



## RESUME

**Name:** Dr.K.Sreelatha  
**Designation:** Assistant Professor  
**Department:** Physics  
**Phone No:** 9447897925  
**Email:** sreelatharajiv@gmail.com  
**Date of Entry into Service:** 08/12/2004  
**Date of Retirement:** 31/05/2028  
**Qualifications:** M.Sc., Ph.D., M.Ed., PGDCA  
**Area of Interest:** Condensed Matter Physics  
**Subjects Handled:** PG and UG classes in Physics  
**Field of Research:** Conducting Polymers  
**Experience:** 16 years  
**Memberships in Learned Bodies/Societies:** Life membership in Indian Association of Physics Teachers  
**Extension Activities:** Coordinator Science Forum  
Member in Human Rights Forum, Research Committee, Student Welfare Committee

### Papers Published in International Journals:

1. K.Sreelatha and P.Predeep, "Thermal degradation of Lewis acid complexed LDPE films", AIP Conference Proceedings 1849, 020045 (2017), pp 020045-1–020045-5
2. K.Sreelatha and P.Predeep, "Thermal Behaviour of Iodine Incorporated Semiconducting Low-Density Polyethylene Film", 'Holistic Thought', Vol XV No1 January-June 2016, pp 51-58, The Multidisciplinary Research Journal of Sree Narayana College, Kollam, ISSN 0975-363 X
3. K.Sreelatha and P.Predeep, "*Enhanced Electrical and Optical Properties of Iodine Doped LDPE Films*", IOP Conf. Series: Materials Science and Engineering 73 (2015) 012012 doi:10.1088/1757-899X/73/1/012012
4. K.Sreelatha and P.Predeep, "Optical Characterization of Semiconducting Nylon 6 Films", AIP Conference Proceedings 1620, 213 (2014); doi: 10.1063/1.4898243

5. K.Sreelatha and P.Predeep, "*Electrically conducting Plastic Films from Polyethylene Terephthalate for Optoelectronic applications*", Polymer Science, Series A, 55(7) 2013, pp1-7.
6. K.Sreelatha and P.Predeep, "*Iodine doped, semi-conducting nylon 6 polymers*", Journal of Plastic Film & Sheeting, 29(2), 2013, pp127–143.
7. K.Sreelatha and P.Predeep, "*Dielectric Studies of Iodine Doped Nylon 6 Polymer Films*", AIP Conf. Proc. 1536, 477 (2013); DOI: 10.1063/1.4810308
8. K.Sreelatha and P.Predeep, "*Structure Analysis of Iodine Doped Polyamide Nylon 6 Complex Films by FTIR Spectroscopy and X-Ray Diffraction Studies*", AIP Conf. Proc. 128 (2011) 1391. DOI: 10.1063/1.3646801.

