



(Dr Prem Kumar Bharti)

**Professor & Head, Department of Mechanical Engineering,
Faculty of Engineering & IT,
Integral University, Lucknow**

(Mobile No: 9839130775, Email id: bharti.pk@iul.ac.in, bharti.pk.1974@gmail.com)

[Google Scholar Citation](#), | [Orcid Id](#), [Scopus](#), | [Web Of Science](#), | [Research gate](#),

PROFILE:

- Current Position: Professor & Head, Department of Mechanical Engineering, Integral University, Lucknow
- Total Experience: 26 Years of Academic Experience
- Specialization: Industrial and Production Engineering with focus on Quality Management, Production Engineering, and Material Science
- Successfully Supervised 08 PhDs and 18 M.Tech. Theses
- Established Multiple Engineering Labs
- Significant Role in University/Department Accreditations by NAAC and NBA.
- Authored Three Comprehensive Books in the Mechanical Engineering Domain, Covering Key Areas
- Published 62 Research Papers in Various Journals & Conferences of National/International Repute
- Supervised Internship of a German Student under DAAD RISE Program on Solar Plant Evaluation

RESEARCH INTERESTS:

- Quality Management
- Production & Industrial Engineering
- Material Science
- Modelling & Simulation

SUMMARY OF RESEARCH ACCOMPLISHMENTS:

- Supervised 8 Ph.D. candidates (PhD awarded), 6 ongoing PhD under supervision
- Supervised 18 M.Tech theses
- Published 62 research papers in reputed journals and conferences
- Authored 3 books on engineering subjects
- Key contributions in lab setups and academic curriculum design

PROFESSIONAL MEMBERSHIPS:

- Member of The Institutions of Engineers India

COURSES TAUGHT:

- **Postgraduate:**
 - Total Quality Management
 - Statistical Methods in Engineering
 - Maintenance Management
 - Total Quality Management
- **Undergraduate:**
 - Engineering Mechanics
 - Six Sigma Methods Approach & Applications
 - Computer-Aided Manufacturing (CAM)
 - Kinematics of Machines
 - Basic Mechanical Engineering
 - Heat and Mass Transfer

ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILITY:

- Head, Department of Mechanical Engineering (2009 – 2016)
- Head, Department of Mechanical Engineering (2016 -till date)
- NAAC Criteria II In-Charge for 2023 accreditation (A+)
- Led successful NBA accreditation for the department (2009)
- Warden (1998–2000), Proctor (2001–2007), Time Table In-Charge (2003–2004)
- Academic Council Member & BOS Member (2005 – Present)
- Convenor of National & International Conferences (2012, 2018)

STUDENTS SUPERVISION:

- Ph.D. Supervised (Awarded): 08
- Ph.D. Registered: 06
- M.Tech Theses Supervised: 18
- Supervised internship of a German student under DAAD RISE program

PUBLISHED/GRANT PATENTS:

- Indian Patent on Design of Ergonomic Visual display terminal for Physically Challenged (Filed)
- Modification Quad laser Optics Metal Additive Manufacturing Machine, UK Design Patent
- Deep Learning Based Approach to Predict Fuel Consumption and Maintenance Cost Of Heavy-Duty Vehicles While Using Diesel And Alternative Fuels, Indian Patent

PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS:

