

## Profile

**Dr. V. Vasumathi**  
Assistant Professor,  
PG & Research Department of Physics  
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### Education:

2009: Ph. D in Physics at Bharathidasan University, Tiruchirappalli, TN

2001: M.Sc., Physics at Bishop Heber College, Tiruchirappalli, TN

1996: B.Sc., Physics at Holy Cross College, Tiruchirappalli, TN

### Research Experience:

2009 - 2011 : IISc- Research Associateship at Indian Institute of Science (IISc), Bangalore

2012 - 2016 : Post- Doctoral Fellow at University of Porto, Porto, Portugal

2016 - 2017 : Researcher at University of Porto, Porto, Portugal

### Teaching Experience:

2017-present: Assistant Professor, Department of Physics, Holy Cross College, Tiruchirappalli

### Research interests:

- Molecular dynamic simulation on condensed matters
- Nonlinear dynamics of DNA and Protein

### Professional Recognition/Award received:

2017: IAAM Young Scientist award from International Association of Advanced Materials

2013: Team member in Indo- Portuguese Project sponsored by FCT, Portugal and DST, India

2009: Short term visitor of Condensed Matter Group, ICTP, Trieste, Italy

2007: TPSC (Theoretical Physics Seminar Circuit) visitor, Institute of Physics,  
Bhubaneswar, Orissa

2006: Visiting Scientist of Condensed Matter Group, ICTP, Trieste,

2005: Young Collaborator at ICTP, Trieste, Italy

### Publications:

- 18 Research papers in International SCI indexed scientific Journals
- (ORCID <https://orcid.org/0000-0002-0115-1615> )
- 04 papers in proceedings and preprints
- 02 Book chapters in Internationally published books
- 13 Papers presented in International Scientific Conferences/Seminars
- 15 Invited talks delivered in International Scientific Conferences/Seminars/school

**Research Guidance:**

B. Sc. Project : 8,      M.Sc. Project: 8,

P.hD: Guiding :3

**Research project:**

1. **Project Title:** Graphene Gold Nanoparticles Based Biosensors: A Molecular Dynamic Study

**Duration :** 3 years (2018 - 2021)

**Role:** Principal Investigator

**Agency:** Science and Engineering Research Board (SERB) under Teachers Associateship for Research Excellence (TARE) scheme

**Grant:** Rs. 18, 30, 000/-

**Host Institution:** Dr. Prabal K Maiti, Professor and Chairman, Department of Physics, IISc, Bangalore

**Reviewer in:**

1. Soft Matter
2. Journal of Material Chemistry B
3. Carbon

**Organized Workshop/School/Conference/Seminar:**

1. Molecular Modelling of Nanomaterials and Biomolecules held during 5<sup>th</sup> -9<sup>th</sup> August 2024.
2. Winter School on Computational Modelling (WISCOM-2020) held during 27<sup>th</sup> - 29<sup>th</sup> February 2020.
3. National Webinar on “Terahertz Spectroscopy: Forbidden gap transforming into advanced applications” held on 9<sup>th</sup> June 2020.
4. One Week Online International Faculty Development Programme (FDP) on the topic “Artificial Intelligence and IoT- Heuristic Transdisciplinary Perspectives” held during 4-07-2020 to 10.07.2020.

**Programming Languages Known:**

C, Fortran, Shell script, Tcl script, Python, C++, Java, Visual Basic

**Softwares Known:**

VMD, VESTA, GAUSSIAN

**Molecular Simulator Known:**

Amber, LAMMPS, GROMACS, Packmol, Material Studio

**Academic Collaborators:**

- **Dr. Prabal K. Maiti**, Professor, Department of Physics, IISc, Bangalore
- **Dr. M. Santosh Mogurampelly** Associate Professor, Department of Physics, IIT Jodhpur.
- **Dr. M.N.D.S. Cordeiro**, Professor, University of Porto, Porto, Portugal

**DECLARATION**

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I hereby declare that all the information provided above is true up to the best of my knowledge.

Place: Trichy

Sincerely Yours,

(V. Vasumathi)