



MBM UNIVERSITY, JODHPUR
Ratanada, Jodhpur, Rajasthan (India) - 342011

FACULTY PROFILE

Title & Full Name	Dr. Kailash Chaudhary	Recent Photograph
Designation	Assistant Professor	
Department	Mechanical Engineering	
Areas of Interest / Specialization	Design of Mechanical Systems, Advance Manufacturing Techniques, Evolutionary Optimization Methods, Renewable Energy	
Address & Contact Details	Department of Mechanical Engineering, MBM University Jodhpur, India +919829081113: kailash.me@mbm.ac.in Orcid Id-0000-0003-2005-9037 Scopus Id-56457880700 Researcher Id- AAK-1095-2020 website: https://sites.google.com/view/kchaudharymbm_university YouTube Channel: https://www.youtube.com/channel/UCanJDF7gZ7l8ieJ8xSjyTrw	
Subjects Taught	Manufacturing Technology, Production and Operations Management, Design, Planning and Control of Production Systems, System Design and Analysis, Operation Research, Materials Technology, Workshop Practice	
Current Administrative Responsibilities	1. Committee member for Centre of Excellence for Non-Conventional Energy, MBM University Jodhpur 2. Deputy Coordinator, Institute Level NBA Accreditation Committee, MBM University Jodhpur 3. Co-PI for Rajasthan Higher Technical Education Quality Improvement Scheme (RHTEQIS) project of Govt. of Rajasthan in MBM University Jodhpur 4. Incharge, Internship, MBM University Jodhpur 5. Member, Training and Placement Committee, MBMU	

	Jodhpur 6. Member, Entrepreneurship and Incubation Cell Committee, MBM University Jodhpur 7. SPOC for NPTEL Local Chapter, MBM University Jodhpur 8. Member, Online Courses Committee, MBM University Jodhpur 9. Faculty Mentor, Standards Club, MBM University Jodhpur 10. Bureau of Indian Standards (BIS) Nodal Officer in MBM University Jodhpur 11. Incharge, Mechanical Workshop, MBM University Jodhpur 12. Time Table Incharge, Mechanical Engineering Department, MBM University Jodhpur	
Experience (in years)	Total	20
	Industry	3
	Teaching	13
	Research	4
Educational Qualifications <i>(Mention degree, year of completion, name of university, honours and specialization (if any))</i>	UG	B.E. in Mechanical Engineering from University of Rajasthan, Jaipur, 2004
	PG	M.E. in Mechanical Engineering (Specialization: Production and Industrial Engineering) from Jai Narain Vyas University, Jodhpur, 2012
	Doctorate	Year: 2016 Research Topic: Optimal Dynamic Balancing and Design of Planar Mechanisms
	Any other	
Awards & Distinctions <i>(Mention name of award and year)</i>	International Level:	
	National Level: 1. Scholarship awarded by the Ministry of Human Resource Development, Government of India to carry out PhD. research work in MNIT Jaipur 2. Selected for one month faculty exchange program in IIT Bombay through TEQIP III	
	State Level:	

