Jaydeep Vinayak Sali

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Education Qualification

S.No.	Examination	University	Year	Subjects	Percentage	Class
1.	B.Sc.	University of Pune	1991	Electronics	78.17	Distinction
2.	M. Sc.	University of Pune	1993	Physics	73.85	Distinction
3.	G.A.T.E.		1994	Physics		
4.	S.E.T.		1995	Physics		
5.	Ph.D.	University of Pune	2000	Physics		

TRAININGS:
Obtained Trainings in

- *"Operation and Maintenance of Stand-alone Solar Photovoltaic System"* and
- *"Solar Photovoltaic System Design and Engineering"* at Indian Institute of Technology, Chennai.
- *Grid-connected Solar Photovoltaic Systems*

Details of employment (past & present):

Institution	Position held	Period
S.R.T.M. University, Nanded	Lecturer	06-08-1999 to 21-05-2003
University of Pune, Pune	Lecturer	22-05-2003 to 30-05-2005
North Maharashtra University, Jalgaon	Reader	31-05-2005 to 30-05-2008
North Maharashtra University, Jalgaon	Associate Professor	31-05-2008 to 30-05-2011
North Maharashtra University, Jalgaon	Professor	31-05-2011 onward

Subjects taught at Post-graduate:

1. Electronics
2. Electrodynamics
3. Classical Mechanics
4. Mathematic Methods in Physics
5. Quantum mechanics
6. Solid State Physics
7. Solar Thermal Systems
8. Grid Connected Solar Photovoltaic Systems
9. General Laboratory-I and II
10. Special Laboratory-I and II

Current Research interest:

Development of Science and technology for preparation of Perovskite Solar Cells by slot die method.

Modeling and simulation of various physical processes related to synthesis of thin films by different deposition methods for optoelectronic applications.

Hobbies: Listening Music, reading and Photography

Research Projects completed

Sr. No.	Name of PI / Co-PI	Title of the Project	Funding Agency	Period	Total Funding (Rs.)
1	**PI: Jaydeep V. Sali** Co-PI: Dr S.S. Ghosh	Design and development of three wheeler efficient bullock cart.	RGSTC, Mumbai.	2008-2011	5,18,650/-
2	PI: Dr Sanjay S. Ghosh **Co-PI: Jaydeep V. Sali**	Synthesis of low cost and environmental friendly organic/inorganic hybrid solar cells and their study.	UGC	2009-2011	1,50 000/-
3	**PI: Jaydeep V. Sali** Co-PI: Suneet Rane (C-MET, Pune)	Fabrication of fully Ultrasonic-spray coated Polymer (P3HT) : Fullerene (PCBM) Bulk Heterojunction Organic Solar Cells	UGC	2010-2013	7,30800/-
4	PI:B R Sankapal **Co-PI: Jaydeep V. Sali**	Chemical Synthesis of Quantum Dots and their sensitization for the applications in Solar Cells	DAE-BRNS	2010-2013	19,45,400/-
5	**PI: Jaydeep V. Sali** Co-PI: Dr S.S. Ghosh	Investigating Dual Liquid Feed Ultrasonic Spray Method as a mean to control bulk-heterojunction morphology in ternary polymer (P3HT): polymer (PBDTTT-E): Fullerene($PC_{70}BM$/ICBA)* bulk heterojunction Organic Solar Cells and evaluation of their performance with efficiency target of better than 5%.	SERB-DST	2014-2018	51,50,000/-
6	PI: Dr S.S. Ghosh **Co-PI: Jaydeep V. Sali**	Fabrication and study of low cost solution processed TADF-OLEDs by ultrasonic spray coating method	DAE-BRNS	2017-2019	31,95,900
7	PI: Ms Gauri Bisen **Mentor: Jaydeep V. Sali**,	Fabrication of highly efficient low cost inverted polymer (PTB7): modified fullerene ($PC_{71}BM$) solar cells by ultrasonic spray method with special emphasis on understanding phase separation mechanism in spray deposited films	Women Scientist Scheme A (WOS-A)	2015-2018	15,95,000

8	PI: Dr S.S. Ghosh **Co-PI: Jaydeep V. Sali**	Fabrication and study of perovskite solar cells by ultrasonic spray coating technique with targeted efficiency 15%	DST, India	2017-2020	38,50,000
9	PI: Dr Vinita Deo **Mentor: Jaydeep V. Sali**	Development of Ultrasonic Spray Coated Planar Heterojunction Perovskite Solar Cells with a target efficiency of 10%	National Post-doctoral Fellowship (SERB), DST	2015-2018	33,00,000

