infrastructure	04	Case Study	07
2013	04						
2012	03	Project Management	03	Automotive	05	Innovative Frameworks	04
2011	02			Education	03		
2009	02	E-Business	06	Healthcare	01	Empirical	05
2008	06			Petroleum	03		
2007	01			R&D	02	Simulation/ System Dynamics	05
2006	02			E-Retailing	05		
2005	01						

List of Publications (in SCI/ SCOPUS Listed Journals)

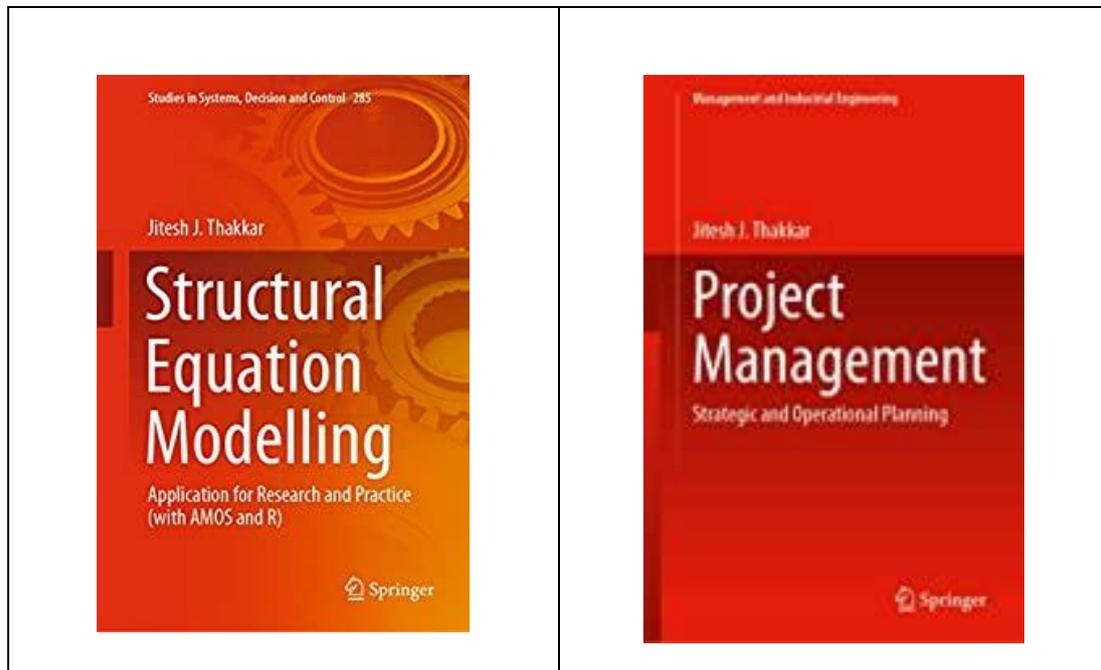
1. Tarei, P.K., **Thakkar, J.J.**, and Nag, B. (2020) "Development of a Decision Support System for assessing the supply chain risk mitigation strategies: An application in Indian petroleum supply chain", *Journal of Manufacturing Technology Management*, *Accepted*.
2. Tarei, P.K., **Thakkar, J.J.**, and Nag, B. (2020) "Benchmarking the relationship between supply chain risk mitigation strategies and practices: An integrated approach", *Benchmarking: an International Journal*, *Accepted*.
3. Mishra, B., Mahanty, B. and **Thakkar J.J.** (2020) "A quantifiable quality enabled Servitization model: Benchmarking Indian Automobile Manufacturers", *International Journal of Production Research*, *Accepted*.
4. Rathore, R., **Thakkar, J.J.** and Jha, J.K. (2020) "Impact of Risks in Foodgrains Transportation System: A System Dynamics Approach", *International Journal of Production Research*, DOI: 10.1080/00207543.2020.1725683.
5. Singh, A, Jenamani, M. and **Thakkar, J.J.** (2019) "Do online consumer reviews help to evaluate the performance of automobile manufacturers?" *Journal of Enterprise Information Management*, *In press*.
6. Jha K.K., **Thakkar, J.J.** and Thanki, S.J. (2019) "Cycle time reduction in outsourcing process: Case of an Indian Aerospace Industry", *The International Journal of Advanced Manufacturing Technology*, *In-Press*.
7. Thanki, S.J. and **Thakkar, J.J.** (2019) "An investigation on lean-green performance of Indian manufacturing SMEs", *International Journal of Productivity and Performance Management*, *In-Press*.
8. Maiyar, L.M. and **Thakkar, J.J.** (2019) "Robust optimization of sustainable food grain transportation with uncertain supply and intentional disruptions", *International Journal of Production Research*, *In-Press*.
9. Pitchaimuthu, S., **Thakkar, J.J.** and Gopal, P R C (2019) "Modelling of risk factors for defence aircraft industry using interpretive structural modelling, interpretive ranking process and system dynamics", *Measuring Business Excellence*, DOI: 10.1108/MBE-05-2018-0028.
10. Maiyar, L.M. and **Thakkar, J.J.** (2019) "Environmentally conscious logistics planning considering wastages for food grain industry using multi objective hybrid particle swarm optimization", *Transportation Research Part E: Logistics and Transportation Review*, Vol. 127, July 2019, pp. 220-248.
