

## BIO-DATA



- 1. Name** : SANJEEV DAMODAR SURYAWANSHI  
**Designation** : Professor and Head  
**Department** : Mechanical Engineering
- 2. Date of Birth** : 1<sup>st</sup> June 1967
- 3. Father's Name** : Damodar Jagannath Suryawanshi
- 4. Address** : 'Amey', 17, Anmol Nagar, In front of Rajiv Gandhi High school  
Deopur, Dhule – 424 002  
Mobile: 9423080717
- 5. E-mail id and Phones** : [sanjeevsuryawanshi1@gmail.com](mailto:sanjeevsuryawanshi1@gmail.com) (02562) 272713 Extn – 350  
Mobile: 9423080717

### 6. Educational Qualification:

| Sr. No | Exam Passed    | Title of Degree              | Board/University                  | Year | % of Marks | Class   |
|--------|----------------|------------------------------|-----------------------------------|------|------------|---|
| 1      | S.S.C          | SSC                          | Pune                              | 1983 | 83.71      | First class with DISTINCTION (National merit) |
| 2      | DIPLOMA        | D.M.E.                       | B.T.E. Mumbai                     | 1987 | 62.54      | First class                                   |
| 3      | BACHELOR       | B.E. Mech.                   | Pune University                   | 1992 | 60.53      | First class                                   |
| 4      | MASTER         | M. E. Mech. (Heat Power)     | Shivaji University, Kolhapur      | 2004 | 73.80      | First class with DISTINCTION                  |
| 5      | Ph.D.          | Ph.D. Mechanical Engineering | Shivaji University, Kolhapur      | 2010 | --         | --  |
| 6      | Energy Auditor | Energy Auditor (EA1826)      | Bureau of Energy Efficiency (BEE) | 2005 | 65.55      | First class                                   |

### 7. Details of Job :( Total Experience – 31 years)

| Sr. No | Name of Employer                          | Designation                                      | From         | To          |
|--------|---|--|--------------|-------------|
| 1      | SSVPS'BSD, Polytechnic, Dhule             | Lecturer   | 26 Sept.1992 | 31 Nov 2002 |
| 2      | SSVPS'BSD, Polytechnic, Dhule             | Senior Lecturer                                  | 1 Dec.2002   | 12 Jan 2009 |
| 3      | College of Engineering, Pune              | Lecturer   | 13 Jan 2009  | 2 Feb 2011  |
| 4      | College of Engineering, Pune              | Associate Professor                              | 3 Feb 2011   | 13 Oct 2014 |
| 5      | SSVPS' BSD, College of Engineering, Dhule | Professor and Head<br>Dept. of Mech. Engineering | 14 Oct 2014  | Till Date   |

## 8. Details of Approval of Services in Teaching –

| Sr. No. | Designation         | From         | To          | University letter No. and Name of University/College   |
|---------|---------------------|--------------|-------------|--|
| 1       | Lecturer            | 26 Sept.1992 | 31 Nov 2002 | 2/NPG/1097/40231 Dated 9 Dec.1997<br>BTE, Mumbai       |
| 2       | Senior Lecturer     | 1Dec 2002    | 12 Jan 2009 | 2/NPG/1097/40231 Dated 9 Dec.1997<br>BTE, Mumbai       |
| 3       | Lecturer            | 13 Jan 2009  | 2 Feb 2011  | COEP/EST-1/2008/6209 Dated Dec 30 2008                 |
| 4       | Associate Professor | 2 Feb 2011   | 13 Oct 2014 | COEP/EST-1/2010-11/728 Dated Feb 1 2011                |
| 5       | Professor           | 27 June 2016 | Till date   | NMU/18/1197/2016 North Maharashtra University, Jalgaon |

## 9. Awards

| Sr. No. | Type of award   | Year      | Brief Description of Project/Paper   | Awarding Authority  |
|---------|---|-----------|--|---|
| 1       | AVISHKAR  | 2011      | Wind energy harvesting inside the moving train at window by VAWT   | Shivaji University Kolhapur   |
| 2       | Outstanding Project Award   | 2011      | Liquid desiccant Dehumidification System   | Forbes Marshall, Pune   |
| 3       | AVISHKAR  | 2017      | Mixed axis water turbine   | NMU   |
| 4       | AVISHKAR  | 2019      | Solar Disinfectant   | Doctor Babasaheb Ambedkar Technological University, Lonere, Maharashtra |
| 5       | Gaurav Guruvaryancha  | 2021      | Work in teaching learning and research   | Divya Marathi (Dainik Bhaskar group)                                    |
| 6       | I2OR  | 2022      | Innovative Educator  | International Institute of Organised Research (I2OR)                    |
| 7       | Best research Paper Award   | July 2022 | Evaluating Frontal Crash Test of Developed Vehicle Chassis Frame Structure to Identify Crashworthiness Through Scaled Model for Injury Reduction | Dept. of Mechanical Engg. Sandip University, Nasik                      |
| 8       | Rotary Nation Builder award   | 2022      | Rotary Nation Builder award  | Rotary international, Rotary club of Dhule cross road                   |
| 9       | First and second prize of Rs 1 lakh In Innovation Pavilion at MET + HMT 2022 conference, Mumbai | 2022      | 1.Design, development and evaluation of solar tunnel dryer for seasoning and straightening of bamboos<br>2.Efficient Solar Distillation System   | ASM international   |
| 10      | BEST RESEARCH PAPER   | 2022      | Evaluating Frontal Crash Test of Developed Vehicle Chassis Frame Structure to Identify Crashworthiness Through Scaled Model for Injury Reduction | ICETET-2022, Sandeep Foundation Nasik                                   |
| 11      | AVISHKAR (University level)   | 2023      | Design, development and evaluation of solar tunnel dryer for seasoning and straightening of bamboos  | Doctor Babasaheb Ambedkar Technological University, Lonere, Maharashtra |
| 11      | AVISHKAR Zonal  | Dec 2023  | Three Projects of UG under my Guidance Two Got Gold medal and one Bronze Medal   | Doctor Babasaheb Ambedkar Technological University, Lonere, Maharashtra |
| 12      | AVISHKAR (State level) Post PG Category   | 2023      | Development of Impact Energy Absorbing systems for vehicle (Post PG)   | KBC NMU, Jalgaon  |

