

# Curriculum Vitae

## Dr. Pavan Karbhari Pagare

**Office Address:** Assistant Professor, Department of Physics & Academic Registrar, Yashavantrao Chavan Institute of Science, Satara (Autonomous)



### Permanent Address:-

A/P-Chaundhane, Tal-Satana, Dist.-Nashik

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### Personal details:-

Male, Married, Indian, Category: OBC

Date of Birth: 25 April 1991

**Languages Known:** - English, Hindi, Marathi, Ahirani

### Educational Qualification

<i>Degree</i>	<i>Name of University / Board</i>	<i>Year of Passing</i>	<i>% of Marks</i>	<i>Class / Grade</i>
<b>Ph.D.*</b> in Physics	Shivaji University Kolhapur, Kolhapur	2019	-	-
<b>M.Sc.</b> in Physics (Material Science)	Savitribai Phule Pune University, Pune	2013	73.60	First Class with Distinction
<b>B.Sc.</b> in Physics	Savitribai Phule Pune University, Pune	2011	73.83	First Class with Distinction
<b>H.S.C. (XII<sup>th</sup>)</b>	Nashik Divisional Board	2008	55.83	Second Class
<b>S.S.C. (X<sup>th</sup>)</b>	Nashik Divisional Board	2006	69.60	First Class

**\*Title of Ph.D. Thesis:** “Studies on TiO<sub>2</sub>/Cu<sub>2</sub>O heterojunction solar cell fabricated by electrochemical route”.

**Degree Awarded Date:** 25<sup>th</sup> March 2019

## **Experience:**

- Working as Assistant Professor in Physics at Yashwantrao Chavan Institute of Science, Satara (Autonomous) from 27/02/2020 to till date
- Working as Academic Registrar in Yashwantrao Chavan Institute of Science, Satara (Autonomous) from academic year 2020-21 to till date

## **Membership of Academic Bodies:**

- Life member of Indian Association of Physics Teachers (No.13707L8706)
- Life member of Vijnana Bharati (VIBHA) (No.8093)
- BOS member, Department of Physics, Yashwantrao Chavan Institute of Science, Satara (Autonomous)

**Citation: 134, h-index: 6, i10 index: 5**

## **Research Articles Published in International Journals: 18**

1. Amruta D. Salunkhe, **Pavan K. Pagare** and A. P. Torane, Review on Recent Modifications in Nickel Metal-Organic Framework Derived Electrode (Ni-MOF) Materials for Supercapacitors. **Journal of Inorganic and Organometallic Polymers and Materials 33 (2023) 287-318 (IF=3.51)**
2. **Pavan K. Pagare**, Kaluram G. Kanade, Harsharaj S. Jadhav, and Appasaheb P. Torane, Studies on Biosensing Properties of Electrodeposited Copper Oxide Films. **Macromolecular Symposia. 400 (2021) 2100227 (IF=0.85)**
3. A.P. Torane, A.B. Ubale, K.G. Kanade, **P.K. Pagare**, Photocatalytic dye degradation study of TiO<sub>2</sub> material. **Materials Today: Proceedings 43 (2021) 2738-2741.**
4. K.B. Pisal, A.S. Thorat, S.S. Jagtap, A.K. Gadekar, **P.K. Pagare**, S.H. Mujawar, L.D. Kadam, Synthesis and characterization of hydrothermally prepared molybdenum disulfide for supercapacitor application. **Materials Today: Proceedings 43 (2021) 2707-2710.**
5. Sandesh Jirage, **Pavan Pagare**, Kalyanrao Garadkar, Vijaykumar Bhuse, Structural and morphological studies of chemically deposited nanocrystalline and nano-flower like Cu<sub>2</sub>ZnSnSe<sub>4</sub> thin films. **Materials Today: Proceedings 45 (2021) 3950-3954.**
6. C.H. Jadhav, K.B. Pisal, A.R. Chavan, S.M. Patil, P.B. Patil, **P.K. Pagare**, Electrochemical supercapacitive performance study of spray pyrolyzed cobalt oxide film. **Materials Today: Proceedings 43 (2021) 2742-2746.**