11. Abhilash, C.R. and **Thakkar, J.J.** (2019) "Application of Six Sigma DMAIC methodology to reduce the defects in a telecommunication cabinet door manufacturing process: a case study", *International Journal of Quality and Reliability Management*, DOI: 10.1108/IJQRM-12-2018-0344.
12. Dey, A., Jenamani, M. and **Thakkar, J.J.** (2019) "Cross-D-Vectorizers: A Set of Feature-Spaces for Cross-Domain Sentiment Analysis from Consumer Review", *Multimedia Tools and Applications*, *Accepted*.
13. Rohit, T., Bhattacharya, S., and **Thakkar, J.J.** (2019) "E-fulfillment performance evaluation for an e-tailer: A DANP Approach", *International Journal of Productivity and Performance Management*, *In press*.
14. Singh, A, **Thakkar, J.J.** and Jenamani, M. (2019) "An integrated Grey-DEMATEL approach for evaluating ICT adoption barriers in manufacturing SMEs: Analysing Indian MSMs", *Journal of Enterprise Information Management*, *In press*.
15. Dey, A., Jenamani, M. and **Thakkar, J.J.** (2019) "Senti-TOPSIS: A brand ranking procedure using product aspects from online consumer reviews", *Electronic Commerce Research and Applications*, *In press*.
16. Perlekar, N. and **Thakkar, J.J.** (2019) "Risk Management Framework for Outsourcing in a Defence Sector: A case from India", *International Journal of Production Research*, DOI: 10.1080/00207543.2018.1555381.
17. Maiyar, L.M. and **Thakkar, J.J.** (2019) "Modelling and analysis of inter-modal food grain transportation under hub disruption towards sustainability", *International Journal of Production Economics*, DOI: 10.1016/j.ijpe.2018.07.021.
18. Rohit, T., Bhattacharya, S., and **Thakkar, J.J.** (2019) "The distribution strategy selection for an e-tailer using a hybrid DANP-VIKOR MCDM model", *Benchmarking: An International Journal*, *In press*.
19. Mawandiya, B. K., Jha, J. K. and **Thakkar, J.J.** (2019) "Optimal production-inventory policy for closed-loop supply chain with remanufacturing under random demand and return", *Operational Research*, DOI: 10.1007/s12351-018-0398-x.
20. Chand, P., **Thakkar, J.J.** and Ghosh, K.K. (2018) "Analysis of supply chain complexity drivers for Indian mining equipment manufacturing companies combining SAP-LAP and AHP", *Resources Policy*, Vol. 59 December 2018, pp. 389-410.
21. Gupta, V.K., and **Thakkar, J.J.** (2018) "A quantitative risk assessment methodology for construction project", *Sadhana*, Vol. 43 No. 7, PP. 1-16, DOI: 10.1007/s12046-018-0846-6.
22. Dey, A., Jenamani, M. and **Thakkar, J.J.** (2018) "Senti-N-Gram: An n-gram lexicon for sentiment analysis", *Expert Systems with Applications*, Vol. 103, August 2018, pp. 92-105.

