

**Profile page:** [https://mnit.ac.in/dept\\_mech/profile?fid=R6mM](https://mnit.ac.in/dept_mech/profile?fid=R6mM). **LinkedIn:** <https://www.linkedin.com/in/dr-rajeev-agrawal-537105a/>;

**Google Scholar profile:** <https://scholar.google.co.in/citations?user=-OV-IYAAAAAJ&hl=en> Citations: 1068, H-index = 16, i10-index = 24

**Professional Summary**

Fellow of The Institution of Engineers (IEI), India. I am having more than 24 year's research and teaching experience. UG & PG Both (More than 22 years of **post-PG** teaching experience). Published more than 100 research publications in International Journals, Conferences, and Seminars.

**Vidwan Score:9.7/10** (premier database of profiles of scientists/researchers and other faculty members working at leading academic institutions and other R & D organizations involved in teaching and research in India): ICT Initiatives of MoE, National Mission on Education through ICT (NMEICT)

<b>Research and Teaching Experience</b>	<b>June 2018 - present</b>	<b>Associate Professor</b> , Department of Mechanical Engineering, MNIT Jaipur, India
	<b>July 2010 – June 2018</b>	<b>Assistant Professor</b> , Department of Production Engineering, Birla Institute of Technology-Mesra, India
	<b>June 2007 – June 2010</b>	<b>Senior Lecturer</b> , Department of Production Engineering, Birla Institute of Technology-Mesra, India
	<b>Mar 2004 – May 2007</b>	<b>Lecturer</b> , Department of Production Engineering, Birla Institute of Technology-Mesra, India
	<b>Dec 1998 – Mar 2004</b>	<b>Lecturer</b> , Department of Mechanical Engg., H.C.E.T., Jabalpur, India (Affiliated to R.G.T.U., Bhopal)
<b>Education</b>	<b>2012</b>	<b>Doctor of Philosophy (Ph.D.)</b> , Birla Institute of Technology Mesra, India <i>"Advanced Planning and Scheduling problem in E-Manufacturing environment and its solution using Evolutionary Algorithm"</i>
	<b>2001</b>	<b>M.E. (Production Engineering)</b> , MNNIT Allahabad
	<b>1998</b>	<b>Bachelor of Engineering (B.E.)</b> , Mechanical Engineering, Govt. Engg. College, Jabalpur (GECJ)

**Important Assignments & Significant Achievements:**

- Innovation Ambassador- MoE's Innovation Cell (Govt. of India) & Institution Innovation Council (Ministry of Education Initiative-AICTE) -2021 onwards
- Coordinator, Atal Ranking of Institutions on Innovation Achievements (ARIIA) Ranking in Malaviya National Institute of Technology Jaipur (Rajasthan)22/12/20 - 17/07/22
- NISP Coordinator: Implementation of M.oE.'s National Innovation and Startup Policy for students and faculty (NISP at MNIT Jaipur NISP Implementation Team, M.O.E's Innovation Cell, Nov. 2020 -June 2022
- Primary Evaluator, Ministry of Education's Innovation Cell and AICTE, on getting selected for the Toycathon-2021.
- Member, Bureau of Indian Standards (Production and General Engineering Department) The Educational Instruments and Equipment Sectional Committee, (2020-present)
- Member Bureau of Indian Standards DDG(Standardization-P&M), Concept on Integration of Standards with the Curriculum of Technical Education (2020-present)
- Board member, Production Division Board, The Institution of Engineers (IEI), India, 2015-16
- Advisor, All India Student's Committee (AISC), Institution of Engineers IE(I), 2010-11, 2011-12
- Executive Member of JSC(IE(I),2014-2016,2016-2018: The Institution of Engineers (India), Jharkhand State Center
- Member Technical Programme Committee (Executive Body) for the session for 2012-13,2013-14 in Jharkhand state Centre, The Institution of engineers (India)
- Demonstrated good leadership skills during tenure as a technical coordinator and faculty advisor, and led an "Autonomous robot development team" for ROBOCON. The team successfully participated in the competition and was among the top three rookie teams. Has been involved in various robotics-based projects.(2012-15)

