EDUCATION

- **Ph.D.**,**Physics**,National Institute of Technology Calicut,India,2012
- **M.Sc.,Physics**,SPAP,Mahatma Gandhi University,Kerala,India,2007
- **B.Sc.,Physics**, University of Calicut ,Kerala,India,2005

CARRIER PROFILE

- 02/06/2017 to till date-Department of Physics, N.S.S. College Manjeri, Kerala
- 18/12/2013 to 01/06/2017–Department of Physics,VTMNSS College, Dhanuvachapuram Thiruvananthapuram , Kerala
- 16/7/2012 to 9/5/2013 as Adhoc faculty (UG&PG) in Department of Physics, NIT Calicut.

RESEARCH INTEREST

- Nonlinear Optics, Ultrafast Optics, Nanophotonics, Thin films.

PUBLICATIONS

Publications in Journals

1. Sreeja Lakshmi S , Hasana Jahan Elamkulavan, Chandrasekharan Keloth,Jayaram Peediyekkal,Sabna M and **Sudheesh P**, Third-order nonlinear optical characteristics of natural dye anthocyanin extracted from Ixora coccinea,, *Z.Phys.Chem*(2025)
2. Vijayakumar Sadasivan Nair , Sharafudeen Kaniyarakkal, Shiju Edappadikkunnummal, Joicy John,**Sudheesh Palengara**,Siji Narendran,and SureshThelakkadan Puthiyaveettil, Reverse saturable absorption in substituted hydrazones and its structure-property relationship for photonic applications , *Laser and Particle Beams*, 2022 (2022).
3. Edappadikkunnummal Shiju , Kaniyarakkal Sharafudeen, T.M. Remya,N.K. Siji Narendran ,**Palengara Sudheesh** andVijayakumar Sadasivan Nair, Silver nanoparticles under nano second pulsed laser excitation as an intensity sensitive saturable absorption to reverse saturable absorption switching material ,*Photonics 8(2021) 413.*
4. **Sudheesh**, D. Mallikharjuna Rao, K. N. Sharafudeen, K. Chandrasekharan, The role of Imine derivatives in enhancing the third-order optical nonlinearity in PMMA films for photonicsapplications.,*Journal of Optoelectronics and Advanced Materials,19(2017)246-250.*
5. A.Sujith,A.Shebi,**P.Sudheesh**,M.S.KumarandK.Chandrasekharan,Naturaldye-doped poly(methyl methacrylate) microparticles for nonlinear optics*, Micro & Nano Letters, 9(2014)304-309.*
6. **P.Sudheesh**,N.KSijiNarendran,andK.Chandrasekharan,Third-ordernonlinearoptical responses inderivatives of phenylhydrazones by z-scan and optical limiting studies-Influence of noble metalnanoparticles*Optical Materials, 36(2013)304-309.*
7. T.AntoJohny,ViswanathanKumar,**P.Sudheesh**,K.Chandrasekharan Nonlinear optical characteristics in lithium substituted ZnO thin films, *Optics Communications, 309(2013) 279-281.*
8. P.P.Jeeju,S.Jayalekshmi,K.Chandrasekharan**,P.Sudheesh,**Enhancedlinearand nonlinear optical properties of thermally stable ZnO/poly(styrene)-poly(methyl methacrylate) nanocomposites films, *Thin film solids, 531(2013) 378-384.*

