

**Name** : Dr. Ramchandra Dattatray Suryavanshi  
**Address** : Department of Physics,  
Shivaji University Kolhapur, Maharashtra, India.  
**E-mail** : ramsuryavanshi9696@gmail.com  
**Mobile No.:** +91-9049125335, 8805454067



**PERSONAL SUMMARY:**

I completed my Ph.D. in Dec 2018 entitled "**PHOTOELECTROCATALYTIC DEGRADATION OF ORGANIC COMPOUNDS USING SPRAY DEPOSITED Fe<sub>2</sub>O<sub>3</sub>/ZnO THIN FILMS**". After completing my Ph.D. I was work as a Temporary Assistant Professor in the department of physics at Shivaji University, Kolhapur (India) from 2019 to 2020. Then due to COVID-19 and my family problem (medical) at the end of the year 2021 to 2022, I was a little bit away from my academic work to support my family (financially, physically and mentally). During this time, I never quit my research work and published 3 research papers as well as I took various classes for my village student and guide them to build their beautiful journey.

**PERSONAL DATA:**

**Date of birth** : 3<sup>rd</sup> July 1992  
**Nationality** : Indian  
**Sex** : Male

**Languages Known:** English, Hindi, Marathi and Kannad.

**EDUCATIONAL QUALIFICATION:**

Examination	Main Subjects	Board/ University	% of marks	Class	Year of Passing
Ph.D.	Physics	Shivaji University Kolhapur.	-	-	2018
M.Sc.	Physics	Shivaji University Kolhapur.	68.83	I Class	2015
B.Sc.	Physics	Shivaji University Kolhapur.	77.60	I Class	2013
H.S.C.	P.C.M.B.	Kolhapur Board	52.83	II Class	2010
S.S.C.	All subjects	Kolhapur Board	80.46	I Class	2008

**RESEARCH EXPERIENCE: (7 years)**

**Ph.D. :Thesis Title:** "**PHOTOELECTROCATALYTIC DEGRADATION OF ORGANIC COMPOUNDS USING SPRAY DEPOSITED Fe<sub>2</sub>O<sub>3</sub>/ZnO THIN FILMS**" (2015-2018).

**TEACHING EXPERIENCE:**

- ❖ Research scholar and visiting researcher at Shivaji University Kolhapur (2015-2022)
  - ❖ Temporary Assistant Professor at Shri Swami Vivekanand Shikshan Sanstha Kolhapur (June 2019- July 2019).
  - ❖ Temporary Assistant Professor at Sanjay Ghodawat University (Aug 2019- Sep 2020).
  - ❖ Temporary Assistant Professor at Shivaji University Kolhapur (2019-2020).
  - ❖ Temporary Assistant Professor (CHB) at Shikshan Maharshi Dr. Bapuji Salunkhe College, Miraj (Present).
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**DST Project Fellow:**

Successfully completed the major research project entitled "Photocatalytic Purification of Wastewater Using Fe<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub> Nano-composite Thin Films" funded by DST (SERB), New Delhi. **Project No. SB/S2/CMP-0041/2013.**

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**Other:**

Research work done with **Prof. Michael Neumann-Spallart, CNRS, France**, on photoelectrocatalysis of organic species using nanocrystalline transition metal oxide thin films, 2015-2017, (Every year one Month)

**RESEARCH INTERESTS:**

Synthesis and characterizations of

- ❖ Nanostructured Materials
- ❖ Photocatalytic materials
- ❖ Multi-layer oxide thin film
- ❖ Carbon based materials

**CHARACTERIZATION TECHNIQUES:**

X-ray diffraction (XRD), Fourier Transform IR Spectroscopy (FTIR), X-ray Photoelectron Spectroscopy (XPS), Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), Atomic force microscopy (AFM), UV-Vis Spectroscopy, Electrochemical characterization and Flat band potential etc.

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**AWARD:**

**Project Fellow**, DST (SERB), New Delhi. Project No. SB/S2/CMP- 0041/2013

**RESEARCH PUBLICATIONS:**

- ❖ Papers published in International Journals – 8
- ❖ Papers presented in National/International Conferences – 03
- ❖ Citations: 152    h-index: 06    i10-index:05

**Google Scholar link:**

[https://scholar.google.co.in/citations?hl=en&user=nPS98tYAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.co.in/citations?hl=en&user=nPS98tYAAAAJ&view_op=list_works&sortby=pubdate)



**Masters level projects:**

Electrochemical Impedance Spectroscopy (2014-2015)

**INSTRUMENTS HANDLED:**

- ❖ UV-Visible Spectrophotometer
- ❖ X-ray diffractometer
- ❖ High-temperature programmable furnace
- ❖ Potentiostat
- ❖ Contact angle goniometer

