VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

KNOWLEDGE ASSET 2022-23

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
- Electromagnetic theory
- 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: 02

5.3. Books published as single author or as editor:

5.4. Projects Guided :

a) UG :02 b) PG :2

5.5. Research Interests :

- Photocatalytic and H_2 gas production of TM ions doped TiO_2 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.	Effect of Alkaline earth oxides on the ionic conductivity of Boro-Tellurite glasses for solid state ion batteries	*Physica Scripta 97 & 10*	ISSN: 1402-4896	3.081	International
2.	Effect of SrO and TeO2 on the physical and spectral properties of strontium tellurite boro-titanate glasses doped with Cu2+ ions	*Journal of Non-Crystalline Solids 575 & 121218*	ISSN 0022-3093	4.458	International
3.	Impact of BaF_2 on physical and spectroscopic studies of TeO_2–$Li_2B_4O_7$ glasses modified with Cu^{2+} ions	*Optical Materials 137 & 113517*	ISSN: 0925-3467	3.754	International
4.	Fabrication, optical and radiation shielding properties of BaO-TeO2-B2O3-Cr2O3 glass system	*Optik 258 & 168877*	ISSN: 0030-4026	2.84	International
5.	Influence of La3+, Sm3+ and Dy3+ dopants on ceria solid electrolytes for IT–SOFCs	*Materials Science in Semiconductor Processing 142 & 106495*	ISSN: 1369-8001	4.644	International
6.	Effect of Mn2+ ions on spectroscopic and electrical properties of lithium strontium borate glasses	*Materials Chemistry and Physics 291 & 126698*	ISSN: 0254-0584	4.778	International
7.	Physical and spectroscopic studies of	*Journal of the Australian Ceramic Society*	ISSN2510-1579		International

	CaF2-Al2O3-Bi2O3-B2O3-CuO glasses	*58 & 1-10*			
8.	Preparation and Characterization of melt derived CaO-Sb2O3-Li2O containing borate glass for multiple application	*Journal of Non-Crystalline Solids 589 & 12164*	ISSN 0022-3093	4.458	International
9.	Influence of manganese ions on physical and spectroscopic properties of mixed alkali-alkaline earth oxide borate glasses	*Optik 246 & 167810*	ISSN: 0030-4026	2.84	International
10.	Absorption spectrum fitting method (ASF), DASF method and structural studies of Li2O–SrO–B2O3–MnO quaternary glass system	*Optical Materials 133& 112911*	ISSN: 0925-3467	3.754	International
11.	A comparative study on the physical and spectral (optical, EPR and FTIR) properties of NaF-CdO-B2O3 and KF-CdO-B2O3 glass systems doped with manganese ions	*Journal of Non-Crystalline Solids 594 & 121789*	ISSN 0022-3093	4.458	International
12.	The structural, electrical properties, and surface morphology of Gd doped LaFeO3 polycrystalline materials	*Materials Today: Proceedings*	ISSN: 2214-7853	3.2 (site score)	International
13.	Band gap determination by Tauc's, ASF and DASF methods of alkaline earth modified lithium borate glasses co-doped with transition metal ions	*Materials Today: Proceedings*	ISSN: 2214-7853	3.2 (site score)	International
14.	Influence of BaO on spectral studies of Cr_2O_3 doped titanium-boro-tellurite glasses	*Optical Materials, 109 (2020) 110329.*	ISSN: 0925-3467	3.754	International
15.	Evaluation of EPR parameters for compressed and elongated local structures of VO^{2+} and Cu^{2+} spin probes in BaO-TeO_2-	*Journal of Physics and Chemistry of Solids 01 (2019)*	ISSN: 0022-3697	4.383	International

