

Resume

Dr. Ramsingh Yadav

Assistant Professor (Tenure)
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[Linkdin](#), [Researchgate](#),
[Orcid](#), [Google scholar](#)

Academic Qualifications

Degree	Specialization	Duration	Institute/ Board	% Marks/CGPA
Ph.D.	Laser material Processing	2018-2023	Indian Institute of Technology Ropar	7.50
M. Tech.	Production Engineering	2016-2018	Malviya National Institute of Technology, Jaipur	7.53
B. Tech.	Mechanical Engineering	2010-2014	Engineering College Bikaner	66.21
Senior Secondary	Mathematics	2009	Board of Secondary Education Rajasthan	76.46
Secondary	NA	2007	Board of Secondary Education Rajasthan	70.67

Research Work

- **Improving Process Competency of Laser Bending of Duplex Stainless-Steel Sheet by Applying Forced Cooling– *Ph.D.* Thesis (2018-23)**
 - Feasibility analysis and exploration of underlying mechanism of forced cooling assisted laser bending process using numerical model.
 - Experimental feasibility test of forced cooling assisted laser bending of aluminium alloy
 - Experimental investigation on effectiveness of forced cooling during single scan laser bending of Duplex stainless steel.
 - Optimization of cooling condition and other process parameters for getting higher bending with minimum energy input.
 - Mechanical, metallurgical and corrosion analysis of Duplex-2205 after laser bending.
- **Individual and Collaborative Work Other Than *Ph.D.* Thesis**
 - Examine the effect of different coating conditions during laser bending.
 - Experimental investigation of different laser bending mechanisms i.e., Buckling and Upsetting mechanisms.
 - Experimental investigation of electro-magnetic force assisted laser bending.
 - Experimentally feasibility analysis of underwater laser bending.

- Proposed an experimentally validated analytical model for bend angle estimation for laser bending of low carbon steel sheets
- Gave an integrated hybrid methodology for estimation of absorptivity and interface temperature in laser transmission welding.
- Explore the laser transmission welding of polycarbonate sheets using electrolytic iron powder absorber
- **Influence of Injection and Holding Pressure on Tribological and Mechanical Behavior of Injection Moulded Thermoplastic.** -*M. Tech. Thesis (2016 –2018)*
 - Investigated the tribological and mechanical behavior of injection moulded thermoplastic (Delrin).
 - Analysed the effect of injection and holding pressure on properties of moulded part.

Professional Work Experience

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1. **M K Solar Energy**, Jaipur, Rajasthan, India. (Jun 2014 –Jun 2015)
Worked as a trainee Engineer.
 2. **COEP Technological University**, Pune, Maharashtra, India (Aug 2023–Jun 2024)
Worked as an Adjunct Faculty.
 3. **Veer mata Jijabai Technological Institute**, Mumbai (Aug. 2024- Present)
Working as Tenure Faculty