- Dwivedi A, Bharti P, Shukla S. An experimental approach to find aniline-formaldehyde copolymers as effective inhibitor on the interface of low carbon steel immersed in 0.5N HCl mixtures. *Journal of the Indian Chemical Society*, Volume 99, Issue 3, March 2022, 100356; DOI: <https://doi.org/10.1016/j.jics.2022.100356> (WEB OF SCIENCE, SCIE)
- Dwivedi, A., Bharti, P. & Shukla, S. K. (2022). Chemical and Electrochemical Study of Effect of Soluble Sulfonated Polystyrene on Mild Steel Interface in Hydrochloric Acid Solution. *Gazi University Journal of Science*, 35 (3) , 808-820 . DOI: 10.35378/gujs.936620
- Dwivedi A, Bharti P, Shukla S. An Overview of the Polymeric Materials that can be used to Prevent Metal Corrosion: A Review. *JOTCSA*. 2021; 8(3): 863-872. DOI: <https://doi.org/10.18596/jotcsa.894374>.
- Asghar Husain Rizvi, S., Agarwal, S., Bharti, P.K. Modeling of Surface Roughness of AISI 4340 Using Copper-Tungsten Tool in Die Sinking EDM Materials Today: Proceedings 2020 DOI: 10.1016/j.matpr.2020.03.355 Part of I ISSN: 2214-7853 Source: Scopus
- Review of Research Work on Performance Measures in Die Sinking EDM SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology 2019-12-25 DOI: <https://doi.org/10.18090/samriddhi.v11i02.8> Part of ISSN: 2454-5767 Source: UGC Care-list
- Rizvi SAH, Bharti P.K, Agrawal S, Modeling of residual stress and surface damage of AISI 4340 using copper-tungsten tool in die sinking EDM *International Journal of Engineering and Advanced Technology* 2019 | journal-article DOI: 10.35940/ijeat. A1624.109119 EID: 2-s2.0-85074564747 Source: Scopus – Elsevier
- Rizvi SAH, Agrawal S, Bharti P.K, Modelling of tool wear and recast layer thickness in die sinking EDM process *European Society for Precision Engineering and*

Nanotechnology, Conference Proceedings - 18th International Conference and Exhibition, EUSPEN 2018 2018 | conference-paper EID: 2-s2.0-85054488262 Source: Scopus – Elsevier

- Rahim, M.R.U., Bharti, P.K. Finite Element Analysis for The Buckling Load Of Corrugated Tubes International Journal of Advanced Engineering, Management and Science 935 – 939 2016 2454 – 1311
- Rahim, M.R.U., Bharti, P.K. ,Axial Crushing Comparison of Sinusoidal Thin- Walled Corrugated Tubes Materials Today: Proceedings 5 (9) 19431 – 19440 2018 1369 – 7021
- Rizvi SAH, Bharti P.K, Agrawal S , Modeling Of Surface Roughness of Ai-Si 4340 Using Copper- Tungsten Tool in Die Sinking Edm Materials Today: Proceedings 2020 | journal-article DOI: 10.1016/j.matpr.2020.03.355 Part of ISSN: 2214-7853 Source: Scopus – Elsevier ,2020 2334 – 2340,
- Chaturvedi, S., Bharti, P.K., Yadav, S.K. A Finite Element Simulation Of MOM (Metal-On- Metal) Hip Implant Lubrication Science 31 (5) 2019 210 – 217 1557 – 6833
- Rahim, M.R.U., Akhtar S ,Bharti, P.K. Comparative Analysis Of Buckling Load Of Circular And Corrugated Tubes By Utilizing Key Performance Indicators International Journal Of Applied Mechanics And Engineering 22 (3) 2017 333 – 340 2353 – 9003
- Dwivedi A, Bharti P, Shukla S, Surface Assimilation and Corrosion Inhibition Characteristic of Water-Soluble Polyvinyl Alcohol on Mild Steel Surface In 0. 5 M Hcl Solution, Journal of The Turkish Chemical Society, Section A: Chemistry 8 (1), 2021, 217 – 228 SCOPUS
- Chaturvedi, S., Bharti, P.K., Yadav, S.K., Metal- On- Metal Hip Prostheses Lubrication Analysis for Newtonian Electrohydrodynamic Fluid Materials Today: Proceedings 46 (15) 2021, 6859 – 6866 ,1369 – 7021.
- Jafri, S.A.H., Bharti, P.K., Comparative Analysis of Life Cycle Cost Savings Through Optimum Thermal Insulation On Building Wall In Cold Climatic Zone Of India Journal Of Management Information And Decision Sciences 24 (7), 2021 ,1-8 ,1532 – 5806 ,SCOPUS
- Rahim, M.R.U., Bharti, P.K. ,Buckling Analysis of Innovative Corrugated Column By Using Response Surface Methodology. Acta Marisiensis. Seria Technologica ,17 (2) ,2020 ,8-17 2668 – 4217
- Rahim, M.R.U., Bharti, P.K., Energy Absorption Characteristics Of Thin- Walled Sinusoidal Corrugated Tube Using RSM- CCD, Production Engineering Archives 26 (4) 2020 144 – 153 2353 – 7779 ,
- Rizvi SAH, Bharti P.K, Agrawal S , Review Of Research Work On Performance Measures In Die Sinking EDM Samriddhi: A Journal Of Physical Sciences, Engineering And Technology 11 (2) 2019 ,137 – 148 ; journal-article DOI: <https://doi.org/10.18090/samriddhi.v11i02.8> Part of ISSN: 2454-5767

