

## **Publications**

### **National Conferences:**

- 1 Kiran Bhole, D.S.S. Sudhakar, and V.M. Mohandas, “Analysis of Aluminum in Electromagnetic Metal Forming Process.” National Conference on Trends and Advances in Mechanical Engineering, TAME Dec. 2006, YMCA Institute of Engineering, Faridabad, Haryana.
- 2 Vishal Bandkar and Kiran Bhole “Design of Seal System – Plan 52 as per API Standard 682” National Conference on Advances in Mechanical Sciences AIMS, Kumaraguru College of Technology, Coimbatore, March. 2007.
- 3 O. G. Sonare, P. D. Deshmukh, S. R. Sawant, and K. S. Bhole “Design Optimization of Surface Roughness using Taguchi Parameter Design”, National Conference on Advances in Mechanical Engineering, Siddhartha Institute of Technology, Vijaywada, Andhra Pradesh January 2008.
- 4 O. G. Sonare, P. D. Deshmukh, S. R. Sawant, and K. S. Bhole “Design Optimization for Surface Roughness in Turning Operation” National Conference on Computer Application in Manufacturing Process, CAMP Sinhgad Institute of Technology Lonavala, 2008.
- 5 O. G. Sonare, P. D. Deshmukh, S. R. Sawant and K. S. Bhole, “ Design Optimization for Surface Roughness in Turning Operation using Full Factorial Method”, National Conference on Advance Manufacturing Techniques, Shree Mata Vaishno Devi University, Katra, Jammu, 6 Nov. 2009.
- 6 B. S. Kale, Kiran Bhole, and S. K. Kamble, “Microstereolithography: A Review of Fundamentals and Applications”, National Conference on Recent trends in Engineering and Technology, Fr. Agnel Vashi, Zenith 2009.
- 7 Prajakta Bawiskar, Sachin Kamble, and Kiran Bhole, “Design of Tilting Ladle Transfer Car for Steel Industries”, National Conference on Advances in Mechanical Engineering NCAME, World Journal of Science and Technology, Vol 2, No. 4, R. C. Patel Institute of Technology, Shirpur, Dist. Dhule, Maharashtra, India. April 21, 2012.
- 8 Chetan Rathi, Nimisha Motghare, and Kiran Bhole, “Acoustic Sensitivity Analysis of a Locomotive Cab”, National Level Conference on Technologies for Physically Challenged, Lokamanya Tilak College of Engineering, Koparkhairne, Navi Mumbai, 13 Oct. 2012.

- 9 Rajesh Mandale, Kiran Bhole, P. D. Deshmukh, Dr. Vilas B. Shinde, "Finite Element Analysis for Shrinkage Prediction in Thin Wall Impeller Structures", Indian Foundry Congress, Kolkata 2013.
- 10 Prasanna Gandhi and Kiran Bhole, "Fabrication of Controlled Varying Depth 3D Microstructures using 'Bulk Lithography'", CMTI, First National Conference on Micro and Nano Fabrication, Bangalore, January 2013.
- 11 Shree M. Deo, Kiran Bhole, Priyanka Kulkarni, Sachin Shinde, "Concept of Flexural Based Mechanism for Efficient Microdrilling" National Conference in Applied Science and Humanities, 26-27 February 2016, Thakur College of Engineering and Technology, Kandivali, Mumbai, pp.32-35.

