Curriculum Vitae: Dr. Arvind Kumar

DESIGNATIONS: Professor and Chairperson, Department of Mechanical Engineering.

Official Address: J. C. Bose University of Science and Technology, YMCA, (NAAC, A+ accredited, Haryana State Government Technical University) Sector-6, Faridabad-121006.

E-mail: arvind_eem@yahoo.co.in, arvindgupta@jcboseust.ac.in

Mob.: 9953167399

Address: H.N. 1259, Sector-17, Faridabad (Haryana).

Date of Birth: 25th May 1967



PROFESSIONAL QUALIFICATIONS:

- **1. Ph.D**. from Indian Institute of Technology, Delhi (IITD). Thesis titled "CFD Modeling for Hydraulic and Pneumatic Conveying through Pipeline".
- 2. M. Tech. From Indian Institute of Technology, Delhi (IITD) in Energy Studies.
- **3. B. Tech.** (Mechanical Engineering), from Z. H. College of Engineering and Technology, Aligarh Muslim University (AMU), Aligarh. **GATE** 1999 qualified in Mechanical Engineering.

PROFESSIONAL EXPERIENCE:

Thirty Four years' experience in the field of Academic, Research, Administration and Industries. **Chairman** (Department of Mechanical Engineering) since May 2023, J C Bose University of Science and Technology YMCA, Faridabad.

Dean (Faculty of Inter Disciplinary Studies & Research) since June 2020 to May 2023, J C Bose University of Science and Technology YMCA, Faridabad.

Chairman (Centre for Energy Studies) since February 2021 to July 2023, J C Bose University of Science and Technology YMCA, Faridabad.

Dean (Faculty of Management) since June 2016 to June 2020, J C Bose University of Science and Technology YMCA, Faridabad.

Chairman (Dept. of Management) since June 2016 to Nov. 2018, J C Bose University of Science and Technology YMCA, Faridabad.

Professor: Since September 2014 in department of Mechanical Engineering J C Bose University of Science and Technology, YMCA, Faridabad.

Associate Professor: Since September 2008 to August 2014 in department of Mechanical Engineering J C Bose University of Science and Technology YMCA, Faridabad

Assistant Professor: Since 2006 to 2008 in department of Mechanical Engineering J C Bose University of Science and Technology YMCA, Faridabad

Worked as a Lecturer in Chotu Ram University of Science and Technology, Murthal (Sonepat) Haryana.

Worked as a Lecturer in Arya Bhat Institute of Technology, under Govt. of NCT, Delhi.

Worked as a Lecturer in D. J. P. College, Baraut.(UP).

Worked with M/s Ruchi Industries Limited, Delhi.

AREA OF RESEARCH INTEREST:

Computational Fluid Dynamics (CFD), Multiphase flow, Thermal Engineering, Refrigeration and Air Conditioning (RAC). Fluid Flow, Energy Conservation and Management.

PROFESSIONAL ACHIEVEMENTS:

- ➤ Member, Executive Council, Year 2016-2020 and year 2022-2023, J.C. Bose University of Science and Technology, YMCA Faridabad
- ➤ Member, Academic Council, Year 2016-2020 and year 2022-2023, J.C. Bose University of Science and Technology, YMCA Faridabad
- ➤ Member, Court, Year 2016-2020 and year 2022- 2023, J.C. Bose University of Science and Technology, YMCA Faridabad.
- ➤ Member Finance committee, year 2018-2020 J.C. Bose University of Science and Technology, YMCA Faridabad.
- Member, DRC, Amity University, Noida
- Member, DRC, Galgotia University, Greater Noida.
- > Member, DRC, IIIT, Delhi.
- > Member, DRC, DSVU, Delhi.
- ➤ Head, Career and Counseling Cell, J.C. Bose University of Science and Technology, YMCA Faridabad.
- Assessor of National Assessment and Accreditation Council (NAAC).
- > Served as member of different UGC Inspection Team for granting Autonomous status to Engineering Colleges.
- > Served as member of different UGC Inspection Team for granting 12B status to a staterun Technical University.
- > Served as member of UGC Inspection Team for Swachta Ranking of Higher Educational Institutions.
- > Served as member Inspection Committee to visit different Engineering and Polytechnic Colleges deputed by Department of Technical Education, Government of Haryana.
- > Served as member Inspection Committee to visit Affiliating Engineering Colleges deputed by J.C. Bose University of Science and Technology, YMCA Faridabad.
- ➤ Guided Two PhD successfully and guiding four PhD candidates.
- ➤ Published/Presented more than 81 Research papers in International/National Journals/proceedings of International and National conference/seminars.
- Reviewing research papers of various International and National Journals
- ➤ Conference Chair: International conference on Sustainable Development through Research in Engineering and Management (SDREM- 2016), December 26 -27,2016

Consultancy Project Handled

- 1. Pressure drop analysis in Penstock of hydro power plant for Andritz Hydro Pvt. Ltd. (a German MNC).
- **2.** Estimate the condensation from cooling coils for Sidwal Refrigeration Faridabad which is mounted on DMRC coach.