**10. Patent awarded:**

| Sr. No. | Nation | Patent Application No.   | Name of the Patent                                | Date of Filing | Date of Award | Patent No.                |
|---------|--------|--------------------------|---|----------------|---------------|---------------------------|
| 1       | India  | 201621022124             | Curved Surface Absorber Type Solar Fluid Heater   | 28-12-2016     | Oct-21        | 378587                    |
| 2       | US     | P8023US00                | Curved Surface Absorber Type Solar Fluid Heater   | 06-05-2019     | Oct-21        | PCT Pub No. WO2018/122870 |
| 3       | China  | PCT/IN2017 /050619       | Curved Surface Absorber Type Solar Fluid Heater   | 06-04-2019     | Oct-21        | PCT Pub No. WO2018/122870 |
| 4       | India  | 2185/MUM/2011            | Multipurpose Cooling Apparatus                    | 02-08-2011     | Jan-21        | 356049                    |
| 5       | India  | 1753/MUM/2015            | Multipurpose Hollow Hemispherical Solar Collector | 01-05-2015     | Sep-21        | 377915                    |
| 6       | India  | 6386/ E-2/1040/2016-MUM  | Brick Box Type Solar Cooker                       | 11-04-2016     | Mar-23        | 424247                    |
| 7       | India  | 2728/ E-2/ 315/ 2018-MUM | Solar Collector Using Plastic Glazing             | 16-02-2018     | Sept-23       | 455451                    |
| 8       | India  | 1753/MUM/2015            | Modular Solar dryer                               | 03-11-2020     | 28 March 2024 | 530948                    |
| 9       | India  | 201621000959             | Self-Cleaning Steps                               | 11-01-2016     | 6 March 2024  | 521043                    |

**10a. Patent Applied:**

| Sr. No. | CBR No / Reference No.   | Patent Application No. | Name of the Patent   | Date of Filing the patent |
|---------|--------------------------|------------------------|--|---------------------------|
| 1       | 6386/ E-2/1040/2016-MUM  | 201621012701           | Brick Box Type Solar Cooker  | 11-04-2016                |
| 2       | 9157/ E-2/886/ 2017-MUM  | 201721013090           | Ice to Water Converter Cum Water Treatment Apparatus Based on Solar Energy | 12-04-2017                |
| 3       | 7603/ E-2/12227/2016-MUM | 201621015234           | Pedal Operated Oscillating Cylinder Reciprocating Pump                     | 02-05-2016                |
| 4       | 6735/ E-2/ 771/ 2018-MUM | 201721013090           | Curved Surface Absorber Type Foldable Solar Fluid Heater                   | 11-04-2018                |
| 5       | TEMP/E-1/44626/2018- MUM | 201821041516           | Solar Cooker with Heat Storage   | 02-11-2018                |
| 6       | TEMP/E-1/8803/2020-MUM   | 202021008250           | Sliding Vehicle Chassis frame to minimize the intensity of frontal         | 27-02-2020                |

|    |                            |                     |   |            |
|----|----------------------------|---------------------|---|------------|
| 7  | TEMP/E-1/9330/2020-MUM     | 202021008734        | Sliding and Interlocking vehicle chassis frame                  | 29-02-2020 |
| 8  | TEMP/E-1/2480/2021-MUM     | 202121002275        | Vehicle Chassis Frame with sliding and Interlocking System      | 18-01-2021 |
| 9  | TEMP/E-1/3541/2021-MUM     | 202121003496        | Solid Damping System with Variable Length Facility              | 27-01-2021 |
| 10 | TEMP/E-1/22107/2022-MUM    | 202221019975        | Wood Seasoning Cum Straightening Device                         | 01-04-2022 |
| 11 | TEMP/E-1/24904/2022-MUM    | 202221022532        | Solar Distillation System with Evaporative Surface Augmentation | 16-04-2022 |
| 12 | 202023047973<br>18/251,584 | WO2022/097170<br>A1 | Modular Solar Dryer (US)  | 03-05-2023 |
| 13 | PCT/IN2021/051048          | P00202304299        | Modular Solar Dryer (Indonesia)                                 | 17-05-2023 |
| 14 | PCT/IN2021/051048          | WO 2022/097170      | Modular Solar Dryer (Vietnam)                                   | 02-06-2023 |
| 15 | PCT/IN2021/051048          | PI2023002688        | Modular Solar Dryer (Malesia)                                   | 27-05-2023 |

#### 11. Achievements/Research project grants:

| Sr. No. | Project  | Sanctioning Year | Year of completion | Brief Description of project   | Cost of Project in Rs | Sanctioning Authority                                      |
|---------|--|------------------|--------------------|--|-----------------------|--|
| 1       | Energy Efficiency Improvement Program  | 2011             | 2012               | Energy Efficiency Improvement Program in COEP hostel campus installations of SWHS of appx.25 thousand LPD, LED street lighting, fan regulators, (FTL, T <sub>s</sub> )             | <b>Rs 25 Lacks</b>    | Govt. of Maharashtra (MEDA)                                |
| 2       | Installation of 6 kW mixed axis water turbine on right canal of Akkalpada Dam. | 2018             | Ongoing            | It will generate electrical energy by harvesting kinetic energy of flowing stream. Generated power is being utilized at dam location itself if excess can be pumped into the greed | <b>2.96 Lacks</b>     | District Planning Commission (DPC)                         |
| 3       | Design development of Tubular hemispherical Solar Water Heater                 | 2018             | 2019               | 500 LPD solar water heater system is installed at boy's Hostel   | <b>40000</b>          | JSS Air Technology Pune and legend Irrigation System Nasik |
| 4       | Design, development and analysis of sustainable                                | 2023             | ongoing            | Sustainable ventilation system for thermal comfort in building specifically in sheet metal roof top building. Developing simulation  | <b>4 Lacks</b>        | "Dassault Systèmes Foundation"                             |

|  |  |  |   |  |  |
|--|--|--|---|--|--|
| ventilation system for thermal comfort in building |  |  | module using Simulia software of Dassault Systems |  |  |
|--|--|--|---|--|--|