### **International Conferences:**

- 1 Kiran Bhole, D.S.S. Sudhakar, and V.M. Mohandas, "Study of Aluminium in Electromagnetic Metal Forming Process", International Conference on Advances in Machine Design and Industry Automation, ICAMDIA Jan 2007, College of Engineering, Pune, Maharashtra.
- 2 Suhas Deshmukh, Kiran Bhole and Prasanna Gandhi, "Indigenously Developed Microstereolithography System: Design, Analysis and Development", International Conference, Bangalore Nano 2008.
- 3 Alem Baraki, Kiran Bhole and Prasanna Gandhi, "Novel Large-range, High-resolution 3D Printing of Microcomponents using dSPACE", dSPACE user Conference, Bangalore, Sept. 24, 2010.
- 4 Prasanna Gandhi and Kiran Bhole, "3D Microfabrication using Bulk Lithography", ASME International Mechanical Engineering Congress and Exposition, Denver, Colorado, pp. 393-400, USA Nov. 2011.
- 5 Prasanna Gandhi and Kiran Bhole, "Fabrication of polymer microneedle array using bulk lithography and micromolding process", SPIE, Advanced Lithography Conference, San Jose, California, USA, 12-16 Feb. 2012, 8323-103.
- 6 Prasanna Gandhi, Shital Kamble and Kiran Bhole, "Novel Fabrication and Characterization of Diaphragm Micromirror using Bulk Lithography", ASME International Mechanical Engineering Congress and Exposition, Houston, Texas, USA Nov. 2012, pp.549-554.

- 7 Prasanna Gandhi, Naresh Chaudhari and Kiran Bhole, "Fabrication of Textured 3D Microstructures using Bulk Lithography", ASME International Manufacturing Science and Engineering Conference, MSEC Notre Dame, USA June 4-8, 2012, pp. 959-964.
- 8 Kiran Bhole, Prasanna Gandhi, and T. Kundu, "Characterization of Cured Width under Wide Range of Gaussian Laser Exposure for Bulk Lithography", NITK Surathkal, International Conference on Advances in Manufacturing and Materials Engineering, ICAMME-2014, March 2014, Elsevier Science Direct, Procedia Material Science 5, pp. 2487-2492.
- 9 Kiran Bhole, Sunil Ekshinge, and Prasanna Gandhi, "Fabrication of Continuously Varying Thickness Micro-cantilever using Bulk Lithography Process", ASME International Manufacturing Science and Engineering Conference, MSEC2014-4041, pp. V001T01A009, doi: 10.1115/MSEC2014-4041, ISBN:978-0-7918-4580-6, Michigan, USA, June 2014.
- 10 Kiran Bhole, Prasanna Gandhi, and T. Kundu, "On the Formation of Photopolymerized Voxel with Varying Focal Length during Bulk Lithography", ASME International Mechanical Engineering Congress and Exposition, Montreal, Canada, November 2014.
- 11 Kiran Bhole and Prasanna Gandhi "Bulk Lithography: Characterization and Development of Process Plan for the Fabrication of 3D Microstructures", ASME International Mechanical Engineering Congress and Exposition, Montreal, Canada, November 2014.
- 12 Rajesh Kolambekar and Kiran Bhole "Development of Prototype for Waste Heat Energy Recovery from Thermoelectric System at Godrej Vikhroli Plant", International Conference on Nascent Technologies in Engineering ICNTE 2015, Fr. Conceicao Rodrigues Institute of Technology, Vashi Navi Mumbai, 09<sup>th</sup> Jan 2015.
- 13 Sachin Shinde and Kiran Bhole "Review of Accuracy Improvement Techniques in High Speed 5-Axis Machining", International Conference on Nascent Technologies in Engineering ICNTE 2015, Fr. Conceicao Rodrigues Institute of Technology, Vashi Navi Mumbai, 09<sup>th</sup> Jan 2015.
- 14 Amol Ghude and Kiran Bhole "Fabrication of Microchannel using Sequential Micromilling and Micromolding", International Conference on Nascent Technologies in Engineering ICNTE 2015, Fr. Conceicao Rodrigues Institute of Technology, Vashi Navi Mumbai, 10<sup>th</sup> Jan 2015.