Research Publications in Journals	1. Arora, A., Chaudhary, K. (2025). Fabrication of Leaf Spring Plastic Bush by FDM Process and Its Comparative Study on Mechanical Properties and Cost. <i>Industrial Engineering Journal</i>, 18(1), pp. 23-33. ISSN: 0970-2555. UGC Care 2. Patpatiya, P., Shastri, A., Sharma, S., & Chaudhary, K. (2024). Multi-Material Fabrication and Compressive Strength-Optimization of Reinforced-Thermoset Structures for Mechanical Power Transmission. <i>Progress in Additive Manufacturing</i>, 10, pp. 3041-3063. ISSN: 2363-9520. SCOPUS 3. Jyani, L., Sankhala, S.K., Chaudhary K., Purohit, K. (2024). Experimental Investigation of Flexible Solar Cells Using Passive Cooling Technique in Hot and Dry Climate of Jodhpur. <i>Journal of Solar Energy Research Volume</i>, 9(2), pp. 1854-1869. ISSN: 2588-3100. SCOPUS 4. Jyani, L., Sharma, S., Chaudhary, K., & Purohit, K. (2024). Direct Absorption Solar Collector: An Experimental Investigation of Al₂O₃-H₂O Nanofluid over the Flat Plate at Different Tilt Angles, and Mass-Flow Rates. <i>New Energy Exploitation and Application</i>, 3(1), 24–40. https://doi.org/10.54963/nee.v3i1.214 5. Chaudhary, P., Gaur, U.P., Mobarsa, A.P., & Chaudhary, K. (2024). Thermal Spray Coating Applications in Tribology: Recent Case Studies. <i>Journal of Thermal Spray and Engineering</i>, 4, pp. 87-93. 6. Kinja, R.S., Chaudhary, K., & Shringi D. (2023). A Parametric Analysis of Fused Deposition Modeling Process Parameters With Reference to Mechanical Properties of Thermoplastics. <i>Industrial Engineering Journal</i>, 16(6), pp. 25-31. ISSN: 0970-2555. UGC Care 7. Patpatiya, P., Chaudhary, K., Shastri, A., & Sharma, S. (2022). A Review on Polyjet 3D Printing of Polymers and Multi-material Structures. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i>, published online SCI 8. Patpatiya, P., Shastri, A., Sharma, S., Chaudhary, K., & Bhatnagar, V. (2022). ANN-predictive Modeling and GA-optimization for Minimizing Dimensional Tolerance in Polyjet Additive Manufacturing. <i>CIRP Journal of Manufacturing Science and Technology</i>, 38, pp. 320-339. SCIE 9. Patpatiya, P., Chaudhary, K., & Kapoor, V. (2022). Reverse Manufacturing and 3D Inspection of Mechanical Fasteners Fabricated Using Photopolymer Jetting Technology. <i>MAPAN-Journal of Metrology Society of India</i>, published online. SCIE 10. Gehlot, V., Kumar, P., Bhandari, M., & Chaudhary, K. (2022). Identification & Control of Wrong Orientation of Cage Fitment in Deep Groove Ball Bearings Using QC Tools – A Case Study. <i>Industrial Engineering Journal</i>, 15(11), pp. 34-40. ISSN: 0970-2555. UGC Care
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	11. Kinja, R.S., Chaudhary, K., & Shringi D. (2022). An Investigation into the Effect of Fused Deposition Modeling Process Parameters on Mechanical Properties of ThermoPlastics. <i>Industrial Engineering Journal</i>, 15(2), pp. 36-40. ISSN: 0970-2555. UGC Care 12. Chakraborty, D., Rathi, A., Singh, R., Pathak, V.K., Chaudhary, K., & Chaudhary, H. (2021). Design of a Stephenson III Six-bar Path Generating Mechanism For Index Finger Rehabilitation Device Using Nature-Inspired Algorithms. <i>Neural Computing & Applications</i>, 33, pp. 17315–17329. SCIE 13. Sankhla, P., & Chaudhary, K. (2021). Study on Effectiveness of Cloud Computing in Improving the Performance of Manufacturing Industries. <i>Industrial Engineering Journal</i>, 14(5), pp. 17-26. ISSN: 0970-2555. UGC Care 14. Alok, S., Chaudhary, K., & Guha A. (2020). A Study on Critical Order of Joints with Clearances and Its Effect on Kinematic Performance of Multiloop Planar Mechanisms. <i>Sadhana: Academy Proceedings in Engineering Sciences</i>, 45, 126. SCIE 15. Chaudhary, K., & Chaudhary, H. (2016). Optimal Dynamic Design of Planar Mechanisms using Teaching-learning-based Optimization Algorithm. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i>, 230(19), pp. 3442-3456. SCI 16. Chaudhary, K., & Chaudhary, H. (2015). Optimal Dynamic Balancing and Shape Synthesis of Links in Planar Mechanisms. <i>Mechanism and Machine Theory</i>, 93, pp. 127-146. SCIE 17. Chaudhary, K., & Chaudhary, H. (2015). Optimal Design of Planar Slider-crank Mechanism Using Teaching-learning-based Optimization Algorithm. <i>Journal of Mechanical Science and Technology</i>, 29(12), pp. 5189-5198. SCIE 18. Chaudhary, K., & Chaudhary, H. (2015). Dynamic Balancing and Link Shape Synthesis of Slider-crank Mechanism for Multi-cylinder Engines. <i>International Journal of Mechanisms and Robotic Systems</i>, 2(3), pp. 254-275. ISSN: 2047-7252. Inderscience Publishers, Switzerland. 19. Chaudhary, K., & Chaudhary H. (2014). Dynamic Balancing of Planar Mechanisms using Genetic Algorithm. <i>Journal of Mechanical Science and Technology</i>, 28 (10), pp. 4213-4220. SCIE
Papers Published in Conference Proceedings (last 5 years)	1. Meena, R., Mali, H.S., Meena, A., Sharma, P.N., Kumar, P., & Chaudhary, K. (2023). Influence of alumina powder (Al₂O₃) on mechanical and tribological properties of injection molded polyoxymethylene composites. <i>Materials Today: Proceedings</i>, https://doi.org/10.1016/j.matpr.2023.05.174. SCOPUS