## 12 Achievements

| Sr.No. | Event   | Year         | Brief Description of Project   | Type of Achievement  |
|--------|---|--------------|--|--|
| 1      | Design and Development of Own House, on Energy Efficient building principle                           | 2003         | Extended duct work with Solar chimney for passive ventilation. Turbo ventilator installed on chimney for active ventilation. Vented Cavity wall. Use of thermal mass management and passive architecture. Solar water heater (made by taking help of plumber at site) on stair case cap, Colour selection etc. | News in Lokmat newspaper in Dhule, Nagpur edition etc.<br>Telecasted on <a href="#">DD Sahyandri on 26<sup>th</sup> Sept.03</a><br>and on <a href="#">STARMAZA on 21st February 2010</a><br>Inspiring interview was broadcasted on <a href="#">Dhule FM station.</a><br>Inspiring interview was broadcasted on <a href="#">Interview on 93.5 red FM 2022</a> |
| 2      | Energy efficiency improvement in Dall mills, Jalgaon  | 2004         | Energy saving through solar air heaters/biomass gasifiers for heating pulses, proper ventilation through the Dall mills  | Suggestions were implemented by Dall Mills to improve Energy Efficiency.   |
| 3      | Establishment of Energy Cell In COEP  | 2010         | Established an Energy Cell in COEP for students of all Disciplines   | Energy Conservation based interdisciplinary projects were undertaken by students. Energy cell members (Faculty as energy auditors) conducting energy audit at various places such as Pune, Echalkaranji etc.   |
| 4      | Appointed by AICTE Delhi to examine the research proposals  | 2013         | Research Proposal Scheme (RPS) and others at AICTE, Delhi for various engineering institutes all over India  | How to write, apply the research proposals to AICTE and the norms of sanctioning the same.   |
| 5      | Nominated for 8 <sup>th</sup> State level Awards for Excellence in energy conservation and management | 2013         | Utilization MEDA grant of Rs 25 Lacks under energy efficiency improvement programme in COEP hostel campus installations of SWHS of appx.25 thousand LPD, LED street lighting, fan regulators, (FTL, T <sub>5</sub> )   | Presented the work in front of judges and also sharing the knowledge with other nominated organizations  |
| 6      | Minimizing heat gain through sheet metal roof top for comfort   | 2013         | Sheet metal roof top covered from bottom side with white curtain, passage between curtain and roof is connected to solar chimney for hot air ventilation.  | *Barbour shop usage time extended up to 12 noon in summer. (Wadibhokar road, Deopur, Dhule)<br>*Sustainable environment in Halwai shop. (Trambak Nagar Dhule).   |
| 7      | Minimizing heat gain through Slab   | 2014         | Slab covered by white curtain, prepared from waste sarees and lime /white paint  | News in Divya Marathi Newspaper (Temp. decreased in room by 4 <sup>o</sup> C) Letter of Appreciation issued from Shri Girish B Patil Dy.SP State CID, Dhule  |
| 8      | Nomination as a member on Board of Innovations, Incubation and Expertise,                             | 2021 to 2024 | Kavyatri Bahinabai Chaudhari North Maharashtra University BNMC Jalgaon   | Kavyatri Bahinabai Chaudhari North Maharashtra University BNMC Jalgaon   |

## 13 Recognition:

**Recognized PhD guide in Mechanical Engineering from October 2017 at KBC North Maharashtra University, Jalgaon**

**14. Position held in College (Other than teaching e.g. In-charge of lab, Cell, Department, Hostel, Library, Games, Laboratory etc): At COEP**

| Sr.No. | Position Held  | Duration  | Responsibilities   |
|--------|--|---|--|
| 1      | Departmental Coordinator of Exam (DCE), at COEP Pune   | 2011 to 2012                                      | Preparation of time table for mid sem and end sem exam for UG and PG courses. Conduction of exam in coordination with exam cell.                           |
| 2      | Coordinator (Mechtrics and paradigm)- Pune's National Level Annual Technical Fest- MindSpark at College of Engineering Pune                          | 8 to 10 Oct 2010                                  | To Plan, Manage, control and Execution of different activities with student volunteers. Preparation of feasible models for three rounds of Mechtrics event |
| 3      | Staff Adviser of gathering managing committee, "NINAD",2010  | 2010  | Coordinate students in various traditional day activities  |
| 4      | Inter Engg.Sports Meet Coordinator for Zest at College of Engineering Pune 2010  | 23 <sup>rd</sup> Jan to 26 <sup>th</sup> Jan 2011 | Coordinate students in various sport activities i.e.Box Cricket and Basket Ball  |
| 5      | Coordinator (Mechtrics and Energy Efficient Building) - , Pune's National Level Annual Technical Fest-Mind Spark at College of Engineering Pune 2011 | 2011  | To Plan, Manage, control and Execution of different activities with student volunteers. Preparation of feasible models for three rounds of Mechtrics event |
| 6      | Industrial visit coordinator   | 2011  | Planning of travelling from Pune to Nasik and coordinate, guide the students during visit to Eklahare thermal power plant, Nasik                           |
| 7      | Industrial visit coordinator   | 2010/2011   | Planning of travelling, coordinate, guide the students during visit to Karaj Dairy Pune  |
| 8      | Scrutiny committee member for recruitment of non-teaching staff in COEP  | 25 July 2014                                      | Scrutiny of all applications as per requirements in the advertisement such as qualification, age, reservations etc.  |
| 9      | Scrutiny committee member for recruitment of teaching staff in COEP  | Aug 2014  | Scrutiny of all applications as per requirements in the advertisement such as qualification, age, reservations etc.  |