- 15 Jitesh Shewale and Kiran Bhole “3D Polymer Microneedle Array: Fabrication and Analysis”, International Conference on Nascent Technologies in Engineering ICNTE 2015, Fr. Conceicao Rodrigues Institute of Technology, Vashi Navi Mumbai, 10<sup>th</sup> Jan 2015.
- 16 Vivek T. Fegade, Kiran Bhole, and Vinay Patil, “Nonlinear Static Finite Element Analysis and Material Optimization of Connecting Rod”, International Conference on Nascent Technologies in Engineering ICNTE 2015, Fr. Conceicao Rodrigues Institute of Technology, Vashi Navi Mumbai, 10<sup>th</sup> Jan 2015.
- 17 Kiran Bhole, and Prasanna Gandhi, “Bulk Lithography: An Alternative Way for Developing Three-Dimensional Free Formed Micro-Structures in Single Laser Scan” 5<sup>th</sup> International Conference on Additive Manufacturing Technologies-AM 2015, Nimhans Convention Centre, Bangalore, 7- 8 September 2015.
- 18 Kiran Bhole, and Prasanna Gandhi, “Synthesis of “Bulk Lithography” for Developing Three-Dimensional Free-Formed Microstructures in Single Laser Scan” International NAFEMS Conference on Engineering Analysis, Modeling, Simulation and 3D Printing (NAFEMS-3D), 29-31 August 2016.
- 19 Kiran Bhole, Megha Janbandhu, and Surendra Sawant “Design and Development of High Resolution Flexural Based Feed Stage for Micro-drilling Workstation” International NAFEMS Conference on Engineering Analysis, Modeling, Simulation and 3D Printing (NAFEMS-3D), 29-31 August 2016.
- 20 Ajinkya Singare, Kiran Bhole, and Bharatbhusan Kale, “Design of Setup for Development of Meso and Micro-structures Using Lift Plate Hele-Shaw Fluid Flow”, 2<sup>nd</sup> International Conference on Materials and Manufacturing Engineering ICMME 2017, March 2017.
- 21 Durvesh Sawant, Kiran Bhole, and Rajesh Buktar, “Design and Development of Sublimation Drying Based System to Avoid Stiction Effect in Post Processing of Arrayed Microstructures”, 2<sup>nd</sup> International Conference on Materials and Manufacturing Engineering ICMME 2017, March 2017.
- 22 Rishikesh Khadke and Kiran Bhole, “Characterization of Radial Curved Fin Heat Exchanger under Natural Convection”, 2<sup>nd</sup> International Conference on Materials and Manufacturing Engineering ICMME 2017, March 2017.
- 23 Kiran Bhole and Megha Janbandhu, “Design and Development of Double Spiral Shaped Flexural Feed Stage for Micro-drilling Workstation”, International

Conference on Advances in Materials and Manufacturing Applications IConAMMA 2017, 17<sup>th</sup> -19<sup>th</sup> August 2017.