**Research Interests:**

- Currently managing research projects including engagement in Sustainable Manufacturing, Automation in Manufacturing, Lean Six Sigma,Reconfigurable manufacturing system (RMS), Application of Soft Computing, Computational Intelligence techniques, Industrial Engineering, Lean Six Sigma, Sustainable Supply Chain
- Demonstrated research capabilities in terms of research papers published/presented (More than 100 research papers, including SAGE Publication, IEEE Explore Proceeding, Springer, Emerald and Science Direct and Inderscience Publishers) and various sponsored and Industrial projects. His project got accolades from Home Guard and Civil Defense, Madhya Pradesh for "proposing the optimal locations for the emergency operation centers across Madhya Pradesh. His projects included, "Facility Location and Product Flow Optimization, using Spatial and Network Analysis in GIS" at the MP Council of Science and Technology. Bhopal. He implemented "Warehouse Location Optimization for different Telecom Circles across India" in a leading Telecom Company. He led a project in "Supply chain network optimization" in a beverage company. His projects included "Application of multi-threading to parallelize an industrial process control program based on the technique of Differential Evolution" in a leading Steel company. His project team proposed a "Model of a Fuzzy Automation System" for a Steel Wire Roll Mill. His work includes Process excellence in the IT sector in an emerging economic scenario. His work includes "Supply Chain Optimization using Linear Programming Model and GIS" to Reduce the Overall Freight Cost.

**The Major fund received (as PI/Co-PI/Coordinator, selected few):**

- Principal Investigator of ICSSR sponsored research project "Development of Artificial intelligence enabled sustainable health care waste management system in India", 12.00 Lakhs, 2023 till date.
- Coordinator,IA "Design Expertise for Manufacturing MSME sector", MNIT Jaipur ; Ministry of Micro, Small and Medium Enterprises, Government of India September 2020 till date
- Ministry of Micro, Small and Medium Enterprises, Government of India "Design Expertise for Manufacturing MSME sector". Design Projects received-Milestone, Rs. 12.00 lakh ,2021.
- Ministry of Micro, Small and Medium Enterprises, Government of India "Design Expertise for Manufacturing MSME sector". Design Projects received-Robo-ATM, Rs.15.00 lakh,2021.
- Exploration of Sustainable Manufacturing in Indian manufacturing industries, Rs 3.95 Lakhs, SMS, TEQIP-III (2019-2021)
- Development of Controller for Mitsubishi RM-501, (BIT Mesra: ISP) (2016-17)
- Developing optimal facility location strategies by leveraging the latest Geographic Information Systems (GIS) Technologies, Seed money scheme, BIT, Mesra, (SMS: BIT Mesra ),2015-16
- One of the coordinators for the "Establishment of National MEMS Design Centre" sanctioned under NPMAS (National Programme on Micro and Smart Systems) at Birla Institute of Technology, Mesra,2009-2014
- The Institution of Engineers (India) R&D student project under my supervision. Project Title: "Development of Robotic Arm for MIG/TIG Welding", 2011-12

**Research Output:**

**(Ph.D.) Level-06 (Guided 02, Pursuing 06),**

**Postgraduate (M.E.) Level: Total- 26(24 Awarded,02 Pursuing) , Supervised over 16 Bachelor's project work.**

**Publications:** Demonstrating Research capabilities in terms of research papers published/presented (Including CIRP Annals, IEEE Explore Proceeding, Springer, SAGE, Taylor and Francis, Emerald and Science Direct, and Inderscience Publishers).

**Joint Collaborative Research Work:** Research collaboration on joint research papers and funding proposals with renowned universities and researchers in India, UK, Brazil, Croatia, Turkey & Portugal.

**Summary of Research & Publications**

No. of Research Projects Completed and On Going	07	Citation index in Scopus/Web of Science	649
No. of Consultancy and Industries Sponsored Projects	01	No. of Books Published with ISBN (including Conference Proceedings)	02
Reviewer of International Journals	11	Book Chapters	12
No. of Journals Published in SCI and SCIE index	30	No. of Editorial Appointments in Journals/ Conferences (Editor, Reviewer and Member)	12
No. of Journals Published in Scopus, Web of Science and PubMed index	71	No. of Countries Visited for research activities	05
No. of Conference Presentation	15	No. Invited Speaker/ Resource person	45
Ph.D. Examiner/Evaluated	06	AICTE-ATAL	02

H-index: Bibliometrics of the publications based on Scopus/WoS	16	No. of Conference/workshop/seminars Organized	17
Total number of Collaborative activities for research:	08	Total number of awards and recognition received	02
Number of functional MoUs with other universities/industries	01	Member of Professional Bodies	08
SERB Sponsored 1 month training cum skill Internship VRITIKA	01	No. of Editorial Appointments in Conferences (Editor, Reviewer, and Member)	12

#### Patent:

"Smart IoT-based gas stove", Rajeev Agrawal, Reg.No. 202221053290 [Controller General of Patents, Designs Trade Marks, Govt. of India] Filed Dt.18-09-2022

#### Book Publication (03)

"Industry 4.0 and Climate Change" CRC Publishers, "Recent Advances in Industrial Production" and "Recent Advances in Smart Manufacturing and Materials" with Springer Nature.

