

Name : Dr. N V Suresh Kumar
 Designation : Assistant Professor
 Department : Humanities & Sciences
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 Experience (in years): 13 Teaching; 13, Research



1. Educational/ Technical Qualifications

S.No	Level (UG / PG / Ph.D)	Year of Passing	Specialization
1.	Ph. D	2013	QM Methods based Molecular Modeling
2	MTech.	2009	Biotechnology
3	B.Ed.	2001	Physical Science
4.	M.Sc.	1997	Physics
4.	B.Sc.	1995	Mathematics, Physics, Chemistry

2. Teaching and Learning:

2.1 Teaching Interests:

- Engineering Physics
- Applied Physics
- Solid state Physics
- Materials Science
- Molecular Quantum Mechanics
- Electronic Structure Theory

2.2 Novel Teaching & Learning Techniques adopted:

- WIT-WIL
- Problem solving method

2.3 Involvement in curriculum updating / Design: -

3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies:

- Reading Books.
- Playing Chess
- Shuttle Badminton.

3.2. CCA/ECA Organized: -

3.3. CCA/ECA participated: -

3.4. Counseling and Mentoring Activity:

- Student internship

3.5. Committees involved in:

Department level:

- Coordinator of CET
- Member of online teaching training team

Institute Level: -

4. Conference / Workshop / Seminar / Guest Lectures:

4.1 Conducted:

- Coordinator of a Webinar on Multifunctional Materials, organized by CNST, H &S, VNRVJIET, on 15th – 16th July 2020.
- Coordinator for a two week, Science Academies Refresher Course in Experimental Physics, organized under the directorship of Prof. R. Srinivasan, a fellow of Indian Academy of Sciences, with the support of Indian Academy of Sciences, Bangalore; Indian National Science Academy, New Delhi; The National Academy of Sciences, India, Allahabad from 14th – 29th June 2016 in K L University, Guntur, Andhra Pradesh, India.
- Organized a training program on digital tools to new faculty of H&S on 5th, 6th, 10th, 18th and 28th May 2021.

4.2 Attended:

- AICTE sponsored 5 day FDP on International Human Values from 31 May 2021 to 4 June 2021.
- AMPLE LMS 2 day workshop on 20th and 22nd January 2021.
- Poster presentation: "Homochiral versus heterochiral cyclic trimerization of imidazole based heterocyclic amino acids: A density functional theory based study", 5th Indian Peptide Symposium, JNCASR, Bangalore, September 2015.
- Poster presentation: "Theoretical Insights into Cyclic Trimerization of 5-(Aminoethyl)-2-Furancarboxylic Acid (AEFC) and Anion Binding Properties", Theoretical Chemistry Symposium (TCS-2012), IIT Guwahati, December, 2012.
- Poster presentation: "Quantum chemical studies of peptides containing sugar amino acids' Introduction to Gaussian: Theory and Practice", Chennai, January, 2012.
- Poster presentation: "Quantum chemical study of control of stereochemistry of tetrahydrofuran ring in tripeptides containing tetrahydrofuran amino acids", International Conference on Physics Biology Interface (ICPBI-2009), Kolkata, December, 2009.
- Poster presentation: "Electronic structure and properties based study of furan and tetrahydrofuran derived peptides", Changing Paradigms in Theoretical and Computational Chemistry from atoms to molecular clusters (TCCC-2009), Pune, December, 2009.
- Poster presentation: "Electronic structure based study of furan derived peptides", International Symposium, Of Molecules and Materials (A Survey of Recent Concepts) (OMAM-2009), Kolkata, December 2009.
- Poster presentation: "Some theoretical insights into preferential mode of cyclization in tetrahydrofuran amino acids", Discussion meeting on Theoretical Chemistry (TCS-2009), Bangalore, January, 2009.

5. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures:

- Resource person for AICTE sponsored 2 weeks STTP on “Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications” organized by Department of Electronics and Instrumentation Engineering and Centre for Nanoscience and Technology - VNRVJIET-Hyderabad, from 15 -20 February 2021 and 1 – 6 March 2021.
- Resource person of a Webinar on Multifunctional Materials, organized by CNST, H &S, on 15th – 16th July 2020.
- Density functional theory for prediction of structure and reactivity of newly synthesized peptides, International symposium on chemistry with computers", IIT-Hyderabad, IICT -Hyderabad, 18-19 January, 2014.