**LIST OF PUBLICATIONS (8)**

1	<b>Authors</b>	<b>R. D. Suryavanshi, S. V. Mohite, A. A. Bagade, K. Y. Rajpure.</b>
	<b>Title</b>	Photoelectrocatalytic activity of immobilized Fe <sub>2</sub> O <sub>3</sub> photoelectrode for degradation of salicylic acid and methyl orange dye under visible light illumination.
	<b>Journal</b>	<i>Ionics 24 (2018)1841-1853.</i>
2	<b>Authors</b>	<b>R. D. Suryavanshi, S. V. Mohite, A. A. Bagade, S. K. Shaikh, J. B. Thorat, K. Y. Rajpure</b>
	<b>Title</b>	Nanocrystalline immobilized ZnO photocatalyst for degradation of benzoic acid and methyl blue dye.
	<b>Journal</b>	<i>Materials Research Bulletin 101(2018) 324-333.</i>
3	<b>Authors</b>	<b>R. D. Suryavanshi, K. Y. Rajpure.</b>
	<b>Title</b>	Spray deposited Fe <sub>2</sub> O <sub>3</sub> and stratified Fe <sub>2</sub> O <sub>3</sub> /ZnO novel photoelectrode for photoelectrocatalytic degradation of benzoic acid under solar light illumination.
	<b>Journal</b>	<i>Journal of Photochemistry and Photobiology A: Chemistry 357(2018) 72-80.</i>
4	<b>Authors</b>	<b>R. D. Suryavanshi, S. V. Mohite, S. K. Shaikh, J. B. Thorat K. Y. Rajpure.</b>
	<b>Title</b>	Spray deposited Fe <sub>2</sub> O <sub>3</sub> photoelectrode for degradation of benzoic acid and methyl blue dye under solar radiation.
	<b>Journal</b>	<i>Journal of Materials Science: Materials in Electronics 29(2018)2087-20884</i>
5	<b>Authors</b>	<b>J. B. Thorat, S. V. Mohite, S. B. Madake, R. D. Suryavanshi, K. Y. Rajpure, T. J. Shinde, V. J. Fulari, N. S. Shinde</b>
	<b>Title</b>	Electrochemical and surface deformation studies on electrodeposited nanostructured Bi <sub>2</sub> Te <sub>3</sub> thin films.
	<b>Journal</b>	<i>Optics &amp; Laser Technology 113 (2019) 384-393</i>
6	<b>Authors</b>	<b>R. D. Suryavanshi, S. V. Mohite, A. A. Bagade K. Y. Rajpure,</b>
	<b>Title</b>	photoelectrocatalytic activity of spray deposited Fe <sub>2</sub> O <sub>3</sub> /ZnO photoelectrode for degradation of salicylic acid and methyl orange dye under solar radiation
	<b>Journal</b>	<i>Materials Science &amp; Engineering B 248 (2019)114386</i>

7	Authors	<b>N. A. Narewadikar, R. D. Suryavanshi, , K. Y. Rajpure.</b>
	Title	Enhanced Photoelectrocatalytic Degradation Activity of Titanium Dioxide Photoelectrode: Effect of Film Thickness.
	Journal	<i>Colloid Journal 83 (2021) 107-115</i>
8	Authors	<b>R. D. Suryavanshi, P. V. Babar, N. A. Narewadikar, K. Y. Rajpure</b>
	Title	Sunlight-assisted novel spray deposited Bi <sub>2</sub> WO <sub>6</sub> photoelectrode for degradation of organic pollutants.
	Journal	<i>Journal of Physics and Chemistry of Solids (2022)</i>

**International/ National conferences were attended and papers presented**

1	<b>R. D. Suryavanshi, S. V. Mohite, A. A. Bagade, K. Y. Rajpure,</b> Nanocrystalline ZnO photoelectrode for degradation of salicylic acid and methyl orange dye, Innovative Research in Science and Technology (ICIRST – 2017) 7 <sup>th</sup> - 8 <sup>th</sup> , November 2017, Gopal Krishna Gokhale College, Kolhapur.
2	<b>R. D. Suryavanshi, S. V. Mohite, A. A. Bagade, K. Y. Rajpure</b> Photoelectrocatalytic activity of spray deposited Fe <sub>2</sub> O <sub>3</sub> /ZnO photoelectrode for degradation of salicylic acid and methyl orange dye under solar illumination, International Conference on Nanotechnology Addressing the Convergence of Materials science, Biotechnology and Medical science, (IC-NACMBM- 2017) 9 <sup>th</sup> - 11 <sup>th</sup> November 2017, D.Y. Patil Education Society Deemed University, Kolhapur.
3	<b>R. D. Suryavanshi, K. Y. Rajpure</b> Spray deposited Fe <sub>2</sub> O <sub>3</sub> and stratified Fe <sub>2</sub> O <sub>3</sub> /ZnO novel photoelectrode for photoelectrocatalytic degradation of benzoic acid under solar light illumination, 4 <sup>th</sup> International Conference on Physics of Materials & Materials-based Device Fabrication (ICPM- MDF-2019) 10 <sup>th</sup> - 11 <sup>th</sup> , January 2019, Department of Physics, Shivaji University, Kolhapur