2. Chaudhary, K. (2021). A Review on Effects of Process Parameters of Fused Deposition Modeling Process. in *International Conference on Fourth Industrial Revolution based Technology and Practices (ICFIRTP 2020)*, Quantum University Roorkee, March 26-27, 2021.
3. Govil, A., & Chaudhary, K. (2020). Application of 3D Scanning for Heritage Architecture” in *All India Seminar on Heritage Architecture*, The Institution of Engineers (India), Jodhpur Local Centre and MBM Engineering College Jodhpur, Feb 29 - Mar 1, 2020.
4. Chaudhary, K. (2018). Application of Advanced Optimization Techniques For Mechanism Design. in *International Conference on Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT 2018)*, SVNIT Surat, Aug 3-5, 2018.
5. Dhanopia, A., Kinja, R., & Chaudhary, K. (2018). A Study on Parametric Analysis of Abrasive Jet Machining. in *Proceedings of National Conference on Future Dimensions in Mechanical Engineering (NCFDME 2018)*, SKIT Jaipur, India, Aug 10-11, 2018.
6. Dhanopia, A., Bohra P., & Chaudhary, K., (2018). An Insight into the Key Development Areas of Rapid Prototyping”, *Proceeding of International Conference on Advances in Science and Technology (ICAST 2018)*, SKIT Jaipur, India, May 4-5, 2018
7. Chaudhary, K., & Chaudhary, H. (2015). Shape Optimization of Dynamically Balanced Planar Four-bar Mechanism. *Procedia Computer Science*, 57, pp. 519-526. ISSN: 1877-0509. **SCOPUS**
8. Chaudhary K., & Chaudhary H. (2015). Optimum Dynamic Balancing of a Planar Five-bar Mechanism using Genetic Algorithm”, in *Proceeding of International Conference on Advances in Materials and Product Design (AMPD2015)*, SVNIT Surat, Gujarat, India, Jan 10-11, pp. 73-80. ISBN 978-93-5196-956-3.
9. Chaudhary, K., & Chaudhary, H. (2014). Optimum Balancing of Slider-crank Mechanism using Equipomental System of Point-masses. *Procedia Technology*, 14, pp. 35-42. ISSN: 2212-0173
10. Chaudhary, K., & Chaudhary, H. (2013). Minimization of Shaking Force and Shaking Moment in Multiloop Planar Mechanisms. In *Proceedings of 1st International and 16th National Conference on Machines and Mechanisms (iNaCoMM2013)*, IIT Roorkee
11. Chaudhary, K., & Chaudhary, H. (2013). Kinematic and Dynamic Analysis of Stephenson Six Bar Mechanism Using HyperWorks. In *Proceedings of India Altair Technology Conference 2013*, Altair Engineering India Pvt Ltd. Pune
12. Chaudhary, K., & Chaudhary, H. (2013). Concept of Equipomental System for Dynamic Balancing of Mechanisms. In *Proceedings of 1st International Conference on Automation and Mechanical Systems (ICAMS2013)*, Lingaya’s University, Faridabad, India