**15. Position Held in College (Other than teaching e.g. In-charge of lab, Cell, Department, Hostel, Library, Games, and Laboratory etc.): at SSVPS', BSD, COE, Dhule**

| Sr.No. | Position Held                                 | Duration           | Responsibilities   |
|--------|---|--------------------|--|
| 1      | Academic Coordinator of Institute             | 2014/15<br>2015/16 | Overall coordination of academic activities in the college   |
| 2      | Departmental Coordinator of Exam (DCE)        | 2012               | Preparation of time table for various ISE. Conduction of exam.   |
| 3      | Coordinator technical workshops, seminar etc. | 2012 till date     | Seminar on "Opportunities in Engineering and Medical Education" for 12th Std. students Sunday 11 Jan 2015 By S.S.Kalantri, APEX,Aurangabad<br>Seminar on "GATE Guidance" for TE and BE students of all branches 22 Jan 2016 By S.S.Kalantri, APEX,Aurangabad |
| 4      | I C Engine Lab In charge                      | 2012-2013          | Overall control of lab processes, Maintaining CSR and DSR of Lab, Identification of resources required as per academic   |

|    |   |                          |   |
|----|---|--------------------------|---|
|    |   |                          | requirement, Purchasing process initiation for lab requirements, Maintenance of Lab Equipment.  |
| 6  | Heat Transfer Lab In charge               | 2015 to 2020             | Overall control of lab processes, Maintaining CSR and DSR of Lab, Identification of resources required as per academic requirement, Purchasing process initiation for lab requirements, Maintenance of Lab Equipment. |
| 7  | Minor Seminar and Project Coordinator     | Academic Year 2014 -2015 | Planning and execution through topic selection, progress monitoring, Evaluation of final year students of the department.   |
| 8  | Techno-Fest event Coordinator (Mechtrics) | 2014                     | To Plan, Manage, control and Execution of different activities with student volunteers. Preparation of feasible models for three rounds of Mechtrics event  |
| 9  | Techno-Fest event Coordinator (Mechtrics) | 2015                     | To Plan, Manage, control and Execution of different activities with student volunteers. Preparation of feasible models for three rounds of Mechtrics event  |
| 10 | Techno-Fest event Coordinator (Mechtrics) | 05 - 06 March 2016       | To Plan, Manage, control and Execution of different activities with student volunteers. Preparation of feasible models for three rounds of Mechtrics event  |

## 16 University Level Duties

1. Nominee of the Vice Chancellor/Chairman for selection of Assistant Professor and Lecturer in the Department of Mechanical Engineering. SNJB's Late Sau. Bhavarlalji Jain College of Engineering, Neminagar Chandvad, **Nasik** on 26<sup>th</sup> November 2011. for Staff Approval Interview at their campus
2. BOS Member for DBATU, Lonere
3. VC nominee on Research and Innovation cell on KBENMU, Jalgaon
4. Worked as committee member of syllabus setting committee for ME Thermal Engineering, under the faculty of Engineering and Technology North Maharashtra University Jalgaon, for the same attended one day workshop at Godavari Foundation's Godavari College of Engineering Jalgaon 3 Sept.2012.
5. Worked as committee member of syllabus setting committee for SE Mechanical/Automobile Engineering ,under the faculty of engineering and Technology North Maharashtra University Jalgaon, for the same attended one day workshop at The Shirpur Education Society's R.C.Patel Institute of Technology 9 Feb.2013.
6. Worked as committee member of syllabus setting committee for TE Mechanical under the faculty of engineering and Technology North Maharashtra University Jalgaon, for the same attended one day workshop at PSGVPM's College of Engineering Shahada 15 Feb.2014.
7. Worked as Chairman / member of paper setting committee for UG and PG Mechanical Engineering course, committee appointed by Controller of Examination / Chairman - Board of studies / Dean – Engineering.
8. Worked as PhD Via Voce Committee Chairman for 5 PhD scholars, appointed by KBCNMU Jalgaon
9. University representative/Chairman of Local inspection committee for affiliation as per section 49 (2) of DBATU Act for 6 institutes

## 17. Details of Short-Term Training Program / Refresher Course/ Conference/Exhibitions etc. Attended:

| Sr. No | Name of Institute  | From                          | To                            | Title  |
|--------|--|-------------------------------|-------------------------------|--|
| 01     | SSVPS', B.S.Deore, College of Engineering and polytechnic, Dhule | 21 <sup>st</sup> July 1994    | 23 <sup>rd</sup> July 1994    | Special course on induction of teachers                      |
| 02     | SSVPS', B.S.Deore, College of Engineering, Dhule                 | 22 <sup>nd</sup> October 2001 | 9 <sup>th</sup> November 2001 | Recent Trends in Computer Visual Aids for Effective Teaching |
| 03     | SSVPS', B.S.Deore, College of Engineering, Dhule                 | 10 <sup>th</sup> Feb2002      | 10 <sup>th</sup> Feb2002      | Web based Collaborative Engineering and CATIAV5              |