Proposals submitted under my guidance and approved for INSPIRE fellowships

Sr. No.	Name of the student	Title of the Proposal	Funding Agency	Sanction Year	Guide
1	Hemant Tarkas	Synthesis of Organic-Inorganic hybrid bulk heterojunctions using polymers and inorganic nanostructures by dual channel Ultrasonic spray method for solar cell application	DST	2013	**Jaydeep V Sali**
2	Devashree Upasani	Fabrication of Organic–Inorganic Halide Perovskite (OIHP) solar cells by slot-die coating method	DST	2018	**Jaydeep V Sali**

Ph.D. Theses guided

Sr. No.	Name of the Student	Title of the Thesis	Year of Award of Ph.D.	Guide	Co-Guide
1	Nabeel Ali Bakr	Studies on structural, optical and electrical properties of hydrogenated nanocrystalline silicon (nc-Si:H) thin films grown by Hot-Wire-CVD for photovoltaic applications	2010	S.R. Jadkar	**Jaydeep V. Sali**
2	Deepak Salunkhe	Chemical synthesis of extremely thin film consisting of nanoparticles onto TiO_2 and their light sensitization for solar cell applications	2013	B.R. Sankpal	**Jaydeep V. Sali**
3	Sanjay S. Ghosh	On morphology control in bulk-heterojunction for polymer based solar cells	2013	S.R. Jadkar	**Jaydeep V. Sali**
4	Ganesh Lonkar	Synthesis of Organic Thin Films by Dual Feed Ultrasonic Spray Method and Study of Their Nanomorphology for Application inlow Cost Organic Solar cells	2014	**Jaydeep V. Sali**	--
5	Mrunal Mahajan	Some investigations on PEDOT: PSS thin films and P3KHT: PCBM bulk heterojunction deposited by Ultrasonic spray method for applications in organic solar cells	2016	**Jaydeep V. Sali**	--
6	Pratibha Nikam	Nanostructured Solar Cells based on Highly Absorbing Nanoparticles on ZnO	2016	B.R. Sankpal	**Jaydeep V. Sali**
7	Faisal Mohsen Alabd Al-Muntaser	Studies and Development of Zinc Oxide-Polymer Solar Cell	2017	B.R. Sankpal	**Jaydeep V. Sali**
8	Deepak Marathe	Synthesis of Thin Films of CNT, PEDOT: PSS & P3HT: PCBM By Ultrasonic Spray Method & Study of Their Optical & Electrical Properties for Solar Cell Fabrication	2019	**Jaydeep V. Sali**	R.S. Khadayate
9	Hemant Tarkas	Synthesis of Organic –Inorganic Heterojunction for Photovoltaic Application	2020	**Jaydeep V. Sali**	--

Five significant Research Publications

1. A new approach for preparation of ternary bulk-heterojunction using dualfeed ultrasonic spray for organic solar cells
   Swapnil Tak, Hemant Tarkas, Gauri Bisen, Sanjay Ghosh, Jaydeep V. Sali
   Optical Materials 91 (2019) 296–304
2. Changes in in-plane electrical conductivity of PEDOT: PSS thin films due to electric field induced dipolar reorientation
   MS Mahajan, DM Marathe, SS Ghosh, V Ganesan, Jaydeep V Sali
   RSC Advances 5 (2015) (105), 86393-86401
3. Why specific mixed solvent composition leads to appropriate film formation of composite during spin coating?
   S.S. Ghosh, A.P. Zerwal, G.G. Bisen, G.S. Lonkar, J.V. Sali, V.S. Waman, S.R. Jadkar
   APPLIED PHYSICS LETTERS 102, 051918 (2013)
4. Bulk-heterojunction morphology control during spin coating: Modelling diffusion assisted phase separation
   S. S. Ghosh, G. S. Lonkar,M. S. Mahajan, S. R. Jadkar, V. S. Waman, M. M., V. Ganesan, and Jaydeep V Sali
   APPLIED PHYSICS LETTERS 101, 173305 (2012)
5. Modeling thin film formation by Ultrasonic Spray method: A case of PEDOT:PSS thin films
   Ganesh S. Lonakar, Mrunal S. Mahajan, Sanjay S. Ghosh, Jaydeep V. Sali
   Organic Electronics 13 (2012) 2575–2581

Other contributions:

1. Member of committee for Science text-books of Class XIII, IX and X for Maharashtra State Board of Secondary and Higher Secondary Education, Pune from 2017 to 2020.
2. Created and administrating a group named ‘Physics Kattaa’ involving the Physics/Electronics teachers from all colleges under KBC NMU. Academic and career-related information, useful for the graduating students, is disseminated through this group to all UG/PG students.