Name: Dr. Dasaradha Ramarao Seethiraju

**Designation:** Assistant Professor

**Department:** Humanities and Sciences (Physics)

Mail I'd: dasaradharamarao\_s@vnrvjiet.in; dasaradh4phy@gmail.com

Experience (in years): 10 Teaching: 2 Research: 8 (5 years as

research scholar; 3 years of postdoctoral experience)

# 1. Educational / Technical qualifications:

	1		
S. No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	UG	2007	Maths, Physics, Chemistry
2	PG	2009	Physics
3	Ph.D	2015	Physics
4	GATE	2010	All India Rank: 109

### 2. Teaching and Learning:

- 2.1. Teaching Interests: Engineering Physics, Engineering Materials, Mechanics, Quantum Mechanics, Semiconductor Physics, Nanoscience and Technology
- 2.2. Novel Teaching & Learning Techniques adopted: OBE and WIT-WIL
- 2.3. Involvement in curriculum updating / Design: Nil

### 3. Co-curricular and Extra-Curricular Activities

- 3.1. Interests and Hobbies: Listening to Music, Watching the documentaries
- 3.2. CCA/ECA Organized: Nil 3.3. CCA/ECA participated: Nil
- 3.4. Counseling and Mentoring Activity: Nil
- 3.5. Committees involved in: Nil
  Department level: Nil
  Institute Level: Nil

## 4. Conference / Workshop / Seminar / Guest Lectures :

4.1 Conducted: Nil 4.2 Attended: Nil

## 5. Academic Contribution and Research & Consultancy:

- 5.1. Invited Lectures: Nil
- 5.2. Articles / Chapters published in Books: Nil
- 5.3. Books published as single author or as editor: Nil
- 5.4. Projects Guided: Nil

a) UG: Nil b) PG: Nil

- 5.5. Research Interests: Quantum materials, Nanomaterials for energy applications.
- 5.6. Ph.D students:

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

5.7. Papers published in reviewed journals: 19

S.No	Title of the Paper	Journal Name Vol.No. PP	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Correlation Between Structural Characteristics and Microwave Dielectric Properties of Scheelite Ca <sub>1-x</sub> Cd <sub>x</sub> MoO <sub>4</sub> Solid Solution	J. Am. Ceram. Soc., 95, 3532 (2012)	1551-2916	3.502	International
2	Crystal structure refinement and microwave dielectric properties of new low dielectric loss AZrNb2O8 (A: Mn, Zn, Mg and Co) ceramics	Scripta Mater., 69, 274 (2013)	1359-6462	5.079	International
3	Structural, lattice vibrational, optical and microwave dielectric studies on Ca <sub>1-x</sub> Sr <sub>x</sub> MoO <sub>4</sub> ceramics with scheelite structure	Materials Research Bulletin, 56, 71- 79, 2013	0025-5408	4.019	International
4	Structural, Raman spectroscopic and microwave dielectric studies on Ni 1- x (Zn 1/2 Zr 1/2) x W 1- x Nb x O 4 ceramic compounds with wolframite structure	Dalton Transactions, 44, 2311-2324, 201	1477-9234	4.174	International
5	Magnetoimpedance studies on laser and microwave annealed Fe66Ni7Si7B20 ribbons	J. Magn. Magn. Mater., 382, 43 (2015)	0304-8853	2.717	International
6	"Structural phase transformation and microwave dielectric studies on SmNb1-x(Si1/2Mo1/2)xO4	Phys. Chem. Chem. Phys., 17, 12623 (2015)	1463-9084	3.430	International

	compounds with fergusonite structure				
7	Composition dependence of structural, magnetic and electrical properties of Co substituted magnesium ferrite	Physica B. Condensed matter., 528, 18 (2018)	0921-4526	1.902	International
8	Influence of Zn substitution on structural, magnetic and electrical properties of MgFe2O4	J. Electron. Mater., 47, 2997 (2018)	0361-5235	1.774	International
9	Structural, microstructural and electrochemical studies on LiMn2-x(GdAl)xO4 with spinel structure as cathode material for Li-ion batteries	Ceram. Int., 44, 15116 (2018)	0272-8842	3.830	International
10	New Quaternary Chalcogenide Glasses with wide range IR Transparency	Mater. Res. Exp., 5, 075201 (2018)	2053-1591	1.929	International
11	Studies on structural and optical properties of nano ZnFe2O4 and ZnFe2O4-TiO2 composite synthesized by co-precipitation route	Mater. Chem. Phys., 230, 107 (2019)	0254-0584	3.408	International
12	Solvothermal synthesis of BiVO4/WO3 heterostructures and their applicability towards electrochemical water oxidation reactions	Eur. Phys. J. Plus, 134, 186 (2019)	2190-5444	3.228	International
13	Simple synthesis, structural and optical properties of cobalt ferrite nanoparticles	Eur. Phys. J. Plus, 134, 296 (2019)	2190-5444	3.228	International
14	Unravelling the role of site isolation and support for semi-hydrogenation of	Chem. Asian J., 14, 4819 (2019)	1861-471X	4.056	International