23. Tarei, P.K., **Thakkar, J.J.**, and Nag, B. (2018) “A hybrid approach for quantifying supply chain risk and prioritizing the risk drivers: A case of Indian petroleum supply chain”, *Journal of Manufacturing Technology Management*, Vol. 29 No. 3, pp. 533-569.
24. Thanki, S.J. and **Thakkar, J.J.** (2018) “Interdependence analysis of lean-green implementation challenges: a case of Indian SMEs”, *Journal of Manufacturing Technology Management*, Vol. 29 No. 2, pp. 295-328.
25. Thanki, S.J. and **Thakkar, J.J.** (2018) “A quantitative framework for lean and green assessment of supply chain performance”, *International Journal of Productivity and Performance Management*, Vol. 67 No. 2, pp.366-400.
26. Gandhi, N.S., Thanki, S.J. and **Thakkar, J.J.** (2018), “Ranking of drivers for integrated lean-green manufacturing for Indian manufacturing SMEs”, *Journal of Cleaner Production*, Vol. 171 No. 1, pp.675-689.
27. Saravanan, J. and **Thakkar, J.J.** (2018) “An integrated approach for lead time reduction of military aircraft major overhaul: A case of ABC Company”, *International Journal of Quality and Reliability Management*, Vol. 35 No. 1, pp. 2-33.
28. Chaturvedi, S., **Thakkar, J.J.** and Shankar, R. (2018) “Labor Productivity in Construction Industry: An Evaluation Framework for Causal Relationships”, *Benchmarking: An international journal*, Vol. 25 No. 1, pp. 334-356.
29. Manupati, V.K., Rajyalakshmi, G., Chan, F.T.S., and **Thakkar, J.J.** (2017) “A hybrid multi-objective evolutionary algorithm approach for handling sequence- and machine-dependent set-up times in unrelated parallel machine scheduling problem”, *Sadhana*, Vol. 42 No. 3, pp. 391-403.
30. Maiyar, L.M. and **Thakkar, J.J.** (2017) “A combined tactical and operational deterministic food grain transportation model: Particle swarm based optimization approach”, *Computers & Industrial Engineering*, Vol. 110, August 2017, pp. 30–42.
31. Rathore R., **Thakkar, J.J.** and Jha, J.K. (2017) “A quantitative risk assessment methodology and evaluation for food supply chain”, *International Journal of Logistics Management*, Vol. 28 No. 4, pp.1272-1293.
32. Kumar, S. and **Thakkar, J.J.** (2017) “Schedule and Cost Overrun analysis for R&D Projects using ANP and System Dynamics”, *International Journal of Quality and Reliability Management*, Vol. 34 No. 9, pp. 1551-1567.
33. Tanmay, M., **Thakkar, J.J.**, and Maiti, J. (2017) “Modelling critical risk factors for Indian construction project using Interpretive Ranking Process (IRP) and System Dynamics (SD)”, *International Journal of Quality and Reliability Management*, Vol. 34 No. 9, pp. 1451-1473.
34. Vijayvargy, L., **Thakkar, J.J.** and Agarwal, G. (2017) “Green Supply Chain Management Practices and Performance: The Role of Firm-size for Emerging Economy”, *Journal of Manufacturing Technology Management*, Vol. 28 No. 3, pp. 299-323.
35. Thanki, S.J. and **Thakkar, J.J.** (2016) “Value-value load diagram: A graphical tool for lean-green performance assessment”, *Production Planning and Control*, Vol. 27 No. 15, pp. 1280–1297.
36. Thanki, S.J., Kannan, G., and **Thakkar, J.J.** (2016) “An investigation on lean-green implementation practices in Indian SMEs using analytical hierarchy process (AHP) approach”, *Journal of Cleaner Production*, Vol. 135, Nov 1, pp. 284-298.
37. Gopal, P.R.C. and **Thakkar, J.J.** (2016) “Analyzing critical success factors to implement sustainable supply chain practices in Indian automobile industry: A case study”, *Production Planning and Control*, Vol. 27 No. 12, pp. 1005-1018.
38. Sahney, S. and **Thakkar, J.J.** (2016) “A comparative assessment of the performance of select higher education institutes in India”, *Journal of Quality Assurance in Education*, Vol. 24 No. 2, pp. 278 - 302.
39. Mawandiya, B. K., Jha, J. K. and **Thakkar, J.J.** (2016) “Two-echelon closed-loop supply chain deterministic inventory models in a batch production environment”, *International Journal of Sustainable Engineering*, Vol. 9 No. 5, pp. 315–328.
40. Gopal, P.R.C. and **Thakkar, J.J.** (2016) “Sustainable supply chain practices: an empirical investigation on Indian automobile industry”, *Production Planning and Control*, Vol. 27 No. 1, pp. 49-64.
41. Das, A., Mondal, S.C., **Thakkar, J.J.**, and Maiti, J. (2015) “A methodology for modeling and monitoring of centrifugal casting process”, *International Journal of Quality and Reliability Management*, Vol. 32 No. 7, pp. 718-735.
42. Gopal, P.R.C. and **Thakkar, J.J.** (2015) “Development of composite sustainable supply chain performance index for the automobile industry”, *International Journal of Sustainable Engineering*, Vol. 8 No. 6, pp. 366-385.
43. Meena, K. and **Thakkar, J.J.** (2014) “Development of Balanced Scorecard for healthcare using Interpretive Structural Modeling and Analytic Network Process”, *Journal of Advances in Management Research*, Vol. 11 No. 3, pp. 232 – 256.

