

CURRICULUM VITAE

Dr. Sambhaji M. Pawar

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EDUCATION

- **Ph.D. in Physics (Material Science):** (Jun. 2004 – Dec. 2007)
Department of Physics, Shivaji University, Kolhapur (M.S.), India.
Thesis title: Studies on rechargeable storage cells formed with electrodeposited Fe doped CdSe thin films
Advisor: Prof. Chandrakant H. Bhosale
- **M.Sc. in Physics (Energy Science):** (Jun. 2002 - Apr. 2004),
Department of Physics, Shivaji University, Kolhapur (M.S.), India.
- **B.Sc. in Physics:** (Jun. 1999 - Apr. 2002),
K.B.P. College, Pandharpur, Dist.: Solapur (M.S.).

AREA OF SPECIALIZATIONS / RESEARCH INTERESTS

Basic Studies

- Thin film physics: Inorganic/organic thin films
- Nano materials for energy conversion and storage devices

Synthesis Methods

- **Physical:** Pulsed laser deposition, Magnetron sputtering, Vacuum evaporation
- **Chemical:** Electrodeposition, Spray pyrolysis, Chemical bath deposition (CBD), Successive ionic layer adsorption and reaction (SILAR), Hydro-thermal method, Hot injection method

Applications

- Solar Cells: Photo-electrochemical, Dye sensitized and Solid state Junction
- Supercapacitor, Direct Methanol fuel cell (DMFC)
- Electrochemical water splitting and CO₂ reduction
- Lithium-ion battery

EMPLOYMENT

Sr. No.	Designation	Period	Institution
1	Associate Professor and Research Director	13/12/2023-Till date	Department of Physics, Sanjay Ghodawat University, Kolhapur (MS), India
2	Associate Professor and Asso. Dean (R&D)	1/10/2021-12/12/2023	Department of Physics, Sanjay Ghodawat University, Kolhapur (MS), India
3	Associate Professor	4/1/2013-2/4/2021	Division of Physics and Semi. Sci., Dongguk University, Seoul, Korea
4	Senior Scientist	4/1/2011-3/1/2013	LG Innotek Co., Ltd, Ansan, South Korea
5	Post-Doctoral Fellow	15/4/2008-31/12/2010	Dept. of Materials Sci. and Eng., Chonnam National University, Gwangju, South Korea.
6	Post-Doctoral Fellow	12/6/2007-12/4/2008	Dept. of Physics, Shivaji University, Kolhapur, India
7	Teaching Assistant	1/10/2005-16/5/2007	Dept. of Physics, Shivaji University, Kolhapur, India

Professional Recognition / Awards / Scholarship

- “**SGU President Award**” for outstanding publications-2022.
- Key role in signing MoU between Sanjay Ghodawat University Kolhapur and Centre for Materials for Electronics Technology (C-MET), Pune (Dec., 2022).
- Key role in signing MoU between Sanjay Ghodawat University Kolhapur and D.Y. Patil University, Kolhapur (June 2022).
- “**Young Associate**” award, Maharashtra Academy of Sciences, Nov. 2020
- Published “**Science Direct Top 25 Hottest Articles**”
- Passed Korean Language course (Level 1) during the period from Nov.01- Dec.17, 2010.
- Initiated MoU between Chonnam National University, Gwangju, South Korea and Shivaji University, Kolhapur (M.S.), India (Dec., 2008).

- Brain Korea 21 (BK21) Fellowship during Post-Doctoral Research, Chonnam National University, Gwangju, South Korea (2008-2010).
- Senior Research Fellowship (S.R.F.) (12/6/2007-12/4/2008) by Council of Scientific and Industrial Research (C.S.I.R.), New Delhi.

ACADEMIC /INDUSTRIAL EXPERINCE

- **Subjects taught to Post Graduate (PG) students**
 - ✓ Semiconductor physics (PHS604)
 - ✓ Synthesis of Nanomaterials (PHS623)
 - ✓ Condensed Mater physics (PHS502)
- **Transferred R&D thin film solar cell technology into commercial large scale production at LG Innotek Co. Ltd, South Korea.**

GRANTS & PROJECTS

Sr. No.	Project details	Funding agency	Grants	Role	Status
1.	Cost-effective synthesis of Cu-based MOF for Electrochemical Reduction of CO ₂ to Clean Energy Fuel generation / SUR / 2022/004010	SERB-SURE	Rs. 29,83,200 /-	PI	Ongoing
2.	Development of Self-assembled Pervoskite Metal Oxide based Nanomaterials for Piezoelectronic Devices/SGU/Research/Fund/2022-23/2065-1	SGU-SEED Funding	Rs. 1,95,000 /-	PI	Ongoing

PROGRAM ORGANIZED /PARTICIPATED

- Attend GIAN Workshop on “Advanced Functional Materials and Green Energy Strategies” on 16-20th October, 2023 at Shivaji University, Kolhapur
- Organized National Seminar on ‘Emerging Nano Materials for renewable Energy’ at SGU on 26th December 2022.
- Organized workshops on how to write a research proposal, conduct research and publish papers by Dr. N. M. Gupta on 8th Oct., 2022.

RESEARCH SUPERVISION/GUIDANCE

Ph.D. Research Scholars working: 6 M.Sc. projects completed: 3

RESEARCH PUBLICATIONS DETAILS

1. International Patents: 1
2. Review articles: 1
3. International Research Publications: 150
4. International/National conferences: 25
5. Google scholar citations: 8900
6. H-index: 56

Research Collaborations

1. ***Prof. Jin Hyeok Kim***
Department of Materials Science and Engineering,
Chonnam National University, Gwangju,
South Korea.
E-mail: jinhyeok@chonnam.ac.kr
2. ***Prof. Deepak Dubal***
School of Chemistry and Physics
Faculty of Science,
Queensland University of Technology
Brisbane QLD 4000
Australia
Email: deepak.dubal@qut.edu.au
3. ***Prof. B. R. Sankapal***
Applied Physics Department,
Visvesvaraya National Institute of Technology,
South Ambhazari Road,
Nagpur-440 010 (M.S.)
India.
E-mail: brsankapal@gmail.com
4. ***Dr. Bharat Kale***
Emeritus Scientist & Director
MIT World Peace University,
Pune.
India.
E-mail: bbkale@gmail.com