Journals

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1. **Ramsingh Yadav**, Dhruva Kumar Goyal, and Ravi Kant. “A comprehensive study on the effect of line energy during laser bending of duplex stainless steel.” *Optics & Laser Technology*, 151, 108025 (2022). <https://doi.org/10.1016/j.optlastec.2022.108025> **(Impact Factor: 5)**
 2. **Ramsingh Yadav**, Dhruva Kumar Goyal, and Ravi Kant. “Enhancing process competency by forced cooling in laser bending process” *Journal of Thermal Stresses*, 45, 617-629 (2022). <https://doi.org/10.1080/01495739.2022.2103057> **(Impact Factor: 2.8)**
 3. **Ramsingh Yadav**, Dhruva Kumar Goyal, and Ravi Kant. “Multi-scan Laser Bending of Duplex Stainless Steel Under Different Cooling Conditions” *CIRP: Journal of Manufacturing Science and Technology*, 39, 345-358 (2022). <https://doi.org/10.1016/j.cirpj.2022.10.002> **(Impact Factor: 4.8)**
 4. **Ramsingh Yadav** and Ravi Kant. "Effectiveness of forced cooling during laser bending of duplex-2205." *Materials and Manufacturing Processes*, 38, 598-607 (2022). <https://doi.org/10.1080/10426914.2022.2146717> **(Impact Factor: 4.8)**
 5. **Ramsingh Yadav**, Gidla Vinay, and Ravi Kant. “Mechanical, Metallurgical and Corrosion Analysis of Forced Cooling Assisted Laser Bending of Duplex-2205” *Optics and Laser Technology*, 175, 110804 (2024). <https://doi.org/10.1016/j.optlastec.2024.110804> **(Impact Factor: 5)**
 6. **Ramsingh Yadav**, Dhruva Kumar Goyal, and Ravi Kant. “How Different Coating Conditions Affect Temperature and Bend Angle when Laser Bending Mild Steel Sheet” *Lasers in Engineering*, 55, 103-115(2023) **(Impact Factor: 0.5)**.
 7. **Ramsingh Yadav** and Ravi Kant. “Improving Bend Angle by Using forced cooling when laser bending Al Sheet” *Lasers in Engineering*, 55, 75-85 (2023) **(Impact Factor: 0.5)**.
 8. **Ramsingh Yadav** and Ravi Kant. “Optimization of Cooling Condition and Energy Parameters During Laser Bending of Duplex-2205” *Materials and Manufacturing Processes*, 39, 398-407(2023). <https://doi.org/10.1080/10426914.2023.2236191> **(Impact Factor: 4.8)**
 9. **Ramsingh Yadav** and Ravi Kant. “Effect of Process Parameters on Bend Angle During Underwater Laser Bending of SS304 Sheet” *Lasers in Manufacturing and Materials Processing*, 11, 437-446 (2024). <https://doi.org/10.1007/s40516-024-00253-w>

10. **Ramsingh Yadav**, Amit Pancharya and Ravi Kant, “Influence of Injection and Holding Pressure on Tribological and Mechanical Behavior of Injection Moulded Thermoplastic.” *Materials Today: Proceedings*, 41, 915-920 (2020). <https://doi.org/10.1016/j.matpr.2020.09.486>
11. Dhruva Kumar Goyal, **Ramsingh Yadav** and Ravi Kant. “An integrated hybrid methodology for estimation of absorptivity and interface temperature in laser transmission welding.” *International Journal of Advanced Manufacturing Technology*, 121, 3771–3786 (2022). <https://doi.org/10.1007/s00170-022-09536-y> (**Impact Factor: 3.4**)
12. Yadwinder Pal Sharma, Balwinder Singh Sidhu, Ravi Kant, **Ramsingh Yadav**. “Enhancing the bend angle and mechanical properties of mild steel using fiber laser bending technique under the influence of electromagnetic force.” *Optics and Lasers in Engineering*, 168, 107631(2023). <https://doi.org/10.1016/j.optlaseng.2023.107631> (**Impact Factor: 4.6**)
13. Dhruva Kumar Goyal, **Ramsingh Yadav** and Ravi Kant. “Laser transmission welding of polycarbonate sheets using electrolytic iron powder absorber.” *Optics & Laser Technology*, 161, 109165 (2023). <https://doi.org/10.1016/j.optlastec.2023.109165> (**Impact Factor: 5**)
14. Rohit Yadav, **Ramsingh Yadav**, Ravi Kant. “Experimental Study on Laser Bending of Mild Steel with Buckling Mechanism” *Optics & Laser Technology*, 167, 109803 (2023). <https://doi.org/10.1016/j.optlastec.2023.109803> (**Impact Factor: 5**)
15. Yadwinder Pal Sharma, Balwinder Singh Sidhu, Ravi Kant, **Ramsingh Yadav**. “Mechanical behaviour of mild steel during multi-scan laser bending with forced cooling” *Optics and Laser Technology*, 171, 110417 (2023). <https://doi.org/10.1016/j.optlastec.2023.110417> (**Impact Factor: 5**)
16. Rahul Nair, Ravi Kant, **Ramsingh Yadav** and H. Gurung. "Experimentally Validated Analytical Modelling of the Laser Bending of Low Carbon Steel Sheets." *Lasers in Engineering*, 53, 253-265 (2022). (**Impact Factor: 0.5**)
17. Dhruva Kumar Goyal, **Ramsingh Yadav** and Ravi Kant. “Study of Temperature Field Considering Gradient Volumetric Heat Absorption in Transparent Sheet During Laser Transmission Welding (LTW).” *Lasers in Engineering*, 53, 215-229 (2022). (**Impact Factor: 0.5**)
18. **Ramsingh Yadav**, Rajat Dhiman, Ruchita Patel and Sanjeev Singh Yadav “A Comprehensive Review on Failure Aspects of Additive Manufacturing Components under Different Loading Conditions.” *Journal of Failure Analysis and Prevention*, Yadav, (2024). <https://doi.org/10.1007/s11668-024-02032-3>