44. Thanki, S.J. and **Thakkar, J.J.** (2014) "Status of lean manufacturing practices in Indian industries and government initiatives: A pilot study", *Journal of Manufacturing Technology Management*, Vol. 25 No. 5, pp. 655 – 675.
45. Manupati, V.K., Anand, R., **Thakkar, J.J.**, Benyoucef, L., Garsia, F.P., and Tiwari, M.K. (2013) "Adaptive production control system for a flexible manufacturing cell using support vector machine-based approach", *International Journal of Advanced Manufacturing Technology*, Vol. 67, Issue 1-4, July 2013, pp. 969-981.
46. Manupati, V.K., **Thakkar, J.J.**, Wong, K.Y., Tiwari, M.K. (2013) "Near optimal process plan selection for multiple jobs in networked based manufacturing using multi-objective evolutionary algorithms", *Computers and Industrial Engineering*, Vol. 66 No. 1, pp. 63-76.
47. Bharti, B.K. and **Thakkar, J.J.** (2013) "SWOT of Central Public Works Department India: a case study", *Journal of Advances in Management Research*, Vol. 10 No. 1, pp. 100-121.
48. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2013) "Supply chain issues in SMEs: select insights from cases of Indian origin", *Production Planning and Control*, Vol. 24 No. 1, pp. 47-71.
49. Gopal, P.R.C. and **Thakkar, J.J.** (2012) "A review on supply chain performance measures and metrics: 2000-2011", *International Journal of Productivity and Performance Management*, Vol. 61 No. 5, pp. 518-547.
50. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2012) "Supply chain issues in Indian manufacturing SMEs: Insights from six case studies", *Journal of Manufacturing Technology Management*, Vol. 23 No. 5, pp. 634-664.
51. Kashyap, S.K. and **Thakkar, J.J.** (2012) "Job-Shop Scheduling in a Make-to-Order Company: An application of Palmers Heuristic Approach and Two Machine Fictitious Rule", *JOURNAL OF THE INSTITUTION OF ENGINEERS (INDIA): SERIES C, SPRINGER*, Vol. 93 No. 1, pp. 103-109.
52. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2011) "A Decision Framework for Supply Chain Planning in SMEs: A QFD-ISM-enabled ANP-GP Approach", *Supply Chain Forum: An International Journal*, Vol. 12 No. 4, pp. 62-75.
53. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2011) "A mapping framework to evaluate supply chain learning for Small and Medium Scale Enterprises (SMEs)", *The Learning Organization: An international journal*, Vol. 18 No. 4, pp. 313-332.
54. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2009) "Supply chain management for SMEs: A research introduction", *Management Research News*, Vol. 32 No. 10, pp. 970-993.
55. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2009) "Supply chain performance measurement framework for small and medium scale enterprises", *Benchmarking: An international journal*, Vol. 16 No. 5, pp. 702-723.
56. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2008) "Interpretive structural modeling (ISM) of IT-enablers for Indian manufacturing SMEs", *Information Management & Computer Security*, Vol. 16 No. 2, pp. 113-136.
57. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2008) "A decision-algorithm for evaluating supply chain learning in Small and Medium Scale Enterprises (SMEs)", *International Journal of Value Chain Management*, Vol. 2 No. 3, pp. 371-399.
58. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2008), "An enquiry-analysis framework "EBM-REP" for qualitative research", *International Journal of Innovation and Learning*, Vol. 5 No. 5, pp. 557-580.
59. **Thakkar, J.J.**, Kanda, A., and Deshmukh, S.G. (2008) "Supply chain management in SMEs: Development of constructs and propositions", *Asia Pacific Journal of Marketing and Logistics*, Vol. 20 No. 1, pp. 97-131.
60. **Thakkar, J.J.**, Kanda, A. and Deshmukh, S.G. (2008) "A conceptual role interaction model for supply chain management in SMEs", *Journal of Small Business and Enterprise Development*, Vol. 15 No.1, pp. 74-95.
61. **Thakkar, J.J.**, Kanda, A., Deshmukh, S.G. (2008) "Evaluation of buyer-supplier relationships using an integrated mathematical approach of Interpretive Structural Modeling (ISM) and graph theoretic matrix: The case study of Indian automotive SMEs", *Journal of Manufacturing Technology Management*, Vol.19 No.1, pp. 92-124.
62. **Thakkar, J.J.**, Deshmukh, S.G., Gupta, A.D. and Shankar, R. (2007) "Development of balanced scorecard: An integrated approach of Interpretive Structural Modeling (ISM) and Analytic Network Process (ANP)", *International Journal of Productivity and Performance Management*, Vol. 56 No. 1, pp. 25-59.
63. **Thakkar, J.J.**, Deshmukh, S.G. and Kanda, A. (2006) "Implementing six sigma in service sector using AHP and Alderfer's motivational model: A case of educational services", *International Journal of Six Sigma and Competitive Advantage*, Vol. 2 No. 4, pp. 353-376.
64. **Thakkar, J.J.**, Deshmukh, S.G. and Shastree, A. (2006) "Total Quality Management (TQM) in self-financed technical institution: A Quality Function Deployment (QFD) and force field analysis approach", *Journal of Quality Assurance in Education*, Vol. 14 No. 1, pp. 54-74.

