Holy-wood Academy, Kolhapur



Sanjeevan Group of Institutions,

Sanjeevan Knowledge City, Panhala, Tal. Panhala, Dist. Kolhapur

Department of Basic Science and Humanities

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**STAFF PROFILE INFORMATION**

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| C:\Users\amin\Downloads\IMG_20240830_115018.jpg | **Name of Staff:-** | Mr. Vikas Vijay Magdum |
| **Designation: -** | Assistant Professor |
| **Qualification:-** | MSc. (Physics), PhD (Thesis submitted) |
| **Area of Specialization:-** | Material Science |
| **Experience:** | 7 years (1 year teaching + 6 years research) |
| **email id:-** | vikas.magdum@seti.edu.in |
| **Contact Number:-** | + 91 7875845166 |

* **PAPER PUBLICATIONS:**

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| --- | --- | --- | --- | --- |
| **PAPER PUBLICATIONS: CONFERENCE-NATIONAL / INTERNATIONAL , JOURNAL** | | | | |
| **Sr. No** | **TITLE** | **JOURNAL / CONFERENCE** | **VOLUME** | **ISSN** |
| 1. | 2D porous hexaniobate-bismuth vanadate hybrid photocatalyst for photodegradation of aquatic refractory pollutants | Heliyon | 10 | https://doi.org/10.1016/j.heliyon.2024.e39235 |
| 2. | ‘D. [Tailoring the physicochemical properties of chemically deposited MoS2 thin films for photocatalytic dye and TC degradation: effect of different cationic precursors](https://link.springer.com/article/10.1007/s10854-024-13186-z) | Journal of Materials Science: Materials in Electronics | 35 | https://doi.org/10.1007/s10854-024-13186-z |
| 3. | [Versatility of group VI layered metal chalcogenide thin films synthesized by solution-based deposition methods](https://pubs.rsc.org/en/content/articlehtml/2023/tc/d3tc01470c) | Journal of Materials Chemistry C | 11 | <https://doi.org/10.1039/D3TC01470C> |
| 4. | [Modified successive ionic layer adsorption and reaction for interconnected bismuth vanadate nanograins: Highly active visible light harvesting photoanodes](https://www.sciencedirect.com/science/article/pii/S1010603024002818) | Journal of Photochemistry and Photobiology A: Chemistry | 454 | <https://doi.org/10.1016/j.jphotochem.2024.115737> |
| 5. | [Vertically aligned interlocked tungsten oxide nanosheet thin film for photocatalytic application: effect of deposition cycles](https://link.springer.com/article/10.1007/s10854-024-13184-1) | Journal of Materials Science: Materials in Electronics | 35 | <https://doi.org/10.1007/s10854-024-13184-1> |
| 6. | [Nanohybrids of Layered Titanate and Bismuth Vanadate as Visible-Light-Driven Photocatalysts for the Degradation of Dyes and Antibiotic](https://pubs.acs.org/doi/abs/10.1021/acsanm.4c01039) | ACS Applied Nano Materials | 7 | <https://doi.org/10.1021/acsanm.4c01039> |
| 7. | [Preferentially oriented m-tuned WO3 thin-films photocatalysts for the multitargeted degradation of organic molecules](https://www.sciencedirect.com/science/article/pii/S2666523924000011) | Applied Surface Science Advances | 19 | <https://doi.org/10.1016/j.apsadv.2024.100573> |
| 8. | [Sodium‐Substituted Tungsten Oxide Nanoflowers: An Efficient Electrode Enhancing the Pseudocapacitive Storage in Aqueous Asymmetric Supercapacitors](https://onlinelibrary.wiley.com/doi/abs/10.1002/cnma.202300463) | ChemNanoMat | 10 | <https://doi.org/10.1002/cnma.202300463> |
| 9. | [Self-assembled architecture of 2D layered double hydroxide pillared with 0D polyoxomolybdate anions: High-performance redox-type cathode for solid-state hybrid supercapacitor](https://www.sciencedirect.com/science/article/pii/S2352152X23029365) | Journal of Energy Storage | 74 | <https://doi.org/10.1016/j.est.2023.109538> |