- 24 Rishikesh Khadke and Kiran Bhole “Characterization of Radial Curved Fin Heat Sink under Natural and Forced Convection”, International Conference on Advances in Materials and Manufacturing Applications IConAMMA 2017, IOP Conference Series: Materials Science and Engineering, vol. 310 (2018), 17<sup>th</sup> - 19<sup>th</sup> August 2017, pp. 012031-9, doi:10.1088/1757-899X/310/1/012031.
- 25 Ajinkya Singare, Kiran Bhole, and Bharatbhusan Kale, “Experimental Characterization of Meso-Micro Fractals from Nanoparticle Seeded Resin in Lifting Plate Hele-Shaw Cell, International Conference on Advances in Materials and Manufacturing Applications IConAMMA 2017, 17<sup>th</sup> -19<sup>th</sup> August 2017.
- 26 Durvesh Sawant, Kiran Bhole, and Rajesh Buktar, “Characterization of Sublimation Based Microstructure Release Technique to Combat Stiction Effect”, International Conference on Advances in Materials and Manufacturing Applications IConAMMA 2017, 17<sup>th</sup> -19<sup>th</sup> August 2017.
- 27 Kiran Bhole and Vinit Sonavane, “Parameter Based Method for Three Arm Spiral Shaped Flexural Bearing” International Conference on Materials Processing and characterization, Hyderabad, Materials Today Proceedings, 5 (2018) pp 19380-19390.
- 28 Vinit Sonavane and Kiran Bhole, “Frequency Analysis of Two Stage Three Arm Spiral Shape Flexural Bearing” 2<sup>nd</sup> International Conference on Frontiers in Engineering, Applied Sciences and Technology, NIT Tiruchirappalli.
- 29 Prashant Kasambe, Kiran Bhole, D. V. Bhoir, “Design and Simulation of High SNR Varying Thickness Embedded Strain Sensing Polymer Microcantilever for Biosensing Applications”, ASME 2018 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, Quebec, Canada, 26<sup>th</sup> August 2018, DETC2018-85731, pp. V004T08A004-V004T08A004. doi:10.1115/DETC2018-85731
- 30 Bharat Kale and Kiran S. Bhole, Parametric Analysis for forming meso fractals from nanoparticle seeded resin in Hele Shaw cell, International Conference on Advances in Materials and Manufacturing Applications IConAMMA 2018, 16<sup>th</sup> -18<sup>th</sup> August 2018.
- 31 Kiran Bhole and Vinit Sonavane, Static and Frequency Analysis of Triple Stage Three Arm Spiral Shape Flexural Bearing using FEA, International Conference on Advances in Materials and Manufacturing Applications IConAMMA 2018, 16<sup>th</sup> -18<sup>th</sup> August 2018.

- 32 Bhagyashree Lodhe, Kiran Bhole and Chetna Sharma, Development of Polymer Microneedle upon Exposure of Hollow Gaussian Beam on Unconstraint Depth Resin, International Conference on Advances in Materials and Manufacturing Applications IConAMMA 2018, 16th -18th August 2018.
- 33 Abhilash B. Walte, Kiran Bhole and Jayram Gholave, Mechanical Characterization of Coir Fiber Reinforced Composite, International Conference on Advances in Materials and Manufacturing Applications IConAMMA 2018, 16th -18th August 2018.
- 34 Varad Abhyankar, Sharada Gavade and Kiran S. Bhole, “System Development for Simultaneous Measurement and Control of pH and Moisture of Soil”, International Conference on Nascent Technologies in Engineering ICNTE 2019, Fr. Conceicao Rodrigues Institute of Technology, Vashi Navi Mumbai, 4-5<sup>th</sup> Jan 2019.
- 35 Aaditya Kenge, Ninad Kulkarni, Nikheel Tate, Haseen Shaikh and Kiran S. Bhole, “Development and Mechanical Characterization of Natural-Artificial Fiber Hybrid Composite”, International Conference on Nascent Technologies in Engineering ICNTE 2019, Fr. Conceicao Rodrigues Institute of Technology, Vashi Navi Mumbai, 4-5<sup>th</sup> Jan 2019.
- 36 Ajit Palve, Suyog Shinde and Kiran S. Bhole, “On Comparison Of Expansion Bellow Design Approaches ”, International Conference on Production and Industrial Engineering, CPIE 2019, NIT Jalandhar, 8-10<sup>th</sup> June 2019.
- 37 Bharatbhushan Kale, Kiran S. Bhole and Sagar Gawade, “Development And Control Of Viscous Fingering By Geometry Modification”, International Conference on Production and Industrial Engineering, CPIE 2019, NIT Jalandhar, 8-10<sup>th</sup> June 2019.
- 38 Kiran S. Bhole and Sachin Mastud, “Generalized Design Methodology For Three Arm Spiral Cut Compliant Linear Stage”, International Conference on Production and Industrial Engineering, CPIE 2019, NIT Jalandhar, 8-10<sup>th</sup> June 2019.

