

CURRICULUM VITAE

Name: Dr. Yogesh B Waghadkar

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Education:

Doctor of Philosophy (Integrated Mtech-PhD)	University: Savitribai Phule Pune University Discipline: Electronic & Electrical Technology Year of Passing : 2019 Research Topic: Material Science (NanoTechnology), □ Photo-catalytic application (Waste water Treatment, H ₂ generation), Light Sensor, Dye Sensitized Solar cell. Thesis Title: Synthesis and Characterization of TiO ₂ /ZnO Nanostructures for Optoelectronic Applications
Master of Science	University: University of Pune Discipline: Electronic Year of Passing: 2012 Research / Dissertation Topic: <ul style="list-style-type: none">• Design and development of Ring Resonator for Dielectric constant of measurement of different Materials at microwave frequency• Designing the Peak detector• Designing Regulated Power Supply using IC 723
Bachelor of Science	University: University of Pune Year of Passing: 2010 Project Name: Experimental studies on the P-N junction characteristic and determination of material properties:

Work Experience:

Position held	Name of the Organization /	Duration			Responsibilities Performed
		Fro	To	Years	
Project Staff	Centre for Materials for Electronics Technology (CMET,Pune) , Pune-411008	02/08/2014	08/07/2018	3.9	<ul style="list-style-type: none"> Synthesis of anomaterials using hydrothermal, solvo-thermal and co precipitation method. Nanomaterial analysis using techniques like XRD,UV Visible Spectroscopy, Photo luminance, BET surface area, FESEM, FETEM, TG DTA etc. Fabrication of Dye sensitized solar cells (DSSC) Electrochemical, Electrical and impedance analysis of DSSC and solar characteristic measurement using solar simulator. Fabrication and testing of Photosensors. Photo catalytic reaction for semiconductor nanomaterials for environmental remediation. Hand -on experience on XRD machine and
Junior Research Fellow	Department of Environment Science,SPPU,Pune-411007	14/02/2019	14/02/2022	3	<ul style="list-style-type: none"> Synthesis of double perovskite solar cell materials
Assistant professor	Centre for energy studies , Savitribai phule pune university, Pune	01/09/2022	31/05/2023	0.6	Teaching
Assistant professor	Department of Electronic and Instrumentation Science, Savitribai Phule Pune University, Pune411007	17/08/2023	10/03/2024	0.6	Teaching
Academic Coordinator	School of Computer Science, Yashwantrao chavan Maharashtra Open University Nashik Gangapur 422222	13/03/2024	Till today		Development of course programme, coordination of Diploma & Certificate, Research & Development, MOOC development, Book Writing,

Publications:

Sr. No.	Title of the Research Paper	Name of the Journal / Publisher	Year of Publication
1	Time-varied synthesis of hierarchical ZnO microspheres and their applications in dye-sensitized solar cells	J. Solid State Electrochemistry	2017
2	Highly efficient dye-sensitized solar cells by TiCl ₄ surface modification of ZnO nano-flower thin film	Solid State Electrochemistry	2018
3	Optical and photovoltaic properties of temperature-dependent synthesis of ZnO nanobelts, nanoplates, and nanorods	J. Solid Electrochemistry	2015
4	Bipyramidal and Rod Like ZnO Nanoarchitectures Synthesized by Precipitation Route at Different pH for Dye Sensitized Solar Cells	J.Nano & Nnanofact	2016
5	Template-free hydrothermal synthesis of beaded nanochain bundles of ZnO and their application as photoanode in dye-sensitized solar cells	Applied Physics A	2018
6	Transition metal ferrocenyldithiocarbamates functionalized dye-sensitized solar cells with hydroxy as an anchoring group	Optical Material	2016
7	1,2-Bis(diphenylphosphino)ethane nickel(II) O,O'-dialkyldithiophosphates as potential precursors for nickel sulfides	New Journal Chemistry	2017
8	Hydrothermally Synthesized Zinc Sulphide Microspheres for Solar Light-Driven Photocatalytic Properties	Journal of Electronic Materials	2018
9	Coupled Semiconductor Nanosystem Based on SnO/SnO ₂ nanocomposites for Photocatalytic Applications	J.Nano&Nnanofact	2015
10	Concurrent synthesis of SnO/SnO ₂ nanocomposites and their enhanced photocatalytic activity	Solid State Electrochemistry	2017
11	Facile synthesis of hollow urchin-like Nb ₂ O ₅ nanostructures and their performance in dyesensitized solar cells	Solid State Electrochemistry	2019
12	12. Indium-doped ZnO as efficient photosensitive material for sunlight driven hydrogen generation and DSSC applications: integrated experimental and computational approach	Solid State Electrochemistry	2021

13	Transformation of ZnS microspheres to ZnO, their computational (DFT) validation and Dye-Sensitized Solar Cells application	AIP Advances	2022
14	ZnS–MoS ₂ nano-heterostructure: efficient photocatalyst for dye removal under sunlight	Materials Science: Materials in Electronics	2023
15	Vanadium oxide nanofibers as efficient photocatalysts for degradation of methylene blue under sunlight	Materials Science: Materials in Electronics	2023
16	Nb ₂ O ₅ porous nanotube: Potential approach as photoanode material for dye sensitized solar cell	Bulletin of Materials Science	2024
17	Synthesis and characterization of indium-doped ZnO nanoparticles by coprecipitation method for highly photo-responsive UV light sensors	Sensors International	2024
18	Enhanced dye degradation using 2H-MoS ₂ and 1T@2H-MoS ₂ : A comparative study	Solid State Electrochemistry	2025
19	Ascorbic acid mediated synthesis of highly porous ZnO microsphere for sustainable hydrogen generation and efficient methylene blue dye degradation	Materials Science: Materials in Electronics	2024

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Signature of the Candidate