5.2. Articles / Chapters published in Books:

5.3. Books published as single author or as editor: -

5.4. Projects Guided:

- a) UG: -
- b) PG: -

5.5. Research Interests:

- Molecular Quantum Mechanics
- Electronic Structure Theory
- Quantum Mechanics based molecular modeling

5.6. Ph.D students:

- a) Enrolled: -
- b) Submitted: -
- c) Awarded: -

5.7. Papers published in reviewed Journals:

S. No	Title of the Paper	Journal Name Vol.No.	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Influence of the Effect of the Number, Nature and Position of Methyl Posttranscriptional Modifications on Nucleobase Stacking in RNA	ChemPhysChem 2021 https://doi.org/10.1002/cphc.202100333	1439-4235	3.144	International

2	An APT charge based descriptor for atomic level description of chemical Raman enhancement by adsorption of 4-Mercaptopyridine on semiconducting nanooclusters: A theoretical study	Vib. Spectrosc., 2020 107:103019	0924-2031	1.917	International
3	A DFT study on reaction force approach of ammonia catalysed amide bond formation reaction between ammonia and formic acid”,	J. Mol. Graph. Model. 2020 94:107478	1093-3263	2.079	International
4.	A reaction force perspective of a model amide bond formation reaction	Comput. Theor. Chem., 2019, 1151:91-98.	2210-271X	1.605	National
5	Surface enhanced Raman scattering of neutral and zwitterionic α - and β -Proline monomers adsorbed on Au ₃ cluster: A DFT study	Vib. Spectrosc., 2018, 98:15-21	0924-2031	1.917	International
6	A DFT study on the role of long range correlation interaction and solvent effects in homochiral and heterochiral cyclic trimerization of imidazole based heterocyclic amino acids	J. Mol. Model., 2016, 22: 141.	0948-5023	1.346	International
7	Density functional theory based study on <i>cis-trans</i> isomerism of amide bond in homodimers of $\beta^{2,3}$ - and β^3 -substituted homoproline	J. Phys. Chem. A, 2014 118, 2120 – 2137	1089-5639	2.600	International
8	Peptidomimetics with tunable tertiary amide bond containing substituted β -proline and β -homoproline”,	Tetrahedron 2014 70 1169-1175.	0040-4020	2.233	International

9	Theoretical and experimental studies on solubility and reactivity behavior of lysergol, elymoclavine, and dihydrolysergol	Int. J. Quantum Chem. 2013 113 1427-1435	1097-461X	1.747	International
10	Preferential heterochiral cyclic trimerization of 5(aminoethyl)-2-furancarboxylic acid (AEFC) driven by noncovalent interactions	J. Mol. Graph. Model. 2012 38 13 – 25	1093-3263	2.079	International
11	Inter- versus intramolecular cyclization of tripeptides containing tetrahydrofuran amino acids: a density functional theory study on kinetic control	J. Mol. Model. 2012 18 3181-3197.	0948-5023	1.346	International
12	A theoretical study on interaction of proline with gold cluster”	Bulletin of Materials Science 2012 35 291-295.	0973-7669	1.392	National
13	Stereochemical control in the structures of linear δ,α -hybrid tripeptides containing tetrahydrofuran amino acids	J. Phys. Org. Chem. 2011 24, 720-731.	1099-1395	1.536	International
14	Preferential mode of cyclization of tetrahydrofuran amino acids containing peptides: some theoretical insights	J. Phys. Org. Chem. 2010 23, 238-245.	1099-1395	1.536	International

5.8. Papers presented at National / International Journals: Nil

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
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5.9. Sponsored research Projects: Nil

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

5.10 Consultancy Projects: Nil

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed

6. Awards / Honors received:

1. Acted as Reviewer for a manuscript, submitted to “International Journal of Quantum Chemistry”.

7. Motto: Right understanding leads happiness in life.