|    |   |                                |                             |  |
|----|---|--------------------------------|-----------------------------|--|
| 04 | SSVPS', B.S.Deore, College of Engineering, Dhule  | 1 <sup>st</sup> April 2002     | 12 <sup>th</sup> April 2002 | Incubating Entrepreneur's Spirit   |
| 05 | Govt.Polytechnic Dhule  | 25 <sup>th</sup> Nov.2002      | 6 <sup>th</sup> Dec 2002    | Effective curriculum implementation and students' assessment norms       |
| 06 | SSVPS', B.S.Deore, College of Engineering, Dhule  | 16 <sup>th</sup> June 2003     | 28 <sup>th</sup> June 2003  | AutoCAD 2000 and its applications  |
| 07 | SSVPS', B.S.Deore, College of Engineering, Dhule  | 13 <sup>th</sup> Sept 2003     | 13 <sup>th</sup> Sept 2003  | Cost effective Housing and Energy management                             |
| 08 | CU Denwar PLACES Colorado University USA and S. S. V. P. S. B. S. D. College of Engg. Dhule           | 4 <sup>h</sup> April 2005      | 14 <sup>h</sup> April 2005  | Manufacturing of small wind generators and renewable energy technologies |
| 09 | Winrock International India New Delhi   | 20 <sup>th</sup> April2006     | 22 <sup>nd</sup> April 2006 | Energy Efficiency capacity Building Program for Various Stakeholders     |
| 10 | Tridiagonal solutions Pvt.Ltd.Pune  | 20 <sup>th</sup> Nov 2006      | 23 <sup>rd</sup> Dec 2006   | An introductory course in commercial Computational Fluid dynamics        |
| 11 | Jawaharlal Darda institute of Engineering and Technology, Yavatmal                                    | 4 <sup>th</sup> June 2007      | 8 <sup>th</sup> June 2007   | A Course in Computational Fluid Dynamics                                 |
| 12 | Forbes Marshall Pune  | 27 <sup>th</sup> July 2009     | 31 <sup>st</sup> July 2009  | Programme on Steam Engineering and Energy conversion                     |
| 13 | ACREX 2010, Goregaon, Mumbai  | 18 <sup>th</sup> Feb. 2010     | 18 <sup>th</sup> Feb. 2010  | International Exhibition on RAC  |
| 14 | MEDA at Lee Meridian, Pune  | 26 <sup>th</sup> Nov 2010      | 26 <sup>th</sup> Nov 2010   | One Day Training Program for BEE Certified Energy Auditors               |
| 15 | Intersolar 2011, Goregaon, Mumbai   | 2011                           | 2011                        | International Exhibition on Solar Energy applications                    |
| 16 | "ICRTET 2013", at SNJB's Late Sau. Bhavarlalji Jain College of Engineering, Neminagar Chandvad, Nasik | 23 <sup>rd</sup> Feb 2013      | 23 <sup>rd</sup> Feb 2013   | Session Chair  |
| 17 | "ICRTET 2014", at SNJB's Late Sau. Bhavarlalji Jain College of Engineering, Neminagar Chandvad, Nasik | 29 <sup>th</sup> April 2014    | 29 <sup>th</sup> April 2014 | Session Chair  |
| 18 | "International Conference on advances in Mechanical Engineering", at COEP                             | 29 <sup>th</sup> May 2014      | 31 <sup>st</sup> May 2014   | Session Chair (30 <sup>th</sup> May 2014)                                |
| 19 | "South Asia Communities Volunteers Conference" 2015 Organized by IET at Della Resort Lonawala         | 2 <sup>nd</sup> Oct 2015       | 4 <sup>th</sup> Oct 2015    | Institute representative   |
| 20 | IET PATW Competition at S. S. V. P. S's B. S. Deore College of Engineering, Dhule                     | 26 <sup>th</sup> Feb 2014      | 26 <sup>th</sup> Feb 2014   | Judge for the Competition  |
| 21 | Management Development Programme (By DBATU) at IIM Lucknow  | 2 <sup>nd</sup> March 2020     | 6 <sup>th</sup> March 2020  | MDP at IIM Lucknow   |
| 22 | Hybrid Learning training program  | 5 <sup>th</sup> August 2022    | 6 <sup>th</sup> August 2022 | AICTE Delhi  |
| 23 | SP-TBI Prayas – MONITORING and MENTORING COMMITTEE member   | 10 <sup>th</sup> November 2022 | In progress                 | DST  |



|    |   |            |            |  |
|----|---|------------|------------|--|
| 24 | Nomination as a member on Board of Innovation, Incubation and Enterprise  | 12/10/2018 | 31/08/2022 | KBC NMU Jalgaon                              |
| 25 | International Conference and Exposition on Advances in Mechanical Engineering (ICAME-2022) at COEP Tech University Pune | 23/06/2022 | 25/06/2022 | Session Chair                                |
| 26 | Start-up Fest COEP Tech University  | 10/03/2023 | 11/03/2023 | COEP Tech University                         |
| 27 | ASM International India Chapter AGM at Mumbai Office  | 25/09/2023 | 25/09/2023 | Faculty coordinator of SSVPS STUDENT CHAPTER |
| 28 | Start-up Fest COEP Tech University  | 27/01/2024 | 28/01/2024 | COEP Tech University                         |

### 18. Details of Conference / Training program Organized as Coordinator / Secretary

| Sr. No. | Title / Place / Sponsor   | Year  | Duration Days |
|---------|---|---|---------------|
| 1       | Coordinator for housekeeping, cleaning Beatification etc. at 36 <sup>th</sup> National Conference on Fluid Mechanics and Fluid Power            | 9 <sup>th</sup> Nov 2009                    | 03            |
| 2       | Member of Core Committee, National Conference on "Energy and Sustainable Development", College of Engineering Pune                              | 28 <sup>th</sup> -29 <sup>th</sup> Feb.2012 | 02            |
| 3       | Coordinator – Intercollegiate Level Technical Event (IMPULSE 2012) September 2012, at S. S. V. P. S's B. S. Deore College of Engineering, Dhule | 15 <sup>th</sup> Sept 2012                  | 01            |
| 4       | Coordinator - Technical work shop on Energy Efficiency and Renewable Energy at S. S. V. P. S's B. S. Deore College of Engineering, Dhule        | 16-17 Feb 2013                              | 02            |
| 5       | Coordinator of workshop, organized in association with PCRA "Energy Audit Do it Yourself"   | 11 March 2013                               | 01            |
| 6       | Coordinator – State Level Technical Event (IMPULSE 2013) 18 - 19 September 2013, at S. S. V. P. S's B. S. Deore College of Engineering, Dhule   | 2013  | 02            |
| 7       | Coordinator for One day training program of TAACT on Industrial automation  | 28 Sept 2013                                | 01            |
| 8       | Coordinator for One day training program of TAACT on Industrial automation  | 2015  | 01            |

