

Resume

Nilesh Limbraj Ingale(PhD)

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Education

Ph.D. Physics	Mumbai University, Mumbai	2022
SET	S.P.P.University, Pune	2018
M.Phil. Physics	S.R.T.M. University, Nanded	2015
M.Sc. Physics	S.R.T.M. University, Nanded	2012
B.Sc. Phy., Chem., Ind. Chem.	S.R.T.M. University, Nanded	2009

Additional qualification

- Maharashtra State's eligibility test (SET) for Assistant Professorship in Physics is qualified in 2018
- Masters in data science by Simplilearn(2021)

Certification

- Data science with R
- Data science with Python
- Tableau desktop 10
- Machine learning advanced certification training
- Big data Hadoop and spark developer

Expertise

Languages –C, FORTRAN, Python, R.

Software known- Gaussian 09, Quantum espresso, BURAI-1.3, Xrysdn, Avogadro, Tableau, VESTA etc.

Academic Experience

- Assistant Professor(CHB) at Department of Physics and Electronics, Rajarshi Shahu Mahavidyalya(Autonomus), Latur (July2022-present)
- Assistant Professor (CHB) at Department of Physics, Dr. Babasaheb Ambedkar Marathwada University Sub-campus, Osmanabad, 2021-2022.

- Assistant Professor(CHB) at Department of Physics, The Institute of Science, Mumbai, 2019-2020
- Lecturer at , Dayanand Science College, Latur, Maharashtra, 2012-2013.

Ph.D. Supervisor

Prof. Ajay S. Chaudhari

Ph.D. Thesis

- “Gas sensing properties of organometallic complexes using ab initio and density functional theory”, University of Mumbai.

Research Interests

- Ab initio Calculations
- Molecular Dynamics Simulation
- Computational materials science
- Density functional theory
- Machine learning
- Artificial intelligence

Awards, Funding, and Other Support

- 2013-2015 Dr. Babasaheb Ambedkar National research fellowship from BARTI Pune, Government of Maharashtra.
- 2017-2019 Rajiv Gandhi National Junior Research fellowships from University Grant commission, New Delhi, Government of India.
- 2019-2021 Rajiv Gandhi National Senior Research fellowships from University Grant commission, New Delhi, Government of India

Research Publications

1. **Nilesh Ingale**, Priyanka Tavhare, Ajay Chaudhari, Hazardous molecules and VOCs sensing properties of Ti functionalized benzene: an ab initio study, **Sensors and Actuators A: Physical**, **342**, 113657,(2022)

2. **Nilesh Ingale**, Priyanka Tavhare, Mohammad Solimannejad, Ajay Chaudhari, *Titanium-benzene complex as a molecular oxide sensor: a first principles approach*, **Journal of Molecular Modeling**, **27**, 242, (2021)
3. **Nilesh Ingale**, Ravinder Konda and Ajay Chaudhari, Volatile organic compounds sensing by Li/Ti doped ethylene complex, 2019, **Adsorption**, **26** (1), 103-115, (2020)
4. **Nilesh Ingale**, Ravinder Konda and Ajay Chaudhari, Metal doped ethylene complexes for hazardous gas molecule sensing. 2018, **Structural chemistry**, **30** (3), 1057-1066, (2019)
5. **Nilesh Ingale**, Konda R, Chaudhari A Gas sensing properties of organotitanium complex from first principles calculations and molecular dynamics simulations 2018 **Chem. Phys. Lett.** **706**, 247-254, (2018)
6. **Nilesh Ingale**, Ravinder Konda and Ajay Chaudhari, Organolithium complex as a gas sensing material for oxides from ab initio calculations and molecular dynamics simulations, **International Journal of quantum chemistry**, **118** (15), e25623, (2018)
7. **Nilesh Ingale** and Ajay Chaudhari, Spectroscopic analysis of Sulphur dioxide adsorbed C_2H_4Ti complex: A First Principles study, **Indian J pure and Appl. Phys**, **2018** (56) 331-334
8. **Nilesh Ingale**, Ravinder Konda, Priyanka Tavhare and Ajay Chaudhari, Tetrahedral silsesquioxane- C_2H_2Ti complex for hydrogen storage, AIP Conference Proceedings, 2018, 1942, 140011

Presentations at Conferences, Symposia, and Workshops

- 1.
2. **Poster presentation in** national seminar on advanced materials 2020(A special contribution: Women Scientist) [NSAM-2020], 3-4 March 2020, The Institute of science, Mumbai, Maharashtra, India.
3. **Oral presentation** in National conference on materials and their applications: A broad perspective(NCMA-2020) 9-10 January 2020, B. N. Bandodkar college of Science, Thane.(**Best oral presentation award**)
4. **Poster presentation** in first DAE-BRNS computational chemistry symposium (DAE-CCS-2019),7-9 November,2019, Chemical engineering group, BARC, Mumbai.