Contribution in Teaching and Learning

Curriculum Development and Review

- ➤ Member of Departmental Curriculum Review committee
- > Chairman Board of studies of Mechanical Engineering
- ➤ Chairman, Board of Energy Studies from year 2021-2023
- ➤ Chairman, Faculty of FIDSR Studies from year 2021-2023
- ➤ Chairman, Board of Management Studies from year 2016-2020
- Chairman, Faculty of Management from year 2016-2020

Subject Taught

- 1. Refrigeration and Air-Conditioning
- 2. Applied Thermodynamics
- 3. Energy Conservation in Thermal System
- 4. Waste to Energy
- 5. Fuel Technology
- 6. Air-Conditioning Equipments
- 7. Fluid Mechanics
- 8. Fluid Machines
- 9. Strength of Material

Invited Lectures

- 1. Change Management at Lal Bhadur Shastri National Academy of Administration (LBSNAA), Missouri in Management Development Program on dated December 19-23, 2011.
- 2. Power Plant Familiarization at National Thermal Power Training Institute at Faridabad on dated 28-29 June, 2012.
- 3. Slurry Pipeline Hydraulics and CFD at IIT, Delhi in a Management Development Programme on dated 22-24 August, 2012.
- 4. Invited talk on Entrepreneurship Opportunity in Defense Sector under Make in India National Conference on Entrepreneurship Development: Creation of Wealth for People & Economy (NCEDPE-2018) during November 24-25, 2018 at Aggarwal College Ballabgarh
- 5. Invited talk as a Key note spekare in a National conference on Fluid and Thermal Energy Conversion on 1-2 November 2018 at RKGIT, Ghaziabad on CFD Modelling for Energy Efficient Sustainable Hydraulic Conveying.
- 6. Invited talk 34th National Convention of Mechanical Engineers and national Seminar on Mechanical Engineering and Emerging Challenges for manufacturing on 7-8,2018 at The Institute of engineers (India) Delhi centre on Challenges in Mechanical Engineering Education.
- 7. invited talk on the importance of Practical Training for an undergraduate to be job ready on completion of graduation on the 15th of February 2019 at Aravali College of Engineering & Management Faridabad'
- 8. Invited talk on CFD analysis on pressure drop through Bends in horizontal pipeline on 1st December at Rajkiya Engineering College Ambedkar Nagar UP under Tuning programme from TEQIP III programme.

- 9. Research Methodology in a National Seminar on Research Methodology, IET Alwar on 11 April 2018.
- 10. Invited Lecture on "Energy Efficiency in Refrigeration and Air- Conditioning" International Conference Sustainable Energy and Green Technology on dated June 23-24, 2023 at RKGIT, Ghaziabad, UP.
- 11. Expert Lecture on National Education policy 2020 at GGDT Sanatan Dharma College Palwal on Dated 28th April,2023.
- 12. Expert Lecture on National Education policy 2020 at SDIMT College Tingon Faridabad on Dated 20th May, 2023.
- 13. Marketing management and Marketing support available to SSI unit in a FDP on Entrepreneurship: An effective Tool to Improve Industry Institute Interaction at YMCAUST on 7-10 December 2017.
- 14. How to prepare Business Plans in a FDP on Entrepreneurship: An effective Tool to Improve Industry Institute Interaction at YMCAUST on 7-10 December 2017.
- 15. Constitutional Thought for Separation of Powers and Practice A seminar on Three Pillars of Democracy, at DAV Centenary College, NH-3, NIT, Faridabad by Rashtriya Chetnashakti Foundation on 03 February 2018.
- 16. Basics of Computational Fluid Dynamics at RKG Institute of Technology, in a Faculty Development Programme, Ghaziabad on date 06 July, 2016.
- 17. Advancement in Refrigeration and Air Conditioning at RKG Institute of Technology, in a Faculty Development Programme, Ghaziabad on date 06 July, 2016.
- 18. Energy Conversion in Steam Turbines at Galgotia College of Engineering and Technology, in a Faculty Development Programme at Greater Noida on February, 2017.
- 19. Measurement in Refrigeration and Air-conditioning at YMCAUST, Faridabad in Danfoss workshop 21 October, 2016.
- 20. Water Crisis in India Seminar at DAV Centenary College, NH-3, NIT, Faridabad by Rashtriya Chetnashakti Foundation on 16 August, 2016
- 21. Indian Education System Seminar at YMCAUST, Faridabad by Rashtriya Chetnashakti Foundation on 07 February, 2017.
- 22. Research Methodology in a National Seminar on Research Methodology, IET Alwar on 11 April, 2018.
- 23. Marketing management and Marketing support available to SSI unit in a FDP on Entrepreneurship: An effective Tool to Improve Industry Institute Interaction at YMCAUST on 7-10 December, 2017.
- 24. How to prepare Business Plans in a FDP on Entrepreneurship: An effective Tool to Improve Industry Institute Interaction at YMCAUST on 7-10 December, 2017.
- 25. Constitutional Thought for Separation of Powers and Practice. A seminar on Three Pillars of Democracy, at DAV Centenary College, NH-3, NIT, Faridabad by Rashtriya Chetnashakti Foundation on 03 February, 2018.
- **26.** Human Values in a Faculty Development Programme jointly conducted by NITTTR, Chandigarh and YMCA University of Science and Technology, Faridabad from 09-13 July, 2018 at YMCAUST, Faridabad.
- 27. Expert lecture on "The responsibilities and challenges for Teachers" on 20th June 2022 Balaji College of Education, Faridabad.