### 19 Details of Research Paper:

#### 19.1 National conferences:

| Sr. | Title of Paper  | Title of Conference  | Organizer of Conference and Place | Year of Conference |
|-----|---|--|-----------------------------------|--------------------|
| 1   | Tubular Heat Exchanger  | National Conference at 'eTIME04' A                                       | KDK College of Engg., Nagpur      | 2004               |
| 2   | Amalgamation of Passive Architecture and Non-Conventional Energy Sources for human Comfort' | National Conference on 'Energy and Fuel Issues for Future' (NCEFIF- 04), | PIET Pune (COEP)                  | 2004               |

|   |  |   |   |                            |
|---|--|---|---|----------------------------|
| 3 | Performance analysis of waste to best solar water heater   | National conference on energy and environmental for sustainable development 5-6 July 2022 | Govt. College of Engineering and research, Avasari Khurd, Taluka Ambegaon, District, Pune | July 2022                  |
| 4 | Design, development and evaluation of solar tunnel dryer for seasoning and straightening of bamboos          | National conference on energy and environmental for sustainable development 5-6 July 2022 | Govt. College of Engineering and research, Avasari Khurd, Taluka Ambegaon, District, Pune | July 2022                  |
| 5 | Experimental and Numerical Simulation of Flows over Wetted Surfaces of Different Cross Section Profile Pipes | National conference on energy and environmental for sustainable development 5-6 July 2022 | Govt. College of Engineering and research, Avasari Khurd, Taluka Ambegaon, District, Pune | July 2022                  |
| 6 | Performance of Natural Ventilation System in Winter Season   | Inventions and Innovations in Science and Technology (I2ST-2K24)                          | Shri Chhatrapati Shivaji Maharaj college of Engineering, Nepti, Ahmednagar                | 04th and 05th, April 2024. |

## 19.2 International conferences:

| Sr. No | Title of Paper  | Title of Conference   | Organizer of Conference and Place  | Year of Conference |
|--------|---|---|--|--------------------|
| 1      | Natural Convection Heat Transfer Enhancement in Horizontal Rectangular Fin Array with Inverted Notch                                      | 18th National and 7th ISHMT-ASME heat and Mass Transfer Conference,   | IIT Guwahati,  | 2006               |
| 2      | Natural Convection Heat Transfer Enhancement in Horizontal Rectangular Fin Array with Inverted Notch                                      | Notch'19th National and 8th ISHMT-ASME Heat and Mass Transfer Conference  | JNTU Hyderabad,  | 2008               |
| 3      | Innovative Evaporative Cooling for Domestic Applications  | International Conference on Emerging Trends in Engineering ICETE2010.   | Dr. J. J. Magdum College of Engineering, Jaysingpur Sangli                             | 2010               |
| 4      | Schlieren Shadowgraph Flow Visualization Studies of Horizontal Rectangular Fin Arrays under Natural Convection                            | Poster Presented in <b>ASME</b> . International Mechanical Engg. Congress and Exposition 09 ( <b>IMECE</b> ) at | International Mechanical Engg. Congress and Exposition 09 ( <b>IMECE</b> ) Florida U.S | 2009               |
| 5      | Flow Patterns using Smoke Technique from Inverted Notched Horizontal Rectangular Fin Arrays, Losing Heat in Natural Convection Conditions | Poster Presented in <b>ASME</b> . International Mechanical Engg. Congress and Exposition 09 ( <b>IMECE</b> ) at | International Mechanical Engg. Congress and Exposition 09 ( <b>IMECE</b> ) Florida U.S | 2009               |
| 6      | Efficient techniques of Air Conditioning  | I-COST 2011   | SSVPS B S Deore, College of Engineering, Dhule   | 13 – 15 Jan 2011   |
| 7      | Shape Optimization and CFD Analysis for Nozzle in Low Wind Velocity Regime for Natural Ventilation  | I-COST 2011   | SSVPS B S Deore, College of Engineering, Dhule   | 13 – 15 Jan 2011   |

|    |  |  |  |                    |
|----|--|--|--|--------------------|
| 8  | Efficient techniques of Air Conditioning   | WCE-2011   | World Congress on Engineering 2011 (WCE 2011) in London, U.K.  | 6-8 July, 2011     |
| 9  | Solar dryer cum sterilization system   | National Conference on Energy and Sustainable Development,   | College of Engineering Pune  | 28 -29 Feb.2012    |
| 10 | Wind Energy Harnessing in Moving Trains  | National Conference on Energy and Sustainable Development,   | College of Engineering Pune<br>ISSN: 2319-6890   | 28 -29 Feb.2012    |
| 11 | Solar dryer cum sterilization system   | National Conference on Energy and Sustainable Development,   | College of Engineering Pune  | 28 -29 Feb.2012    |
| 12 | Bio-wastes for Heating Water   | National Conference on Energy and Sustainable Development,   | College of Engineering Pune  | 28 -29 Feb.2012    |
| 13 | Energy Conservation Opportunities at CoEP Hostel Campus  | National Conference on Energy and Sustainable Development,   | College of Engineering Pune  | 28 -29 Feb.2012    |
| 14 | CFD simulation of solar chimney for natural ventilation  | National Conference on Energy and Sustainable Development,   | College of Engineering Pune  | 28 -29 Feb.2012    |
| 15 | AAC Solar Cooker   | International conference on recent trends in Engineering and Technology  | SNJB's College of Engineering Chandwad   | 28 -30 April 2016  |
| 16 | Analysis of Vehicle Accidents in a Parameter of Quantitative study and Evaluation of Safety Parameters   | 2 nd international conference and exposition on Advances in Mechanical Engineering (ICAME-2022)                | College of Engineering Pune  | 23 – 25 June 2022  |
| 17 | Evaluating Frontal Crash Test of Developed Vehicle Chassis Frame Structure to Identify Crashworthiness Through Scaled Model for Injury reduction | International conference on Emerging trends in Engineering and Technology                                      | Department of Mechanical Engineering,<br>Sandip Institute of Engineering and management, Sandip foundation, Nashik | 20 – 21 July 2022  |
| 18 | Developments in natural ventilation: a survey  | International conference on Smart Technologies for Energy, Environment & Sustainable Development (ICSTEESD-20) | G H Rasoni College of Engineering, Nagpur, Maharashtra, INDIA  | 4-5 December, 2020 |

