| Name: Dr. Vilas G   | E-mail:vilasdhore@somaiya.edu                  |            |             |          |                    |
|---|--|------------|-------------|----------|--------------------|
| Contact No: 7021  | 776642   |            |             |          |                    |
| Department/Section  | n: Mechanical Engineering                      |            |             |          |                    |
| College: K J Somai  | College: K J Somaiya College of Engineering    |            |             |          |                    |
| DOJ Somaiya:  | Career Experience:                             | Industry E | Experience: | Teaching | <b>Experience:</b> |
| 14 <sup>th</sup> August 2008                                      | 25 Yrs   | -Yrs       |             | 25 Yrs   |                    |
| Present Academic Designation: Present Administrative Designation: |  |            |             |          |                    |
| Assistant Professor   | Departmental Examination Committee Coordinator |            |             |          |                    |

### Area of research/specialization and Courses Delivered

### Research domain/interests/areas

- 1. Metal Matrix Composites,
- 2. Nanomaterials
- 3. Powder Metallurgy
- 4. Design & Modelling

### **Courses Delivered**

- 1. Elements of Machine Design
- 2. Engineering Drawing
- 3. Advanced Machine Design
- 4. Materials Science and Metallurgy
- 5. Engineering Mechanics
- 6. Mechanical System Design
- 7. Refrigeration & Air conditioning
- 8. Mechanical Measurement and Metrology
- 9. Safety Regulations & Future of Electric Vehicles

| Recognition as a teacher by any University | UG: Yes | PG: Yes | Ph.D : No |
|--|---------|---------|-----------|
| Details of Recognitions                    |         |         |           |

1. UG: University of Mumbai, Somaiya Vidyavihar University

2. PG: Somaiya Vidyavihar University

| Education   |  |                        |   |      |                    |
|-------------|--|------------------------|---|------|--------------------|
| Examination | Name of the Degree                       | University/Board       | Institute/College                                   | Year | CPI/SPI/<br>%Marks |
| Ph.D        | Doctor of<br>Philosophy<br>(Mech. Engg.) | VJTI, Mumbai           | Veer Jijabai Technological Institute (VJTI), Mumbai | 2023 | NA                 |
| PG          | Master of<br>Engineering                 | Mumbai<br>University   | Sardar Patel College of<br>Engineering, Mumbai      | 2008 | 62.5 %             |
| UG          | Bachelor of Engg.                        | Amravati<br>University | College of Engg.<br>Badnera                         | 1997 | 64.0 %             |

|        | Notable Experience Details |                     |             |            |            |  |
|--------|----------------------------|---------------------|-------------|------------|------------|--|
| Sr. No | Name of the                | Designation         | Date of     | Date of    | Experience |  |
|        | organization               |                     | Joining     | Leaving    | (Years)    |  |
| 1.     | K. J. Somaiya              | Assistant Professor | 01/07/2016  | Till Date  | 7 Years    |  |
|        | College of                 | (Senior Grade)      |             |            |            |  |
|        | Engineering                |                     |             |            |            |  |
| 2.     | K. J. Somaiya              | Assistant Professor | 14/08/ 2008 | 30/06/2016 | 8 Years    |  |
|        | College of                 | / Lecturer          |             |            |            |  |
|        | Engineering                |                     |             |            |            |  |
| 3.     | P.V.P.P. College of        | Lecturer            | 12/07/2007  | 13/08/2008 | 1 Year     |  |
|        | Engineering, Sion          |                     |             |            |            |  |
| 4.     | K. C. College of           | Lecturer            | 01/09/2006  | 11/07/2007 | 1 Year     |  |
|        | Engineering, Thane         |                     |             |            |            |  |
| 5.     | BVIT, Kharghar             | Lecturer            | 01/01/2006  | 31/08/2006 | 8 Months   |  |
| 6.     | Muchhala                   | Lecturer            | 08/07/1998  | 31/12/2005 | 7.5 years  |  |
|        | Polytechnic Thane          |                     |             |            |            |  |

| Research Accomplishments and Projects  |                                       |                                     |  |
|--|---------------------------------------|-------------------------------------|--|
| No of students pursuit                 | ng Ph.D as on date: Nil               | No of students completed Ph.D : Nil |  |
| No of students completed PG thesis: 02 |                                       | No of students / groups completed   |  |
|  |                                       | UG projects as on date: 30+         |  |
| Publications                           | Number of Peer review Journal papers: | Number of Conference papers: 05     |  |
| Total: 10                              | 05 (Scopus) (4 Journal+1Book Chapter) |                                     |  |