7. Sandesh Jirage, **Pavan Pagare**, Kalyanrao Garadkar, Sagar Delekar , Vijaykumar Bhuse, Novel chemical approach to synthesis and characterization of greener and rock-like  $\text{Cu}_2\text{ZnSnS}_3\text{Se}$  (CZTSSe) thin films of kasterite structure. **Materials Today: Proceedings** **43 (2021) 2774–2779**.
8. V. S. Jamadade, **P. K. Pagare**, D. S. Gaikwad, A. S. Burungale, V. S. Sawant, Supercapacitive Performance of Lithium Doped and Undoped  $\text{NiFe}_2\text{O}_4$  Thin Films by Chemical Deposition Method. **Journal of Electronic Materials** **48 (2019) 7539–7542. (IF=1.67)**
9. G. A. Kadam, **P. K. Pagare**, L. D. Kadam, R. K. Nimat, Studies on Synthesis and Characterization of  $\text{La}_2\text{Mo}_2\text{O}_9$  Thin Solid Film as an Electrolyte for Solid Oxide Fuel Cell. **Journal of Applied Science and Computations** **6 (2019) 546-550. (IF=5.8)**
10. C. H. Jadhav, **P. K. Pagare**, K. K. Inamdar, L. D. Kadam, Preparation of Bismuth oxide thin films by Spray Pyrolysis method and its Characterizations. **Macromolecular Symposia** **387 (2019), 1800198 (IF=0.85)**
11. N. S. Powar, V. J. Patel, **P. K. Pagare**, R. S. Pandav, Cu Nanoparticle: Synthesis, Characterization and Application. **Chemical Methodologies** **3 (2019) 457-480. (Review Article)**
12. V. S. Jamadade, **P. K. Pagare**, D. S. Gaikwad, A. S. Burungale, V. S. Sawant, Synthesis, Characterization and Comparative studies of Lithium Doped  $\text{NiFe}_2\text{O}_4$  Thin Films by SILAR Method for Supercapacitor Application. **Journal of Emerging Technologies and Innovative Research** **6 (2019) 106-119 (IF=5.87)**
13. **Pavan K. Pagare**, K. G. Kanade, A. P. Torane, Photoelectrochemical study of electrodeposited  $\text{TiO}_2$  thin films onto  $\text{F:SnO}_2$  substrates. **Research on Chemical Intermediates** **44 (2018) 7277-7288 (IF=2.06)**.
14. **Pavan K. Pagare**, A. P. Torane, Effect of deposition potential on efficiency of  $\text{TiO}_2/\text{Cu}_2\text{O}$  photoelectrochemical cells. **Journal of Materials Science: Materials in Electronics** **29 (2018) 8473–8479 (IF=2.32)**.
15. Bipin Shinde, Santosh Kamble, Pramod Gaikwad, Vishvanath Ghanwat, Sagar Tanpure, **Pavan Pagare**, Bhausaheb Karale, Arvind Burungale, Novel catalytic application of  $\text{Ni@ZnO}$  nanoparticles and  $\text{ZnO}$  nanoflakes in aqueous solution of NaPTS hydrotrope at room temperature via a green synthesis of 3,4-dihydropyrimidin-2(1H)-ones. **Research on Chemical Intermediates** **44 (2018) 3097-3113 (IF=2.06)**.

16. **Pavan K. Pagare**, K. G. Kanade, A. P. Torane, Effect of Air and Nitrogen Annealing on  $\text{TiO}_2/\text{Cu}_2\text{O}$  Heterojunction Photoelectrochemical Solar Cells. **Materials Research Express** 4 (2017) 105011-8 (IF=1.44).
17. **Pavan K. Pagare**, A. P. Torane, Electrodeposition and characterization of pH transformed  $\text{Cu}_2\text{O}$  thin films for electrochemical sensor. **Journal of Materials Science: Materials in Electronics** 28 (2017) 1386-1392 (IF=2.32).
18. **Pavan K. Pagare**, A. P. Torane, Band gap varied cuprous oxide ( $\text{Cu}_2\text{O}$ ) thin films as tool for glucose sensing. **Microchimica Acta** 183 (2016) 2983-2989 (IF=5.70).

#### **Books/Book chapter Published by International/National/State level publishers**

1. **Title of Chapter:** Structural and optical study chemically deposited cuprous oxide ( $\text{Cu}_2\text{O}$ ) thin films published by Bhumi Publishing, Kolhapur India having **ISBN: 978-81-931247-6-5**.