- Hasan, M.F, Bharti P.K ,An Investigation Of Wire Offset And Surface Morphology Of Die Steel D- 3 on Wire EDM By Using RSM- CCD, Production Engineering Archives 2021, 27 (2) , 112 – 118 , 2353 – 7779
- Dwivedi, A., Bharti, P. & Shukla, S. K., An Overview of The Polymeric Materials That Can Be Used To Prevent Metal Corrosion: A Review, Journal Of The Turkish Chemical Society Section A: Chemistry 8 (3) 2021, 863 – 872, 2149 – 0120
- Rizvi, S.A.H., Bharti, P.K., Agarwal, S. Modeling Of Residual Stress And Surface Damage Of Ai-Si 4340 Using Copper- Tungsten Tool In Die Sinking Edm International Journal Of Engineering And Advanced Technology, 9 (1) 2019 , 3050 – 3055, 2249 – 8958
- Haque, S., Bharti, P. and Ansari, A “Mechanical and Machining Properties Analysis of Al6061-Cu-Reinforced SiCP Metal Matrix Composite”, Journal of Minerals and Materials Characterization and Engineering, 2014, 2, 54-60 Published Online January 2014ISSN:2327-4077, ISSN online:23274085.
- Haque S, Ansari AH, Bharti.PK “Study of the Effect of Process Parameters on Mechanical Properties & Micro Structure of Al-Cu & SiCp reinforced Metal Matrix Composite” in International Journal of Engineering and Technology, vol. 4, issue 6,427-431, ISSN 0975-4024, Dec-Jan 2013.
- Haque S, Ansari AH, Bharti.PK ,Effect of Process Parameters on Wear Rate of Al 6061-Cu reinforced SiCp Metal Matrix Composites, Journal of Materials and Environmental Science,2014 ,5(5),1485-1489
- Haque S, Bharti.PK, Ansari AH “Effect of Process Parameters on Wear Rate of Al 6061-Cu reinforced SiCp Metal Matrix Composites”, Journal of Materials and Environmental Science 5 (5)(2014) 1485-1489, ISSN 2028-2508.
- Haque S, Ansari AH Bharti.PK, “Effect of Pouring Temperature and Stirring Speed on Mechanical Microstructure & Machining Properties of Al 6061 reinforced SiCp Metal Matrix Composites”, International Journal of Research in Engineering and Technology, vol. 3, special issue 10, june 2014, EISSN 2319-1163, PISSN 2321-7308.
- Dwivedi, A., Bharti, P. “Study of Characteristic of Natural Fiber Reinforced Polymer Composites: A Review” in International Journal of Sc ientific Research & Development, Vol. 3, Issue 04, 2015 | ISSN (online): 2321-0613, November 2015.
- Khare S, Chaterjee A,Bajpai S,Bharti PK “Manufacturing Engineering Education in India” in the Journal of Management and Production Engineering Review, March, 2016.
- Dwivedi, A., Bharti, P.K “A Review on Natural Fiber Reinforced Polypropelyne Composites: Application and Characteristic” International journal for science and Advance Research in Technology, Volume 2 Issue 3 –March 2016, ISSN: 2395-1052.
- “Effect of Welding Speed, Current and Voltage on Mechanical Properties of Underwater Welded Mild Steel Specimen (C, Mn, Si) with Insulated Electrode E6013” MIT International Journal of Mechanical Engineering, Vol. 4, No. 2, August 2014, pp. 120-124 120, ISSN 2230-7680.

