**CURRICULUM VITAE**

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**Prof. (Dr.) Sushil Kumar**

**Professor & HOD**

**Department of Mechanical Engineering**

**Maharaja Agrasen University**

**Baddi, Solan, (H.P.), INDIA - 174103**

**E-mail: -** [**sushilt6512@gmail.com**](mailto:sushilt6512@gmail.com)

**Objective:** To be part of an esteemed organization which provides challenges, opportunities to enhance my technical aptitude, one that encourages me to contribute usefully and offers me to learn and expand my horizon.

* **Academic Record**

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| --- | --- | --- | --- |
| **Sr. No.** | **Examination Passed** | **College/University** | **Year of Passing** |
| (i) | Ph.D (Mech. Engg.) | PEC (University of Technology) | Feb 2013 |
| (ii) | ME (Mech. Engg.) | PEC (University of Technology) | Dec 2005 |
| (iii) | MBA | IGNOU | Jun 2005 |
| (iv) | AMIE (Mech. Engg.) | I E (India) | Jun 1995 |
| (v) | Diploma (Mech. Engg.) | U.P. Tech. Board | Jun 1985 |
| (vi) | Intermediate (10+2) | U.P. Board | Jun 1982 |
| (vii) | High School | U.P. Board | Jun 1980 |

* **Experience**:-

Thirty three years working experience in **Indian Air Force and Teaching**.

* Professor & HOD with additional charge of DSW in MAU, Kalujhanda, Baddi, Solan (HP) w.e.f. 03 Aug 2015 to 16 Aug 2018.
* **Principal/Director in SDD, Institute of Engineering and Technology,** Barwala, Panchkula (Haryana) w.e.f. 27 Aug 2013 **(Approved principal vide letter No. CBA/349B/2013/12845 dated 10/7/13)** to02 Aug 2015.
* **Teaching** in **Indo Global Engineering College** (Abhipur) Distt. Mohali (Pb) since 01 Aug 2008 to 28 Feb 2013 as an Associate Professor and since 01 Mar 2013 to 26 Aug 2013 as a professor in Mechanical Engineering Department.
* **Teaching** in **SDDIET,** Barwala, Panchkula (Haryana) since 28 Sep 2007 to 31 Jul 2008 as an Asst. Professor in Mechanical Engineering Department.
* **Teaching** in **SSIET** Dera Bassi, Mohali (Punjab) since 01/02/2006 to 31/07/2006 as a lecturer and from 01/08/2006 to 27/09/2008) as a senior lecturer in Mechanical Engineering Department.
* I have tried to work in diverse domains like teaching, research, lab development, guidance for industry oriented projects, educational technology, etc.
* I believe, the rich knowledge and experience gained through multifaceted activities like teaching, training, research, project guidance and administration has enabled me to meet the challenges required at higher levels. Further I belong to a sect who lay emphasis on building and sustaining ethics and value system and believe in dignity of labour.
* **Details of Ph.D Students Guidance**

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| --- | --- | --- | --- | --- |
| Sr. No. | Name of Scholar | Title of Thesis | Synopsis Submitted | Remarks |
| 1. | Sahil Sharma | Modeling, Optimization and Experimental Investigation of WEDM Process of Heat Treated Die Steel | 17 Nov 2016 | Student is enrolled/ registered for his Ph.D work under my Supervision and Co-Supervisor and working on his Problem. |
| 2.  3. | Mr. Jagteshwar Singh  Mr. Virat Khanna | -- | No. | These students are enrolled/registered for their Ph.D work under my Supervision and working on their Problem |
| 4 | Mr. Amit Singla | - | No. | Student is enrolled/ registered for his Ph.D work under my Supervision and working on his Problem |
| 5 | Mr. Rohit Chandel |  | No. | Student is enrolled/ registered for his Ph.D work under my Supervision and working on his Problem |

* **Areas of Specialization**
* Manufacturing Processes
* Production Engg.
* App. Thermodynamics,
* Roto-dynamics, etc.

* **Current Areas of Research**
* Six Sigma,
* Manufacturing Processes,
* Production Engineering
* Applied Thermodynamics
* Design of Experiments
* Maintenance Engineering
* Mechanical Vibration
* Refrigeration and Air conditioning etc.