	B_2O_3 glasses	*129.*			
16.	Experimental and theoretical investigations on the EPR parameters and molecular orbital bonding coefficients of VO2+ ions in BTTB glasses	*Philosophical Magazine 98.17 (2018): 1625-1640.*	ISSN:1478-6435	1.948	International
17.	Experimental and theoretical electron paramagnetic resonance and optical studies of Cu^{2+} spin probe in $BaO\text{-}TeO_2$ - Bi_2O_3 -B_2O_3 glass system.	*Optik - International Journal for Light and Electron Optics 10/2017; 156*	ISSN: 0030-4026	2.84	International
18.	Influence of V_2O_5 on physical and spectral (optical, EPR & FTIR) studies of $SrO\text{-}TeO_2\text{-}TiO_2\text{-}B_2O_3$ glasses	Optik - International Journal for Light and Electron Optics	ISSN: 0030-4026	2.84	International
19.	Comparative studies on physical and spectroscopic properties of alumino bismuth borate glasses containing Pb, Zn & Cd ions	*Chinese Journal of Physics 58 (2019) 303–319*	ISSN: 0577-9073	3.957	International
20.	The role of halides on chromium ligand field in lead borate glasses.	*Materials Research Express 09/2017; 4(10)*	ISSN: 2053-1591	2.025	International
21.	EPR and Optical Studies Of $BaO\text{-}TeO_2\text{-}TiO_2\text{-}B_2O_3$ Glasses Containing V^{4+} and Cu^{2+} Transitional Metal Ion	*Materials today: proceedings 12/2015; 2(4-5):1915-1922*	ISSN: 2214-7853		International
22.	Physical, Optical and FT-IR studies of Bismuth-Boro-tellurite Glasses containing BaO as modifier	*IOP Conference Series: Materials Science and Engineering, 360(1):012022*	ISSN: 1757-8981	3.2 (site score)	International
23.	EPR studies of strontium alkali borate glasses doped with vanadium	*European Journal of Glass Science and Technology Part B Physics and Chemistry of Glasses 12/2015; 56(6):263-266*	ISSN 1753-3562 (Print).	1.1	International

24.	Physical and optical studies of $BaO-TeO_2-TiO_2-B_2O_3$ glasses containing Cu^{2+} transition metal ion	*AIP Conference Proceedings,*	ISSN: 0094243X, 15517616.	0.40	International
25.	Electron paramagnetic resonance spectra of $CdO-Al_2O_3-Bi_2O_3-B_2O_3$ quaternary glasses containing VO^{2+} ions	AIP Conference Proceedings; 04/2018	ISSN: 0094243X, 15517616.	0.40	International
26.	Optical constants, single-oscillator modal and refractive index dispersion analysis of lithium zinc bismuth borate glasses doped with Eu^{3+} ions	*AIP Conference Proceedings*	ISSN: 0094243X, 15517616.	0.40	International
27.	FTIR and Raman studies on $25Bi_2O_3-(75-x)B_2O_3-xBaO$ glasses	*AIP Conference Proceedings*	ISSN: 0094243X, 15517616.	0.40	International
28.	Electron Paramagnetic Resonance (Epr) And Optical Absorption Spectra Of Cu2+ Ions In (30-X) Naf-Xal2o3-69bo -1cuo Glasses	*i-manager's Journal on Material Science 8(2):9-15*	ISSN:2347-2235	1.737	International
29.	Effect of BaO/TeO2 oxide ratio in TiO2. B2O3. Fe2O3 glasses: Physical, thermal and optical absorption studies	*Materials Today: Proceedings*	ISSN: 2214-7853	3.2 (site score)	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 BaO-TeO2-Bi2O3-B2O3-V2O5 glasses	International Virtual Conference Advanced	International	17th- 19th June 2020

		Nanomaterials Applications (VCAN-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 BaO-TeO2-TiO2-B2O3 glasses containing Cu2+ 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 BaO-TeO2-TiO2-B2O3 Glasses Containing V4+ and Cu2+ Transitional Metal Ion	4th International Conference on Materials Processing & Characterization (ICMPC-2015)	International	14-15th march, 2015
6	Physical and optical studies of BaO-TeO2-TiO2-B2O3 glasses containg Cu2+ 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-TeO2- Bi2O3-B2O3 Quaternary Glasses	National Conference on Environmental Radiation and Functional Materials (NCERFM)	National	28th Feb-1st March, 2015
8	Electron paramagnetic Resonance of VO2+ ions in SrO-Al2O3-B2O3 Glasses	National conference on Advanced Materilas for Energy Apllications (NCAMEA-2014)	National	31st Jan & 1st Feb, 2014
9	Physical and Electron paramagnetic Resonance studies of VO2+ ions Doped BaO-TeO2-TiO2-B2O3 Quaternary Glass systems	National conference on Absorption and Magnetic Resonance Spectroscopy and their Integration to Sustainable Human Development (NCAMRS-SHD-	National	30th &31st August,2014

		2014)		
10	Electron paramagnetic Resonance studies on VO2+ ions Doped MgO-CaO-B2O3 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 Cu2+ Spin probe in MgO-CaO-B2O3 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"