- Haque S, Bharti.PK, Ansari AH “Effect of Casting Process Parameters of Al6061-Cu- SiCp metal matrix Composite on Material Removal Rate by Electrical Discharge Machining” Moroccan Journal of Chemistry, pp 343-349,2014
- Haque S, Ansari AH, Bharti.PK, Experimental Evaluation of Process Parameters Effect on Mechanical and Machining Properties of Al6061–Cu–SiCp-Reinforced Metal Matrix Composite” Arabian Journal of Science & Engg., Springer, March 2016,41 (11) 322-331,

PAPER PUBLISHED IN NATIONAL / INTERNATIONAL CONFERENCES:

- Bharti PK, Khan MI, Singh H, Taguchi’s off line method and Multivariate loss function approach for quality management and optimization of process parameters, ICMOC 2010, American Institute of Physics proceedings pp 486-491.
- Bharti PK, Khan MI, Singh H, Six Sigma approach and its applicability for Quality and Performance Excellence in Plastic Injection Moulding industry -A review, International Conference on Emerging Trends in Mechanical Engineering ICETME-2011(Feb24-26,2011) Paper code (IE - 203).
- Bharti PK, Khan MI, Singh H ,Six Sigma approach for Quality and Performance Excellence in Plastic Injection Moulding industry, International conference on recent trends in Engineering and Technology Management at BIET Jhansi.
- Bharti PK, Khan MI, Singh H, Six Sigma Approach Towards Managing Quality and Performance Excellence, Third National Conference on Contemporary Management Research (NACCMAR 2010) at Apeejay School of Management.
- Bharti PK, Jafri SAH,Abbasi K “TQM A Tool for Quality Revolution in Higher Education” National Conference on Evolving Role of Universities” at A.I.E.T, Lucknow, 19-20 Feb 2008.
- Abbasi K ,Bharti PK, Jafri SAH, “E-Waste and its Effect on Environment”, Recent Advances and Development in Sustainable Environment at Haryana Engineering College, Jagadhri, Haryana, 3-4 May 2008.
- Abbasi K ,Bharti PK, Jafri SAH “Air Pollution Control in Industrial Area”, National Conference on Recent Advances and Development in Sustainable Environment at Haryana Engineering College, Jagadhri, Haryana, 3-4 May 2008.
- Jafri SAH ,Abbasi K ,Bharti PK, “Municipal Solid Waste Management and Its Environmental Effect”, National Conference on Recent Advances and Development in Sustainable Environment at Haryana Engineering College, Jagadhri, Haryana, 3-4 May 2008.
- Jafri SAH , Bharti PK, Abbasi K , “Geothermal Energy and its Feasibility in India”, National Conference on Emerging Trends in Engineering and Technology at DCRUST, Sonipat, Haryana 26-27 May 2008.
- Jafri SAH , Bharti PK, Abbasi K “Wind Energy An Environment Friendly renewable Alternative Source of Energy in Indian Perspective”, National Conference on Emerging Trends in Engineering and Technology at DCRUST, Sonipat, Haryana, 26-27 May 2008.

- Jafri SAH , Bharti PK, Abbasi K “Prospects of Magneto Hydrodynamics (MHD) in Power Generation”, National Conference on Emerging Trends in Engineering and Technology at DCRUST, Sonipat, Haryana, 26-27 May 2008.
- Bharti PK, Jafri SAH, Abbasi K “Quality Management Techniques In Higher Education A New Paradigm Of Learning”, National Conference on Emerging Trends in Engineering and Technology at DCRUST, Sonipat, Haryana, 26-27 May 2008.
- Abbasi K, Jafri SAH ,Bharti PK, “The Bioreactor Landfill-An Innovation in Solid Waste Management”, National Conference on Emerging Trends in Engineering and Technology at DCRUST, Sonipat, Haryana, 26-27 May 2008.
- Jafri SAH , Bharti PK, Abbasi K “Erosion in Hydraulic Turbines a Review”, National Conference on Emerging Trends in Mechanical and Electrical Engineering at Integral University, Lucknow, Uttar Pradesh, 12-13 June 2012.
- Jafri SAH, Bharti PK, Abbasi K “Review of Micro Hydropower”, National Conference on Emerging Trends in Mechanical and Electrical Engineering at Integral University, Lucknow, Uttar Pradesh, 12-13 June 2012.
- Abbasi K , Jafri SAH ,Bharti PK “Review of an Environment Friendly Welding Process”, National Conference on Emerging Trends in Mechanical and Electrical Engineering at Integral University, Lucknow, Uttar Pradesh, 12-13 June 2012.
- Abbasi K , Jafri SAH ,Bharti PK “Review of Micro Air Vehicle”, National Conference on Emerging Trends in Mechanical and Electrical Engineering at Integral University, Lucknow, Uttar Pradesh, 12-13 June 2012.
- Bharti PK, Jafri SAH, Abbasi K Six Sigma: As a Tool to Improve Quality and Profitability in small and medium Enterprises- A Review”, National Conference on Emerging Trends in Mechanical and Electrical Engineering at Integral University, Lucknow, Uttar Pradesh, 12-13 June 2012.
- Moh. Khan S, Bharti. P.K, Sustainability Accounting and Reporting for Supply chains in India-Research Challenges, International Conference on Contemporary Research in Mechanical Engineering with focus on Materials and Manufacturing, organized on 06-07 April 2018, IOP Conf. Series: Materials Science and Engineering 404 (2018) 012044 ISSN 1757-899X,
- Abhishek Dwivedi, Prem Kumar Bharti, Sudhish Kumar Shukla, “Interaction of water soluble polyacrylic acid towards mild steel / hydrochloric acid interface” Paper ID. ICCRME-59,
- International Conference on Contemporary Research in Mechanical Engineering with focus on Materials and Manufacturing, organized on 06-07 April 2018, IOP Conf. Series: Materials Science and Engineering
- Hussain Jafri, Bharti.P.K. ,Analyzing Optimum Thickness For Combination Of Two Thermal Insulation Materials For Building Walls, International Conference on Contemporary Research in Mechanical Engineering with focus on Materials and Manufacturing, organized

