



## Dr. Sambhaji Shivaji Pawar

Assistant Professor, Department of Engineering Sciences

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### OVERVIEW:

<b>Qualifications:</b>	Ph.D.(Physics ), M.Sc. (Physics), B. Sc. (Physics)
<b>Experience:</b>	Teaching -12 years , Research Experience: 6 Years
<b>Date of Joining STES:</b>	01/08/2014
<b>Skills and Proficiencies:</b>	Impedance spectroscopy, X-ray diffractometer, Raman spectrometer, Scanning electron microscopy, Scanning Tunneling Microscopy, Linux, Computational methods, R, LabVIEW, Geo-Gebra, crystal, rietveld

### SIGNIFICANT ACHIEVEMENTS:

Awarded with DRDO Fellowship as junior research fellow (Three Years) and senior research fellow (Two Years)

### AREA OF EXPERTISE /RESEARCH INTERESTS:

Focusing on computational physics in material science for sustainable energy solutions

### NUMBER OF STUDENTS GUIDED:

<b>Post Graduates :</b>	07
<b>Undergraduates:</b>	07

### RESEARCH PULICATIONS:

<b>Scopus/ SCI</b>	15
<b>International Journal:</b>	15
<b>Conference:</b>	02

**h-index:** 09

**i10 index:** 09

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### **RESEARCH WORK:**

I have extensive expertise in material science, particularly in Solid Oxide Fuel Cells (SOFCs) and Superconductivity microwave absorption studies, with a focus on advanced material properties and their applications in energy conversion and superconductive phenomena. My research is supported by proficiency in key material characterization techniques, including Impedance Spectroscopy for electrical property analysis, X-ray Diffraction (XRD) for crystallographic studies, Scanning Electron Microscopy (SEM) for microstructural examination, and Energy Dispersive X-ray Analysis (EDAX) for elemental composition analysis.

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### **RESOURCE PERSON TO INDUSTRY/ACADEMIA:**

- ◆ I have served as a reviewer for several prestigious journals and conferences, including Journal Ionics, Journals of Alloys and Compounds, Journal of Materials Science (JMSS, Springer), Macromolecules (Wiley International), and the Proceedings of the 6th Global Conference on Materials Science and Engineering. Additionally,
- ◆ I was honored to deliver an invited talk on renewable energy at Vivekanand College in Kolhapur.

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### **SUBJECTS TAUGHT:**

Engineering Physics, Numerical methods in radiological computation, Mathematical Physics, Nuclear

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### **FDP/STTP/SDP/WORKSHOPS ORGANIZED AS A COORDINATOR:**

- ◆ Faculty Development Program on “Sophisticated Analytical Instruments: Principles and Applications to Chemical and Material Sciences (SAIPACMS-2020)” held from July 21-25, 2020
- ◆ One-week Short-Term Training Programme titled "Foundations in Open Source: A Comprehensive Short-Term Training Program on Linux and LibreOffice (CSTTPLO-2024)," scheduled from July 22 to July 26, 2024

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**CONFERENCES ATTENDED:**

I have attended over 20 conferences related to Solid Oxide Fuel Cell, and Material Science.

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**FDP/STTP/SDP ATTENDED:**

I have attended over 10 Faculty Development Programs (FDPs), Short-Term Training Programs (STTPs), and Staff Development Programs (SDPs) focused on proficiency development and nanomaterials, including those offered through NPTEL.

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**RESPONSIBILITIES HANDLED AT STES/SCOE/DEPT.**

- ◆ I have served as the Co-Coordinator of a facilitation center, for first-year engineering admissions for three years and as a member of the same center for two years.
- ◆ I have served as the Co-Coordinator of a document verification committee, for first-year engineering admissions
- ◆ Since 2017, I have been serving as the departmental Co-Coordinator to implement the SWAYAM and National Programme on Technology Enhanced Learning (NPTEL) initiatives.
- ◆ Since 2017, I have been serving as the departmental Co-Coordinator for the Sinhgad College of Engineering magazine SRUJAN and as the Research Coordinator.
- ◆ I have contributed as a member in the admission process for first-year engineering students
- ◆ I have worked as a departmental member to administer the criteria allocated to me during the assessments by the National Board of Accreditation (NBA) and the National Assessment and Accreditation Council (NAAC)
- ◆ I have contributed significantly to academic administration as a Subject Coordinator and Teacher Guardian, roles in which he has effectively managed curriculum and supported students' academic development.

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**DECLARATION**

I hereby declare that all the above information furnished by me are true to the best of my knowledge.

Date: 10 / 12 / 2024