#### Teaching and Courses/Programme/Curriculum Development/ Lab development contribution to knowledge creation

Operation Research, Optimization in the Manufacturing system, Operation Management, Lean Six Sigma, Operation, and Planning Control, Modeling & Simulation

Contribution to interdisciplinary teaching by teaching open elective MET428:Six Sigma(23-24),

Coordinated and Introduce Honours in "Supply Chain Analytics" offered by Mechanical Engineering department,MNIT Jaipur 2023

**Course developed:** UG: Industry 4.0 , Supply Chain Management,Lean Six sigma,Modeling Sustainability,Prescriptive Analytic,Quality system Engineering, PE 7019-Advanced Operations Research, PE 6004, Manufacturing Automation & Rob.,PE 6007, Manufacturing Automation & Robotics Lab, PE1202 - Workshop Practice

**PG:**(MET-602)Advanced Optimization Techniques, (MET-617)Six Sigma & Lean Manufacturing, (MET-623) Sustainable Manufacturing, MET-622 System Modeling and Simulations,MPE 1001-Manufacturing Automation, MPE 2007 Product Design & Manufacturing, MPE 2002 IMS laboratory/coursework, MCD 2006-Automation & Robotics Lab (Sessional) , MPE1002- Computer Aided Mfg Lab

**Development of Laboratories/Centre/ Lab and Manual (Experiments) Developed:** CAD Lab(2002) , FMS Setup upgraded to CIM (2010) ,CNC Lab established(2017), PE-8204 FMS&R Lab Manual, ME-1002 CAM Lab Manual ,PE1202 Workshop Practice Lab Manual,MCD 2006 Automation & Robotics Lab ,FMS Lab and Manual (Experiments) Developed

#### Editorial Board Member/Journal Editorial Positions:

Associate Editor (IJMEMS), Guest Associate Editor: (Frontiers), Guest Editor (IJIM- Data Insights) Managing Guest Editor (Operations and Management Research), Associate Editor: International Journal on Emerging Technologies, Quality, and Operational Research (QOR) Newsletter, International Journal of Business and Systems Research,

#### Conference Editorial Positions:

- ✓ **Lead Editor**, Proceeding of ICEM: Technologies and Business Strategies for Global Competitiveness, The International Conference organized by IEI(I) JSC in association with Prod. Engg. Dept., BIT, Mesra, Ranchi under the aegis of Production Engineering Division and In Collaboration With NHI , China at the BIT, Mesra , Ranchi during Nov. 12th – 13th, 2016, ISBN: 978-93-86256-11-9
- ✓ **Editor**, 32nd National Convention of Production Engineers & National Seminar on Theme: Improving Competitiveness in Manufacturing – “Make in India” to “Made in India” 27th -28th May, 2017, organized by The Institution of Engineers (India), Jharkhand State Centre Engineer Bhawan, Nepal House, Doranda, Ranchi (Jharkhand) in association with, Steel Authority of India Limited, Centre for Engineering & Technology at Jharkhand State Centre Engineer Bhawan, Nepal House, Doranda, Ranchi (Jharkhand) , ISBN: 9789386256874
- ✓ Member Editorial board, Annual Technical Volume of Production Engineering Division board, Theme: Futuristic Manufacturing for equitable development of India, Vol. 1,2016
- ✓ Member of the editorial board of e-proceeding, One Week Short Term Training Program on “Applications of Artificial Intelligence Techniques in Engineering and Research”, 23-27, September 2013
- ✓ Member of the editorial board of e-proceeding, , All India Seminar on “Technology Solution In Manufacturing”, under the aegis of IE(India) organized by IE(I), JSC in association with Department of Production Engineering, BIT, Mesra, Ranchi will be held during 01st & 02<sup>nd</sup> March, 2013 \
- ✓ Member of the editorial board of e-proceeding, 27th National Convention of Production Engineers National Seminar on “Advancements in Manufacturing - Vision 2020”, organized by IE(I), JSC in association with Birla Institute of Technology, Mesra, Ranchi at the Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi during May 25 – 26, 2012

#### Academic Esteem/Professional Leadership:

- ✓ Session chair and International Advisory Board Committee Member in many national and international conferences
- ✓ Delivered keynote talks at various platforms of National and international stature including the 3rd European International Conference on IEOM Pilsen, Czech Republic. July 23-26, 2019, 11th Annual International Conference on Industrial Engineering and Operations Management in Singapore during March 7-11, 2021 Delivered invited lectures in various STC and FDP organized by DST, AICTE Training and Learning (ATAL) Academy- New Delhi, National Institute of Technology, Warangal, Raipur, Utrakhand, Centre for Electronic Governance, Jaipur, Chhattisgarh Academy of Administration, IIT BHU,IIT Kanpur, Indian Railways Institute of Mechanical & Electrical Engineering, Jamalpur and several other institutes of International and national repute.