| 10. | [Chemically synthesized facet-controlled visible light active BiVO4 thin films for photoelectrochemical water splitting](https://link.springer.com/article/10.1007/s00339-023-07164-1) | Applied Physics A | 129 | <https://doi.org/10.1007/s00339-023-07164-1> |
| 11. | [Doping of rare earth elements: Towards enhancing the electrochemical performance of pseudocapacitive materials](https://www.sciencedirect.com/science/article/pii/S0925838823019047) | Journal of Alloys and Compounds | 960 | <https://doi.org/10.1016/j.jallcom.2023.170601> |
| 12. | [Nanocrystalline cobalt tungstate thin films prepared by SILAR method for electrocatalytic oxygen evolution reaction](https://www.sciencedirect.com/science/article/pii/S0360319922053265) | International Journal of Hydrogen Energy | 48 | <https://doi.org/10.1016/j.ijhydene.2022.11.090> |
| 13. | [Synthesis, characterization and visible light driven dye degradation performance of one-pot synthesized amorphous CoWO4 powder](https://link.springer.com/article/10.1007/s10854-022-09174-w) | Journal of Materials Science: Materials in Electronics | 33 | <https://doi.org/10.1007/s10854-022-09174-w> |
| 14. | [2D-2D nanohybrids of Ni–Cr-layered double hydroxide and graphene oxide nanosheets: Electrode for hybrid asymmetric supercapacitors](https://www.sciencedirect.com/science/article/pii/S0013468622007745) | Electrochimica Acta | 424 | <https://doi.org/10.1016/j.electacta.2022.140615> |
| 15. | [pH-responsive glycine functionalized magnetic iron oxide nanoparticles for SARS-CoV-2 RNA extraction from clinical sample](https://link.springer.com/article/10.1007/s10853-022-07464-6) | Journal of materials science | 57 | <https://doi.org/10.1007/s10853-022-07464-6> |
| 16. | [2D–2D lattice engineering route for intimately coupled nanohybrids of layered double hydroxide and potassium hexaniobate: Chemiresistive SO2 sensor](https://www.sciencedirect.com/science/article/pii/S0304389422005234) | Journal of Hazardous Materials | 432 | <https://doi.org/10.1016/j.jhazmat.2022.128734> |
| 17. | [Lattice engineering exfoliation-restacking route for 2D layered double hydroxide hybridized with 0D polyoxotungstate anions: Cathode for hybrid asymmetric supercapacitors](https://www.sciencedirect.com/science/article/pii/S2405829722001350) | Energy Storage Materials | 48 | <https://doi.org/10.1016/j.ensm.2022.03.005> |
| 18. | [Lattice engineering route for self-assembled nanohybrids of 2D layered double hydroxide with 0D isopolyoxovanadate: Chemiresistive SO2 sensor](https://www.sciencedirect.com/science/article/pii/S2468519422000301) | Materials Today Chemistry | 24 | <https://doi.org/10.1016/j.mtchem.2022.100801> |
| 19. | [Graphene oxide as an efficient hybridization matrix for exploring electrochemical activity of two-dimensional cobalt-chromium-layered double hydroxide-based nanohybrids](https://pubs.acs.org/doi/abs/10.1021/acsaem.1c03619) | ACS Applied Energy Materials | 5 | <https://doi.org/10.1021/acsaem.1c03619> |
| 20. | [Polyoxotungstate intercalated self-assembled nanohybrids of Zn-Cr-LDH for room temperature Cl2 sensing](https://www.sciencedirect.com/science/article/pii/S0925400521016142) | Sensors and Actuators B: Chemical | 352 | <https://doi.org/10.1016/j.snb.2021.131046> |
| 21. | [Metal oxide-based composites in nonenzymatic electrochemical glucose sensors](https://pubs.acs.org/doi/abs/10.1021/acs.iecr.1c03662) | Industrial & Engineering Chemistry Research | 60 | <https://doi.org/10.1021/acs.iecr.1c03662> |
| 22 | [High-performance supercapacitor electrode and photocatalytic dye degradation of mixed-phase WO3 nanoplates](https://www.sciencedirect.com/science/article/pii/S0167577X2031346X) | Materials Letters | 281 | <https://doi.org/10.1016/j.matlet.2020.128639> |