### **Details of Publications:**

### **International Journals**

- Dhore, V. G., Rathod, W. S., & Patil, K. N, "Mechanical and Tribological Attributes of Al-CNT-Sn Composites Prepared by Press and Sintering" *Journal of Composite Science*, 2021 5 (8) 215-228. Scopus Indexed Impact Factor 3.00
- Dhore, V. G., Rathod, W. S., & Patil, K. N. "Fabrication and Characterization of Cold-Pressed and Sintered Aluminium - MWCNT Composites." *Materials Science Forum (Trans Tech Publications Ltd)*, 2021, 1025. 60-68. Scopus Indexed Impact Factor 0.5
- 3. Dhore, V. G., Rathod, W. S., & Patil, K. N., "Synthesis and Characterization of High Yield Multiwalled Carbon Nanotubes by Ternary Catalyst", *Materials Today: Proceedings* (Elsevier), 2018, 5(2), 3432-3437. Scopus Indexed Impact Factor 3.2
- **4.** Dhore, V. G., Rathod, W. S., & Patil, K. N. "Investigation of Mechanical Properties of Carbon nanotubes Reinforced Aluminium Composite by Metal Injection Molding", *Materials Today:* Proceedings (Elsevier), 2018, 5(9), 20690-20698. **Scopus Indexed** Impact Factor 3.2

- **5.** Khawale V.R., Dhore V.G., Experimental study and comparison of integrated solar dryer with and without reversed absorber and reflector "*International Journal of Renewable Energy Technology*, (*Inderscience Publishers*), 2023 14(1), 1-15.
- **6.** Khawale V.R. Kale B.N., Dhore V.G., "Experimental Analysis of Single Glazing, Double Glazing and Triple Pass Solar Dryer", *International Journal for Research in Engineering Application & Management* 2020, 6(3)
- 7. Sathe Y. N., Dhore V.G., Steering Mechanism using Motorized Tie-Rods, *Journal of Advancement in Machines*, 2023 8 (3), 33-47

### **International Conferences**

- 1. Dhore, V. G., Rathod, W. S., & Patil, K. N., "Experimental Analysis and Power Law Model of Multiwall Carbon Nanotubes Yield on Fe-Co-Ni Ternary Metal Catalyst", *International Conference on Advances in Thermal Systems, Materials and Design Engineering* (ATSMDE2017) VJTI, Mumbai, 22-23 December, 2017.
- 2. Dhore, V. G., Rathod, W. S., & Patil, K. N., "Characterization of Fe-Co-Ni-Ternary Metal Catalyst For High Yield Multi-Wall Carbon Nanotubes", *Proceedings of the 1st International and 18th ISME Conference NIT Warangal*, 23 25 February, 2017.
- 3. Jain A, Jeswani D. R., Jain R. K, Pathak Y. K, Dhore V.G., Design and Analysis of Composite Automotive Leaf Spring, *International Conference in Advancements in Design and Tribology (ICADT-2021)at SVNIT Surat*

### **Book Chapters**

- 1. Shah Vijesh, Gilke N R, Dhore V.G, Phutane C, & Kondhol B, "Design of Gripper and Selection of Robotic Arm for Automation of a Pick and Place Process." *Advances in Manufacturing Systems: Lecture Notes in Mechanical Engineering, Springer* (2021): 95 *Scopus Indexed*
- 2. Dhore, V. G., Rathod, W. S., & Patil, K. N., "Characterization of Fe-Co-Ni-Ternary Metal Catalyst for High Yield Multi-Wall Carbon Nanotubes" published by *CRC press in a book 'Mechanical Engineering for Sustainable Development: State of Art Research'*.

#### Patent:

Application No.202021041070 A

Date of filing of Application: 22/09/2020

Publication Date: 26/02/2021

Title of the invention: A Metal Particulates Porous Composite for Automobile Oil Filter

Name of Applicant: Mr. Dhore Vilas Gulabrao

| No of Research / consultancy / | No of Research / consultancy / | No of Research / consultancy /  |
|--------------------------------|--------------------------------|---------------------------------|
| projects completed:            | projects on-going:             | projects on applied as on date: |
| Rs <u>: 2,58,000/-</u>         | Rs <u>: Nil</u>                | Rs <u>: Nil</u>                 |

Details of Research / consultancy / projects:

Completed

| Project Title                  | Sponsoring agency           | Year | Status    |
|--------------------------------|-----------------------------|------|-----------|
| Study towards development of   | L&T Automation Ltd. Rabale, | 2016 | Completed |
| Containerized solution for     | Thane India                 |      |           |
| large scale solar PV plants    |                             |      |           |
| Design approval of Retractable | Technika                    | 2023 | Completed |
| Ladder                         |                             |      |           |
| Consultancy work of Rs.        | Kohli Industries            | 2024 | Ongoing   |
| 8,10,000 at Kohli Printing and |                             |      |           |
| Converting Machines Pvt Ltd.,  |                             |      |           |
| Ambernath                      |                             |      |           |

#### **Reviewer:**

- 1. Reviewer for Journal of Optoelectronics and Advanced Materials
- 2. Reviewer for IEEE Technically Co-Sponsored 4th Biennial International Conference on Nascent Technologies in Engineering ICNTE 2021
- 3. Session coordinator for National Convention on "Role of Industrial Engineering: Tools & Techniques to Mitigate Global Effect of COVID 19" during 29- 30 January 2021.
- 4. Reviewer for International Journal on Interactive Design and Manufacturing (IJIDeM) Springer Nature
- 5. Reviewer for ICTEAH 2024 organized by KJSCE on 15<sup>th</sup> -16<sup>th</sup> April 2024.

## FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered

### **Delivered / Organized:**

- 1. Resource Speaker for Student Development Program on Al Matrix Composite Selection and Design at Dr. D Y Patil Institute of Technology, Pimpri, Pune on 17<sup>th</sup> January 2024.
- 2. Presented research work in SVU Annual Research Meet 2024, on 31<sup>st</sup> January 2024.

- 3. Technical Session Convener for ICTEAH 2024 organized by KJSCE on 15<sup>th</sup> -16<sup>th</sup> April 2024.
- 4. Liaisoning Officer for AIU West Zone Vice Chancellors' Meet 2023-24 hosted by Somaiya Vidyavihar University, Mumbai on 19<sup>th</sup> & 20<sup>th</sup> December 2023.
- 5. Co-coordinator of Transport committee of Trio-Conclave Somaiya Vidyavihar University, Mumbai on  $2^{nd} 3^{rd}$  April 2024.
- 6. Member of organizing team for ICTEAH 2024 organized by KJSCE on 15<sup>th</sup> -16<sup>th</sup> April 2024.

### **Online Courses completed**

- 1. NPTEL online course on "Nature & Properties of Materials" by Prof. Bishakh Bhattacharya, IIT Kanpur from July Sept 2017.
- 2. NPTEL online course on "Manufacturing of composites" by Prof. Janakranjan Ramkumar, IIT Kanpur from July Sept 2018.
- 3. NPTEL online course on "Effective Engineering Teaching In Practice" by Prof. K. Suraishkumar, IIT Madras from Jan –Feb 2024.

#### Attended:

- 1. Attended 3 days MET & HTS 2024 Conference & Expo from 4<sup>th</sup> 6<sup>th</sup> September 2024 organized by ASM International India Chapter at Bombay Exhibition Centre, Mumbai
- 2. Three days Training Program on Composite Materials & its Application organized by ICAR-CIRCOT Mumbai during 6<sup>th</sup> -8<sup>th</sup> March 2024.
- 3. One Week National level Online Faculty Development Program on Outcome Based Education and Essential AI Tools for Teachers organized by the Internal Quality Assurance Cell (IQAC) of St. Thomas College, Palai, Kerala from 10<sup>th</sup> to 16<sup>th</sup> January 2024.
- 4. FDP on Sharpening the Grant Writing Skills for Funded Research by FSDC-SVU on  $8^{th}$  January 2024.
- 5. 15<sup>th</sup> Summer School on Tribology by Tribology Society of India at IISc Bangalore from 13<sup>th</sup> to 17<sup>th</sup> June 2023.
- 6. 3 Days industrial training on Industry 4.0 & IOT with Absolute Motion Pvt. Ltd. in association with K J Somaiya College of Engg. From 5<sup>th</sup> June to 7<sup>th</sup> June 2023.
- 7. FDP on "Stress Management, Art of Living and Effective Communication Skills" at *SPCE*, *Mumbai from 14-th Nov-to 25 Nov 2022*.
- 8. Faculty development program on "Advances in Composite Materials and Manufacturing Process" organised by St. Ann's College of Engineering and Technology, Andhra Pradesh from 22 to 26 June 2020.
- 9. Faculty development program on "Online Teaching and E-content" organised by *S K Somaiya College & IIDE on 11<sup>th</sup> and 12 June 2020.*
- 10. Faculty development program on "Engineering Innovation, Entrepreneurship and its