#### **Papers Presented in Seminars/Conferences:**

1. K.Sreelatha, "Optical Characterisation of Polymer Blend Films for Optoelectronic Device Applications" International Conference on Recent Trends in Material Science and Technology ICMST-2018 organised by Indian Institute of Space Science and Technology, Thiruvananthapuram on October 10-13 2018.
2. K.Sreelatha, "Investing in Water-A Transition to Green Economy", KSCSTE sponsored two day seminar on 'Augmentation of Ground water resources: Problems, Constraints and Challenges' organized by the Department of Chemistry, Sree Narayana College, Kollam on 29<sup>th</sup> and 30<sup>th</sup> June 2016.
3. K.Sreelatha, "Degradation Kinetics of Semiconducting LDPE Films", UGC sponsored two day National seminar on "Nanomaterials for Energy Applications" organized by the Department of Physics, Sree Narayana College, Punalur on 7<sup>th</sup> and 8<sup>th</sup> January 2016.
4. K.Sreelatha and P.Predeep, "*Polymer Complex Films for Electronic Applications*", Proceedings of the National Seminar on 'New Frontiers in Nanotechnology and Material Science' on 20 March 2015,organised by Department of Physics, S.N. College, Chengannur, Kerala.
5. K.Sreelatha and P.Predeep, "*Lewis Acid Complexation of Polyamide Nylon 6 Films-Synthesis, Structure and Optical Properties*", Proceedings of the KERALA SCIENCE CONGRESS XXIV (29-31 January 2012), Rubber Board, Kottayam, Kerala.
6. K.Sreelatha and P.Predeep, "*Effect of Iodine Doping on Polyamide Nylon 6 Films*", Proceedings of the 99th Indian Science Congress, January 3-7, 2012, KIIT University, Bhubaneswar, Odisha and NISER, Bhubaneswar, Orissa.
7. K.Sreelatha and P.Predeep, "*ElectricallyConductive Pet-Iodine Complex Films: Investigation of the Structure by FTIR Spectroscopy and X-Ray Diffraction Studies*",Proceedings of the National Seminar on Physical and Bio Medical Applications in Nano Technology, October 12-14, 2011, Department of Physics, S.N. College, Kollam, Kerala & Academy for Chemistry Teachers,Kerala.
8. K.Sreelatha and P.Predeep, "*Electrically Conductive Nylon 6 Films: A Fourier Transform Infrared Spectroscopic Study*", Proceedings of the National Conference on Recent Trends in Vibrational Spectroscopy, August 26-27, 2011, Department of Physics, Bishop Moore College, Mavelikkara, Kerala.
9. K.Sreelatha and P.Predeep, "*Intrinsic Electric Conductivity In Iodine Doped Pet Films*", Proceedings of the International Conference on Perspectives of Vibrational

- Spectroscopy, August 6-9, 2013, Department of Physics, Bishop Moore College, Mavelikkara, Kerala.
10. K.Sreelatha and P.Predeep, *"Dielectric Studies of Iodine Doped Nylon 6 Polymer Films"*, Proceedings of the International Conference on Recent Trends in Applied Physics and Material Science, RAM 2013, Feb 01-02, 2013, Govt. College of Engineering and Technology, Bikaner, Rajasthan.
  11. K.Sreelatha and P.Predeep, *"Intrinsic Electric Conductivity in LDPE Films"*, Proceedings of the International Conference on Molecular Spectroscopy of Advanced Materials & Biomolecules, August 7-9, 2012, Department of Physics, Bishop Moore College, Mavelikkara, Kerala.
  12. K.Sreelatha and P.Predeep, *"Enhanced Electrical and Optical Properties of Iodine Doped LDPE Films"* Proceedings of the International Conference on Materials Science and Technology (ICMST 2012) 10 - 14 June 2012, Department of Physics, St. Thomas College, Pala.
  13. K.Sreelatha and P.Predeep, *"Structure Analysis of Iodine Doped Polyamide Nylon 6 Complex Films by FTIR Spectroscopy and X-Ray Diffraction Studies"* Proceedings of the International Conference on Optics: Phenomena, Materials, Devices, and Characterization: Optics 2011: May 23-25, 2011, Department of Physics, National Institute of Technology, Calicut.

**Training Programmes/Seminars Attended:** 20

**Training Programmes /Webinars/Seminars organised:**

1. Webinar Series on 'Material Characterization-Talk I-Spectroscopic Techniques' in connection with the commemoration of Dr.APJ ABDUL KALAM Jointly Organized by the Post Graduate Department of Physics, Science Forum & IQAC on 07 August 2021.
2. 07/08/2021 Coordinator of Five days FDP on "Moodle LMS" from 25-29 May 2020, jointly organized by Department of Physics, Sree Narayana College, Chengannur, Kerala and IIT Bombay (Remote Learning Through Spoken Tutorial, IIT, Bombay).
3. A one-day seminar on "Perspectives of Research Astronomy and Astrophysics" on 18 October 2019 jointly organized by the Department of Physics and Science Forum of the Sree Narayana College, Chengannur in association with Academy of Physics Teachers Kerala
4. "Perspectives of Research Astronomy and Astrophysics" on 18 October 2019.
5. KSCSTE sponsored one-day seminar and awareness programme & various competitions on 20 February 2018, organized by Department of Physics, Science Forum in connection with National Science Day Celebrations.
6. KSCSTE sponsored one-day seminar and awareness programme organized by Department of Physics, Science Forum and Bhoomitrasena Club, Sree Narayana College, Chengannur on 23/11/2016 in connection with International Ozone day observation.
7. KSCSTE sponsored one-day seminar and awareness programme organized by Department of Physics, Science Forum and Bhoomitrasena Club, Sree Narayana College, Chengannur on 07/10/2015 in connection with International Ozone day observation.
8. KSCSTE sponsored one-day National seminar on 'New Frontiers in Nanotechnology and Material Science' organized by Department of Physics, Sree Narayana College on 20/03/2015.