Book Published

- Energy and Environment Management published by CBS Publishers, Delhi

Contribution to Research Activities

- Member of editorial board *Applied Engineering* published by Science Publishing Group, USA

Reviewer

- 1. International Journal, Journal of Coal Preparation and Utilization published by Taylor and Francis.
- 2. International Journal, FUEL published by Springer.
- 3. International Journal, Journal of Automobile Engineering published by SAGE.
- 4. International Journal, Particulate Science and Technology published by Taylor and Francis.
- 5. International Journal, Concurrent Engineering: Research and Applications published by SAGE.
- 6. International Journal, World Journal of Engineering published by Emerald Insight.
- 7. International Journal, Modelling and Simulation in Engineering by Hindawi.
- 8. International Journal, Heat Transfer published by Wiley.
- 9. International Journal, Journal of Thermal Analysis and Calorimetry (JTAC) published by Springer.
- 10. International Journal, Chemical Product and Process Modeling by published De Gruyter.

Ph.D., M.Tech. and B.Tech. Students Guidance

PhD Guided Successfully

1. Mr. Sachin Gupta

Thesis Title: Augmentation of heat transfer in internal flow.

2. Mr. Kanwarpal

Thesis Title: CFD Modelling for particulate flow through straight pipes.

PhD Guiding

1. Mr. Om Praksah

Thesis Title: CFD modeling for multiphase flow

2. Mr. Vijay Soni

Thesis Title: Analysis of quench and quench induced mechanical stresses of 1.5T MRI system

M. Tech. Dissertation

- 1. Modeling and Simulation of Magnetic Flux Leakage from Metal loss Defects in Steel Pipelines (Mr. Saurabh Kumar).
- 2. Experimental Simulation of Magnetic Flux Leakage from Metal loss Defects in Steel Pipelines (Mr. Rajan).
- 3. Performance Improvement of Vapour Compression Refrigeration System (Mr. Tarun Kumar).
- 4. Waste reduction through Implementation of Lean Manufacturing (Mr. Mounis Malik)
- 5. Performance Analysis of Compact Heat Exchanger (Ms. Manju Singh).

- 6. Attribute based selection and comparison of manufacturing system using Topsis (Mr. Naveen Kumar).
- 7. Value Stream Mapping for Consumer Durables Manufacturer- A Case Study (Mr. Abhishek)
- 8. IOT based oxygen concentrator (Mr. Gaurav)
- 9. Solutions for problem of choking in biomass fired boilers (Sh. Mahesh Sachdeva)
- 10. Design of efficient food waste composter for Indian household (Sh. Ashok Nehra)
- 11. To study of recent trends in management of oil spill in marine ecosystem (Sh. Alok kumar)
- 12. Development of green construction schemes to reduce development footprint in existing buildings (Sh. Anil kumar)
- 13. Implementation of the industry 4.0 in a manufacturing plant (Ms Deepika Sethi)
- 14. Effect of lockdown amid COVID-19 pandemic on air quality of most polluted cities of Haryana (Mr. Ravinder Baisela)

B.Tech. Projects Guided so many numbers of projects. One of the B.Tech. Project "Compressor control of a Trans-critical cycle in mobile air conditioning system" beg second prize for the Danfoss Innovator Award in year 2014. Smart Refrigerator project beg second prize for the Danfoss Innovator Award in year 2017.

Conference Chaired/ Sessions Chaired in Conferences

- **1.** Conference Chair: International conference on Sustainable Development through Research in Engineering and Management (SDREM- 2016), December 26 -27,2016.
- **2.** Conference Secretary : A Two days National Conference ECO: 2022(Air-Water-Soil) dated 23rd -24th September 2022, at JC Bose YMCA University of Science & Technology, Faridabad, Haryana, India.
- 3. Session Chair in International conference on Future Learning Aspects of Mechanical Engineering (FLAME) organized by Mechanical Engineering Department, Amity University Noida on 3rd October 2018.
- 4. Session Chair in National conference on Trends and Advances in Mechanical Engineering (TAME 2019) April 2019 organize by Mechanical Engineering Department, J C Bose University of Science and Technology Faridabad.
- 5. Keynote Speaker in a National Conference on Sustainable Engineering Practices in Materials, Water and Energy Technologies [SEPMWET-2017] at BRCM College of Engineering & Technology Bahal-127028, Bhiwani (Haryana) on March 18-19, 2017.
- 6. Session Chaired in the 3rd National Conference on Trends and Advances in Mechanical Engineering (TAME-2017) at YMCAUST, Faridabad on 16-17 March 2017.
- 7. Session Chaired in the National Conference on New Horizons in Technology for sustainable energy and environment (NHTSEE-2017) at YMCAUST, Faridabad on 09-10 March 2017.
- 8. Session Chaired in the National Conference on Advances in mathematics and computing (AMC-2017) YMCAUST, Faridabad on 9-10 March 2017.
- 9. Organising Secretary: A National Seminar "Jal-Amrit-23" on Water Quality and availability in Delhi NCR, June 24, 2023 at DAV Centenary College, Faridabad .
- **10.** Organising Secretary: A National Seminar "Viksit Bharat 2047: A Vision" on March 22, 2024 at JC Bose YMCA University of Science & Technology, Faridabad, Haryana, India.