- Relevance in Industry 4.0 Practices in the Post COVID -19 Situation" organised by *Terna college of Engineering from 25 May to 29 May 2020*.
- 11. Faculty development program on "Challenges Opportunities and Possible caused due to COVID 19 in Process equipment Industries" organised by *Pillai HOC College of Engg & Technology Rasayani on 4<sup>th</sup> & 5<sup>th</sup> may 2020.*
- 12. Two days Intensive Course on "Heat Treatment" (Conducted by ASM International India chapter from 6<sup>th</sup> to 7<sup>th</sup> February 2020)
- 13. AICTE-ISTE approved Training Program on "Emerging Trends in The Field of Mechatronics". (Conducted by KJSCE from  $23^{rd} 27^{th}$  December, 2019)
- 14. Five Day Training Course on SolidWorks by Addonix Technologies Pvt. Ltd. (*Conducted by KJSCE from Sept November 2018*)
- 15. Two Day Workshop on "Writing Research Paper and Patent" at. (Conducted by VIIT Pune on 29th and 30th January 2018)
- 16. One week short term course on "Nanoscience and Nanotechnology: Fundamentals, Synthesis and Applications". (Conducted bay SPCE, Mumbai from 2<sup>nd</sup> 7<sup>th</sup> January 2017)
- 17. One week short term course on "Industrial Tribology" (Conducted by Veermata Jijabai Technological Institute Mumbai from  $4^{th} 8^{th}$  July 2016)
- 18. One week short term course on "Finite Element Methods for Engineering Applications". (Conducted by SVNIT, Surat from 30<sup>th</sup> Nov to 4<sup>th</sup> Dec 2015)
- 19. One day National Workshop on "Advances in Finite Element Methods".

  (Conducted by Pillai HOC College of Engineering & Technology on 11<sup>th</sup> April 2015)
- 20. One week short term course on "Fault Diagnosis of Rotating Machines and Finite Element Analysis". (Conducted by Veermata Jijabai Technological Institute, Mumbai from 5<sup>th</sup> to 9<sup>th</sup> Jan 2015)
- 21. One week short term course on "Numerical Methods in Engineering". (Conducted by SVNIT, Surat from 1<sup>st</sup> to 5<sup>th</sup> Jan 2014)
- 22. One week short term course on "Advanced in Machine Design". (Conducted by VJTI, Mumbai from 2<sup>nd</sup> to 6<sup>th</sup> Dec 2013)
- 23. One week faculty development program on "Advances in Fault Diagnosis of Rotating Machines and Fluid Film Bearing. (Conducted by VJTI, Mumbai from 10<sup>th</sup> to 14<sup>th</sup> June 2013)
- 24. Two week ISTE workshop on "Computational fluid dynamics". (Conducted by IIT Bombay from 12<sup>th</sup> to 22<sup>nd</sup> June 2012)
- 25. Two day ISTE workshop on "Writing Papers for Technical Conferences".

  (Conducted by K. J. Somaiya College of Engineering, Mumbai from 18<sup>th</sup> to 19<sup>th</sup> Feb 2012)
- 26. Two week ISTE workshop on "Thermodynamics in Mechanical Engineering". (Conducted by IIT Bombay from 14 to 24 June 2011)

## **Notable Positions and Responsibility**

- 1. Coordinator of Departmental Examination Committee (DEC)
- 2. Senior Supervisor for May-June 2024 ESE
- 3. Member of Institute Level Unfair means Committee (from 2019)
- 4. Faculty in charge of Mechanical Engineering Students Association (MESA) (From 2010)
- 5. Member of Relative Grading Committee.
- 6. Member of Member Admission Publicity Committee (From 2022)
- 7. Laboratory in charge of MMM Lab from July 2009 to March 2020
- 8. Member of Departmental Examination Committee (DEC) (From 2013 to 2022)
- 9. Departmental Internship Coordinator (2020-22)
- 10. IPR Coordinator of Institution's Innovation Council (IIC) 2019-2020.
- 11. Member of Institution's Innovation Council (IIC) 2018-2019.
- 12. Member of Departmental Administrative Committee for NAAC
- 13. Coordinator for Industrial Application course 2018-2020
- 14. Departmental Project Coordinator from March 2010 to July 2015 at KJSCE.
- 15. Design Area Coordinator from 2012 to 2015

Date: 07/09/2024

# **Professional Membership:**

- Life member of "The Indian Society for Technical Education (ISTE)" from 2009.
- Life member of "Indian Institution of industrial Engineering" from October 2009.
- Life member of "**Tribology Society of India**" from November 2014.

**Signature of Faculty Member** 

(Dr. Vilas. G. Dhore)