

CURRICULUM VITAE

Dr. Jai Kishan Sambharia

Ph.D. - Production Engineering (MNIT, Jaipur)

M. Tech. - Mechanical Engineering (SVNIT, Surat)

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Highlights:

- Ph.D. in Mechanical Engineering (Production Engg.) at Malaviya National Institute of Technology, Jaipur (Rajasthan).
- 1.5 year teaching experience as Assistant Professor for teaching UG and PG course (MRKIET, Rewari and SKIT Jaipur).
- M. Tech. Mechanical Engineering from S. V. National Institute of Technology, Surat (Gujrat).
- Research experience as SRF on DST R&D project for 4 years on "Design and Development of Unidirectional Abrasive flow Machine". (Ph.D. duration).
- Research experience of 1 year M. Tech. Industrial project in Sheet metal industry and Tool Room. (M. Tech duration)
- Worked on various industry's consultancy projects on finishing problems.
- Worked on CNC milling machine for development of tooling and fixture for finishing various geometry components.
- Publications: Patent-01, International Journals: 06, International Conferences: 05.
- Gate 2010 qualified.

Research Interests:

- Advanced machining processes, Manufacturing science, Abrasive flow finishing process, Sheet metal forming, Tool design and expert system.

Educational Qualification:

(i) Academic Record (Ph.D.):

| Examination | University | Year of Passing | Place | Aggr. % / GPA |
|--------------------|---|------------------------|--------------|----------------------|
| Ph.D. | Malaviya National Institute of Technology, Jaipur | 2017 | Jaipur | 8.26 (CGPA) |

(ii) Academic Record (PG & School):

| Examination | University | Year of Passing | Place | CGPA(Grade) |
|-------------|---|-----------------|---------|-------------|
| M.Tech. | S. V. National Institute of Technology, Surat | 2012 | Surat | 8.49 |
| B.E. | M.D.U. | 2010 | Rohtak | 72.87 |
| XII | B.S.E.H. | 2006 | Bhiwani | 71.6 |
| X | B.S.E.H | 2004 | Bhiwani | 76.5 |

Skills:

- Design Software- Autodesk Inventor, HSM CAM, Autocad , Autolisp.

Work Experience:

| Sr No | Designation | Organization / Institute | Duration | |
|-------|-----------------|--------------------------|-----------|-----------|
| | | | From | To |
| 1. | Asst. Professor | MRKIET, Rewari | Aug. 2012 | Jan. 2013 |
| 2. | Asso. Professor | SKITM&G, Jaipur | Jan. 2017 | June 2017 |

Project & Seminar:

- Automatic Disc Braking System.
- Seminar on Epicyclic Gear Box and Application of AI Techniques in Sheet Metal Forming.
- Computer Aided Process Planning for Bending Process.

Publication Summary:

| | <i>Published/Accepted</i> | <i>In-Review</i> |
|--------------------------|--|-------------------------|
| Patent | <i>01 (Filed)</i> Application No.201611008902 A | |
| International Journals | 06 | - |
| International Conference | 05 | - |
| National Conference | 01 | - |

Publications:

Patent:

Jaikishan Sambharia, Jitender Kumar, Dr. Harlal Singh Mali “Design of a System for Finishing Complicated Workpiece(s) using Abrasive Laden Base Material” No. 201611008902. (2016)

International Journals:

1. **Sambharia J.,** Mali, H.S. (2017) “Recent Developments in Abrasive Flow Finishing Process-A Review of Current Research and Future Prospects”, Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, SAGE. (SCI-Indexed).
2. **Sambharia J.,** Mali, H.S. (2017) “Experimental Investigation into Unidirectional Abrasive Flow Machining of Trim Die”, Materials and Manufacturing Processes, Springer (SCI-Indexed), doi.org/10.1080/10426914.2017.1364847.
3. **JaiKishan Sambharia** and Harlal Singh Mali, (2017) “Characterization and Optimization of Rheological Parameters of Developed Alternative Polymer Abrasive Gels for Abrasive Flow Machine”, Journal of Materials Science and Surface Engineering (**SCI-Indexed**).
4. **JaiKishan Sambharia,** Mali, H.S. (2015) “Characterization and Performance Evaluation of Developed Alternative Polymer Abrasive Gels for Abrasive Flow Finishing Process”, International Journal of Precision Technology, 2015, Vol.5, No.3/4, pp. 185-200. Inderscience (Peer Reviewed, Scopus).
5. Deepak Unune, Amit Aherwar, Bhargav Pathri, **Jai Kishan,** (2014) “Statistical and Regression Analysis of Vibration of Carbon Steel Cutting Tool for Turning of EN24 Steel Using Design of Experiments”, International Journal of Recent advances in Mechanical Engineering, vol. 3, pp. 137-151.
6. DR Unune, A Aherwar, B Pathri, **Jai Kishan** (2013) “Application Of Taguchi Method for Determining Optimum Process Parameters of PMEDM With Sic Powder Suspended In Dielectric” Journal on Material Science, vol. 1, pp. 37-42.