Short Term Courses, workshop and conferences attended: 21 Short Term Courses / Workshop organized: 06

Research Project Experimental Investigation of Heat Transfer Augmentation in a Fin-Tube Heat Exchanger, a University sponsor and UGC funded project of Rs 200000/- Completed successfully.

Membership:

(i) Fellow: Institute of Engineer (India)

(ii) Life member: Indian Society for Technical Education

(iii) Life member: Society for Fluid Mechanics and Fluid Power

Publications: International journals

- 1. Vijay Soni, Arvind Gupta and Soumen Kar (2022). High-power cold diodes for the protection of a 1.5 T superconducting MRI magnet system. Semiconductor Science and Technology, Volume 37, DOI 10.1088/1361-6641/ac7163.
- 2. Kanwar Pal Singh, Arvind Kumar, Deo Raj Kaushal (2022) Experimental investigation on effects of solid concentration, chemical additives, and shear rate on the rheological properties of bottom ash (BA) slurry International Journal of Coal Preparation and Utilization, Taylor & Francis, 42 (609-622).
- 3. Vijay Soni; Rajesh Kumar; Navneet Suman; Ajit Nandawadekar; Sankar Ram T; Ram Gopal Sharma; Arvind Gupta; Soumen Kar, (2021) "Quench Protection System of a Whole-Body Non-impregnated 1.5 T Superconducting MRI Magnet," in IEEE Transactions on Applied Superconductivity, vol. 31, no. 5, pp. 1-5, Aug. 2021, Art no. 4702305, doi: 10.1109/TASC.2021.3076402.
- 4. Vijay Soni; Navneet Suman; Sankar Ram Thekkethil; Ajit Nandawadekar; Rajesh Kumar; Gautam Sinha; Arvind Gupta, R. G. Sharma, Soumen Kar,(2021) "Quench Induced Eddy Current and Mechanical Stresses in the Bobbin and Thermal Shield of the 1.5 T MRI Magnet System," in IEEE Transactions on Applied Superconductivity, vol. 31, no. 6, pp. 1-7, Sept. 2021, Art no. 4400907, doi: 10.1109/TASC.2021.3095069.
- 5. Om Parkash, Arvind Kumar, Basant Singh Sikarwar (2022) "<u>CFD modeling of slurry flow erosion wear rate through mitre pipe bend</u>" Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science Volume 236, Issue 5, Pages 2256-2267, SAGE Publications.
- 6. Vijay Soni, Arvind Gupta and Soumen Kar (2022). High-power cold diodes for the protection of a 1.5 T superconducting MRI magnet system. Semiconductor Science and Technology, Volume 37, DOI 10.1088/1361-6641/ac7163.
- 7. Arvind Gupta, Aditya Roy, Sachin Gupta, Munish Gupta, (2020). Numerical investigation towards implementation punched winglet as vortex generator for performance improvement of a fin-and-tube heat exchanger, International Journal of Heat and Mass Transfer 149 (2020) 119171, Elsevier Publication (SCI Impact Factor 4.2).
- 8. Sachin Gupta, Aditya Roy and Arvind Gupta, (2019). Computer-aided engineering analysis for the performance augmentation of a fin-tube heat exchanger using vortex generator Concurrent Engineering: Research and Applications, 1–11, 2019, DOI: 10.1177/1063293X19891770 journals.sagepub.com/home/cer. (SCI Impact factor 1.127).