5. **Poster presentation** in “National conference on physics and chemistry of functional materials 2019(PCFM-2019), 21-22 February 2019, GITAM University Hyderabad, Telengana, India. (**Best Poster presentation award**)
6. **Oral presentation** in “National conference on recent trends in Chemistry (RTC-2019),14-15 February 2019, Department of chemistry, The Institute of Science, Mumbai, Maharashtra.
7. **Oral presentation** in international conference on challenges in environmental management (CEM 2019), 24 January 2019, Sir Sitaram and lady shantabai Patkar college of arts and science and V.P. Varde college of commerce and economics, Goregaon, Mumbai, Maharashtra.
8. **Poster presented** in 4th international conference on physics of materials and materials based device fabrication, 10-11 January 2019, Shivaji University, Kolhapur, Maharashtra, India.
9. **Poster presented** in school on “Modeling and simulations of materials for energy and environment”, 12-14 December 2018, JNCASR, Bangalore, India.
10. **Poster presented** in “DAE-BRNS 7th Interdisciplinary symposium on materials chemistry (ISMC-2018)” ,4-8 December 2018, Bhabha atomic research center (BARC) Mumbai.
11. **Poster presented** in “Materials and technologies for energy conversion and storage (M-TECS 2018), 26-29 September 2018, BARC, Mumbai, Maharashtra, India.
12. **Workshop attended** at TEQIP-III sponsored one week workshop on multi-scale modeling and simulation, 2-6 April, College of engineering Pune, Pune, Maharashtra, India.
13. **Poster presented** in “National seminar on recent trends in science and technology for sustainable developments-2018(RTSTSD)”, 22-23 March, 2018, The Institute of Science, Mumbai, Maharashtra, India.
14. **Oral presentation** in “A National level meet on hydrogen energy and related advanced materials (HEAM Scientist-2018)”, 5-6 March 2018, University of Kerala, Department of Chemistry, Thiruananthapuram, Kerala, India.
15. **Oral presentation** in : “Recent trends in Physical, mathematical, chemical and life sciences for make in India” 1-2 February, 2018, Amruteshwar Arts, Commerce and Science college Vinzer, Pune, Maharashtra, India.
16. **Poster presented** in “International conference on advances in functional materials (ICAFM-2018)”, 12-13 January, 2018, K. R. T. College, Nashik, Maharashtra, India.

17. **Poster presented** in “National conference on Dielectric relaxation and spectroscopic techniques (NCDRAST)”, 14-15 December, 2017, School of Physical Sciences, S. R. T. M. University, Nanded, Maharashtra, India.
18. **Poster presentation** in “International conferences on advances in functional materials (ICAFM-2017)” 6-8 January, 2017, Anna university, Chennai, Tamilnadu, India.
19. **Workshop attended** “INUP familiarization Workshop on Nanofabrication technologies”, IIT Bombay, 27-29 May, 2015, Mumbai, Maharashtra, India.
20. **Oral presentation** in “3rd international conference on emerging trends and research in engineering and technology” 6-7 April 2015, IBSS College of Engineering, Amravati, Maharashtra, India.
21. **Oral presentation** in “Environmental, Geological, Geographical and Geophysical aspects: South East Deccan traps (ENGAGE-2015)” 27 March 2015, School of Earth Sciences, S.R.T.M. University, Nanded, Maharashtra, India.
22. **Workshop attended** seven days national workshop on “ Characterization techniques for Nano-materials(CTNM-2015)” 9-15 February, 2015, School of Physical sciences, S. R. T. M. University, Nanded, Maharashtra,
23. **Conference attended** “National symposium on applied spectroscopy in science and technology (NSASST-2014)”, 21-22 March 2014, School of Physical sciences, S. R. T. M. University, Nanded, Maharashtra, India.
24. **Poster presented** in “2nd international conference on Physics of materials based device fabrication (ICPM-MDF-2014)”, January 13-15 2014 Shivaji University Kolhapur, Maharashtra, India.
25. **Seminar attended** “National seminar on advances in innovative materials and applications, NSAIMA, 2013, 21 September 2013, G. S. Gawande Mahavidyalya, Umardhed, Maharashtra, India.
26. **Workshop attended** on interdisciplinary nanoscience, 26 February 2012, S.R.T.M.University, Nanded, Maharashtra, India.
27. **Workshop attended** on Galaxies: normal and active, sps, S.R.T.M.University, Nanded 14-17, November 2011, Nanded, Maharashtra, India.
28. **Workshop attended** “Nanostructured materials for energy devices and environment” University of Mumbai 17-18 august, 2011, Mumbai, Maharashtra, India.

29. **Seminar attended** “Nuclear energy for national development” 23-24 May 2009, D.S.C.
Latur, Maharashtra India.

Institutional and Professional Activities

Teaching

Teaching Experience (courses taught)

COURSE TITLE	CLASS	Year	Institution/college
Mathematical Physics	B.Sc.	2022	RSM, Latur
AC fundamentals and Network Analysis	B.Sc.	2022	RSM, Latur
Oscillators Multivibrators and Sweep Circuits	B.Sc.	2022	RSM, Latur
Advanced Sensor Technology	M.Sc.	2022	Dr.BAMU, Sub-campus, O’bad
Atomic and Molecular Phy.	M.Sc.	2022	Dr.BAMU, Sub-campus, O’bad
Nuclear Physics	M.Sc.	2022	Dr.BAMU, Sub-campus, O’bad
Electrical properties Of solids and supercondr.	M.Sc.	2022	Dr.BAMU, Sub-campus, O’bad
Quantum Mechanics	M.Sc.	2022	Dr.BAMU, Sub-campus, O’bad
Statistical mechanics	M.Sc.	2022	Dr.BAMU, Sub-campus, O’bad
Experimental physics	M.Sc.	2020	The Institute of science, Mumbai
Classical mechanics	M.Sc.	2019	The Institute of science, Mumbai
Quantum mechanics	B.Sc.	2012	Dayanand Science College Latur
Atomic and molecular physics	B.Sc.	2012	Dayanand Science College Latur
Basic Electronics	B.Sc.	2012	Dayanand Science College Latur