* **Patents:**

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| --- | --- | --- | --- |
| **Sr. No.** | **TITLE** | **Status** | **Grant no./ Application no.** |
| 1 | Liquid column based optical infrared filter | Granted | 501334 |
| 2 | Infrared (IR) cut-off water filter assembly | Granted | 407337-001 |
| 3 | A method for depositing uniform coating of 2d titanate nanosheets | RQ filed | 202421035776 |
| 4 | A method for deposition of two-dimensional titanate nanosheets thin films using cylindrical graphite | Filed | 202421051560 |

* **Research Contribution:**

Research Grants:(Details of grants received)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No. | Funding Agency | Year | Title of the project | Amount in Rs. |
| 1 |  |  |  |  |

* **Research IDs:**

|  |  |  |
| --- | --- | --- |
| 1 | **Google scholar ID** | https://scholar.google.com/citations?hl=en&user=-VSWW7kAAAAJ |
| 2 | **Researcher ID** |  |
| 3 | **ORCID ID** | https://orcid.org/0000-0002-5327-4174 |

* **Reviewer of**
* **Number of Ph. D. scholars guiding:**
* **Book Published**

**Book Chapters:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No. | Title of Book | Year | Name of Publisher | ISBN |
| 1 | [Rare Earth Element-Based Nonenzymatic Glucose Sensor](https://link.springer.com/chapter/10.1007/978-3-031-23401-9_14) | 2023 | Springer International Publishing | 978-3-031-23401-9 |

* **Member of Professional Bodies:**
* **Achievements**
* Selected as Project Fellow on Internal University Project in D. Y. Patil Education Society, Kolhapur.
* Selected as Project Associate II to work on SERB funded Core Research Grant project.
* Selected as Project Fellow on SERB funded Ramanujan Fellowship at D. Y. Patil Education Society, Kolhapur.
* Awarded first prize in poster presentation in D. Y. Patil Education Society, Kolhpaur.
* Appeared and obtained 6.0/9.0 in International English Language Testing System (IELTS) examination.
* Selected as Junior Research Fellow on DST funded research project at University of Mumbai.
* **Details of Faculty Development Programs(Workshop/Conference/Training Program)**

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| --- | --- | --- | --- | --- |
| S. No. | Title of Program | Organized by (Venue) | Year | Duration |
| 1 | Dnyanshodh poster presentation competition | D. Y. Patil Education Society, Kolhpaur | **2022** | **28th Feb. 2022** |
| 2 | 2nd Asian e-conference | Engineered science | **2021** | **5th-6th Dec. 2021** |
| 3 | Workshop and Hands-on training on XRD | Shivaji University Kolhapur | **2021** | **11th-12th Nov. 2021** |
| 4 | Good laboratory practices | D. Y. Patil Education Society, Kolhpaur | **2021** | **6th Feb. 2021** |
| 5 | ‘National e-Conference on Materials for Emerging Technologies- 2021’ | P.A.H. Solapur University, Solapur | **2021** | **22nd Mar. 2021** |
| 6 | International Conference on Nanomaterials & nanotechnology (ICONN-  2021) | University of Mumbai | **2021** | **25th-27th Mar. 2021** |
| 7 | International Conference on Advanced Materials Synthesis,  Characterization and Application (AMSCA-2022) | Savitribai Phule Pune University | **2022** |  |
| 8 | Annual Convention of Chemists | IIT, Delhi | **2023** |  |
| 9 | International Conference on Nanotechnology  Addressing the Convergence of Materials Science, Biotechnology and Medical Science | D. Y. Patil Education Society, Kolhpaur | **2024** | **12th-14th Feb. 2024** |
| 10 | National Conference on Recent Trends in Functional Materials and their Applications | Shardabai Pawar Mahila Arts, Commerce & Science College,  Shardanagar, Baramati. | **2024** |  |