###### Total Research Papers : 29

**Publication in** **International Journals/Conferences**: 18

**Paper Presented in national** **Journals/Conferences** : 11

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.No.** | **Author** | **Year** | **Title** | **Complete Reference of Int. Journal/conference** |
| 1 | Sushil KumarP.S. SatsangiD.R Prajapati | 2011 | Optimization of green sand casting process parameters of a foundry by using Taguchi’s method | Int. J. of Adv. Manufacturing Tech., Vol. 55, Issue 1-4, pp. 23–34 (springer). |
| 2 | Sushil KumarP.S. SatsangiD.R Prajapati | 2011 | Design for Six Sigma to optimise the process parameters of a foundry | Int. J. of Productivity and Quality Management, Vol. 8, No. 3, pp. 333-355 (inderscience). |
| 3. | Sushil KumarP.S. SatsangiD.R Prajapati | 2013 | Optimization of Process Factors for Controlling Defects due to Melt Shop Using Taguchi Method | Int. J. of quality & reliability management, Vol. 30, Issue 1, pp. 4 - 22 (Emerald). |
| 4. | P.S. SatsangiS. KumarD.R Prajapati | 2013 | A Six Sigma Methodology for Reducing Casting Defects in Foundry Operations | Int. J. of Technology, Knowledge and society, Vol. 8, Issue 4, pp.163-176. (USA). |
| 5. | P.S. SatsangiS. KumarD.R Prajapati | 2012 | Six Sigma Methodology: Reducing Defects in Casting Processes | The 8th International Conference on Technology, Knowledge and Society (USA) (presented on 16 &18 Jan 2012) Technology Conference 2012- Proposal T12P0123. |
| 6. | Sushil KumarP.S. SatsangiD.R Prajapati | 2011 | Six Sigma an Excellent Tool for Process Improvement – A Case Study | International journal of scientific and engineering research, Vol. 2, Issue 9, pp. 1-10, (ISSN-2229-5518). |
| 7. | Sushil KumarP.S. SatsangiD.R Prajapati | 2013 | Improvement of Sigma level of a foundry- A case study | International Journal of TQM Vol. 25, Issue 1, pp. 29 – 43 (Emerald). |
| 8 | **Sushil Kumar** | 2016 | Application of Six Sigma in Automobile Industry | International Journal of Exploration in Engineering & Technology, Vol. 2, Issue 1, pp 39-44, ISSN: 2394-7918. |
| 9 | **Sushil Kumar** | 2017 | Six Sigma: A vital Improvement Approach | International Journal of Exploration in Engineering & Technology, Vol. 3, Issue 1, pp 52-59 ISSN: 2394-7918. |
| 10 | Virat  **Sushil Kumar** | 2017 | Computational Analysis of variance and SN ratio for MRR and surface roughness of Aluminium in turning operation | International Journal of Exploration in Engineering & Technology, Vol. 3, Issue 1, pp 68-73, ISSN: 2394-7918. |
| 11 | **Sushil Kumar**,  Anoop Kumar Singh | 2007 | Implementation of a technique “Decontamination by recirculation” to improve the hydraulic discipline in aviation | National conference on trends in Mechanical Engineering 2007 held at Chitkara Institute of Engineering and Technology dated 19 Jan 2007. |
| 12 | **Sushil Kumar** | 2007 | Total productive maintenance | National conference on Global Manufacturing trends, At SSIET Derabassi dated 12 Apr 2007 |
| 13 | **Sushil Kumar,**  Anil Kumar | 2009 | Business model of waste management corporation | National conference at NITTTR Chandigarh dated 17-18 Nov 2009 |
| 14 | Anil Kumar  **Sushil Kumar** | 2009 | Mitigating Global Warming by Carbon Recapturing | National conference at NITTTR Chandigarh dated 17-18 Nov 2009 |
| 15 | **Sushil Kumar,**  Anil Kumar | 2011 | Wind power generation technologies | National conference on Advance in renewable energy resources at Indoglobal college of engineering dated 29 Apr 2011, pp. 133-138 |
| 16 | Surinder Kumar,  **Sushil Kumar** | 2011 | The changing face of urbanization impact of natural resources | National conference on Advance in renewable energy resources at Indoglobal college of engineering dated 29 Apr 2011, pp 139-145 |
