

VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

KNOWLEDGE ASSET 2021-22



Name: Dr. Boora Srinivas
Designation: Assistant Professor
Department: H&S (Physics)
Mail I'd: Srinivas_b@vnrvjiet.in

Experience (in years): Teaching: 9 years Research: 8years Others (if any, specify):

1. Educational / Technical qualifications:

S.No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	UG	2008	B.Sc. (MPC)
2	PG	2011	Physics
3	Ph.D.	2019	Physics

2. Teaching and Learning:

2.1. Teaching Interests:

- Engineering Physics
- Applied Physics
- Solid state Physics
- Electro ,
- Quantum Mechanics
- Classical Mechanics.

2.2. Novel Teaching & Learning Techniques adopted:

- WIT-WIL
- Synthetic method
- Problem solving method
- Active learning (Videos, PPT etc)

2.3. Involvement in curriculum updating / Design:

3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies:

- Reading Books

- Playing Chess

3.2. CCA/ECA Organized:

3.3. CCA/ECA participated:

3.4. Counseling and Mentoring Activity:

3.5. Committees involved in:

Department level:

Institute Level:

4. Conference / Workshop / Seminar / Guest Lectures :

4.1 Conducted:

4.2 Attended:

- ❖ Attended One-week Online Faculty Development Programme on “Student Induction and Universal Human Values” organized by Department of Physics, Chaitanya Bharathi Institute of Technology (A), Hyderabad from 26-08-2020 to 30-08-2020.
- ❖ Attended Two Week Faculty Development Programme on “Advances in Computational and Experimental Research in Physics” organized by Department of Physics, SRM Institute of Science and Technology, Ramapuram Campus, Chennai from 27th July to 8th August 2020
- ❖ Attended One-week Online Faculty Development Programme on “The Use of Virtual Physics Labs - Creating Next Generation Teachers” organized by Department of Freshman Engineering, Geethanjali College of Engineering and Technology in association with Indian Society for Technical Education (ISTE) from 20th - 24th, May 2020.
- ❖ Attended “International Conference on Material Science For Societal Advancement (MSSA-2020)” held on 20th -22nd January, 2020 at Department of Physics, UCS, Osmania University, Hyderabad, Telangana State, India.
- ❖ Attended “International Conference on Advances in Materials & Manufacturing (ICAMM - 2016)” held on 8-10th December, 2016 at Department of Physics, UCS, Osmania University, Hyderabad, Telangana State, India.
- ❖ Attended “6th national conference on Applied Physics and Materials science”, held on 28th December,2019 at Department of Physics, Vasavi College of Engineering, Hyderabad, Telangana State, Hyderabad.
- ❖ Attended “National Conference on Materials for Energy and Environment Development and Applications” during 29th- 30th April 2018, conducted by Department of Physics, University College of Science, Osmania University, Hyderabad.
- ❖ Attended “104th Indian Science Congress” held on 3rd -7th January, 2017 at S. V. University, Thirupathi, Andhra Pradesh, India
- ❖ Attended “3rd national conference on Applied Physics and Materials science”, during 7-8th December, 2015 at Department of Physics, Vasavi College of Engineering, Hyderabad, Telangana State,

- ❖ Attended a two days national workshop on “Recent trends in X-ray diffraction Techniques (NWRTXRD-15)” held on 29th -30th may, 2015 at Department of Physics, University College Science, Osmania University, Hyderabad.

5. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures:

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 :2

5.5. Research Interests :

- ❖ Photocatalytic and H₂ gas production of TM ions doped TiO₂ nano particles
- ❖ Synthesis of Oxide glasses, characterization and properties
- ❖ Luminescence studies
- ❖ Bio-active glasses.
- ❖ Nano composite cathode materials for SOFC applications
- ❖ Synthesis, characterization and properties of Multifunctional materilas

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. PP	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Influence of BaO on spectral studies of Cr ₂ O ₃ doped titanium-boro-tellurite glasses	<i>Optical Materials</i> , 109 (2020) 110329.	ISSN: 0925-3467	2.779	International
2	Evaluation of EPR parameters for compressed and elongated local structures of VO ²⁺ and Cu ²⁺ spin probes in BaO-TeO ₂ -B ₂ O ₃ glasses	<i>Journal of Physics and Chemistry of Solids</i> 01 (2019) 129.	ISSN: 0022-3697	3.442	International
3	Experimental and theoretical investigations on the EPR parameters and molecular orbital bonding coefficients of VO ₂ ⁺ ions in BTTB glasses	<i>Philosophical Magazine</i> 98.17 (2018): 1625-1640.	ISSN:1478-6435	1.778	International
4	Experimental and theoretical electron paramagnetic resonance and optical studies of Cu ²⁺ spin probe in BaO-TeO ₂ -Bi ₂ O ₃ -B ₂ O ₃ glass	<i>Optik - International Journal for Light and Electron Optics</i> 10/2017; 156	ISSN: 0030-4026	2.187	International

	system.				
5	Influence of V ₂ O ₅ on physical and spectral (optical, EPR & FTIR) studies of SrO-TeO ₂ -TiO ₂ -B ₂ O ₃ glasses	Optik - International Journal for Light and Electron Optics	ISSN: 0030-4026	2.187	International
6	Comparative studies on physical and spectroscopic properties of alumino bismuth borate glasses containing Pb, Zn & Cd ions	<i>Chinese Journal of Physics</i> 58 (2019) 303–319	ISSN: 0577-9073	2.638	International
7	The role of halides on chromium ligand field in lead borate glasses.	<i>Materials Research Express</i> 09/2017; 4(10)	ISSN: 2053-1591	1.929	International
8	EPR and Optical Studies Of BaO-TeO ₂ -TiO ₂ -B ₂ O ₃ Glasses Containing V ⁴⁺ and Cu ²⁺ Transitional Metal Ion	<i>Materials today: proceedings</i> 12/2015; 2(4-5):1915-1922	ISSN: 2214-7853	0.576	International
9	Physical, Optical and FT-IR studies of Bismuth-Boro-tellurite Glasses containing BaO as modifier	<i>IOP Conference Series: Materials Science and Engineering</i> , 360(1):012022	ISSN: 1757-8981	0.53	International
10	EPR studies of strontium alkali borate glasses doped with vanadium	<i>European Journal of Glass Science and Technology Part B Physics and Chemistry of Glasses</i> 12/2015; 56(6):263-266	ISSN 1753-3562 (Print).	1.1	International
11	Physical and optical studies of BaO-TeO ₂ -TiO ₂ -B ₂ O ₃ glasses containing Cu ²⁺ transition metal ion	<i>AIP Conference Proceedings</i> ,	ISSN: 0094243X, 15517616.	0.40	International
12	Electron paramagnetic resonance spectra of CdO-Al ₂ O ₃ -Bi ₂ O ₃ -B ₂ O ₃ quaternary glasses containing VO ²⁺ ions	AIP Conference Proceedings; 04/2018	ISSN: 0094243X, 15517616.	0.40	International

13	Optical constants, single-oscillator modal and refractive index dispersion analysis of lithium zinc bismuth borate glasses doped with Eu^{3+} ions	<i>AIP Conference Proceedings</i>	ISSN: 0094243X, 15517616.	0.40	International
14	FTIR and Raman studies on $25\text{Bi}_2\text{O}_3-(75-x)\text{B}_2\text{O}_3-x\text{BaO}$ glasses	<i>AIP Conference Proceedings</i>	ISSN: 0094243X, 15517616.	0.40	International
15	ELECTRON PARAMAGNETIC RESONANCE (EPR) AND OPTICAL ABSORPTION SPECTRA OF Cu^{2+} IONS IN $(30-x)\text{NaF-xAl}_2\text{O}_3-69\text{BO}-1\text{CuO}$ GLASSES	i-manager's Journal on Material Science 8(2):9-15	ISSN:2347-2235	1.737	International