#### **Fellowships/Awards:**

1. **Best Poster Presentation Award** in Three days Rayat Vidnyan Parishad organized by Rayat Shikshan Sanstha held at Karmaveer Bhaurao Patil College Vashi, New Mumbai on 29-31 Dec. 2018.
2. **Best Poster Presentation Award** in One Day State Level Exhibition and Competition (Rayat Avishkar) organized by Rayat Shikshan Sanstha held at **Sadguru Gadage Maharaj College Karad** on 13 Dec. 2018.
3. **Best Poster Presentation Award** in International Conference on Recent Advances in Renewable Energy and Hygiene Devices (RAREHD-2018) organized by **Yashavantrao Chavan Institute of Science, Satara** on 5-6 March 2018.
4. **Total Financial assistance as a stipend**, Department of Physics, Yashavantrao Chavan Institute of Science, Satara, from 1 Dec 2017-31 Nov 2018.  
Funded By: Rayat Shikshan Sanstha's, Yashavantrao Chavan Institute of Science, Satara
5. **Best Oral Presentation Award** in two days Second International Conference on Advances in Material Sciences organized by **Raje Ramrao Mahavidyalaya Jath, Dist.- Sangli** on 22-23 Dec 2017.

6. **Best Poster Presentation Award** in One Day State Level Exhibition and Competition (Rayat Avishkar) organized by Rayat Shikshan Sanstha held at **S. M. Joshi College Hadapsar, Pune** on 23 Nov 2017.
7. **Best Poster Presentation Award** in India International Science Festival (IISF) organized by National Institute of Ocean Technology held at **Anna University, NIOT, CSIR-CLRI, CSIR-SERC, and IIT MADRAS, Chennai** on 13-16 Oct 2017.
8. **Best Oral Presentation Award** in National Conference on Innovative Trends in Electronics Allied Technology organized by **Yashavantrao Chavan Institute of Science, Satara** on 23 Feb 2017.
9. **Total Financial assistance as a stipend**, Department of Physics, Yashavantrao Chavan Institute of Science, Satara, from 1 Dec 2016-31 Nov 2017.  
Funded By: Rayat Shikshan Sanstha's, Yashavantrao Chavan Institute of Science, Satara
10. **Total Financial assistance as a stipend**, Department of Physics, Yashavantrao Chavan Institute of Science, Satara, from 1 Dec 2015-31 Nov 2016.  
Funded By: Rayat Shikshan Sanstha's, Yashavantrao Chavan Institute of Science, Satara
11. **Best Poster Presentation Award** in National Conference on Recent Trends in Physics organized by **Yashavantrao Chavan Institute of Science, Satara** 10-11 Oct 2014.

#### **Papers Presented or Participated in International/National/State level Conferences/Seminars/Workshops/Trainings**

1. **Participated** Ten weeks online course on **Basics of Quantum Mechanics** organized by Centre for Continuing Education **Indian Institute of Technology (IIT), Kanpur** from 15 August to 18 November 2019.
2. **Poster Presentation** in Young Scientist's Conference, India International Science Festival (IISF) organized by Vigyan Prasar held at Biswa Bangla Convention Centre Kolkata from 5-8 November 2019.
3. **Participated** in 5 week online course on **Nanotechnology and Nanosensors, Part1** organized by **Technion Israel Institute of Technology** and offered through **Coursera** from 26 Sept 2019-31 Oct 2019.
4. **Participated** in 4 days 1<sup>st</sup> International Twitter Conference #Nanobio19 organized by **The New College Kolhapur** from 2-5 April 2019.