| 17 | Sushil Kumar,D.R Prajapati, P.S. Satsangi | 2011 | Application of six sigma methodology -a case study | First national conference on advance in Mechanical Engineering at UIET, Panjab University, Chandigarh on 20th-21st May 2011. |
| 18 | Surinder Kumar, Meenu,  P.S. Satsangi,  **Sushil Kumar,**  H.K. Sardana | 2012 | Experimental Evaluation of Surface Roughness for Turning of UD-GFRP Composites Material using Regression Modeling | Advances in Manufacturing Technology, National Conference, NITTR Chandigarh, March-2012, pp.70-78. |
| 19 | **Sushil Kumar,**  Anil Kumar | 2013 | Life Cycle Assessment in the construction Industry | Advancement in Construction Technology & Management, National Conference, IGCE Mohali, 17 Apr 2013, pp.91-99. |
| 20 | **Dr. Sushil Kumar,**  R. Singla | 2015 | Six Sigma - a New direction to Quality and Productivity Management | SSRG International Journal of Mechanical Engineering (SSRG-IJME) – EFES April 2015, pp. 17-20. ISSN 2348-8360. |
| 21 | **Dr. Sushil Kumar,**  Satbir Singh Poswal | 2015 | The ultimate sink: carbon capturing and sequestration | National conference on Advanced materials & technologies in Mechanical & Civil Engineering, at IGCE dated 10 Apr 2015, pp. 23-32. |
| 22 | R. Singla  **Sushil Kumar** | 2015 | An Intelligent Clamping System for Drilling Operation-A Review | SSRG International Journal of Mechanical Engineering (SSRG-IJME) – EFES April 2015, pp. 39-42. ISSN 2348-8360. |
| 23 | **Dr. Sushil Kumar,**  Anil Kumar | 2015 | A basic approach to six sigma in smes for quality and productivity promotion | National conference on Advanced materials & technologies in Mechanical & Civil Engineering, at IGCE dated 10 Apr 2015, pp.07-12. |
| 24 | Harpreet Singh,  **Sushil Kumar,** Gagandeep Singh | 2016 | Experimental comparative study of performance and emission characteristics of a CI engine using diesel oil and Rice Bran-Ethanol Blends | International conference on Research innovations in Engineering and Technology, at MAU, Baddi (H.P.) dated 08 & 09 Apr 2016, pp. 324-328, ESBN: 978-93-856181-6-1. |
| 25 | Shahil Sharma  Gyanendra Kumar Singh , Umesh Kumar Vats,  **Sushil Kumar** | 2016 | Experimental Investigation and Optimization of Surface Roughness of Die Steel in WEDM Process with Influence of Heat Treatment | 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016), December 16-18, 2016 at College of Engineering., Pune, Maharashtra, INDIA. pp. 290-297. |
| 26 | Jagteshwar Singh Sidhu,  **Dr. Sushil Kumar,**  Anil Malpotra | 2017 | Synthesis & Characterization of Composite of Aluminum Silicon Carbide | National Conference on Recent Advances in Engineering and Technology (NCRAET- 2017) on 08 Apr 2017 at MAU Baddi, (H.P.), India, pp. 171-174. ISBN: 978-93-86558-00-8 |
| 27 | Amit Singla, Neeraj Sharma, **Sushil Kumar** | 2018 | Study basedbiomedical Mg-based biomaterial microstructure | International Conference on Emerging Trends in Engineering, Science and Technology **(Icetest-2018)** atMaharishi Markandeshwar Engineering College (MMEC) on 16-17 Feb 2018.ISBN: 2454-4248. |
| 28 | Rohit Chandel,  **Sushil Kumar** | 2018 | Supplier selection using hybrid Balanced Scorecard- Fuzzy AHP approach | 5th National Conference on Advancements in Simulation & Experimental Techniques in Mechanical Engineering (NCASEme-2018) at CU on 5-6 Apr 2018, ISBN: 978-81-930789-4-5 |
| 29 | Amit Singla, Neeraj Sharma, **Sushil Kumar** | 2018 | Micro structural and Mechanical Investigations of Mg-based Alloy | International Journal of Vehicle Structures and Systems, (IJVSS), (Elsevier Scopus indexed), Special Issue of ICETEST-18, Volume 10, No. 3, ISSN: 0975-3060. |

