


K.V.G. COLLEGE OF ENGINEERING

Kurunjibhag, Sullia, D.K.-574 327, Karnataka, INDIA
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Department of Physics

FACULTY PROFILE

Name of the Faculty	DR. PRAVEENA S. D.	
Designation	Associate Professor	
Contact Numbers	Mobile: +91 - 9448153329	
E-mail ID	sdpraveen@yahoo.com	

• Educational Qualification

Degree	Specialization	Year of Passing	College & University
B.Sc.	Physics Mathematics Computer Science	2002	St. Philomena College Puttur, D.K., Karnataka. Mangaluru University.
M. Sc.	Physics (Special Paper: Nuclear Physics)	2004	Mangaluru University, Mangalagangothri, Mangaluru, Karnataka
Ph.D.	Dopant Induced Microstructural study of Polymers	2015	Mangaluru University, Mangalagangothri, Mangaluru, Karnataka

• Work Experience

Teaching	Research	Industry
16+Experience	13+Experience	Nil

• Date of Joining to this College

31 August 2007

• In-House Experience

Designation	Duration		Department
	From	To	
Lecturer/Assistant Professor	31-08-2007	31-08-2015	Physics
Associate Professor	01-09-2015	Till the Date	

• Outside Experience

Designation	Place	Duration	
		From	To
Lecturer	Vivekananda Polytechnic, Puttur, D.K., Karnataka	Aug 2004	Aug 2007

• Area of Interest

Broad area of Research : Microstructure studies on polymers and other materials using Positron Annihilation Technique.

Preparation of Polymer composites and microstructural study using some of the characterization techniques like

- Ultraviolet – Visible Spectroscopy
- Infrared Spectroscopy
- Differential scanning calorimetry
- Thermal gravimetric analysis
- Differential thermal analysis
- Electrical characterization of composites – Determination of electric conductivity of the materials
- Dielectric Properties – Determination of dielectric constant, loss and ac conductivity of the materials.
- X ray diffraction characterization - Powder XRD
- Positron Annihilation Techniques

• Subject Taught

- Engineering Physics
- Science

• Membership in Professional Bodies/University Bodies/Organizations

Nil

• Publications

International Journals - 09

International Conferences - 15

National Journal/Conference Proceedings - 08

National Conferences - 20

• Publications : International Journals

1. Microstructural, Dielectric and Transport properties of Proton conducting Solid Polymer Electrolyte for battery applications. *Ionics*, Nov 2019
2. Electron beam induced modifications in the microstructure of PVA/Li₂B₄O₇ polymer films: Positron annihilation study.
Radiation Physics and Chemistry 151 (2018) 69–76
3. Free volume modifications in chalcone chromophore doped PMMA films by electron irradiation: Positron annihilation study.
Radiation Physics and Chemistry 144, 194–203, 2018
4. Microstructural, electrical and thermal properties of lithium ion conducting solid polymer electrolyte. *International Journal of Latest Trends in Engineering and Technology* pp.239-244 , e-ISSN:2278-621X, p-ISSN: 2319-3778
5. Influence of low-energy Argon ions on thermal and surface properties of polycarbonate films.
Rdiation Effects and Defects in solids, Volume 172, Issue 5-6, Page 1-9, 2017
6. Dopant induced microstructural, optical and electrical properties of TiO₂/PVA composite.
Polymer Composites 37, 987–997, 2016.
7. Free volume related microstructural properties of lithium perchlorate/sodium alginate polymer composites.
Polymer Composites 35, 1267-1274, 2014.
8. Impact of electron-beam irradiation on free-volume related microstructural properties of PVA:NaBr polymer composites
Instruments and Methods in Physics Research B, 342 (2015)29-38, 2014.
9. Optical and microstructural studies on electron irradiated PMMA: A positron annihilation study.
Polymer Degradation and Stability 95, 1083-1091, 2010.