5. **Participated** eight weeks online course on Basics of Special Theory of Relativity organized by Centre for Continuing Education **Indian Institute of Technology (IIT), Kanpur** from 18 Dec. 2018-14 March 2019.
6. **Poster Presentation** in International Conference on Chemistry, Environment and Energy organized by **Yashwantrao Chavan Institute of Science, Satara** on 16-18 February 2019.
7. **Poster Presentation** in Five days International conference Indian Science Congress 106 organized by Lovely Professional University, Phagwara, Jalandhar, Punjab on 3-7 Jan. 2019.
8. **Poster Presentation** in Three days Rayat Vidnyan Parishad organized by Rayat Shikshan Sanstha held at Karmaveer Bhaurao Patil College, Vashi, New Mumbai on 29-31 Dec. 2018.
9. **Oral Presentation** in two days Third International Conference on Advances in Material Sciences organized by **Raje Ramrao Mahavidyalaya Jath, Dist.-Sangli** on 27-29 Dec 2018.
10. **Poster Presentation** in One Day National Conference on Advanced Materials Synthesis, Characterization and Applications organized by Department of Physics, Savitribai Phule Pune University, Pune on 14-15 Dec. 2018.
11. **Poster Presentation** in One Day State Level Exhibition and Competition (Rayat Avishkar) organized by Rayat Shikshan Sanstha organized by **Sadguru Gadage Maharaj College Karad**, on 13 Dec. 2018.
12. **Poster Presentation** in two days International Conference on Recent Advances in Renewable Energy and Hygiene Devices (RAREHD-2018) organized by **Yashwantrao Chavan Institute of Science, Satara** on 5-6 March 2018.
13. **Participated** eight week online course on **Nanotechnology: A Maker's Course** organized by **Nanotechnology: A Maker's Course, Duke University, North Carolina State University, The University of North Carolina at Chapel Hill** and offered through **Coursera** from 25 Nov 2017-19 Jan 2018.
14. **Oral Presentation** in two days Second International Conference on Advances in Material Sciences organized by **Raje Ramrao Mahavidyalaya Jath, Dist.-Sangli** on 22-23 Dec 2017.

15. **Participated** five week online course on Introduction to Solar Cells organized by **Technical University of Denmark (DTU)** and offered through **Coursera** from 03 Nov 2017-08 Dec 2017.
16. **Poster Presentation** in One Day State Level Exhibition and Competition (Rayat Avishkar) organized by Rayat Shikshan Sanstha held at **S. M. Joshi College Hadapsar, Pune** on 23 Nov 2017.
17. **Participated** three month online course on Physics of Semiconductors organized by centre for development of technical education **Indian Institute of Technology (IIT), Kanpur** from 15 Aug 2017-20 Nov 2017.
18. **Poster Presentation** in Young Scientist's Conclave, India International Science Festival (IISF) organized by National Institute of Ocean Technology held at **Anna University, NIOT, CSIR-CLRI, CSIR-SERC, and IIT MADRAS, Chennai** on 13-16 Oct 2017.
19. **Poster Presentation** in one day National Conference on Recent Trends in Nanomaterials at **Yashwantrao Chavan Institute of Science, Satara** on 28 Sept 2017.
20. **Participated** in Hands-on Training on "Nanofabrication Technologies" organized by Centre for Nano science and engineering, **Indian Institute of Science (IISc), Bangalore** on 12-22 Sept 2017.
21. **Oral Presentation** in one day National Conference on Innovative Trends in Electronics Allied Technology organized by **Yashwantrao Chavan Institute of Science, Satara** on 23 Feb 2017.
22. **Poster Presentation** in one day National Conference on Nano Science and Nano Technology organized by **Sadguru Gadage Maharaj College, Karad** on 11 Feb 2017.
23. **Participated** in one day State Level Workshop on Careers in Intellectual Property Rights (Patents) organized by **Rayat Institute of Research and Development (RIRD), Yashwantrao Chavan Institute of Science, Satara** on 29 Jan 2017.
24. **Oral Presentation** in two days National Conference on Frontier Areas in Chemical Sciences organized by **Yashwantrao Chavan Institute of Science, Satara** on 27-28 Jan 2017.
25. **Poster Presentation** in one day National Conference on Recent Trends in Physical, Chemical and Nanosciences organized by **Lal Bahadur Shastri College of Arts, Science and Commerce, Satara** on 23 Jan 2017.

