



## Dr. Nilesh Ingale

India Nagar, Near badame Ladies  
hostel, Latur-413512

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### ABOUT ME

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I am highly motivated researcher, with experience in electronic structures calculations, passionate about doing research on materials for solving energy, environment problems.

I am interested in incorporation of Machine learning with electronic structure calculation for developing novel materials.

### SKILLS & PROFICIENCIES

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- Electronic structure calculation
- condensed matter physics
- machine learning in materials Science
- ADMP-Molecular dynamics simulations
- Gaussian 09, Quantum espresso, VESTA, Tableau, Avogadro software's
- R, Python and Fortran languages

### CERTIFICATION & VOLUNTEER WORK

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- Masters in Data science by Simplilearn, 2021
- State Eligibility Test(SET)passed in 2018

### WORK HISTORY

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**Asst. Professor**  
**Dayanand Science college, Latur**  
August 2012-March 2013

**Junior Research fellow**  
August 2017 to September 2019

**Senior Research fellow**  
October 2019- October 2021

**Asst. Professor**  
Department of Physics  
The Institute of Science, Mumbai  
July 2019- March2020

**Asst. Professor**  
Department of Physics  
Dr. Babasaheb Ambedkar Marathwada University  
sub-campus, Osmanabad.  
December 2021-present

### EDUCATIONAL BACKGROUND

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**S.R.T.M. University**  
**Nanded, Maharashtra**  
Bachelor's Degree Science,(B.Sc.)  
Major in Physics, Chemistry, Industrial chem.  
2009

**Masters degree in Science(M.Sc.) ,**  
Major in Physics  
2012

**Masters in Philosophy(M.Phil.)**  
2015

**University of Mumbai**  
**Mumbai**  
Doctor of Philosophy(Ph.D)  
2022

## PHD SUPERVISOR

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Prof. Ajay S. Chaudhari

## PHD THESIS TITLE

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

## AWARDS AND FUNDING

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- 2014-2015 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

## LIST OF PUBLICATIONS

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1. 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)
2. Nilesh Ingale, Ravinder Konda and Ajay Chaudhari, Volatile organic compounds sensing by Li/Ti doped ethylene complex, **Adsorption**, 26 (1), 103-115, (2020)
3. Nilesh Ingale, Ravinder Konda and Ajay Chaudhari, Metal doped ethylene complexes for hazardous gas molecule sensing, **Structural chemistry**, 30 (3), 1057-1066, (2019)
4. Nilesh Ingale, Konda R, Chaudhari A Gas sensing properties of organotitanium complex from first principles calculations and molecular dynamics simulations, **Chem. Phys. Lett.** 706, 247-254, (2018)
5. 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)
6. Nilesh Ingale and Ajay Chaudhari, Spectroscopic analysis of Sulphur dioxide adsorbed C<sub>2</sub>H<sub>4</sub>Ti complex: A First Principles study, **Indian J pure and Appl. Phys**, 2018 (56) 331-334
7. Ravinder Konda, Priyanka Tavhare, Nilesh Ingale and Ajay Chaudhari, Tetrahedral silsesquioxane-C<sub>2</sub>H<sub>2</sub>Ti complex for hydrogen storage, **AIP Conference Proceedings**, 2018, 1942, 140011