● Publications : National Journal/Conference Proceedings

1. Optical and Dielectric Properties of Li⁺ Ion Conducting Solid Polymer Electrolyte.
Indian Journal of Advances in Chemical Science 2018; 6(2): 83-87.
ISSN NO: 2320-0898 (p); 2320-0928 (e)
DOI: 10.22607/IJACS.2018.602004
2. Inhibition and Quenching effect on Positron formation in metal salt doped polymer blend.
American institute of Physics Conf. Proc. 1942, 110043(1-4) 2018
3. Relaxation and transport properties of Li⁺ Ion conducting biocompatible material for battery application.
American institute of Physics Conf. Proc. 1942, 080004(1-4) 2018
4. Optical, Electrical and Thermal Properties of SnO₂ Nanoparticles doped Poly Vinyl Alcohol-Poly Vinyl Pyrrolidone Blend Polymer Electrolyte.
Indian Journal of Advances in Chemical Science 2018; 6(1): 17-20.
ISSN NO: 2320-0898 (p); 2320-0928 (e)
DOI: 10.22607/IJACS.2018.601003
5. Free volume related electrical properties of sodium alginate/LiClO₄ solid polyelectrolyte.
American institute of Physics Conf. Proc. 1512, 128-129, 2013
6. Free volume dependent fluorescence property of PMMA composite: Positron Annihilation Studies.
American institute of Physics Conf. Proc. 1512, 126-127, 2013
7. Diffusion studies of FeCl₃ doped Poly (vinyl alcohol) films.
American institute of Physics Conf. Proc. 1349, 175-176, 2011
8. Free volume related fluorescence properties of electron irradiated Chalcone doped PMMA Films.
American institute of Physics Conf. Proc. 1349, 196-197, 2011

● Publications : International Conferences

1. Dielectric relaxation and transport properties of Lithium ion conducting solid Biopolymer electrolytes for energy storage application.
11th international Energy, Energy and Environment Symposium, SRM Institute of Science and Technology, India. July
14-18, 2019
2. Microstructural, Electrical and Thermal properties of Lithium ion conducting Solid Polymer Electrolytes.
International Conference On Nanotechnology ICON-17, Research Committee, Nesamony Memorial Christian College, Marthandam, Tamilnadu. india. February 15-16, 2017.
3. Dielectric and Microstructural Properties of Polymer Blend Composites.
International Conference on Advanced Materials SCICON'16, Amritha University, Coimbatore, Tamil Nadu. December 19-21, 2016.
4. Effect of BaCl₂ doping on Structural and Electrical properties of PEO based Solid Polymer Electrolyte films.
International Conference on Advanced Materials SCICON'16, Amritha University, Coimbatore, Tamil Nadu. December 19-21, 2016.
5. Effect of NaBr doping on Microstructural and Electrical properties of Polyethylene Oxide
6th International Science Congress (ISC-2016), International Science Community Association. Hutatma Rajguru Mahavidyalaya, Pune, Maharashtra, India. December 8-9, 2016.
6. Dielectric, thermal and morphological study of PVA doped with CuO Nanocomposites.
International Conference on Advanced Polymers for Science and Technology (APST-2016), Department of Chemistry, School of Advanced Sciences, VIT University, Vellore, TN, India. October 24-26, 2016.
7. Optical, Thermal and Morphological Study of PVA-NaAlg/ZnO Nanocomposites.
1st International Conference on Nanoscience and Nanotechnology, Center for Nanotechnology Research, VIT University, Vellore, TN, India. October 19-21, 2016.
8. Structural, Optical And Thermal Properties Of ZnS/PVA Polymer Nano Composites.
International conference on nanostructured polymeric material and polymer nano composites (INCPM 2015), Mahathma Gandhi university, Kottayam , Kerala. Nov
13-15, 2015.
9. Electrical and Optical Properties of Electron Beam Irradiated PMMA:LiClO₄ Polymer composite films.
5th International Conference on Physics and Astronomy (ICPA '15) Abu Dhabi (UAE). March 16-17, 2015
10. Fluorescence and microstructural properties of methyl orange doped Poly(vinyl alcohol).
First international conference on physics of materials and materials based device fabrication, Shivaji University, Kolhapur. January 17-19, 2012.