Books Authored/ Edited	1. Chaudhary, K., Suniya, N.K., Rakecha, R.K., & Dave, B. (2023). Parametric Study of FDM Manufactured Parts to Analyze Dimensional Accuracy. In: Maurya, A., Srivastava, A.K., Jha, P.K., Pandey, S.M. (eds) <i>Recent Trends in Mechanical Engineering. Lecture Notes in Mechanical Engineering</i>. Springer, Singapore. https://doi.org/10.1007/978-981-19-7709-1_72. SCOPUS 2. Chaudhary, K., & Govil, A. (2022). Application of 3D Scanning for Reverse Manufacturing and Inspection of Mechanical Components. in <i>Lecture Notes on Multidisciplinary Industrial Engineering, Chapter 5</i>, pp. 61-76. Published by Springer Cham. ISBN 978-3-030-73494-7. SCOPUS 3. Bajiyya, S. S., Chaudhary, K., & Chaudhary H. (2020). A Review on Dynamic Balancing And Link Shape Synthesis of Planar Mechanisms. in <i>Mechanism and Machine Science, Chapter 7</i>, pp. 87-106. Published by Springer Singapore. ISBN: 978-981-15-4476-7. SCOPUS 4. Chaudhary, H., & Chaudhary, K. (2015). Design of Reactionless Mechanisms Based on Constrained Optimization Procedure. in <i>Dynamic Balancing of Mechanisms and Synthesizing of Parallel Robots, chapter 11</i>, pp. 273-298. Published by Springer International Publishing, Switzerland. ISBN 978-3-319-17682-6.
Reviewer for	1. Mechanism and Machine Theory, Elsevier 2. Journal of Mechanical Science and Technology, Springer and Korean Society of Mechanical Engineers 3. International Journal of Mechanisms and Robotic Systems, Inderscience Publishers 4. Ain Shams Engineering Journal, Elsevier 5. Journal of Advanced Manufacturing Systems, World Scientific Publishing 6. Journal of Engineering Design, Taylor and Francis 7. Scientia Iranica, Elsevier 8. SN Applied Sciences, Springer

Research Outcomes		Consultancy Projects	Research Projects	Patents & Copyrights
	Number		2	
	Total Amount (in Lakhs)		19 Lakhs	
Research Guidance		PG		Doctorate
	Awarded	6		0