9. KSCSTE sponsored National Science Day Celebrations organized by Department of Physics and Science Forum, Sree Narayana College, Chengannur on 23/02/2015.

**Books Edited**

1. Editor of Research Journal "Lumina" Volume I, January 2017, of the Post Graduate Department of Physics, Sree Narayana College Chengannur
2. Editor of the proceedings of the KSCSTE sponsored National Seminar organized by the Department of Physics, at Sree Narayana college, Chengannur in March 2015.

**Invited Talk**

1. Delivered a talk in the National Science Day celebrations on 22-02-2017 at Sree Narayana College, Kollam.
2. '*Electrical and optical properties of Semiconducting Nylon 6 Films*' a Conference on light, **OPTICS 17** at National Institute of Technology Calicut from 9-11 January 2017.

**Orientation Courses Attended:**

IT oriented from 11/06/2008-08/07/2008 at the UGC- Academic Staff College, University of Kerala, Thiruvananthapuram

**Refresher Courses Attended:**

1. Science Academies Refresher Course on "Experimental Physics" at Bishop Moore College, Mavelikara from September 13-28, 2017
2. Special Summer School Program from 28/05/2015 to 17/06/2015 at the HRDC, Kerala University of Kerala
3. Refresher course in Nano Sciences from 22/10/2013 to 11/11/2013 at the University of Kerala, Thiruvananthapuram
4. Refresher course in Physics from 12/09/2006 -04/10/2006 at the UGC- Academic Staff College, University of Kerala, Thiruvananthapuram

**Short Term Course:**

1. One-week Online FDP on 'Research Ethics and Characterisation techniques in Materials Science' organized during 9 to 15 September 2020, organized by Bishop Moore College in association with St. John's College Agra and Guru Angad Dev Teaching Learning Centre, New Delhi.
2. Five days FDP on "Moodle LMS" from 25-29 May 2020, jointly organized by Department of Physics, Sree Narayana College, Chengannur, Kerala and IIT Bombay (Remote Learning Through Spoken Tutorial, IIT, Bombay).
3. Short-Term Courses in "Student Counseling and Mentoring" at UGC-Human Resource Development Centre, University of Kerala from October 24-31, 2018.
4. GIAN Course on "Polymer and Hybrid Electronics: Physics and Device Applications" at NIT Calicut from August 21-27, 2017.
5. International Winter Course on 'Organic Solar Cells: Principles and Practices' from 02/11/2016 to 09/11/2016 organized by Global Initiative of Academic Networks (**GIAN**), an initiative by Govt. of India for Higher Education and hosted by Laboratory of Molecular Photonics and Electronics (LAMP), Department of Physics, National Institute of Technology, Calicut.

**Academic Responsibilities Undertaken:**

Additional Examiner  
Question Paper Setter  
Class tutor

**Duties Performed at College:**

Coordinator NIRF, RUSA, Website Committee,  
Planning Forum and Purchase Committee, Hostel  
Advisory Committee member

**Minor Research Projects:** UGC funded Minor Project (1728-.MRP/12th Plan/14-15/KLKE052/UGC-SWRO dated 29/10/2015) entitled “Development of Conducting Polymer Blend Complex Films for Optoelectronic Device Applications” with financial aid of Rs.500000/-