



Dr. Dongare Santosh Dattatraya
Ph.D (Mechanical engineering,
Solar Desalination System)
M.Tech. (Energy Technology),
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Core Competencies

- Proven abilities in Research & development
- Teaching & tutoring the students as per the curriculum. Adapt at coaching the students by using interactive discussions, and “hands-on” approach to help students learn and get a better understanding of the concerned subject.
Designing, developing and customizing training programs / teaching curriculum for the students. Expertise in identifying training needs, teaching curriculum and executing the same.
- Recognizing, respecting & nurturing the creative potential of each student
- Preparing research exercises, & mini projects for students at various levels; assisting & counseling students in the laboratory operations.
Ensuring the maximum student satisfaction and accomplishment of organizational vision and strategic direction
- A well-organized person with a systematic approach towards the job can analyze different operations and take corrective decisions to accomplish the desired results. Good communication, presentation and interpersonal skills with proven abilities in teaching, training, consulting & administrating for various academic courses.

Educational Qualification

Qualification	University/Board	Year of passing	Grade/Percentage
Ph.D. (Mechanical Engineering)	Oriental University Indore, India	2025	Awarded
M.Tech (Energy Technology)	Dept. of Energy Technology, Shivaji University, Kolhapur, India	September, 2014	63%
B.E. (Mechanical Engineering)	Shri Tuljabhavani College of Engineering Tuljapur , India	July, 2000	62%

Ph.D. Details:

Title of Thesis: “Implementation and Analysis of a Novel Standalone Compact Solar Still Using Heat Augmentation Techniques Integration”

Short Synopsis:

The main purpose of this study is to improve solar still performance. To complete the objective, some changes or modifications are made to get simple solution of enhancing yield needs to study theoretically as well as experimentally

The objectives of our project are:

- To remove particulates and microbial contaminants from saline and polluted water.
- To design and fabricate a solar-based purification system for water evaporation and condensation.
- To propose a cost-effective compact solar still by analyzing novel standalone configurations.
- To evaluate various heat augmentation techniques for enhancing purification efficiency.
- To develop a simulation model for analyzing system behavior.
- To formulate a thermal and mathematical model for predicting distillation performance.

Work Experience

1. Currently working as head of Mechanical Department of Engineering at VVPIET , Solapur
2. Served as Visiting Faculty at SVERI College and New Satara College at Pandharpur, during the 2022 to 2023 academic year
3. Held the position of Campus Director at Sahyadri ITI College, Karkamb, during the 2021–2022 academic year
4. Head of Mechanical Department, Karmayogi Polytechnic College, Shelve-Pandharpur District: Solapur, Maharashtra, India (July 2008- 09/7/2021)

Other Responsibilities:

- Member of Governing council of the institution
- Head of Design of Machine element Laboratory
- Chief of external and internal vigilance , Examinations
- Head of Entrepreneurship development of cell
- Coordinator of sports activities.

5. Guari-Shankar polytechnic, Satara, Maharashtra, India (July 2007-April. 2008)

Responsibilities and Contributions:

- Lecturer in Mechanical Engineering Dept.
- workshop superintendent
- development of laboratory

6. New Satara polytechnic, Pandharpur, Maharashtra, India (May.2006-June2007)

Responsibilities and Contributions:

- Lecturer in Mechanical Engineering Dept.
- Guiding students for industrial training & projects
- Head of Mechanical Department

7. Worked as Service engineer in industrial Product Service Limited at Solapur for one year from year 2004 to 2005
8. Worked as a Trainee Engineer in Sangola Sahakari Sakhar Karkhana Limited Sangola since from year 2001 to 2003.
9. Worked as Service Engineer in Achal Automobile Private Limited at Belgaum

Administrative Experience

- Successfully handled various govt. committees such as AICTE/DTE/MSBTE
- Experience in setting up and development of different labs for polytechnic and Engineering colleges
- Worked as head of different institutional committees such as Anti-Ragging, women's

- grievances and many more
- Worked as a Coordinator, Entrepreneurship Development Cell,
- Worked as a Chief officer in charge many times
- Worked as a Workshop superintendent,
- Worked as a Member, Regional Assessment Centre (RAC) monitoring committee for MSBTE exams
- Experience in Industry-Institute interaction and Played important role in various MOU's with industries for different educational and training and placement activities
- During my tenure as head of Mechanical Department, I have arranged more than 60 industrial visits and 100 expert lectures.
- Worked as an Examiner/moderator for MSBTE examinations
- Experience in organizing workshops/seminars/faculty development programs/:

I have been actively involved in successful organizing of **Students training and development programs:** short and long term student Training programs on different topics such as aptitude and Communication skills, entrepreneurship awareness camps, Auto CAD and CATIA, PHP, CNC, and many more

Faculty development programs:

I have arranged FDP of Auto CAD, CATIA and Solid works, guest lectures

Other programs: Medical camps for students and faculties, Paper presentations, quiz competitions, Annual Cultural Programs, state level seminars and workshops.