	Phenylacetylene				
15	An overview on the structural diversity of Europium based ternary intermetallics	J. Solid State Chem., 281, 121048 (2020)	0022-4596	2.726	International
16	Rare-earth based half- Heusler topological quantum materials: A perspective	APL Mater., 8, 060903 (2020)	2166-532X	3.819	International
17	Operando Sodiation Mechanistic Study of a New Antimony Based Intermetallic CoSb as High Performance Sodium Ion Battery Anode	J. Phys. Chem. C, 124, 29 (2020)	1932-7455	4.189	International
18	Electrical transport properties of half-Heusler ScPdBi single crystals under extreme conditions	J. Alloys Compd. 848, 156632 (2020)	0925-8388	4.650	International
19	Unveiling the Roles of Lattice Strain and Descriptor Species on Pt-like Oxygen Reduction Activity in Pd-Bi catalysts	ACS Catal., 11, 800–808 (2021)	2155-5435	12.35	International

5.8. Papers presented at National / International conferences: --

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	Correlation between structural characteristics and microwave dielectric properties of Ca <sub>1-x</sub> Cd <sub>x</sub> MoO <sub>4</sub> ceramics	International Conference on Recent trends in Advanced Materials (ICRAM), 20-22 Feb 2012, VIT University, Vellore, India.	International	20-22 Feb 2012
2	Effect of microwave sintering on lattice vibrations and microwave dielectric properties of ZnWO <sub>4</sub> ceramics	International Symposium for Research Scholars on Metallurgy,	International	13-15 December 2012

	Structural refinement and microwave dielectric properties of AWO <sub>4</sub> (A: Zn, Ni and Cd) compounds with Wolframite structure	Materials science & Engineering, (ISRS),13-15 December 2012, IIT Madras, India. (Best Oral presentation) International Conference on Advances in	International	6-8th Feb 2013
3		materials Processing and Characterization, 6-8th Feb 2013, Anna University, Chennai, India.		
4	Phase transition in SmNb <sub>1-x</sub> V <sub>x</sub> O <sub>4</sub> system: X-ray diffraction and lattice vibrational analysis	Fourth International Conference on Recent Advances in Composite Materials (ICRACM), 18-21 Feb 2013, Department of Mechanical Engineering, IIT BHU, Varanasi	International	18-21 Feb 2013
5	Influence of structural characteristics on microwave dielectric properties of Zn <sub>1-x</sub> Ni <sub>x</sub> WO <sub>4</sub> solid solution	International Union of Materials Research Society - ICA, 16-20 Dec 2013 - IISc Bangalore, India	International	16-20 Dec 2013
6	Ferroelastic phase transition in SmNbO <sub>4</sub> : An in-situ X-ray diffraction study and its microwave dielectric properties	Second International Conference on Advanced Functional Materials (ICAFM), 19-21 Feb 2014, NIIST Thiruvananthapuram, Kerala, India.	International	19-21 Feb 2014
7	Temperature and composition induced phase transition studies on SmNbO <sub>4</sub>	International Symposium for Research Scholars on Metallurgy, Materials science & Engineering, (ISRS),11-13 December 2014, IIT	International	11-13 December 2014

			Madras, India. Oral presenta	`				
5.9. S <sub>1</sub>	5.9. Sponsored research Projects: Nil							
S.No	Title	Agency	Period	Grant amount	Ongoing / Completed			
5.10 C	5.10 Consultancy Projects: Nil							
S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed			

### 6. Awards / Honors received:

- Smt. Annamaraju Rajyalakshmamma Memorial award, "Certificate of Excellence for Securing First rank (1st) in the entrance examination for Admission into M.Sc (Physics) conducted by Acharaya Nagarjuna University, Guntur, Andhra Pradesh.
- Best paper award in "International Symposium for Research Scholars on Metallurgy, Materials Science and Engineering", December 13-15, 2012.

**Title**: Effect of Microwave Sintering on Lattice Vibrations and Microwave Dielectric Properties of ZnWO<sub>4</sub>.

• Best paper award in "International Symposium for Research Scholars on Metallurgy, Materials Science and Engineering", December 11-13, 2014.

Title: Temperature and Composition Induced Phase transition in SmNbO<sub>4</sub>

### 7. Motto:

"There are no secrets to success. It is the result of preparation, hard work, and learning from failure" --- Colin Powell