65. **Thakkar, J.J.**, Deshmukh, S.G., Gupta, A.D. and Shankar, R. (2005) “Selection of Third-Party Logistics (3PL): A hybrid approach using Interpretive Structural Modelling (ISM) and Analytic Network Process (ANP)”, *Supply Chain Forum: An International Journal*, Vol. 6 No. 1, pp. 32-46.

Books



Research Guidance

Ph.D.	08
M.Tech./ Dual Degree Project	46
B.Tech. Project	31

Research & Consultancy Projects:

1. Study, Development and Implementation of Collaborative Framework for Contract Awarding for Neyveli Lignite Corporation, Neyveli Lignite Corporation, Tamil Nadu.
2. Hazard Identification, Risk Assessment and Risk Control for Ammunition Storage and Preparation in PXE Chandipur (AASC), PXE, DRDO, Chandipur.
3. Developing comprehensive supply chain performance indices and benchmarks for Indian industry, SRIC, IIT Kharagpur.
4. A Comparative Assessment of Performance of Select Institutes of Higher Education, Indian Council of Social Science Research (ICSSR).
5. Transportation management to implement NFSA (National Food Security Act), Ministry of Human Resource Development (MHRD).
6. E-Business centre of excellence, Ministry of Human Resource Development (MHRD).

Outreach Activities

Training Programs Organized (Industry/ Academics)	13
Invited Lectures Delivered (Industry/ Academics)	53
International/ National Conference/ Seminar Organized	02