Projects Completed

I have guided number of students since from year 2011 till 2021

Conference Publications and Journal Publication

I have attended on line conference on “Emerging Trends in Multi-Disciplinary Research” (ETMDR 2020) and it will publish in Scopus Indexed journal (Test Engineering and Management ,ISSN 01934120), month of August 2020 (volume)

Workshops/Training/Seminars Attended

Training Completed:

- Unique Dimensions of Research: Methodology, Reference Management and Plagiarism Affairs on 27th May, 2020, sponsored by IETE Sub-center, Indore (M.P.).
- Five day on line faculty development program on IMMEDIATE TRENDS IN MECHANICAL ENGINEERING conducted by department of Mechanical Engineering during 29th June – 03rd July 2020
- “E-Content Development and Delivery” organized by Karmayogi Engineering College, Shelve Pandharpur from 20th June 2020 to 25th June 2020.

- One day online webinar on “Innovation & Patents” organized by the Department of Mechanical Engineering, Karmayogi Engineering College, Shelve, Pandharpur, on dated 4th July 2020.
- “Management of Intellectual Property Rights and Trademark 2020” from 7- 8 May 2020, organized by IPR cell, Oriental University, Indore (M.P.)
- Oriental University Indore has successfully participated in National Webinar on MATLAB: Applications in Research on 12th May, 2020, sponsored by IETE Sub-center, Indore (M.P.).
- FDP on CIM at Sangola five days training program computer integrated manufacturing
- A Webinar on “Principle for Communicate an Effectual Manuscript” Gram Bhavrasala, Reoti Range, Sanwer Road, Indore - 453331 (M.P.)
- Participation in Two days FDP on Additive Manufacturing at Dilkap Research Institute of Engineering and Management Studies at Neral Mumbai
- Attended three days training at Forbes marshal Private Limited Pune, Maharashtra

List of Publication

1 S. D. Santosh, S. Somani, and H. Patil, “Performance Evaluation of Cost-Effective Standalone Solar Still System with Solar Concentrator,” in Proceedings of the 6th International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications (ICMISC 2025), vol. 1736, Lecture Notes in Networks and Systems, Springer, Singapore, 2026. DOI: 10.1007/978-981-95-5079-1_22.

2 S. D. Dongare, S. K. Somani, and H. S. Patil, “Implementation and analysis of novel standalone compact solar still using heat augmentation techniques integration,” NATURALISTA CAMPANO, vol. 28, no. 1, ISSN: 1827-7160, 2024.

3 Dongare Santosh, S. K. Somani, and H. S. Patil, “Implementation and performance analysis of a compact solar still standalone system for sustainable water pollution,” CAHIERS MAGELLANES-NS, vol. 6, no. 2, pp. 4152–4164, 2024.

4 S. D. Dongare, S. K. Somani, H. S. Patil, and A. A. Sagade, “A comprehensive review: High-efficient productivity solar stills,” Tuijin Jishu/Journal of Propulsion Technology, vol. 44, no. 6, ISSN: 1001-4055, 2023.

5 S. D. Dongare, S. K. Somani, and H. S. Patil, “Standalone compact solar still using heat augmentation techniques integration: A study,” Sanshodhak, no. 25, June 2024, ISSN: 2394-5990

6 S. D. Dongare and A. K. Gupta, “Necessity of solar still for domestic usage,” TEST Engineering & Management, vol. 83, pp. 667–671, Jul.–Aug. 2020.

Academic Taught Subjects (last 5 years)

- Power engineering and Refrigeration
- Design of machine elements
- Fluid mechanics and machinery,
- Strength of materials,
- Elements of mechanical engineering,
- Applied mechanics
- CATIA
- Thermal Engineering.
- Basis of Mechanical Engineeringetc.

Personal Details

- ✓ **Address:** House No 3170 “Tanaji Chowk Pandharpur 413304 District : Solapur, Maharashtra, India
- ✓ **Date of Birth :** 23rd March 1975
- ✓ **Family Background:** Mother , Wife (Master of Science in Mathematics) & kids

Future Plans & Research Focus

My future research will focus on developing sustainable solar desalination systems to provide clean water in rural and coastal communities.

Building on my doctoral and teaching experience, I plan to work on hybrid solar stills, parabolic dish-based systems, and refrigeration-assisted condensation units.

My focus will be on improving efficiency, affordability, and scalability through advanced modeling, experimental validation, and field trials.

Name: Dongare Santosh Dattatraya

Place: Pandharpur, Maharashtra