


CURRICULUM VITAE

Email: manishkumar3083@gmail.com
manishkumar.rvitm@rvei.edu.in

Assistant Professor
Mechanical Engineering
RV Institute of Technology and Management
Bengaluru, Karnataka.

Contact No: +91-8793317917

Personal Information

Name	Manish Kumar	
Date Of Birth	6 th July 1993	
Marital Status	Married	
Father's Name	Siyaram	
Gender	Male	
Languages Known	Hindi, English, Marathi, Bengali	
Nationality	Indian	
Permanent address	S/o: Siyaram Baiju Bigha Near MU Campus, Bodhgaya Gaya, Bihar, Pin - 824231	

Academics Record

- Ph.D. in Mechanical Engineering Department, National Institute of Technology, Durgapur

Thesis Title: Evaluation of Plastic Collapse Moment of Initially Geometric Imperfect Pipe Bends Under Internal Pressure and Bending Moments.

Qualification	Institution, Place	Department	Year of Passing	CGPA/Percentage
Ph.D	N.I.T. Durgapur, Durgapur	Mechanical Engineering	2022	--
M.Tech	R.I.T. Islampur, Sangli	Mechanical Design	2016	8.00
B.E.(Hons.)	MMCOE Karvenagar, Pune	Mechanical Engineering	2014	72.86%
Class XII	GBRC Public School Bodhgaya	--	2010	68.00%
Class X	DAV Public School Gaya	--	2008	80.83%

CGPA: Cumulative Grade Point Average.

Field of Interest

- Strength of Material
- Finite Element Analysis
- Machine Design
- Vibration

Academic Skills

- **Softwares Known:** Autocad, Catia, Matlab, Python, Ansys, Abaqus, Latex, Interfacing Aurdino.
- **Instrument known:** Rheometer

Professional Experience

- **Present Institute:** RV Institute of Technology and Management, Bengaluru as **Assistant Professor** (From 14th October 2022 to Till Date).
Responsibility: Handling UG and Research activity.
- **Past Institute:** Government Engineering College, Arwal, Bihar as **Guest Assistant Professor** (From 09th May 2022 to 20th September 2022).
Responsibility: Handling UG.

Hobbies

- Teaching
- Playing Cricket
- Badminton
- Listening Old Songs
- Cooking

Achievements and Qualities

- Qualified in **GATE 14**
- Certification course of **ANSYS MULTIPHYSICS**
- Certification course of **CATIA v5 R20**
- Member of Reviewer board in International journal of technology and engineering sciences.
- Editorial Board Member for Engineering and Applied Sciences research journal
- I also want to mention that the greatest strengths that I have are strong determination, punctuality & hardworking.
- Reviewed papers in international and national conferences, and international journals like International Journal of Pressure Vessel Piping, Scientific Reports etc.

Short Term Course

- Pursuing QIP course from IIT BHU on **Advances in Robotics: Processes, Applications, and Technology**
- Participated in the Gian course on **MEMS Modeling and Nonlinear Dynamic Based Analysis** at IIT Madras.
- Participated in the **Authors Workshop and Science Direct training** organized by NIT Durgapur and ELSEVIER.
- Participated in several short term courses during my M.Tech and PhD course work.
- Completed 08 weeks NPTEL Course on **Mechanics and Control of Robotic Manipulators**.
- Completed 08 weeks NPTEL Course on **Mechanism and Robot Kinematics**.

Publications/ Patents

Patents

1. Kumar, A. Kumar, **M. Kumar**, N. Singh. Digital Micrometer. *Intellectual Property of India. Design No. 397608-001*
2. S Kumar, D Kumar, A Kumar, A Kumar, **M Kumar**. Semi Continuous Electrochemical Membrane Bioreactor for Wastewater. Registration for a UK Design. *Design number: 6344480*

International Journal

1. **M. Kumar**, P. Roy and K. Khan. Determination of collapse moment of different angled pipe bends with initial geometric imperfection subjected to in-plane bending moments. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*. DOI: [10.1177/0954406221996406](https://doi.org/10.1177/0954406221996406). (SCI)
2. **M. Kumar**, P. Roy and K. Khan. New empirical equations for determining plastic collapse moment of initially imperfect pipe bends under internal pressure and in-plane closing bending moment. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*. DOI: [10.1007/s40430-022-03400-6](https://doi.org/10.1007/s40430-022-03400-6). (SCIE)
3. P. Roy, **M. Kumar** and K. Khan. Plastic analysis of initially deformed thin-walled pressurized 30° to 180° bend pipes under in-plane opening bending moment. *International Journal of Pressure Vessels and Piping*. DOI: [10.1016/j.ijpvp.2021.104415](https://doi.org/10.1016/j.ijpvp.2021.104415). (SCIE)
4. **M. Kumar**, P. Roy, K. Khan. Evaluation of collapse moment of pressurized 30° to 180° bend pipes subjected to out-of-plane bending moment. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*. DOI: [10.1177/09544062211061455](https://doi.org/10.1177/09544062211061455). (SCI)
5. M. Singh, A. Hebbale, D. Prasad, H. Harish, **M. Kumar** and K. Shanthala. Design and Simulation of Vertical Axis Windmill for Streetlights. *Materials Today: Proceedings*. DOI: [10.1016/j.matpr.2023.03.729](https://doi.org/10.1016/j.matpr.2023.03.729). (Scopus)
6. M. Singh, **M. Kumar**, P. Sivaiah, Vijay G., A. Kumar, D. Kumar, S. Pandey, A. Singh, A. Deifalla, S. Hasnain. Simulation of Metal Ceramic Single Layer Coatings for Solar