	Undergoing	4	2
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Workshops/Training Programs/MOOCs Organized	1. AICTE ATAL FDP on 3D Printing Basics and Applications from 25-10-2021 to 29-10-2021 as Coordinator at MBM Engineering College Jodhpur 2. AICTE ATAL FDP on 3D Printing from 9-11-2020 to 13-11-2020 as Coordinator at MBM Engineering College Jodhpur 3. AICTE ATAL FDP on 3D Printing Technology (Design Thinking) from 12-07-2021 to 16-07-2021 as Co-Cordinator at Engineering College Jhalawar, Rajasthan 4. AICTE ATAL FDP on Mechanics of Composite Materials and Structures from 09-09-2020 to 13-09-2020 as Co-Cordinator at MBM Engineering College Jodhpur																																																																												
Workshops/Training Programs/MOOCs Attended	<table border="1"> <thead> <tr> <th>S. N.</th><th>Program</th><th>Program Level</th><th>Program Name</th><th>Year</th><th>Organized by</th></tr> </thead> <tbody> <tr> <td>1</td><td>FDP</td><td>NPTEL</td><td>Product Design and Manufacturing</td><td>2025</td><td>IIT Kanpur</td></tr> <tr> <td>2</td><td>FDP</td><td>NPTEL</td><td>Operations Management</td><td>2025</td><td>IIT Roorkee</td></tr> <tr> <td>3</td><td>FDP</td><td>NPTEL</td><td>Social Innovation in Industry 4.0</td><td>2024</td><td>IIT Kanpur</td></tr> <tr> <td>4</td><td>FDP</td><td>NPTEL</td><td>Engineering Metrology</td><td>2024</td><td>IIT Madras</td></tr> <tr> <td>5</td><td>FDP</td><td>NPTEL</td><td>Engineering Metrology</td><td>2023</td><td>IIT Madras</td></tr> <tr> <td>6</td><td>MOOC</td><td>NPTEL</td><td>Manufacturing Systems Technology I & II</td><td>2023</td><td>IIT Kanpur</td></tr> <tr> <td>7</td><td>FDP</td><td>NPTEL</td><td>Manufacturing Guidelines for Product Design</td><td>2023</td><td>IIT Madras</td></tr> <tr> <td>8</td><td>FDP</td><td>NPTEL</td><td>Computer Integrated Manufacturing</td><td>2023</td><td>IIT Madras</td></tr> <tr> <td>9</td><td>FDP</td><td>NPTEL</td><td>Metal Additive Manufacturing</td><td>2022</td><td>IIT Madras</td></tr> <tr> <td>10</td><td>FDP</td><td>NPTEL</td><td>Rapid Manufacturing</td><td>2022</td><td>IIT Madras</td></tr> <tr> <td>11</td><td>FDP</td><td>NPTEL</td><td>Manufacturing Guidelines for Product Design</td><td>2022</td><td>IIT Madras</td></tr> </tbody> </table>					S. N.	Program	Program Level	Program Name	Year	Organized by	1	FDP	NPTEL	Product Design and Manufacturing	2025	IIT Kanpur	2	FDP	NPTEL	Operations Management	2025	IIT Roorkee	3	FDP	NPTEL	Social Innovation in Industry 4.0	2024	IIT Kanpur	4	FDP	NPTEL	Engineering Metrology	2024	IIT Madras	5	FDP	NPTEL	Engineering Metrology	2023	IIT Madras	6	MOOC	NPTEL	Manufacturing Systems Technology I & II	2023	IIT Kanpur	7	FDP	NPTEL	Manufacturing Guidelines for Product Design	2023	IIT Madras	8	FDP	NPTEL	Computer Integrated Manufacturing	2023	IIT Madras	9	FDP	NPTEL	Metal Additive Manufacturing	2022	IIT Madras	10	FDP	NPTEL	Rapid Manufacturing	2022	IIT Madras	11	FDP	NPTEL	Manufacturing Guidelines for Product Design	2022	IIT Madras
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	14	FDP	NPTEL	Computer Integrated Manufacturing	2020	IIT Madras
	15	FDP	NPTEL	Product Design and Manufacturing	2020	IIT Madras
	16	FDP	NPTEL	Principles of Metal Forming Technology	2019	IIT Madras
	17	FDP	NPTEL	Mathematical Modeling of Manufacturing Processes	2019	IIT Madras
	18	FDP	NPTEL	Fundamentals of Manufacturing Processes	2019	IIT Madras
	19	FDP	NPTEL	Fundamentals of Artificial Intelligence	2019	IIT Madras
	20	FDP	NPTEL	Engineering Metrology	2019	IIT Madras
	21	Seminar	TEQIP III	Technical Aspects of Cyber Crime	2019	MBM Jodhpur
	22	Conference	International	Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT)	2018	SVNIT Surat
	23	Internship	National	One Month Faculty Exchange Program	2018	IIT Bombay
	24	STTP	National	One Week Training on Active Learning	2018	IIT Bombay
	25	Workshop	National	National Workshop on Human-centered Robotics	2018	IIT Jodhpur
	26	STTP	National	Additive Manufacturing	2018	IIT Kanpur

	27	Conference	National	Advances in Computer Integrated Manufacturing (NCACIM III)	2016	MBM Jodhpur
	28	STTP	National	Advanced Optimization Techniques (AOT 2015)	2015	MNIT Jaipur
	29	STTP	National	Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT 2014)	2014	NIT Surat Gujrat
	30	Workshop	National	Rural Technology Action Group (RuTAG), IIT Delhi Workshop	2014	Indian Institute of Rural Development (IIRD) Jaipur
	31	STTP	National	Optimization Techniques For Engineering Design	2013	MNIT Jaipur
	32	Conference	National	Advances in Computer Integrated Manufacturing (NCACIM II)	2012	MBM Jodhpur
	33	Conference	National	National Conference on Environmental Pollution, Restoration and Management	2011	Govt. College of Engineering and Technology Bikaner
	34	Workshop	National	Uncertainty and Reliability	2010	IIT Jodhpur
	35	Conference	National	Innovation in Engineering and Technology (IET 2008)	2008	PGC Jaipur
	36	Workshop	National	enGRID – Intermediate Level Robotics	2008	Institutions of Engineers Jodhpur and Gridbots

Membership and Associations with Professional Bodies	-- Regional Mentor of Change for ATLs in Rajasthan, NITI Aayog, Govt. of India -- Member, The Indian Thermal Spray Association -- Member, Resource Support Team, BIS India -- Member, Association for Machines and Mechanisms India -- Member, Institution of Engineers India
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Researcher Id- [AAK-1095-2020](https://pubs.rsos.royalsocietypublishing.org/author/AAK-1095-2020)

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YouTube Channel:

<https://www.youtube.com/channel/UCanJDF7gZ7l8ieJ8xSjyTrw>