11. Effect of LiClO_4 on structural, optical and electrical properties of Poly(vinyl alcohol)/Hydroxybenzotriazole-chitosan composite.
First international conference on physics of materials and materials based device fabrication, Shivaji University, Kolhapur. January 17-19, 2012.
12. Effect of electron beam irradiation on the optical properties of methyl red doped PMMA polymer composites.
International Conference on Materials for Advanced Technologies (ICMAT-2011), Suntec, Singapore. Jun 26 – July 01, 2011.
13. Tuned linear optical properties of luminescent MPDMAPP-Polymer nanocomposites.
11th International Conference “MACRO-2010” Frontiers of Polymers & Advanced Materials, Indian Institute of Technology, New Delhi. Dec 15-17, 2010
14. Optical and fluorescence Studies on chalcone derivative doped PMMA.
POLYCHAR-18, World Forum for Advanced Materials, Siegen, Germany. April 7-10, 2010.
15. Effect of dye doping on the optical and structural properties of Poly (methyl methacrylate).
International Conference on Frontiers in Chemical Research (ICFCR-2008), Mangalore University, Mangalagangotri. Dec 29-31, 2008.

● Publications : National Conferences

1. Free volume related structural and dielectric properties of PVA/Li₂B₄O₇ Composite: A positron annihilation study.
64nd DAE Solid State Physics Symposium, IIT, Jodhpur, Rajasthan. Dec 18-22, 2019.
2. Free volume related Fluorescence behavior of chalcone doped polymer composite.
63rd DAE Solid State Physics Symposium, Guru Jambhara university of science and Technology, Hisar, Haryana, Dec 18-22, 2018.
3. Electron beam induced modifications in the free volume related microstructure of Lithium salt doped poly(vinyle alcohol) films.
21st National symposium on Radiation Physics (NSRP-21), Raja Ramanna Center for Advanced Technology, Indore, March 5-7, 2018
4. Inhibition and Quenching effect on Positron formation in metal salt doped polymer blend.
62nd DAE Solid State Physics Symposium, DAE Convention Center, BARC, Mumbai, Dec 26-30, 2017.
5. Relaxation and transport properties of Li⁺ Ion conducting biocompatible material for battery application.
62nd DAE Solid State Physics Symposium, DAE Convention Center, BARC, Mumbai, Dec 26-30, 2017.
6. Optical, Structural and Thermal properties of NH₄Cl/PVA polymer composites
4th National Conference on Condensed Matter Physics.
Applications (CMPA-2016), Department of Physics, MIT, Manipal, Manipal University, Karnataka, India, May 23-24, 2016.
7. Optical, Thermal, Electrical and Nano structural Study of PVA-PVP doped with SnO₂ Nanoparticles
4th National Conference on Condensed Matter Physics.
Applications (CMPA-2016), Department of Physics, MIT, Manipal, Manipal University, Karnataka, India, May 23-24, 2016.
8. Optical, Thermal and microstructure studies on Cadmium Oxide Nano Particles doped Sodium Alginate.
National Seminar & workshop on Functional Materials for Energy, Environment & Health FuNEH2016, Mangalore University, Karnataka. March 21-22, 2016.
9. Free volume related electrical properties of sodium alginate/LiClO₄ solid polyelectrolyte.
57th DAE Solid State Physics Symposium, Indian Institute of Technology, Mumbai, Maharashtra. Dec 3-7, 2012
10. Free volume dependent fluorescence property of PMMA composite; positron annihilation studies.
57th DAE Solid State Physics Symposium, Indian Institute of Technology, Mumbai, Maharashtra. Dec 3-7, 2012