### 19.3 Journal Publications :( International)

| Sr.No | Title of Paper  | Name of Journal                              | ISSN No.  | Date     | Place                |
|-------|---|--|-----------|----------|----------------------|
| 1     | "Natural Convection Heat Transfer from Horizontal Rectangular Inverted Notched Fin Arrays", | ASME Journal of Heat Transfer Vol.131, Iss.8 | 0022-1481 | Aug.2009 | US                   |
| 2     | "Parametric   | International Journal of                     | 0973-5704 | December | Gaziabad, U.P. India |

|    |  |   |   |                      |   |
|----|--|---|---|----------------------|---|
|    | Study of Rectangular Inverted Notched Fin Arrays in Natural Convection Heat Transfer”, International Journal of Computing and Applications | Computing and Applications ( <b>IJCA</b> )Vol. 4 No.2   |   | 2009                 |   |
| 3  | “Natural Convection Heat Transfer from Horizontal Rectangular Inverted Notched Fin Arrays”   | International Journal of Engg. Research and Industrial Applications ( <b>IJERIA</b> ) Vol.2 No.VII. | 0974-1518   | 2009                 | Pune  |
| 4  | “Flexible Coupling-A New Approach”   | International Organization of Scientific research <b>IOSR</b> Journal.Vol.6                         | 2278-8727   | 2013                 | Ghaziabad   |
| 5  | ”Effect on Comfort using Evaporative cooling assisted building Ventilation with rooftop ventilators”                                       | International Journal of Engg. Research and Technology ( <b>IJERT</b> )                             | 2278-0181   | 2014                 | Gandhi Nagar Gujrat   |
| 6  | CFD Analysis of Double Pass Foldable Cum Portable Solar Air Heater   | International Research Journal of Engineering and Technology (IRJET)                                | e-ISSN: 2395 - 0056<br>p-ISSN: 2395-0072            | 2017                 | Fast Track Publication India  |
| 7  | Design and Virtual Validation of Ambulance Stretcher as per Automotive Industry Standard   | International Journal of Innovative Research in Science, Engineering and Technology                 | ISSN(Online): 2319-8753<br>ISSN (Print) : 2347-6710 | 2017                 | Tamilnadu, India  |
| 8  | Design and Analysis of Shaft Used in SelfDriven Step Mechanism by Human Weight   | Imperial Journal of Interdisciplinary Research (IJIR)   | ISSN:2454-1362                                      | Vol-3, Issue-2, 2017 | <a href="http://www.onlinejournal.in/">http://www.onlinejournal.in/</a> |
| 9  | Heat Transfer Analysis of Autoclaved Aerated Concrete (AAC) Brick Box Type Solar Cooker with Side Loading                                  | International Journal of Advance Research and Innovative Ideas In Education                         | ISSN(O)2395-4396                                    | 2019                 | New Delhi   |
| 10 | Hydrodynamic Analysis of Spar buoyancy Platform for Floating Vertical  | International Journal of Advanced Science and Technology Vol. 29, No. 7, (2020), pp. 8683-8696      | ISSN: 2005-4238 IJAST                               | 2020                 | PO Box 5014, Sandy Bay TAS 7005, Australia                              |

|    |  |   |                              |                   |   |
|----|--|---|------------------------------|-------------------|---|
|    | Axis Wind Turbine in Shallow Water   |   |                              |                   |   |
| 11 | Analysis of Vehicle Accidents in a Parameter of Quantitative study and Evaluation of Safety Parameters   | Materials today   | Elsevier Publications        | 16 September 2022 | <a href="https://doi.org/10.1016/j.matpr.2022.09.052">https://doi.org/10.1016/j.matpr.2022.09.052</a> |
| 12 | Evaluating Frontal Crash Test of Developed Vehicle Chassis Frame Structure to Identify Crashworthiness Through Scaled Model for Injury reduction | Mathematical Statistician and Engineering Applications                  | ISSN: 2094-0343<br>2326 9865 | 19 July2022       | <a href="https://philstat.org/index.php/MSEA">https://philstat.org/index.php/MSEA</a>                 |
| 13 | Thermal Analysis of Copper Tube Receiver of Solar Parabolic Dish Collector using Computational Fluid Dynamics                                    | International Journal of Advances in Engineering and Management (IJAEM) | ISSN :2395-5252              | July 2022         | <a href="https://www.ijaem.net/">https://www.ijaem.net/</a>   |
| 14 | Thermal performance analysis of serpentine tube flat plate collector used for Effluent Treatment   | The Indian Journal of Technical education (ISTE Journal)                | ISSN : 0971 3034             | July 2023         |   |

## 20 Special Lectures Delivered:

| Sr.No. | Title of Lecture                   | Title of Program and Place of Lecture and Date  |
|--------|------------------------------------|---|
| 1      | "Energy Crisis in Upcoming Future" | Expert Lecture for Students from Mechanical and Electrical Engg. of Government Poly Dhule,12 March 2009                                   |
| 2      | "Business Opportunities"           | MITCON Training for, "Business opportunities in Renewable energy field" at Shivajinagar, Pune   |
| 3      | "Green Building"                   | "Resent trends in Energy utilization", Short Term Training Programe for Polytechnic teachers at Govt. Polytechnic Nasik 22- 26 March 2010 |
| 4      | "Energy Efficient Building"        | Expert Lecture for final year Mech. and Elect. Students of Government Poly Dhule,15 Feb 2010  |
| 5      | "Energy Efficiency"                | Expert Lecture for Faculty and students in Godavari College of Engineering, Jalgaon 8 Oct 2012  |
| 7      | "Energy Audit Techniques"          | Expert Lecture for Students of Government Poly Dhule, 9 Oct 2012  |
| 6      | "Energy Conservation"              | On occasion Golden Jubilee Year, In Series of lectures, First Lecture for Staff Students of CS Bafana High school Fagne, 12 Sept. 2013    |
| 8      | "MPFI and Fuel Supply System"      | Expert Lecture for Students of SSVPS B S Deore, Polytechnic Dhule,25  |