9. P.P.Jeeju,S.Jayalekshmi,K.Chandrasekharan**,P.Sudheesh**,Sizedependentnonlinear optical properties spin coated zinc oxide –polystyrene nanocomposites films, *Optics Communications, 285(2012) 5433-5439.*
10. **P.Sudheesh**andK.Chandrasekharan,χ(3)measurementsinSchiff'sbasederivatives: Effect of metal nanoparticles, *Solid state communications*, 152(2012) 268-272.
11. **P. Sudheesh**,K.N.Sharafudeen,S.Vijayakumar and K.Chandrasekharan ,Preparation and study of nonlinear optical response in Au andAg nanoparticles doped PVA/PVP films, *Journal of Optics***,** 40(2011) 193–197.
12. K. N. Sharafudeen, **P. Sudheesh**, S. Vijayakumar,A.Adhikari, B. Kalluraya, and K. Chandrasekharan,Multiphoton absorption process and self-focusing effect in coumarin derivative doped PMMA films By Z-scan and optical limiting studies,*Current Applied Physics* ,11(2011)1089-1093.
13. N. K SijiNarendran, K.R.Reshma,**P.Sudheesh** and K.Chandrasekharan,Effect of electric field on nonlinear optical properties of hydrazone doped PMMAfilms, *Advanced Materials Research*, 584(2012)88-91.

Books Publications

1. Co-author of *A textbook on Optics and Photonics,* for sixth semester B.Sc. Physics programme,KannurUniversity,Publisher:The Calicut University Central Cooperative Stores Ltd, ISBN : 978-93-94931-56-5, Year: 2023
2. Co-author of *A textbook on Optics,*for fifth semester B.Sc.Physics programme,University of Calicut, Publisher: The Calicut University Central Cooperative Stores Ltd, ISBN : 978-93-94931-13-8, Year: 2022

Publications in International/National Conferences

1. Sreeja Lakshmi.S,Athulya S, ChandrashekharanK, JayaramP, **SudheeshP „**Third-order Nonlinear Optical Measurements in Natural dye extracted from Ixora coccinea, ***COPaQ 2022:****XLV symposium of Optical Society of India* **,**November 2022
2. N.K Siji Narendran,Rahul Soman,**P.Sudheesh,**ChellaiahArunkumar, and K.Chandrasekharan $\chi^{(3)}$measurements of axial ligand modified high valenttin(IV)porphyrins using degenarete four wave mixing at 532nm, ***AIP,*** *1620*(2014) 506-510.
3. **P.Sudheesh**,K.N.Sharafudeen and K.Chandrasekharan,OpticalnonlinearityofAg/PVP thin films: Particle size dependence of χ(3) ,***AIP,*** 1391(2011),700-702.
4. S.Vijayakumar,**P.Sudheesh**,K.N.SharafudeenandK.Chandrasekharan,DFWMstudies andultrafastopticalkerreffectmeasurementsofthird-ordernonlinearopticalresponseina charge transfer organic material, ***AIP*** *,* 1391(2011) ,689-690.
5. Manoop Chenchilliyan,**SudheeshPalengara**,andSoneyVarghese,Transparentelectrode patterning using laser ablation for in-plane switching liquid crystal display,***AIP*** *,* 1391(2011) ,294-296.
6. K. N. Sharafudeen, **P. Sudheesh,** S. Vijayakumar, and K. Chandrasekharan, Third-order nonlinearopticalstudyoncoumarinderivativesat1064nmwavelengthexcitationusingz- scan technique, ***AIP****,* 1391(2011) ,709-711.