Book Chapters

1. **Ramsingh Yadav**, Dhruva Kumar Goyal, and Ravi Kant. “An Experimental Study of Forced Cooling in Single-Scan Laser Bending.” In *Advances in Forming, Machining and Automation*, Springer, Singapore (2022). https://doi.org/10.1007/978-981-19-3866-5_2

Conferences

1. **Ramsingh Yadav**, Dhruva Kumar Goyal, and Ravi Kant. “Fem Simulations of Laser Bending of Duplex Stainless Steel” 8th International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME-2020), Rupnagar, Punjab, India.
2. **Ramsingh Yadav**, Dhruva Kumar Goyal, and Ravi Kant. “Effect of Cooling in Laser Bending of Duplex” 8th International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME-2020), Rupnagar, Punjab, India.
3. **Ramsingh Yadav**, Dhruva Kumar Goyal, and Ravi Kant. “An experimental study of

forced cooling in single scan laser bending” All India Manufacturing Technology, Design and Research Conference (AIMTDR-2021), Coimbatore, India.

4. **Ramsingh Yadav** and Ravi Kant. “An Experimental study of forced cooling during laser bending process” 9th International Conference Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME-2021), Rupnagar, Punjab, India.
5. **Ramsingh Yadav** and Ravi Kant. “An experimental study of forced cooling at bottom surface during laser bending of duplex stainless-steel sheet” National Conference on Advanced Research in Engineering, Science and Technology (NCAREST-2022), Mandi Gobindgarh Punjab, India.
6. **Ramsingh Yadav** and Ravi Kant “Underwater laser bending of stainless steel sheet” 29th International conference on Processing and Fabrication of Advanced Materials (PFAM’29-2023), IIT Tirupati, Tirupati, Andhra Pradesh, India.
7. **Ramsingh Yadav** “Recent advancements in laser forming in order to get higher deformation” 10th International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (AFTMME-2023), Bathinda, Punjab, India.

Instruments and Software’s

- Laser Cutting Machine, Scanning Electron Microscopy (SEM), Energy Dispersive X-ray spectroscopy (EDS), Micro-Tensile Testing, Vicker’s Hardness Test, Ultrasonic Transducer, Universal Tensile Machine, Surface Roughness Tester, Dynamometer, Thermal Imaging Camera, Corrosion Testing, Data Acquisition System, Laser Displacement Sensor, Lathe Machine, Milling Machine, Drilling Machine.
- Abaqus, Solidworks, CAD, Pro-E, Origin-Pro.

Personal Details

Name – Ramsingh Yadav

Father’s Name – Ramchandra Yadav

Mother’s Name – Ganga Devi

Date of Birth – 10th July, 1992

Gender – Male

Nationality - Indian

Marital status – Married

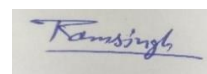
Languages known – English and Hindi

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I hereby declare that the information furnished above is true to the best of my knowledge.



Ramsingh Yadav