#### Reviewer: Active Reviewer

Number of high-ranked journals such as Computers & Industrial Engineering (CAIE), Int. J. of Six Sigma and Competitive Advantage (IJSSCE), Production & Manufacturing Research (PMR), Int. J. of Business and Systems Research (IJSBR), International Journal of Lean Six Sigma (IJLSS), Journal of Modeling in Management (JOM&M), Benchmarking: an International Journal (BIJ), and Supply Chain Management: an International Journal (SCMIJ), Mathematical Problems in Engineering

#### Contributions to Institute Administration: (Institute-Level Responsibilities):

1. Coordinator, Library in Malaviya National Institute of Technology Jaipur (Rajasthan) INDIA - 302017 from - 18-07-2022 to Till Date.
2. Co-convenor, Institute Innovation Council (IIC 4.0), MNIT Jaipur 2022-23
3. Member “Digital Out Reach and Communication”,MNIT Jaipur 2019 onwards
4. "Nodal officer", Industry Institute Interaction Cell" in Malaviya National Institute of Technology, Jaipur from 16-07-2018 to 17-07-2022
5. "Coordinator, UBA" in Malaviya National Institute of Technology Jaipur, from Aug. 2018 to Aug. 2019
6. External member for DPGC,DSC, and Guest Faculty Selection (NCDMM, MAME: MNIT Jaipur) for the year 2022-23.23-24,
7. Associate Dean (Research), MNIT, Jaipur from 27-06-2019 to 17-07-2022.
8. Board member, Birla Institute of Technology, Mesra (Ranchi), 2015-16
9. I/C Training and Placement, BIT, Mesra(2014-16), Campus Corporate engagement activities: Responsible for over two years for the Career Services of the Institute through nurturing of relationships with about 100+ leading organizations, towards the training and placement opportunities for about 2100 students across all academic programs and through Placement Offices spread across major campuses of BIT, Mesra(2014-16),
10. Coordinator, “Industry Institute Interaction Cell” TEQIP-II , Birla Institute of Tech., Mesra from 14-09-2012 to 30-06-2016
11. Student’s Activity Coordinator (Technical), Birla Institute of Tech., Mesra, Organized Institute level fest Bitotsav-2011,12,13,14 Pantheon-11,12,13
12. Admission Coordinator, Birla Institute of Technology, Mesra,2011-2013
13. Warden of Hostels, Birla Institute of Technology, Mesra,2005-2014
14. Faculty Advisor, Robolution Society, Birla Institute of Technology, Mesra, 2011,2012,2013,14,15,16
15. Faculty Advisor, Institution of Engineers IE(I), Production Engineering students’ chapter, BIT, Mesra,2011,12,13,14,15,16,17,18

#### Administrative Responsibility (Department Level):

1. PG Coordinator (Industrial Engineering) in Department of Mechanical Engineering, Malaviya National Institute of Technology Jaipur from - 01-07-2022 to Till Date.
2. Member, Departmental Post Graduate Committee (DPGC) in Department of Mechanical Engineering, MNIT Jaipur from 01-07-2022 till Date
3. Dept. Faculty Board Secretary, Mechanical Engineering Dept, MNIT Jaipur;2018-2022
4. NBA Coordinator (Mechanical Engineering Dept, MNIT Jaipur) –U.G. Mech., P.G.(D./T./P./I.E.), 2018-2022
5. In-charge, Fitting shop(18-21), Project Lab (22-23);Department of Mechanical Engineering, Malaviya National Institute of Technology Jaipur
6. PG Coordinator (AMS) in (2017-2018).Departmental Co-coordinator for Time-table preparation (2005-2011) Department of Production Engineering, BIT, Mesra,
7. Member, Departmental Academic Committee, (2014-2016). Member, Departmental Policy Committee; Production Engineering dept. , BIT, Mesra, (2008-2010).
8. In-charge, FMS and Robotics Lab (01-07-2005 to 30-05-2017), CNC Lab (2017-18); Production Engineering dept. , BIT, Mesra,

Place: MNIT Jaipur

(Dr. Rajeev Agrawal)