Energy Applications. *Materials Science for Energy Technologies*. DOI: [10.1016/j.mset.2023.06.003](https://doi.org/10.1016/j.mset.2023.06.003) (Scopus)

7. Darshan J , Rohan S , Harsha S , **M Kumar**. Determination of length of attached straight pipes for different angle of elbows. *TIJER - International Research Journal*. DOI: <http://www.tijer.org/papers/TIJERA001003>
8. P. Sivaiah, M. Singh, **M. Kumar**, Vijay G. Nano Indentation Studies on Ceramic Thin films Coatings Deposited using Sputtering Process for Energy Applications. *Materials Science for Energy Technologies*. DOI: <https://doi.org/10.1016/j.mset.2023.08.001> (Scopus)
9. V. Kumar, P.Singh, **M. Kumar** et al. Nanocomposite Marvels: Unveiling Breakthrough in Photocatalytic Water splitting for Enhanced Hydrogen Evolution. *American Chemical Society Omega*. DOI: <https://doi.org/10.1021/acsomega.3c07822> (SCIE)
10. **M. Kumar**, M Singh, A. Kumar, A. Kumar, D Kamble. Comparison of plastic collapse moment for different angled non-circular pipe bends under bending moments and internal pressure, *Journal of the Brazilian Society of Mechanical Sciences and Engineering*. DOI: <https://doi.org/10.1007/s40430-024-04810-4> (SCIE)
11. **M. Kumar**, A. Kumar, A. Kumar, A. Kumar, D Kamble. Development of new improved plastic collapse moment equations of pressurized different angled pipe bends under bending moments. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*. DoI: <https://doi.org/10.1177/09544089241248428> (SCI)
12. B. Shanmugam, H. Hanumanthappa, R. Singh, D C Prasad, **M Kumar**, A Kumar, SP Samal, A E Ragab, SM Hasnain. Separator equipment performance of iron ore and coal using experimental and ANN-based analysis. *Scientific Reports*. DoI: <https://doi.org/10.1038/s41598-025-02681-w> (Scopus)
13. H Hanumanthappa, B K Shanmugam, M Kumari, A Kumar, C D Prasad, **M Kumar**, KS Prashanth, P Singh, P KGangwar, A Garimella. Comparison of the performance of indirect evaluation of flank wear for turning Inconel-718 using the processed image and acoustic waves, *Surface Review and Letters*. DoI: <https://doi.org/10.1142/S0218625X24400031> (Scopus)
14. A Kumar, **M Kumar**, A Kumar, AKumar, S B Kumar, R M Thakur, A K Ansu. Dynamic study of a laminated curved beam made of bimodular composite material with equivalent stiffness method, *AIP Conference Proceedings*. DOI: <https://doi.org/10.1063/5.0235987> (Scopus)
15. **M Kumar**. Strain hardening effect on TES collapse moment of different angled pipe bends subjected to bending moments, *International Journal of Pressure Vessels and Piping*. DOI: <https://doi.org/10.1016/j.ijpvp.2025.105673> (SCIE)

International Conferences

1. **M. Kumar** and S. Patil. Design of Electrorheological damper and synthesis of Electrorheological fluid presented at 2nd RIT National Conference for Engineering Post Graduates (RIT NConPG 2016) at RIT Islampur, India.
2. **M. Kumar**, P. Roy and K. Khan. Effect of assumed and actual cross-section on collapse moment of different angled pipe bends under in-plane closing bending

moment and internal pressure presented at 7th *International Congress on Computational Mechanics and Simulation (ICCMS 2019)* at **IIT Mandi**, India.

3. **M. Kumar**, P. Roy and K. Khan. Numerical investigation of collapse moment of deformed pipe bends subjected to internal pressure and bending moment presented at *1st Online International Conference on Recent Advances in Computational and Experimental Mechanics (ICRACEM 2020)* at **IIT Kharagpur**, India.
4. M. Muralidhar Singh, Ajit M Hebbale, C. Durga Prasad, H. Harish, **Manish Kumar** and K. Shanthala. Design and Simulation of Vertical Axis Windmill for Streetlights presented at *4th International Conference on Smart and Sustainable Developments in Materials, Manufacturing and Energy Engineering (SME-2022)* at **NMAM Institute of Technology, Nitte**, India.
5. Darshan J, Rohan Sanjeevan, Harsha S and **Manish Kumar**. Determination of length of attached straight pipes for different angle of elbows presented at *National Conference on Digital Technology and Engineering* at **RVITM**, India.

Book Chapter

1. **M. Kumar**, P. Roy and K. Khan. Numerical investigation of collapse moment of deformed pipe bends subjected to internal pressure and bending moment. *In: Recent Advances in Computational and Experimental Mechanics, Vol II. Lecture Notes in Mechanical Engineering*. DOI: [10.1007/978-981-16-6490-8_32](https://doi.org/10.1007/978-981-16-6490-8_32).

Declaration

I declare that all facts that I have stated above are true to the best of my knowledge and belief.

Date: 12.02.2026

Place: Bengaluru

Manish Kumar