- 9. Singh K. P., Kumar A., and Kaushal, D.R. (2019), Experimental investigation on effects of solid concentration, chemical additives, and shear rate on the rheological properties of bottom ash (BA) slurry, International Journal of Coal Preparation and Utilization, Taylor and Francis publications, Inpress. (http://dx.doi.org/10.1080/19392699.2019.1636787) (2018 SCI Impact Factor: 2.02)
- 10. Kaushal, D.R., Kumar, A., Tomita, Y., Kuchii, S. and Tsukamoto, H. (2016). Flow of bimodal slurry through horizontal bend. KONA Powder and Particle Journal, An International Journal Published from Japan, Volume-34, pp-258 74. (https://doi.org/10.14356/kona.2017016) (2016 SCI Impact Factor = 1.683).
- 11. Kaushal, D.R., Kumar, A., Tomita, Y., Kuchii, S. And Tsukamoto, H. (2013). "Flow of Mono-Dispersed Particles through Horizontal Bend", International Journal of Multiphase Flow, Elsevier Publications, *52* (2013) 71–91, (SCI Impact Factor = 2.21).
- 12. Parkash O., Kumar A., and Sikarwar B. S., (2019). "Analytical and comparative investigation of particulate size effect on slurry flow characteristics using CFD" in Journal of Thermal Engineering. ISSN: 2148-7847. (SCOPUS INDEXED).
- 13. Parkash, O., Kumar, A. and Sikarwar, B.S., (2020). "Numerical simulation and comparative analysis of pressure drop estimation in horizontal and vertical slurry pipeline". Journal of Mechanical Engineering and Sciences, 14(2), pp.6610-6624. (SCOPUS INDEXED).
- 14. Parkash O., Kumar A., and Sikarwar B. S., (2019). "CFD modeling of slurry pipeline at different Prandtl numbers" Journal of Thermal Engineering. ISSN: 2148-7847. (SCOPUS INDEXED). (Accepted).
- 15. Parkash O., Kumar A., and Sikarwar B. S., (2019). "Analytical and comparative investigation of particulate size effect on slurry flow characteristics using CFD" in Journal of Thermal Engineering. ISSN: 2148-7847. (SCOPUS INDEXED).
- 16. Parkash O., Kumar A., and Sikarwar B. S. "Drag model validation of slurry pipeline using CFD". Journal of Engineering Research. ISSN: 2307-1877. (Science Citation Index Expanded).
- 17. Parkash O., Kumar A., and Sikarwar B. S., (2019). "CFD modeling of commercial slurry flow through horizontal pipeline" in Advances in Interdisciplinary Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. ISBN: 978-981-13-6577-5, 153-162. (SCOPUS INDEXED).
- 18. Rajan Narang, Kannan Chandrasekaran and Arvind Gupta (2017). Experimental Investigation and Simulation of Magnetic Flux Leakage from Metal Loss Defects, Journal of Failure Analysis and Prevention, Springer Publication, DOI 10.1007/s11668-017-0286-3. (SCOPUS INDEXED).
- 19. Sorabh and Arvind Gupta (2016). Finite Element Modeling of Magnetic Flux Leakage from Metal Loss Defects in Steel Pipeline. Journal of Failure Analysis and Prevention, Springer Publication, ISSN 1547-7029, vol.16, issue 1. (SCOPUS INDEXED).
- 20. Kumar, A., Kaushal, D.R., and Kumar, U. (2008). Slurry pipeline bend pressure drop: Experiments versus FLUENT. Journal of Engineering and Computational Mechanics, Taylor and Francis Publications, (1), 164-178. (SCOPUS INDEXED)
- 21. V.B.Gupta, Vinay,H.K.Gupta, Arvind Kumar Gupta and C.V.C. Rao. (2004). "A Market-Based Approach to Managing Industrial SPM Emissions in India's Jamshedpur Region". Journal of Environment Quality Management, Vol. Summer 2004 in Jhon Willy publication, USA. (SCOPUS INDEXED)

- 22. Kumar, N., Kaushal, D.R. and Kumar, A. (2013). Computational study of the two-Phase Flow in horizontal slurry pipeline, International Journal of Mechanical and Production Engineering (IJMPE) ISSN 2314-4489, Vol-1, Iss-1.
- 23. Sachin Gupta, Arvind Gupta (2013). Transient Analysis of Cooling Load, IJMRS's International Journal of Engineering Sciences, Vol. 02, Issue 02,139-143.
- 24. Arvind Kumar, D.R. Kaushal, Navneet Kumar (2013). CFD modeling for pneumatic conveying through pipeline system. YMCAUST Journal, Vol-1, Issue-2, 65-70.
- 25. Arvind Gupta, Jitender Dabas(2012), "Green Buildings: Eco-Efficient Infrastructure", IJMRS's International Journal of Engineering Sciences, ISSN (Online): 2277-9698, 181-187.
- 26. Arvind Gupta and Sachin Gupta (2014). Heat Transfer Enhancement -A Review, IJMRS's International Journal of Engineering Sciences, Vol. 03, Issue 01, March 2014, 1-9.
- 27. Arvind Kumar, Kamarpal, Sachin Gupta and D.R.Kaushal (2014). CFD Modelling of Slurry Flow in Pipeline System for Solid Concentration Distribution. International Journal of Applied Engineering Research, Vol.09,733-742.
- 28. Arvind Kumar, Kamarpal, Sachin Gupta and D.R.Kaushal, (2014). CFD Modelling for Pressure drop in Pneumatic Conveying through Pipe. International Journal of Advances in Engineering Research, Vol.04, issue-03, 1-4.
- 29. Manju Singh and Arvind Gupta (2015). Performance Analysis of Compact heat Exchanger, IJIRST –International Journal for Innovative Research in Science & Technology Volume 1, issue 12(503-505).
- 30. Manju Singh, Arvind Gupta and Nitin Panwar (2015). Selection of Heat Exchanger using Graph Theoretic Approach, IJIRST –International Journal for Innovative Research in Science & Technology Volume 2, Issue 1.
- 31. Vinod Sehrawat, Arvind Gupta and Gulshan Sachdeva (2015). Review of thermal energy storage options for solar energy powered Absorption cooling systems International Journal of Engineering Research & Technology (IJERT) Volume 4, issue 03.
- 32. Kanwarpal Singh, Arvind Kumar, K. M. Assefa, D. R. Kaushal (2015). Experimental investigation on the rheological behaviours of fly ash slurries without and with the addition of chemical agents, International Journal of Engineering Research & Technology (IJERT) Volume 4, issue 03.
- 33. Arvind Kumar, Kanwarpal, Sachin Gupta, D.R. Kaushal (2015). CFD modeling for solid liquid flow in pipeline, YMCAUST IJR, Volume 3, Issue 1.
- 34. Vijay Yadav, Arvind Gupta, Bhupender Singh (2017). Effect of Process Parameters of WDEM on surface roughness and material removal rate for alloy material (AL6101-T6) using TAGUCHI method. Journal of International Education and Research, Volume 3, Issue 5.
- 35. Chauhan, A., Gupta, A., and Singh, B. (2016). Value Stream Mapping for Consumer Durables Manufacturer (A Case Study). Journal of Recent Activities in Production, 1(2).
- 36. Chauhan, A., Gupta, A., and Singh, B. (2016). Application of Graph Theoretic Approach in Performance Analysis of Refrigerants. Journal of Advanced Research in Mechanical Engineering and Technology, ADR publication.

