



## FACULTY PROFILE

**Name:** Dr. Mahesh Kumar Gupta

**Designation:** Assistant Professor

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### Professional Qualification:

PhD	Simulation of Non Carbonous Nano-materials	SRM IST,2023
M. Tech	Spray Forming Technique	IIT Roorkee ,2013
B.Tech	Mechanical Engineering	UPTU 2011



### Publications (Journals & Conferences):

1. Gupta M. K., Hussain A., Rai S. K., Suman S., Gupta P. “Computational Analysis of Transfer of Heat in Micro Size Channels Using Different Boundary Condition in Laminar Flow” FLAME, pp 445–455.
2. Kumar R., Gupta M. K., Panwar V. Rai S K. “Grain size responsive uniaxial tensile behaviour of polycrystalline nanocopper under different temperatures and strain rates”. Multidiscipline Modeling in Materials and Structures. [, SCI, IF: 2.67] (2023). DOI: <https://doi.org/10.1108/MMMS-09-2022-0187>.
3. Gupta M. K., Panwar V., Mahapatra R. P. “Computational analysis of mechanical behavior and potential energy of thermoresponsive copper-tantalum nanoalloy”. Journal of Molecular Modeling [Springer, SCI, IF: 2.17] (2022). DOI:<https://doi.org/10.1007/s00894-022-05183-y>.
4. Gupta M. K., Panwar V., Mahapatra R. P. “Effect of temperature and strain rate variation on tensile properties of a defective nanocrystalline copper-tantalum

- alloy”. Journal of Scientific and Industrial Research (JSIR), [SCI-E, IF: 0.555] (2022). DOI:<http://op.niscair.res.in/index.php/JSIR/article/view/58725>.
5. Gupta M. K., Panwar V., Mahapatra R. P. “Computational mechanical behavior of nanocrystalline copper-tantalum alloy”. Materials Today Proceedings, [Elsevier, Scopus]. (2022). DOI: <https://doi.org/10.1016/j.matpr.2022.02.619>.
  6. Gupta M. K. Panwar V., Mahapatra R. P. “Effect of temperature and strain rate on mechanical properties and potential energy of nanocrystalline tantalum”. Materials Today Proceedings, [Elsevier, Scopus] (2022). DOI:<https://doi.org/10.1016/j.matpr.2022.10.158>
  7. Kumar R., Panwar V., Gupta M. K. Temperature and strain rate dependent tensile behavior of polycrystalline nanocopper under dynamic loading. Materials Today: Proceedings, [Elsevier, Scopus] (2022). DOI:<https://doi.org/10.1016/j.matpr.2022.01.433>
  8. Gupta M. K. Panwar V., Mahapatra R. P. “Influence of temperature and strain rate on mechanical properties and potential energy of nanocrystalline copper”. Lecture notes in Mechanical Engineering, [Accepted, Springer, Scopus] (2023).
  9. Hussain E., Rai S.K., Suman S., Gupta P., Gupta M. K. “Computational analysis of Heat Transfer in Rectangular Micro-channels under different Boundary Condition in Fully Developed Laminar Flow”. Lecture notes in Mechanical Engineering, [Accepted, Springer, Scopus] (2023).
  10. Rai S K., Kumar G., Suman S., Upadhyaya R., Raghuvanshi N S., Gupta M. K., Shah S., Alam S. “A state of art review of instability in parallel channels of supercritical fluid in nuclear applications” Materials Today Proceedings, [Elsevier, Scopus] (2022).
  11. Gupta M. K., Shankdhar A., Kumar A., Vermon A., Singh, A K and Panwar V. Temperature and strain rate dependent stress-strain behaviour of nitinol. Materials

Today: Proceedings, [Elsevier, Scopus]. 2020,  
DOI:<https://doi.org/10.1016/j.matpr.2020.11.685>.

12. Gupta M. K., Gupta P., Giri R. K., Gupta A. "Smart Electric Control System Using PLC & HMI " International Journal of Mechanical Engineering and Technology (IJMET) | Volume 9, Issue 4| pp. 548–555| April 2018. [Scopus].
13. Gupta M. K., Deepika, Sharma A., Vasani V. "Change in Mechanical Properties and Microstructure after Uniaxial cold rolling of Aluminium 6061 Alloys." International Journal of Mechanical Engineering and Technology (IJMET) | Volume 9, Issue 4| pp. 617–623| April 2018. [Scopus].
14. Gupta P., Gupta M. K., "Characterization of cast Aluminium 3003 Uniaxial Forged Alloys." International Research Journal of Engineering and Technology (IRJET), p-ISSN: 2395-0072 | Volume: 05 Issue: 09 | Sep 2018.
15. Gupta M. K., Pandey P., Agarwal R., Samanta D. "Design and Development of Fuel Vaporization System." International Journal of Mechanical Engineering Research (IJMER), ISSN: 2347-470X, | Volume 6, Issue 2 | Pages: 5-8 | June 18, 2018.
16. Sachdeva A., Gupta M. K., Pandey M., Khandelwal P. " Development of Industrial Automatic Multi Colour Sorting And Counting Machine Using Arduino Nano Microcontroller And TCS3200 Color Sensor. " The International Journal of Engineering and Science (IJES), ISSN (e): 2319 – 1813 ISSN (p): 2319 – 1805 || Volume || 6 || Issue || 4 || Pages || PP 56-59 || 2017 ||
17. Gupta M. K., Aggarwal S., Seth N., Attri A. " Characterization of Multiaxial Cold Rolled Aluminium 6061." The International Journal of Engineering and Science (IJES), ISSN (e): 2319 – 1813 ISSN (p): 2319 – 1805 || Volume || 6 || Issue || 4 || Pages || PP 46-50 || 2017 ||
18. Kumar S., Gupta M. K. "Strategies and Modeling of Reverse Logistics Networks of an Industry in India." International Journal of Engineering Research and Application (IJERA), ISSN: 2248-9622, ||Volume || 6|| Issue|| 3|| ||pp.138-143||March 2016.