11. Microstructure study of PVA/Li₂B₄O₇ composite.
Trombay Meeting on Positron in Materials, Medicine and Industry (POSITRON-2012), BARC, Mumbai. March 12-14, 2012.
12. Positron annihilation studies on KCL/PVA composites.
Trombay Meeting on Positron in Materials, Medicine and Industry (POSITRON-2012), BARC, Mumbai. March 12-14, 2012.
13. Diffusion studies of FeCl₃ doped PVA films.
56th DAE Solid State Physics symposium, SRM University, SRM Nagar, Tamilnadu. Dec 19-23, 2011
14. Free volume related fluorescence properties of electron irradiated chalcone doped PMMA films.
Proceedings of the 55th DAE Solid State Physics Symposium, Manipal University, Manipal. Dec 26-30, 2010.
15. Effect of electron irradiation on optical and electrical properties of TiO₂ doped PVA.
National Association for Applications of Radioisotopes & Radiation in Industry (NAARI) International Conference-2010 (NIC-2010), Hotel Renaissance, Powai, Mumbai. Dec 13-15, 2010.
16. Effect of electron irradiation on the optical and electrical properties of Lithium Tetra Borate doped Poly(vinyl alcohol).
National Conference on Engineering of Materials through Energetic Particles (NCEMEP), Bahubali College of Engineering, Shravanabelagola, Karnataka. April 8-10, 2010.
17. Effect of electron beam irradiation on the optical properties of Chalcone doped PVA films.
54th DAE Solid State Physics Symposium, Maharaja Sayajirao University of Baroda, Vadodara, Gujarat. Dec 14-18, 2009.
18. Electrical and optical properties of TiO₂/PVA nanocomposites.
Proceedings of the 54th DAE Solid State Physics Symposium, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat. Dec 14-18, 2009
19. Electron beam irradiation effects on PVA:NaBr Solid Polymer Electrolytes studied by positron annihilation technique.
18th National Symposium on Radiation Physics (NSRP-18), Mohanlal Sukhadia University, Udaipur, Rajasthan. Nov 19-21, 2009.
20. DC Conductivity studies on Lithium Tetra Borate doped PVA.
53rd DAE Solid State Physics Symposium, BARC, Mumbai. Dec 16-20, 2008.

• **Details of Professional Activities**

Professional activity	University	Ongoing	Completed
Ph.D. Guidance	Visveswaraya Technological University, Belagavi	Nil	Nil

• **Professional Activities: NPTEL Course**

Nil

• **Faculty Development Programmes (FDP) Participated**

SL. No.	Program Title	Venue	Date & Year
1.	New model curriculum for first year BE-CBCS detailed syllabus(2018-2019) as per outcome based education)(OBE) format including course outcomes and Blooms Taxonomy under TEQIP-1.3	Sahyadri college of engineering and management, Mangalore	19 May 2018 (one day)

• **Workshops / Short-term Course Attended**

SL. No.	Workshop Title	Place	Date & Year
1.	(UGC-DAE Consortium for Scientific research Kolkata centre & Department of Physics Mangalore University organized “ Radiation – Its applications in physical, Chemical and Life science”	Mangalore University, Mangalagangothri	24-25, June 2015
2.	Speciality polymers for engineering and biomedical applications	K V G College of Engineering, Sullia.	24-26 march 2011
3.	Opportunities for Sponsored Research and Collaboration with IT Industries	K V G College of Engineering, Sullia.	Dec 11, 2009

● Responsibilities Taken in college Level

Event	Role	Duration
1. Magazine Shilpi-2018-2019	Chief Co-ordinator	2018-2019
2. Tech Fest (vision-2016)	Co-ordinator	2016
3. NBA	Dept. coordinator	2018-19
4. Induction Program-I BE	Co-ordinator	2017-2018
5. Dean Examination	Examination Related Work	2021 to till date

● Participation details in the college level event.

SL.No.	Event	Position / Role
1.	College sports meet	Participated

● Participation details in the Department level activities

SL.No.	Event	Role / Responsibilities
1.	Mentoring co-ordinator	Physics cycle students

● No. of Lab Manual / Program Guidelines Prepared

SL. No.	Lab manual / Guide lines Title	Semester and branch	Year
1.	Engineering Physics Lab	I B.E.	2007-Till Date

● No. of Labs handled for UG and PG

SL. No.	Lab Title	Year	Semester & Branch
1.	Engineering Physics	2007-Till Date	I/II Sem (common to all branches)
2.	Engineering Physics Lab		

● Interaction with Outside World

Nil

● Awards / Recognition / Achievements/ Others

- Secured Highest marks in M.Sc. (Nuclear Physics special paper) from Mangaluru University during 2004.

- Served as **External Deputy Chief Superintendent** at Vivekenanda college of engineering, Puttur, related to VTU examination Work.