7. **SudheeshP**.,Chandrasekharan K.,Third orderoptical nonlinearity in organic thin films for photonics applications,*National seminar on light and light based technologies*,9-11January 2017, Govt.College, Kodenchery, Kozhikode, Kerala
8. **P.Sudheesh** and K.Chandrasekharan,Metal Nanoparticle Induced Enhancement inThird-Order Optical Nonlinearity of Phenylhydrazone/PMMAthin films, *Photonics 2012- an international conference on fibre optics and photonics,* IIT Madras, India.
9. **P. Sudheesh**, K. N. Sharafudeen, and K. Chandrasekharan, Enhancement of third-order nonlinear optical studies in ZnO/PVA-PVP thin films with high concentrations,International conference on functional Polymers, Jan. 28-31, 2011, NIT Calicut, India.
10. K. N. Sharafudeen, **P. Sudheesh**, and K. Chandrasekharan, Third-order nonlinear optical studiesinpoly(1-vinylnaphathalene),International conference on functional Polymers,Jan. 28-31, 2011, NIT Calicut, India
11. K. N. Sharafudeen , S. Vijayakumar,, **P.Sudheesh,** A.Adhikari, B. Kalluraya and K. Chandrasekharan, Nonlinear absorption and optical limiting in 4-[(E)-(2-phenylhydrazinylidene)methyl]tetrazole[1,5-a]quinoline,RETMAC2012,NITK,Karnataka, India.
12. S.Vijayakumar, K.N. Sharafudeen, **P. Sudheesh,** and K. Chandrasekharan,Third-order nonlinear optical measurements in donor substituted hydrazone susing z-scan techniques, RETMAC 2012, NITK, Karnataka, India.
13. K. N. Sharafudeen, **P. Sudheesh**, and K. Chandrasekharan, Preparation and nonlinear opticalpropertiesofgoldnanoparticleinPMMA,InternationalConferenceonOpticsand Photonics,ICOP 2009, CSIO, Chandigarh, India.
14. N. Sharafudeen, **P. Sudheesh**, and K. Chandrasekharan, Nonlinear optical properties in metal-polymer nanocomposites, 9th International symposium on functional π-electron systems(F-π-9),May23–28,2010,GeorgiaInstituteofTechnologyinAtlanta,Georgia, U.S.A.
15. Vijayakumar, K.N.Sharafudeen,**P.Sudheesh** and K.Chandrasekharan,Investigationof nonlinear optical properties of donor substituted hydrazone derivatives, International Conference on Optics and Photonics, ICOP 2009, CSIO, Chandigarh, India.

CONFERENCE/WORKSHOP PARTICIPATION

1. International conference on advances in functional materials & Coatings, organized by M E S Ponnani College on 14th to 16th February 2024
2. Workshop on Quantum Mechanics,Organized by Department of Physics,P.T.M. Govt.College,Perinthalmanna and Sponsored by DCE on 4th and 5th Dec 2019
3. National Technology day organized by CIPET-Institute of plastic Technology ,Kochi ,Kerala,11-May 2018.
4. National seminar on second law of thermodynamics&Dirac delta functions held at C.K.G.M Govt.college Perambra,Kerala,4-5 December 2017.
5. National seminar on light and light based technologies,Govt.College,Kodenchery, Kozhikode, Kerala 9-11 January 2017.
6. National seminar on "Recent advances in Optics and Photonics,Roshni-2015, organized by Department of Physics, KKTM Govt.college,Pullut,Kdungallur,Kerala on 30th November and 1st December 2015.
7. National seminar on"Emerging trends in instrumentation and control "organized by the Department of Instrumentation,NSS college Nemmara,Kerala on 4th and5th December 2014.

8. National Conference on Advanced Materials andApplication,NCAMA2013,held at National Institute of Technology Tiruchirappalli, India.April 4-5, 2013.
9. International Conference onlight,Optics'11,held at National Institute of Technology Calicut, India, May 23-25, 2011.
10. XXXV Optical Society of India Symposium,International Conference on Contemporary Trends in Optics and Optoelectronics, held at Indian Institute of Space Science and Technology, India, January 17-19, 2011.
11. Annual photonics workshop on Nanophotonics,held at CUSAT,Cochin(CUSAT),India, Feb 27-28, 2009.
12. National Work shop on Nonlinear Optics(NWNO-2008),held at National Institute of Technology Calicut (NITC), India, 4-5th January 2008.

AWARDS & RECOGNITIONS

- FLAIR Membership,2019
- Research Guideship,University of Calicut,2019

MEMBERSHIP IN PROFESSIONAL ORGANISATIONS

- Photonic Society of India
- Indian Laser Association
- Academy of Physics Teachers Kerala