* **Seminars/Symposia/Conferences/Workshops etc. attended**

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| --- | --- | --- | --- | --- |
| **Sr. No.** | **Seminar/Symposium/Conference/Workshop Attended with name of organizer and place** | Period | | Duration |
| From | To |
| 1 | Strategic Management for Excellence by MHRD/AICTE at Indoglobal college of engineering, Mohali, Punjab, India | 19 Jan to 23 Jan 2009 | | 5 Days |
| 2 | Effective curriculum Implementation by MHRD/AICTE at Indoglobal college of engineering, Mohali, Punjab, India | 14 Sep to 18 Sep 2009 | | 5 Days |
| 3 | Faculty development programme for Technical Teachers at Indoglobal college of engineering, Mohali, Punjab, India | 12 Jul to 16 Jul 2010 | | 5 Days |
| 4 | Faculty development programme on Innovation & Creating Development in Technical Education at Indoglobal college of engineering, Mohali, Punjab, India | 18 Jun to 22 Jun 2012 | | 5 Days |
| 5 | 41st ISTE Section Faculty Convention- 2011 at Indoglobal college of engineering, Mohali, Punjab, India | 29 Nov 2011 | | 1 Day |
| 6 | Faculty development programme on Professional Development and Learning Strategies at MAU Baddi, (H.P.), India | 29 Jun to 30 Jun 2017 | | 2 Days |
| 7 | Innovative Approach towards Skill Development and Employment Generation in India” (ICT Mode) | 24 July to 28 July, 2017 | | 5 Days |
| 8 | Recent Trends in Automotive Engineering at MAU Baddi, (H.P.), India in collaboration with NITTTR, Chandigarh | 12 Feb to 16 Feb 2018 | | 5 Days |
| 9 | Faculty development programme on Quality and Excellence in Teaching Learning and Practices. (No Certificate) | 17 Jul 2018-18 Jul 2018 | | 2 Days |

* **Member of Editorial Board:**

1. International Journal of Thermal Science and Engineering, EnPress Publisher, USA (editorial-tse@enpress-publisher.com)

2. International Journal of Global Finance Review, EnPress Publisher, USA (editorial-gfr@enpress-publisher.com <editorial-gfr@enpress-publisher.com)

* **Membership AMIE (Calcutta) for Life Time**

Senior Technician Membership No. ST-1097038

Associate Membership No. AM-1095895

* **Paper Reviewed in International Journals**

1. Paper reviewed for the International Journal of Quality & Reliability Management, “Optimization of multiple-quality characteristics in micro-WEDG process using Taguchi technique”, 2012.

2. Paper reviewed for the International Journal of TQM, “Process Measures: A Leadership Tool for Management”, 2012.

3. Paper reviewed for the International Journal of British Journal of Applied Science & Technology, “experimental investigations of process parameters during centrifugal casting of grey cast iron”, 2013.

4. Paper reviewed for the International Journal of Engineering and Technology Research, **“Minimizing the Surface Defects of C55 Housing Component by Using Taguchi Method”, Jun 2015.**

5. Paper reviewed for the International Journal of Royal Society Open Science, “Optimization of sand casting process parameters and missing data prediction, Jan 2018.

* **Expert Lecturers**

(i) Expert Lecturer delivered on “Six Sigma & Research Methodology” Short Course at PEC Univ. of Tech. Chandigarh on 24th Dec. 2010

(ii) Expert Lecturer delivered on “Refrigeration and Air Conditioning” at SRM Institute of Engineering & Technology, Naraingarh, Ambala, (HR) on 22 Apr 2017.

(iii) Expert Lecturer delivered on “Six Sigma” in the faculty development program held at Panchkula Engineering College, Mauli, Barwala, Panchkula, on 13 May 2017.

(iv) Expert Lecturer delivered on “Mechanical Vibration” at Ram Devi Jindal Educational Charitable Society, Lalru on 30 Nov 2017.

(v) Expert Lecturer delivered on “Refrigeration and Air Conditioning” at Panchkula Engineering College, Mauli, Barwala, Panchkula on 22 Feb 2018.

(vi) Expert Lecturer delivered on “Application of Six Sigma in Education” in the faculty development program held at SRM Institute of Engineering & Technology, Naraingarh, Ambala, (HR) on 28 Jul 2018.

* **Personal Strength**: Result oriented, dedicated, pragmatic, and equally comfortable in working with individuals and groups. Possessing a keen desire to learn and willing to take challenges, ability to focus on my work and having organizational skills.

I hereby declare that all the information furnished above is true to the best of my knowledge and belief.

Place: Chandigarh (INDIA)

Date: 17 Aug 2018 Dr. Sushil Kumar