Publication: Conferences

- 1. Deepak Kumar Yadav, Rajeev Kumar Singh, Sikarwar, B.S. and Arvind Kumar "3-D Printing of Phase Change Materials: Issues and Challenges". In International conference (FLAME-2022), held on 3-5th August 2022, at Amity University, Noida, India.
- 2. Ravinder Bainsla, Arvind Gupta, Vivek Kumar and Sawar Gupta "Effect of lockdown amid covid-19 pandemic on air quality in a city of Haryana" In National Conference ECO: 2022(Air-Water- Soil) held on 23rd -24th September 2022, at JC Bose YMCA University of Science & Technology, Faridabad, India.
- 3. Parkash, O., Kumar, A. and Sikarwar, B.S. "CFD Modeling of Commercial Slurry Flow Through Horizontal Pipeline". In Advances in Interdisciplinary Engineering (pp. 153-162). Springer, Singapore. In International conference (FLAME-2018), held on 3-5th October 2018, at AUUP, Noida, India. (SCOPUS INDEXED).
- 4. Parkash, O., Gupta, A., and Sikarwar, B. S. "Slurry pressure drop through horizontal mitre pipe bend using CFD" In International conference (FLAME-2020), held on 5-7th August 2020 at AUUP, Noida, India. (SCOPUS INDEXED).
- 5. Parkash, O., Gupta, A., and Sikarwar, B. S. "Numerical estimation of pressure drop in horizontal slurry pipeline using CFD". In International Conference on Emerging Trends and Advancement in Mechanical Engineering (ICETAME -2019) held on 11-12th March 2019, at LIET, Alwar, Rajasthan, India.
- 6. Parkash, O., Gupta, A., and Sikarwar, B. S., "Numerical estimation of pressure drop in horizontal and vertical slurry pipeline" In National Conference (TAME-2019), held on 4-5th April, 2019, at JC Bose YMCA University of Science & Technology, Faridabad, India.
- 7. Parkash, O., Gupta, A., and Sikarwar, B. S., "Numerical simulation of slurry flow through horizontal pipeline" In National Conference (TIME-2018), held on 5-6th October 2018, at Quantum University, Roorkee, India.
- 8. Parkash, O., Kumar, A., and Sikarwar, B. S., "Numerical estimation of pressure drop in horizontal slurry pipeline using CFD" In International conference (ICETAME -2019), 11-12th March at Alwar, Rajasthan, India.
- 9. Parkash, O., Kumar, A., and Sikarwar, B. S., "CFD modeling of commercial slurry flow through horizontal pipeline" In International conference (FLAME -2018), 3-5th October at AUUP, Noida, India.
- 10. Singh K. P., Kumar A., and Kaushal, D.R. (2018), Experimental investigation on effects of chemical additives on rheological behavior of fine particle bottom ash slurry, International Conference on Startup ventures: Technology Developments and Future Strategies (SV-TDFS) 2018 held at Manipal University, Jaipur, Rajasthan, India on October 8-9, 2018
- 11. Vijay Soni, Arvind Gupta, Rajesh Kumar, Navneet Suman, Sankar Ram T, R. G. Sharma, T. S. Datta and Soumen Kar, "*Post Quench Electromechanical Analysis of 1.5 T Whole Body Clinical MRI System*", Paper has been presented at NSCS-27, IIT Bombay, Mumbai, January 2019.