on 06-07 April 2018, IOP Conf. Series: Materials Science and Engineering 404 (2018) 012044 ISSN 1757-899X,

PUBLISHED NON-SCI-SCOPUS BUT PEER REVIEWED RESEARCH PAPERS:

- Siddiqui Anees ,Bharti P.K., Jafri SAH “Friction Stir Welding as a Joining Process through Modified Conventional Milling Machine- A Review”, International Journal of Innovative Research & Development, vol. 3, issue 7, ISSN 2278-0211 (online)July-2014.
- Siddiqui Anees, Bharti P.K., Jafri SAH “Optimization of Welding Speed Current & Voltage to take Best Value of Mechanical Properties of Arc Welded Specimen of Mild Steel with E6013 Electrode”, MIT International Journal of Mechanical Engineering, vol. 4 no. 2, August 2014, ISSN 2230-7680.
- Kumar Pramod, Siddiqui Anees ,Bharti P.K., Jafri SAH “Study of Hazards Related to Cutting Fluids and Their Remedies”, International Journal of Engineering, Research and Technology, vol. 3, issue 7, july 2014, ISSN 2278-0181.
- Bharti PK, Khan MI, Singh H “Six Sigma Approach and its applicability for Quality and Performance excellence in Plastic Injection Molding Industry-A Review”, International Journal of Applied Engineering Research Volume 6, Number 4 (2011) pp. 461–469 (ISSN 0973-4562) .
- Bharti PK, Khan MI, Singh H “Recent Methods for Optimization of Plastic Injection Molding Process –A retrospective and literature review”, International Journal of Engineering Science and Technology Vol. 2(9), 2010, 4541-4555 (ISSN: 0975-5462).
- Bharti PK, Khan MI, Singh H “Six Sigma Approach for Quality and Performance Excellence in Plastic Injection Molding Industry - A Case Study and Review”, International Journal of Research in Commerce & Management Volume No: 2 (2011), ISSUE NO. 2 (FEBRUARY) pp 58-64 (ISSN 0976-2183).
- Bharti PK, Khan MI, Singh H “Six Sigma Approach for Quality Management in Plastic Injection Molding Process: A Case Study”, International Journal of Applied Engineering Research Volume 6, Number 3 (2011) pp. 303–314 (ISSN 0973-4562).

BOOKS AUTHORED:

- Engineering Mechanics (ISBN: 81-884558-28-7), S K Kataria & Sons Publisher
- Introduction to Mechanical Engineering (ISBN: 13-978-81-224-2178-1), New age International Publisher

- CAM an Introduction (ISBN: 978-93-80257-09), Word press

BOOK CHAPTERS

- “A comprehensive Review on 3-D Printing of Bio Composite Materials” in Edited Book Recent Trends in Mechanical Engineering, ISBN:978-81-962299-5-5
 - “Powder Metallurgical Metallic Nano composites” in Edited Book Recent Trends in Mechanical Engineering, ISBN:978-81-962299-5-5
-