### **Journals:**

- 1 Kiran Bhole, Prasanna Gandhi, and T. Kundu, “On the Evolution of Cured Voxel in Bulk Photopolymerization upon Gaussian Laser Exposure”, Journal of Applied Physics, pp 043105-1-10, Vol. 116, July 2014.
- 2 Prasanna Gandhi and Kiran Bhole, “Characterization of ‘Bulk Lithography’ Process for Fabrication of 3D Micro-structures”, ASME Journal on Nano and Micro Manufacturing, Vol 1, Dec. 2013, pp. 041002-1-8. Doi:10.1115/1.4025461.

- 3 Prasanna Gandhi, Suhas Deshmukh, Rahul Ramtekkar, Kiran Bhole, and Alem Baraki, "On-axis Linear Focused Spot Scanning Microstereolithography System: Optomechatronic Design, Analysis and Development", *Journal of Advanced Manufacturing Systems*, Vol.12, No.1, June 2013, pp. 43-68, doi: 10.1142/S0219686713500030.
- 4 Rajesh Mandale, Kiran Bhole, Dr. Vilas B. Shinde, "Finite Element Simulation of Solidification of Thin Wall Impeller Structure", *VSRD, International Journal of Mechanical, Civil, Automobile and Production Engineering*, Vol. 3, No. 6, pp. 181-184, 2013.
- 5 Kiran S. Bhole, B. S. Kale, P.D.Deshmukh, O.G.Sonare, and Ajay Akhare, "Computational Analysis of Rim Thickness Effect on Crack Propagation Path in Gear", *International Journal of Technology and Engineering System (IJTES)*: Nov–Dec 2011- Vol. 4, No7.
- 6 Kiran S. Bhole, B. S. Kale, P. D. Deshmukh, and O. G. Sonare, "Numerical Analysis and Investigation of Aluminum Alloys in Electromagnetic Metal Forming Process", *International Journal of Technology and Engineering System (IJTES)*: Jan –March 2011-, pp 98-102, Vol.2, No1.
- 7 Jitesh J. Shewale and Kiran S. Bhole "Fabrication and Analysis of Three Dimensional Polymer Microneedle Array Potentially for Transdermal Drug Delivery", *SSRG International Journal of Mechanical Engineering*, pp. 27-33, Vol. 2, issue 2, Feb 2015, ISSN:2348-8360.
- 8 Vivek T. Fegade, Kiran S. Bhole, "Finite Element Analysis and Material Optimization for Equivalent Strength of Composite Connecting Rod", *SSRG International Journal of Mechanical Engineering*, pp. 34-40, Vol. 2, issue 2, Feb 2015, ISSN:2348-8360.
- 9 Chavan Vishwajit D, Dr. Rajesh B. Buktar, Dr. Kiran Bhole, "Modeling and Simulation of a Manufacturing System by using Time Petri Net", *International Journal of Engineering Research and General Science*, ISSN 2091-2730, August 2016, Vol. 4, issue 4, pp. 308-313.
- 10 Manoj D. Nikam, Dipak Shimpi, Kiran Bhole, Sachin A. Mastud, "Design and Development of Surface Texture for Tribological Application", *Advanced Materials Research IX* , May 2019, Vol. 803, pp 55-59.
- 11 PV Kasambe, KS Bhole, DV Bhoir, "Performance Evaluation of Embedded Strain Sensing Varying Thickness Polymer Micro-cantilever as Biosensor Platform" July 2017, vol. 6, issue 7, pp. 1-7.
- 12 Bharatbhushan S. Kale, Kiran Bhole, Prachi Khond, "Experimental Modeling of

Meso Fractals Generated From Non Newtonian Fluid From Lifting Plate Hele-Shaw Cell”, *Advanced Materials Manufacturing & Characterization*, 2019, vol.9, issue 2, pp.29-35.

- 13 Ajit Palve, Suyog Shinde, Kiran Bhole, “Parametric Evaluation and Strategy for Design Optimization of Expansion Bellows”, Dec 2019, vol. 12, issue 12, pp. 1-12.