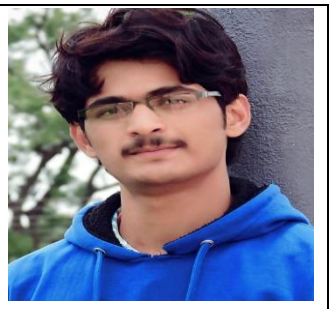
Mr. Dhananjay Dattatray Kumbhar



Name:
Mr. Dhananjay Dattatray Kumbhar

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Contact No:
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Birth Date: October 07, 1998

Postal Address:
Mr. Dhananjay Dattatray Kumbhar

33/5, Kumbhar lane,
A/P-Sulgaon,

Tal.– Chikodi,
Dist.- Belgaon, 591229
Karnataka, INDIA

Father's Name:
Late Dattatray Kedari Kumbhar

Mother's Name:
Mrs. Sujata Dattatray Kumbhar

Languages known (03)**:**
English, Hindi and Marathi

Hobbies: Reading books, writing, Visit Historical Places.

Pandit Deendayal Energy University,
Gandhinagar, Gujrat India.
382007.

Objective

Aim to be associated with the progressive organization that gives me the scope to apply my knowledge and the skills in the work entrusted to me and want to excel in the organization on the threshold of integrity, hardworking, learning and use my skill for betterment.

Research Interest

- Nanomaterials based energy storage and conversion devices.
- Synthesis and development of Nano based application.
- Nanoscience, Conducting Polymers, Dye Sensitization, Super capacitor, Metal oxide thin films
- Resistive-switching memory, Memristor.
- Neuromorphic computing, artificial neural network.
- Material study, device fabrication, circuit design and architecture optimization for neuromorphic application.

Education Qualification

Examination	Year of passing	University/Board	Class obtained (Percentage)	CGPA (Out of 5 scale)
M.Sc. (Nanoscience & technology)	September 2021	Shivaji University, Kolhapur	**Distinction (85.85 %)**	**4.29**
B.Sc. (Nanoscience & technology)	April 2019	Shivaji University, Kolhapur	**Distinction (75.65)**	**3.83**
H.S.C	May 2016	Maharashtra State Board	**Second class (59.84)**	**2.99**
S.S.C.	April 2014	Maharashtra State Board	**Distinction (92.00)**	**4.60**

Achievement's :

- Three International Conference abstract publications.
- One National Conference publication
- Third prize for presentation in National Conference.

Publications:

1. Vijay C. Karade, Jun Sung Jang, **Dhananjay Kumbhar**, Manusha Rao, Pravin S. Pawar, Sugil Kim, Kuldeep Singh Gour, Jongsung Park, Jaeyeong Heo, Tukaram D. Dongale, Jin Hyeok Kim, "*Combating open circuit voltage loss in Sb2Se3 solar cell with an application of SnS as a back surface field layer*"," Solar Energy", Elsevier I.F.- 5.74
2. **D. Kumbhar**, M. Jain and A. Solanki, "*Forming free non-volatile Resistive Switching mechanism in Ruddlesden Popper Perovskite Memristors*" 2022 IEEE International Conference for Advancement in Technology (ICONAT), 2022, pp. 1-6, doi: 10.1109/ICONAT53423.2022.9725938.
3. Pranav K. Katkar, Navnath S. Padalkar, **Dhananjay D. Kumbhar**, Aravind H. Patil, Santosh S. Sutar, Sunil J. Kadam, Rajanish K. Kamat, Seung-Hyun Chun, and Tukaram D. Dongale, "*Binder-Free Synthesis of Nanostructured Amorphous Cobalt Phosphate for Resistive Memory and Artificial Synaptic Device Applications*" *ACS Applied Electronic Materials* **2022** *4* (4), 1852-1863 DOI: 10.1021/acsaelm.2c00085. I.F. -3.31

Manuscripts Under review

4. Modeling of Hysteresis and memristor properties in heterojunction perovskite devices, in the Applied Physics Latter, I. F. -3.79
5. Mathematical Investigation of the Hysteresis Mechanism in Hybrid Perovskite-based Heterojunction Devices for the resistive switching applications (accepted for publication) 2Nd ASIACON 2022, Pune.

Extracurricular activities

- Oral Presentation in " **International Conference on Condensed Matter and Device Physics (ICCMDP)2021"** organized by Department of Physics, Pandit Deendayal Energy University, Gandhinagar.
- Oral Presentated in **"Fourth International Conference on Advances in Materials Sciences (ICAMS)"**- Organised by Raje Ramrao Mahavidyalaya, jath. January 20-21th, 2020.
- Poster Presentation in the **"National Conference on Contemporary Research in Life Sciences and Cancer Biology (2019)"**- Organised by V. G. Shivdare College of arts, commerce and science, Solapur, January 19th 2019.
- Participation in the **"Metrohm India Limited sponsored Two Days Workshop on Electrochemical Solutions for Energy Research and Education"** – Organized at, School of Nanoscience and Technology, Shivaji University, Kolhapur. 5th & 6th Sept. 2018
- Participated in the **"Anton paar India Limited sponsored Two Days Workshop on Material characterization instrumentation"** – Organized at, School of Nanoscience and Technology, shivaji University, Kolhapur.

Research Experience's and Achievement's :

- Simulation of Sb2Se3 based solar cell for achieving 20% efficiency.
- Developed Theoretical model for study of hysteresis loop in hybrid materials.
- Simulation of Properties of materials at their Nano scale.
- Synthesis of Biodiesel using CaO as a Nano catalyst.
- Green Synthesis of Ag Nanoparticles using *butea-Monosperma* leaf extract and their anti-bacterial activity.
- Synthesis and coating of antimicrobial ZnO thin film on a glass substrate by using Spray pyrolysis method.
- Transparent ZnO thin film for UV resistance and anti-fouling applications in smart coating on glass.
- Development of transparent Photo-active self-Cleaning TiO2 thin film by Dip-Coating method

References

Name	Contact Details
1. Dr. T. D. Dongle	**Mob : +91 7387991280**
(M.Sc., Ph.D., NET, SET)	**Tel. : (O) :0091-0231-2609230**
Assistant Professor,	**Fax : 0091-0231-269153**
School of Nanoscience and Technology,	**Email : tdd.snst@unishivaji.ac.in**
Shivaji University, Kolhapur	

Declaration

I hereby declare that the particulars given above are true to the best of my knowledge and belief.

Date: 27/04/2022
Place: Gandhinagar

Mr. Dhanajay Dattatray Kumbhar
JRF