5.8. Papers presented at National / International Journals :

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	FTIR and Raman studies of $\text{BaO-TeO}_2\text{-Bi}_2\text{O}_3\text{-B}_2\text{O}_3\text{-V}_2\text{O}_5$ glasses	International Virtual Conference Advanced Nanomaterials Applications (VCAN-2020)"	International	17th- 19th June 2020
2	EPR studies of strontium alkali borate glasses doped with vanadium	International conference on Glasses and other functional materials	International	11th- 13th Dec 2014,
3	Physical and optical studies of $\text{BaO-TeO}_2\text{-TiO}_2\text{-B}_2\text{O}_3$ glasses containing Cu^{2+} transition metal ion	2nd International conference on Condensed Matter and Applied Physics	International	24th- 25th Nov 2017
4	Physical, Optical and FT-IR studies of Bismuth-Boro-tellurite Glasses containing BaO as modifier	2nd International Conference on Materials Science and Technology (ICMST-2016)	International	5th- 8th June 2016
5	EPR and Optical Studies Of $\text{BaO-TeO}_2\text{-TiO}_2\text{-B}_2\text{O}_3$ Glasses Containing V^{4+} and Cu^{2+} Transitional Metal Ion	4th International Conference on Materials Processing	International	14-15th march, 2015

		& Characterization (ICMPC-2015)		
6	Physical and optical studies of BaO-TeO ₂ -TiO ₂ -B ₂ O ₃ glasses containing Cu ²⁺ transition metal ion	National Seminar on Multi-functional Materials and their Applications (NSMMA-2016)	National	29th- 30th March 2016
7	Optical and Electron Paramagnetic Resonance studies of BaO-TeO ₂ - Bi ₂ O ₃ -B ₂ O ₃ Quaternary Glasses	National Conference on Environmental Radiation and Functional Materials (NCERFM)	National	28th Feb-1st March, 2015
8	Electron paramagnetic Resonance of VO ₂ ⁺ ions in SrO-Al ₂ O ₃ -B ₂ O ₃ Glasses	National conference on Advanced Materials for Energy Applications (NCAMEA-2014)	National	31st Jan & 1st Feb, 2014
9	Physical and Electron paramagnetic Resonance studies of VO ₂ ⁺ ions Doped BaO-TeO ₂ -TiO ₂ -B ₂ O ₃ Quaternary Glass systems	National conference on Absorption and Magnetic Resonance Spectroscopy and their Integration to Sustainable Human Development (NCAMRS-SHD-2014)	National	30th & 31st August, 2014
10	Electron paramagnetic Resonance studies on VO ₂ ⁺ ions Doped MgO-CaO-B ₂ O ₃ ternary Glass systems	2nd national conference on Applied Physics and Materials science	National	1-2nd December, 2014
11	Electron paramagnetic Resonance and Optical Absorption studies of Cu ²⁺ Spin probe in MgO-CaO-B ₂ O ₃ ternary Glasses	1st national conference on Applied Physics and Materials science	National	19-20th July, 2013

5.9. Sponsored research Projects:

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed

6. Awards / Honors received:

- ❖ Selected for “**Junior Research Fellowship (JRF)**” by BSR (RFSMS-Meritorious fellowship (2013) under UGC –New Delhi India.
- ❖ Selected for “**Senior Research Fellowship (SRF)**” by BSR (RFSMS-Meritorious fellowship - 2015) under UGC –New Delhi, India.
- ❖ Awarded with Certificate of Outstanding Contribution in Reviewing, June-2018 from Journal of Materials Chemistry and Physics (ELSEVIER Publications).

7. Motto:

“If you can't explain it simply, you don't understand it well enough”

“The only source of knowledge is experience”