- 12. Parkash, O., Kumar, A., and Sikarwar, B. S., "Numerical estimation of pressure drop in horizontal and vertical slurry pipeline" In National conference (TAME-2019), 4-5th April at YMCA University, Faridabad, India.
- 13. Parkash, O., Kumar, A., and Sikarwar, B. S., "Numerical simulation of slurry flow through horizontal pipeline" In National conference (TIME-2018), 6-7th October at Quantum University, Roorkee, India.
- 14. Vijay Soni, Arvind Gupta, Soumen Kar, "Eddy Current Induced Stress Analysis of 1.5 T Superconducting MRI System" Paper presented at National Conference on Trends and Advances in Mechanical Engineering (TAME 2019) April 2019
- 15. Arvind Gupta (2018). Environmental Economics and Sustainability. National Conference on Energy & Sustainability: Sources, Expectations & Uncertainties at Agarwal College Bhallabhgarh. 9-10 March 2018.
- 16. Arvind Gupta (2018). The Potential of brake Energy regeneration in Delhi, National Conference on National Mobility Mission 2020 at Engineering Bhawan, Institute of Engineering, New Delhi, 19-20 January, 2018.
- 17. Sachin Gupta and Arvind Gupta (2018). Digitalization: Modern tools for organization conference on Emerging Paradigms of Digitization: A management Perspective, Maharaja Agrasen Institute of Technology, New Delhi. 12 February 2018.
- 18. Kumar, A., Kaushal, D.R. and Kumar, U. (2008). 3D CFD Modeling and Experimental Validation for Pressure Drop and Concentration Profiles in Slurry Flow through Pipe Bend. 9th Biennial ASME International Conference on Engineering Systems Design and Analysis, Haifa (Israel).
- 19. Arvind Kumar, Dr. D.R. Kaushal, Umesh Kumar (2007). CFD modeling and experimental validation for pressure drop in slurry pipe bend using Fluent software. ANSYS India, International Conference, Bangalore.
- 20. Kumar, A., Kaushal, D.R. and Kumar, N. (2012). "CFD modeling for pressure drop at different solid concentration in slurry pipeline", Proceedings of the International Conference on Computational Mechanics and Simulations (ICCMS2012), IIT Hyderabad, Dec 9-12.
- 21. Kumar, N., Kaushal, D.R. and Kumar, A. (2012). "CFD simulation of solid-water slurry flow in horizontal pipeline", Proceedings of the International Conference on Computational Mechanics and Simulations (ICCMS2012), IIT Hyderabad, Dec 9-12.
- 22. Kumar, A., Kaushal, D.R. and Kumar, N. (2012). "CFD modeling for pneumatic conveying", Proceedings of the National Conference on Trends and Advances in Mechanical Engineering, YMCA University of Science & Technology, Faridabad, Haryana, Oct 19-20, 2012, pp 221-227.
- 23. Sachin Gupta, Arvind Gupta (2013). "Time Dependent Analysis of Cooling Load Using FDM", Approach Proceedings of the National Conference on Trends and Advances in Mechanical Engineering, YMCA University of Science & Technology, Faridabad, Haryana, Oct 19-20, 2012, pp 206-216.

- 24. Gupta, A. and Grover, S. (2010). "Air pollution in urban cities of India" National Conference, Institute of Engineers, Faridabad Local Center, YMCA University, Faridabad, 21st May, 2010.
- 25. Nikhil Dev, Arvind Gupta, Bhupender Singh, Rajesh Atri (2011). Thermodynamics and the Design, Analysis and Improvement of a 30 MW CHP Competitive Manufacturing: Strategies & Decision Support Systems, GLA university Mathura, Oct.-2011.
- 26. Kanwar Pal, Sombir Sharma, B. N. Pathak, Arvind Kumar (2012). "An Analysis of Surface Roughness and Machinability of Al-Fe-Si Alloys", Proceedings of the National Conference on Trends and Advances in Mechanical Engineering, YMCA University of Science & Technology, Faridabad, Haryana, Oct 19-20, 2012, 567-570.
- 27. Arvind Gupta, Sachin Gupta, Munish Gupta(2013). Use of FDM in the Designing of Airconditioning system, Recent Trends in Materials Engineering" (RTME-2013) at Behal, October 4-5, 2013.
- 28. Kanwarpal, Arvind Kumar, Navneet Kumar (2013). CFD modelling for slurry pipeline flow: A Literature Review. Proceeding of National Conference on Recent Trends and Innovation Civil Engineering held at BRCM CET, Bahal during 15th-16th November, 2013.
- 29. Navneet Kumar, Kanwarpal, Arvind Kumar, D. R. Kaushal (2013). Numerical Simulation of finer particles at higher concentration for pipeline flow. Proceeding of National Conference on Recent Trends and Innovation Civil Engineering held at BRCM CET, Bahal during 15th-16th November, 2013.
- 30. Sonu Ghanghas, Kanwarpal Singh, Arvind Kumar, (2013). Mechanical Behaviour of Aluminium (al-fe-si) based alloys using Powder Metallurgy (pm) Technique, Recent Trends in Materials Engineering" (RTME-2013) at Behal on October 4 5, 2013.
- 31. Sachin Gupta, Arvind Gupta, (2014). A Review on Techniques for Heat Transfer Augmentation, National conference on Recent Advances in Mechanical & Civil Engineering Ajay Kumar Garg Engineering College, Ghaziabad (RAMCE-2014) April 4-5, 2014.
- 32. Vinod Sehrawat and Arvind Gupta (2014). Review of Thermal Storage Options In Solar Absorption Refrigeration System, National conference on Recent Advances in Mechanical & Civil Engineering Ajay Kumar Garg Engineering College, Ghaziabad (RAMCE-2014) April 4-5, 2014.
- 33. Kanwarpal, Arvind Gupta (2014). CFD Modeling of Slurry Transportation in Pipeline for Concentration Distribution Using Different Models, National conference on Recent Advances in Mechanical & Civil Engineering Ajay Kumar Garg Engineering College, Ghaziabad (RAMCE-2014) April 4th and 5th 2014.
- 34. Vinod Sehrawat, Tarun Kumar Gupta, Arvind Kumar, Gulshan Sachdeva (2015). Performance review of solar absorption cooling systems worldwide International conference on Emerging Trends in Mechanical and Industrial Engineering (ICETMIE-2015) July 18, 2015 at ITMU, Gurgaon.
- 35. Sachin Gupta, Arvind Gupta (2015). "Numerical Investigation of Cooling load in Designing of Air Conditioning System" International Conference on "Tools, Techniques and