International Conference:

1. Mali, HS, **Jai Kishan** “Developing Alternative Polymer Abrasive Gels for Abrasive Flow Finishing Process” in 5th International & 26th All India Manufacturing technology, Design and research at IIT Guwahati, (**AIMTDR-2014**) 12-14th Dec. 2014.
2. **Jaikishan Sambharia,** Harlal Mali and JsaRam “Rheological Investigation and Comparative Study on Synthesized Low Cost Consumables for Abrasive Flow Finishing Processes” in International Conference on Precision, Meso, Micro and Nano Engineering (**COPEN-9**) at IIT Bombay. (10-12 Dec. 2015).
3. **Jaikishan Sambharia,** Harlal S Mali, “Performance Study of Developed Alternative Polymer Abrasive Gel and Commercial Media in Abrasive Flow Machining”, in **AIMTDR 2016** at COEP, Pune. (16-18 Dec.2016).
4. Bhargav Prajwal, **J. Sambharia,** H.S Mali, R Nagar, “Mechanical, Thermal and Rheological Characterization of marble waste with Different Coolants” in **Proceedings of Materials Today,** 2017.
5. **Sambharia, J.,** Gupta G., Mali, H. S. (2017) “Fine finishing of glass mold surfaces using low cost Unidirectional Abrasive Flow Machine”, International Conference on Precision, Meso, Micro and Nano Engineering (**COPEN-10**), 2017 (Accepted)

National Conference:

Jai Kishan, Mali, HS “Abrasive Flow Finishing Process – A sustainability Study”
Proceeding of National Conference on Sustainable Manufacturing (NCSM-2015)
2-3 Jan. 2015 at MNIT Jaipur.

Short Term Courses/ Workshops Attended:

1. One Week STTP on “Micro-manufacturing and its application” from 30th Feb. 2014 to 4th March 2014 at Indian Institute of Technology, Kanpur.
2. Three days refresher course on “Microscopy”, 31st January to 2nd February, 2014, M.N.I.T. Jaipur.
3. One day symposium on “Frontier Research in Materials”, 30th January, 2014, M.N.I.T. Jaipur.
4. Short Term Training Programme on "Computer Aided Strength of Materials and Analysis & Design of Machine & Structural Elements" 24/12/2012 To 28/12/2012
5. One week ISTE workshop on Engineering Thermodynamics in Dec. 2012 at IIT Bombay.
6. Two Day Workshop on “Aakash for Education” from 11th-12th Nov. 2012, Conducted by IIT Bombay, at MRKIET Rewari.
7. Paper presented in International conference in COPEN 9 at IIT Bombay (Dec. 2015).

Short Term Courses/ Workshops Organized:

One week ISTE Workshop on “Engineering Thermodynamics”, Dec.2012 at MRKIET, Rewari (6 month teaching experience from June 2012 to Dec. 2012).

Industry Projects:

- Computer aided process planning for bending. (Sheet metal industry)
(M. Tech. Thesis, 2011-12). (Hi tech Pvt. Ltd Delhi, DITE Delhi)
- Design and Development of Unidirectional abrasive flow machine for finishing of price sensitive industrial components. (DST Research Project from Jan. 2013 to March 2017).
(Ph.D. Thesis, 2013-2017). (Push Up Udhog Ltd., Rohtak)
- Worked on industry project for internal surface finishing of 3D printing machine nozzle using developed AFM machine and alternative AFM media. **(Industry Consultancy project 2016-17) (Aha 3D Pvt. Ltd Jaipur)**
- Worked on industry project for internal surface finishing of Glass Bottle Mold using developed AFM machine and alternative AFM media. **(Industry Consultancy project 2016-17) (Piramal Glass Ltd Gujrat)**

PERSONAL PROFILE:

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|-------------------|--------------------------------|
| Name | Jai Kishan Sambharia |
| Date of birth | 14 th Feb 1989 |
| Nationality | Indian |
| Current Address | M.D. Colony, Ajmer (Rajasthan) |
| Permanent Address | VPO Batori, Rewari, Haryana. |
| Email | jsambharia@gmail.com |
| Contacts | Mob: +91 7891221067 (Jaipur) |

Declaration:

I hereby declare that information given above is correct to my knowledge and belief.

DATE- 10/01/2018

JAI KISHAN