19. Upadhyay D. R., Singh S., Gupta M. K. "Computational modelling of six speed hybrid gear box and its simulation using Simulink as an interactive tool of MATLAB." International Journal of Engineering Research and Application (IJERA), ISSN: 2248-9622, ||Volume|| 4|| Issue|| 2|| ||pp.55-61||Feb. 2016.
20. Response of single-crystal nano-tantalum by molecular dynamic simulation. International Conference on Future Trends in Materials and Mechanical Engineering (ICFTMME-2022) 19-20 August 2022, Department of Mechanical Engineering, SRM IST Delhi NCR Campus Ghaziabad, U.P. India.
21. Influence of temperature and strain rate on mechanical properties and potential energy of nanocrystalline copper. 3rd Biennial International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2022), 03-05 August 2022, Department of Mechanical Engineering, Amity School of Engineering & Technology, Amity University Uttar Pradesh, Noida.
22. Computational mechanical behavior of nanocrystalline copper-tantalum alloy. International Conference on Advances in Materials and Mechanical Engineering (ICAMME-2022), February 18-19, 2022, Department of Mechanical Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, Uttar Pradesh, India.
23. Effect of temperature variation on tensile properties of a defective nanocrystalline copper-tantalum alloy. International Conference on "Nanoscience and Nanotechnology-2021(ICONN 2021)". 01 -03 Feb 2021, Department of physics and nanotechnology at SRM Institute of Science and Technology, Tamilnadu, India.
24. Neha Ahlawat, Santosh Kumar Rai, Mahesh Kumar Gupta "Prospects towards the development of nanomaterials for advanced applications" Springer nature book series [Springer, Scopus].
25. Rajat Sharma, Sneha Srivastava, Utkarsh Srivastava, Sumedha Gupta, Shahnawaz Alam, Mahesh Kumar Gupta. "Self Defense Device" Published on 14/05/2021. (Indian Patent Office, Govt of India)

26. Gupta M. K. Panwar V., Mahapatra R. P. “Behavioral shift in mechanical properties of polycrystalline copper tantalum nanoalloy via molecular dynamic simulation.” [Under Process]
27. Gupta M. K. Panwar V., Guha S. Atomistic simulation of polycrystalline gold-platinum nanowire at different composition of platinum with molecular dynamic approach.” [Under Process].
28. Gupta M. K. Panwar V., Mahapatra R. P. “A review on molecular dynamic simulation of nanomaterials with single crystal as well as polycrystal.” [Under Process].

### **Awards and Achievements**

- Qualified Written Exam of BARC For Scientist Grade and attended BARC interview at BARC HQ Mumbai
- Qualified GATE 3 times Consecutively ( 2011,2012,2013)
- Recipient of MHRD Scholarship during M. Tech. (2011-13).
- Received 25% of Tution fees in B.Tech as scholarship (secured 3rd position in class)
- Received funding to attend Entrepreneurship Summit at IIT Kanpur.
- Reviewer Materials Today: Proceedings, [Elsevier, Scopus]
- Reviewer ICOME-2021 at Netaji Subhas University of Technology, New Delhi
- Membership of International Association of Engineers (Hong Kong )
- Member of Editorial board of Lattice Science Publication
- Member of Editorial board of Blue Eyes Intelligence
- Reviewer on ICOME-2021 at Netaji Subhas University of Technology, New Delhi

### **Workshops/Seminars/FDPs**

- Attended an International National Conference on “Energy, Material Science and Mechanical Engineering (EMSME - 2020)” at National Institute of Technology on October 30 -01 November 2020.
- Attended a 5-day online FDP on the theme “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education(AICTE) from 1 February, 2021 to 5 February, 2021.

- Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Lean Thinking for Sustainable Business Practices" from 16/08/2021 to 20/08/2021 at SRM Institute of Management and Technology.
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Novel Materials" from 23/08/2021 to 27/08/2021 at SRM Institute of Management and Technology.
- Participated in the Online Faculty Development Programme on "Recent Advancements in Composite Materials and Structures" organized by Department of Aerospace Engineering during 02 - 06 November 2020.
- Attended a two day National Conference on "Emerging Vocabulary in Hindi sabdkosh, Engineering & Management-2019" at SRM IST Ghaziabad (SRMIST) (U. P.) on 19 & 20 April 2019.
- Attended a 5 day Workshop on "Competency Building Workshop For Integrated Automation- Level -1" at Ajay Kumar Garg Engineering College Ghaziabad (AKGEC) on 30 Aug to 03 Sep. 2016.
- Attended a 5day Short Term Program on "Materials and Processes for High Temperature Applications" at Indian Institute of Technology Roorkee (IIT ROORKEE) on 06 June to 10 June 2016.

**Work Experience:**

- Working as Assistant Professor, Mechanical Engineering Department, from December 2013 to till date at SRM Institute of Science & Technology, Delhi-NCR Campus Modinagar Ghaziabad, Uttar Pradesh, India
- Worked as Assistant Professor, Mechanical Engineering Department from July 2013 to November 2013 at Venkateshwara Institute of Technology & Science, Meerut, Uttar Pradesh, India.

**Professional Memberships:**

- › Membership of International Association of Engineers (Hong Kong )
- › Member of Editorial board of Lattice Science Publication
- › Member of Editorial board of Blue Eyes Intelligence