- Practices for Improving Sustainable Manufacturing" 23- 24th January, 2016 at G.L.A. University, Mathura.
- 36. Kanwarpal Singh, Arvind Kumar, D. R. Kaushal(2016). "Experimental investigation of effects of chemical additives on the rheological properties of slurry in sustainable pipeline transportation" International Conference on "Tools, Techniques and Practices for Improving Sustainable Manufacturing", 23-24th January, 2016 at G.L.A. University, Mathura.
- 37. Jayant Sardana, Suresh Jangra, Ajay Mahendru, Arvind Kumar (2016). "Effect of temperature & holding time on recrystallization behaviour of al-3%mn alloy". International Conference on "Tools, Techniques and Practices for Improving Sustainable Manufacturing" 23-24th January, 2016 at G.L.A. University, Mathura.
- 38. Vinod Sehrawat, Arvind Gupta, Gulshan Sachdeva(2016). "Performance evaluation of solar cooling absorption cooling system", International Conference on "Tools, Techniques and Practices for Improving Sustainable Manufacturing" 23-24th January, 2016 at G.L.A. University, Mathura.
- 39. Chauhan, A., Gupta, A., Singh, B. & Kumar, S. (2016). Enhancement of Productivity A Value Stream Mapping Case Study. National conference on "Innovative Concepts in Mechanical Engineering (ICME-2016)", pp 197-199.
- 40. Chauhan, A., Gupta, A., & Singh, B. (2016). Selection of a Refrigerant by Graph Theoretic approach. National conference on "Role of Science and Technology towards 'Make in India' (RSTTMI-2016)"
- 41. Ankit Tiwari, Om Parkash, Mohan Gautam, Arvind Gupta (2016). Design, Fabrication and Performance of Parabolic Diffuser. International conference on Sustainable Development through Research in Engineering and Management (SDREM- 2016), December 26 -27, 2016.
- 42. Kanwarpal Singh, Santlal, Arvind Kumar, K. M. Assefa, D. R. Kaushal (2016). Rheological analysis and CFD modeling of FA slurry at different particle size in straight pipeline using ANSYS. International conference on Sustainable Development through Research in Engineering and Management (SDREM- 2016), December 26 -27,2016.
- 43. Shilpi Gupta, Arvind Gupta (2016). Participatory Groundwater Management: An Initiative for Sustainable development. International conference on Sustainable Development through Research in Engineering and Management (SDREM- 2016), December 26 -27, 2016.
- 44. Vijay Yadav, Arvind Gupta (2016). A Review on Heat Transfer Augmentation Techniques. International conference on Sustainable Development through Research in Engineering and Management (SDREM- 2016), December 26 -27, 2016.
- 45. Arvind Gupta (2017). Indian Education System. National Conference on Autonomy of Education at Manav Rachana International University, Faridabad, 1-2 April 2017.
- 46. Arvind Gupta (2017), Indian Ancient Education System, National Conference on Autonomy of Education at Manav Rachana University, Faridabad on 1-2 April 2017.
- 47. Arvind Gupta (2018). Environmental Economics and Sustainability. National Conference on Energy and Sustainability: Sources, Expectations & uncertainties at Agarwal College, Bhallabhgarh. 9-10 March 2018.

- 48. Arvind Gupta (2018). The Potential of brake Energy regeneration in Delhi, National Conference on National Mobility Mission 2020 at Engineering Bhawan Institute of Engineering, New Delhi. 19-20 January 2018.
- 49. Sachin Gupta and Arvind Gupta (2018). Digitalization: Modern tools for organization conference on Emerging Paradigms of Digitization: A management Perspective, Maharaja Agrasen Institute of Technology, New Delhi. 12 February 2018.
- 50. Om Parkash, Arvind Gupta and Basant Singh Sikarwar (2018). Enhancement in Suspension Stability of Solid Particulates at Different Temperature in a 34th National Convention of Mechanical Engineers and National Seminar on Mechanical Engineering and Emerging Challenges for Manufacturing on 8th September,2018 at The Institute of Engineers (India), Delhi State Centre.