|    |  |   |
|----|--|---|
|    |  | Sept 2012   |
| 9  | "Energy Conservation"  | Lectures in two sessions for Engineering students of JIU's Jamia Institute of Engineering and Management Studies, Akkalkuwa                                   |
| 10 | Project selection guidelines for UG students                         | Expert Lecture for students mechanical Engg. Department Govt. College of Engg. Chandrapur   |
| 11 | Innovations in solar thermal in FDP                                  | Expert Lecture in Faculty development program SGGGS College of Engineering, Nanded  |
| 12 | Project selection guidelines for UG students                         | Expert Lecture for students in College of Engineering Pune  |
| 13 | Stages in project development  | SY and Final year students in GP Dhule 19 Jan 2019  |
| 14 | "Energy Efficient Building"  | Expert Lecture for students in KVN Naik College of Engg. Nasik  |
| 15 | Energy Audit   | Expert Lecture for students in College of Engineering, Pune   |
| 16 | "Renewable Energy – A future alternative"                            | Expert Lecture in Faculty development program on "Renewable Energy – A future alternative" at Govt. Poly Thane, 17-21 Jan 2022, 19/01/2022                    |
| 17 | Patent drafting for beginners  | Expert Lecture on Faculty development program on "Patent drafting for beginners", 6-11 December 2021 at J D College of Engg. and Management Nagpur            |
| 18 | My story –Motivational Session by successful innovator"              | Webinar under the banner of IQAC, IIC on "My story –Motivational Session by successful innovator", 11 January 2022 J D College of Engg. and Management Nagpur |
| 19 | Innovations in Solar Thermal Energy Utilization                      | Expert Lecture in AICTE STTP, at Sharad Institute of Technology Engineering, Yadrav, Kolhapur 14-19 June 2021   |
| 20 | Solar Energy – Opportunities, Key Challenges and Potential solutions | Expert Lecture for students of MET Bhujbal Knowledge city Institute of Technology, Polytechnic Nasik 04 March 2022  |
| 21 | How Patent Encourage the Indigenous Productivity                     | Expert Lecture for employees of Hindustan Aeronautics Limited (HAL) Ozar Nasik in National Productivity Week 12-18 Feb. 2022 on 14 Feb.                       |
| 22 | Heat Transfer in Solar Thermal Applications                          | Expert Lecture on TY and Final year students at SNJB Chandwad Sept 2021   |
| 23 | Project selection and Innovation in solar thermal energy             | Online webinar/event for NDLI Club of HSM's SSGBCOET, Bhusawal. 28 <sup>th</sup> April 2022   |
| 24 | Innovations In Solar Thermal Energy Applications                     | Expert Lecture for students of Godavari College of Engineering Jalgaon 20 June 2022   |
| 25 | Innovations In Solar Thermal Energy Applications                     | Keynote lecture in National Conference at Govt. College of Engineering and Research, Avasari Khurd, Taluka Ambegaon, District, Pune, 5-6 JULY 2022            |
| 26 | Innovations in Solar thermal applications                            | Webinar on BSM National Anusandhan 28/08/2022   |
| 27 | IPR Importance and Accessibility                                     | Seminar for SYBTech to Final year BTech students of all branches 11-13 September 2023 in five sessions  |
| 28 | Solar thermal Energy   | SMDR Govt. Polytechnic Dhule 24/08/2023   |
| 29 | Innovations in Solar thermal applications                            | SSBT COE Bambhori, Jalgaon, 30/10/2023  |
| 30 | Project selection and Innovation in solar thermal energy             | Raisoni   |

**21 National and International conferences: 24 Papers**

**22 International Journal Publications: 14 Publications**

**23 Special Lectures Delivered: 50+ on Energy Conservation, Audit and Innovations in Solar Thermal Applications IPR etc.**

**24 Patent filed (24) /granted (09)**

- 1 Indian patent granted on multipurpose evaporative cooling
- 1 Indian patent granted on multipurpose hollow hemispherical solar collector
- 1 Indian patent granted on curved surface absorber type solar fluid heater
- 2 international Patent Granted: 01 in USA, 01 in China (Solar Water Heater)
- 1 Indian Patent is granted on Brick Box Type Solar Cooker
- 1 Indian Patent is granted on Solar Collector Using Plastic Glazing
- 15 patents filed and in process

Guiding 6 PhD. Students

#### 25. Membership of Professional Bodies:

| Sr.No. | Name of the Body / Head Quarter                               | Grade of Membership (Fellow / Member) | Membership Number |
|--------|---|---------------------------------------|-------------------|
| 1      | The Institution of Engineers                                  | Member                                | AM83358/7         |
| 2      | Indian Society for Technical Education                        | Life Member                           | LM13045           |
| 3      | Indian Association of Energy Management Professionals (IAEMP) | Life Member                           | -                 |
| 4      | ASM International   | Member                                | C-06249045        |

#### 26. Project / Dissertation / Thesis Guided / Supervised

| Sr. No. | Level                | Number of Projects | No. of students |
|---------|----------------------|--------------------|-----------------|
| 1       | Diploma              | Approx. 40         | 125             |
| 2       | Under Graduate Level | Approx. 55         | 195             |
| 3       | Post Graduate Level  | 05                 | 05              |
| 4       | Doctor of Philosophy | 06                 | 06              |

#### 27. Details of Computer Software Learned:

| Sr. No | Name of Software | Level of Understanding |            |          |
|--------|------------------|------------------------|------------|----------|
|        |                  | 1 – Lower              | 2 – Medium | 3 – High |
| 1      | AutoCAD -2006    |                        | 2          |          |
| 2      | CFD              |                        | 2          |          |

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

Signature  
**Dr. Suryawanshi Sanjeev Damodar**  
 Professor and Head  
 Mechanical Engineering Department,  
 SSVIP Sanstha's, Bapusaheb Shivajirao Deore,  
 College of Engineering, Dhule-424002

Date:28/05/2024

Place: Dhule