26. **Participated** in five days International Conference, The Indian Science Congress Association 104 organized by **Sri Venkateswara University, Tirupati** on 3-7 Jan 2017.
27. **Work as a Resource Person** in Five days' Workshop on Innovations and Research Skill Development organized by **Yashavantrao Chavan Institute of Science, Satara** on 26-30 Dec 2016.
28. **Oral Presentation** in two days International Conference on Advances in Material Sciences organized by **Raje Ramrao Mahavidyalaya Jath, Dist.-Sangli** on 7-8 Dec 2016.
29. **Participated** in two days' Workshop on Open Sources OS Linux- UBUNTU organized by **Yashavantrao Chavan Institute of Science, Satara** on 5-6 July 2016.
30. **Participated** in one day Workshop on Research Methodology organized by **Yashavantrao Chavan Institute of Science, Satara** on 6 Feb 2016.
31. **Poster Presentation** in two days International Conference on Materials Science and Ionizing Radiation Safety and Awareness organized by **Shivaji University Kolhapur, Kolhapur** on 28-30 Jan 2016.
32. **Poster and Model Presentation** in one day Research Project Competition Avishkar organized by **Shivaji University Kolhapur, Kolhapur** on 18 Dec 2015.
33. **Participated** in one day International Conference on Emerging Trends in Basic and Applied Sciences Emerging Trends in Basic and Applied Sciences organized by **Karmaveer Hire Art's, Commerce, Science and Education College, Gargoti (Kolhapur)** on 10 March 2015.
34. **Participated** in two days UGC-DAE Consortium for Scientific Research Workshop organized by UGC-DAE held at **Rajaram College, Kolhapur** on 20-21 Feb 2015.
35. **Poster Presentation** in two days National Conference on Recent Trends in Physics organized by **Yashavantrao Chavan Institute of Science, Satara** on 10-11 Oct 2014.
36. **Poster Presentation** in two days Raman Memorial Conference organized by Department of Physics, **Savitribai Phule Pune University, Pune** on 22-23 Feb 2013.
37. **Poster Presentation** in one day Research Project Competition Avishkar organized by **Art's, Commerce and Science College, Kalwan (Nashik)** on 23 Dec 2010.
38. **Participated** in two days State level seminar on Basic Concepts of Experiments in Material Science and Nano Technology in Research Point of View organized by **K.A.A.N.M. Sonwane Art's Commerce and Science College, Satana (Nashik)** on 10-11 Jan 2010.



**Key-words suitable to research:**

Solar cell, Glucose Sensor, Supercapacitor, Photocatalyst, Electrodeposition, Thin Films, Material Science and Nanosciences.

**Specific area of discipline:**

- Material Science working on various deposition techniques.
- Nano science working on nanoparticles and nanotubes synthesis.
- Glucose sensor on various semiconducting materials.
- Electrochemical water splitting
- Photocatalytic dye degradation of nanomaterials.
- Thin Films deposition using electrodeposition and other related methods.

**Educational Software being used:**

- Expertise in Origin software and graph plotting.
- Expertise in Metrohm operating for potentiostat.

**Computer Skills:**

- MS-CIT, MS-Office, and other course related software's and hardware's.

**Reference Persons****1. Prof. A. P. Torane**

Head & Professor,  
Department of Physics,  
Yashavantrao Chavan Institute of  
Science, Satara, Maharashtra  
Email: [appasahebtorane@yahoo.in](mailto:appasahebtorane@yahoo.in)

**3. Dr. K. G. Kanade**

Principal,  
Annasaheb Aawate College, Manchar,  
Pune Maharashtra  
Email: [kgkanade@yahoo.co.in](mailto:kgkanade@yahoo.co.in)

**2. Dr. L. D. Kadam**

Principal,  
Shahu College, Kolhapur, Maharashtra  
Email: [kdlaxman\\_222@yahoo.co.in](mailto:kdlaxman_222@yahoo.co.in)

**4. Dr. S. H. Mujawar**

Associate Professor,  
Department of Physics,  
Yashavantrao Chavan Institute of  
Science, Satara, Maharashtra  
Email: [sarfrajmujawar695@gmail.com](mailto:sarfrajmujawar695@gmail.com)

**Extra-Curricular Activity: -**

- **National Cadet Core (N.C.C.):** “A” Certificate 2007, “B” Certificate 2009 (MAH/SD/06/129436) and participated in two **Annual Training Camps** held at **Nashik** from 29 Jan 2007-09 Feb 2007 and from 21-30 Jul 2008.
- **National Service Scheme (N.S.S.) Group Leader** on year 2009-2010 and 2010-2011 and attended **N.S.S. Special Camp** from 20-12-2009 to 26-12-2009.
- **Completed** three year **Advance Diploma in Wine Technology** at **Art’s, Commerce, and Science College Satana (Nashik)**.
- **Anchoring**, Participation in Colleges **Gathering** and Other **Cultural Activities**, Seminars, Attains various **Soft Skill** and Carrier Guidance Programs.

**Instruments handling skill: -**

- Potentiostat
- UV-Visible Spectrophotometer
- Spray Pyrolysis Unit

I hereby declare that all the information given above is correct to the best of my knowledge.

**Date:**    /    /

**Dr. Pavan Karbhari Pagare**