

RESUME

Name of the Faculty

Dr. P. SASI REKHA

Email Id

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Objectives

To impart quality teaching, to help students develop their skills and abilities, as a mentor, to provide student counseling, assist students in reaching their goals, ensure learning environment is appropriate and positive, promoting analytical thinking and leadership skills. To create lesson plan and to supervise projects.

Total years of Teaching Experience 9 years

Name of the Post	Department	Institution	No. of Years of Experience
Asst. Professor	Physics	Thiruthangal Nadar College	8 months (Aug 2020 - Till Date)
Lecturer	Physics	Chengalvarayan Polytechnic College	3 years 8 months (Sep 2008 - May 2012)
Lecturer	Physics	Sri Ram Engg. College	4 years 10 months (Nov 2001 - Sep 2006)

Educational Qualifications:

S.No.	Degree	Institution	University	Month & Year of passing	Subject	% of marks Class/Grade obtained
1	Ph.D.	St.Peter's Institute of Higher Education and Research	St.Peter's University	Aug (2018)	Physics	Highly Commended
2	B.Ed.	Meston College of Education	Indra Gandhi National Open University	Apr (2008)	Education	75.00% I Class
3	M.Phil.	Queen Mary's College	University of Madras	Oct-01	Physics	57.33%
4	M.Sc.	Pachaiyappa's College	University of Madras	Apr-99	Physics	69.42% I Class
5	B.Sc.	Quiad-e-Millath College for Women	University of Madras	Apr-97	Physics	67.57% I Class

Technical Skills

1. Instrumentation Skills

Expertised in handling FTIR-KBr, FTIR-ATR, UV-Visible, UV-Vis DRS/DTS Spectroscopic Instruments.

2. Computer Skills

MS office, Word processing, Email management, Spread sheets skills, Video conferencing, File management and Windows Explorer, Digital camera.

Research Publications:

1. **P.Sasi Rekha** and S. Gunasekaran, A Novel spectroscopic analysis to detect photochemical reaction of the bronchodilator-Doxofylline and its estimation in pharmaceutical formulation, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 190 (2017) 3(11) 140-149.
2. **P.Sasi Rekha** and S.Gunasekaran, Efficacy Study of Asthmatic Disease using Single Human Hair Fiber-A Spectroscopic Approach, *International Journal of Science and Research*, ISSN: 2319-7064, 5, 9 (2016) 1138-1143.
3. **P.Sasi Rekha** and S.Gunasekaran, Serum Based analysis of Asthma and study of Efficacy of Drug Therapy using FTIR-ATR technique, *International Journal of Recent Research in Science, Engineering and Technology*, ISSN: 2395-7638, 2 (2016) 155-162.

Oral Paper Presentations:

- (i) **P.Sasi Rekha** and S.Gunasekaran, Molecular Structure and Spectroscopic characterization of Doxofylline based on Quantum chemical calculations, *National Web conference on 'Emerging Trends in Science, Technology and Smart Computing (ETSTSC)*, March 2021, Willington College, Sangli, Maharashtra, India.
- (ii) **P.Sasi Rekha** and S.Gunasekaran, Efficacy of Levosalbutamol (LS) over severe asthma using human tissues by FTIR-ATR spectroscopic technique, *International conference on recent advances in applied physics (ICRAAP)*, September 2017, Annamalai University Chidambaram, Tamil Nadu, India.
- (iii) ப.சசிரேகா மற்றும் சேது.குணசேகரன், FTIR-ATR நிறமாலை இயல் நுட்பம் - ஆஸ்துமா திசு மாதிரிகளின் வழி லிவோசால்ப்யுடாமால் செயல்பாட்டு திறனை ஆராய்தல், *International conference on Recent trends in applied science and technology, (ICRAST)*, September 2017, Anna University, Guindy, Chennai.
- (iv) **P.Sasi Rekha** and S.Gunasekaran Serum based analysis of asthma and study of efficacy of drug therapy using FTIR-ATR technique coupled with a statistical method, *National Conference on Recent Advancements in Material Science (NCRAMS)*, July 2017 at Tiruvannamalai Govt.Arts College, Tiruvannamalai ,TN, India. (**Best Paper Award**)
- (v) **P.Sasi Rekha** and S.Gunasekaran, A novel spectroscopic analysis to detect photochemical reaction of bronchodilators – Levosalbutamol, *International conference on Modern Materials Research (ICMMR)*, December 2016, Sri Vidya Mandir Arts & Science College, Uthangarai, Tamil Nadu, India.

- (vi) **P.Sasi Rekha** and S. Gunasekaran, A novel spectroscopic analysis to detect photochemical reaction of bronchodilators – Doxofylline, *National Conference on Preparation and Characterization of Crystalline Materials (NCPCCM)*, August 2016, Government arts college, Tiruvannamalai, Tamil Nadu, India.
- (vii) **P.Sasi Rekha** and S. Gunasekaran, A novel spectroscopic analysis to detect photochemical reaction of bronchodilators, *National Conference on Frontier Area in Applied Physics (NCFAAP)*, April 2016, Annamalai University, Chidambaram, Tamil Nadu, India.
- (viii) **P.Sasi Rekha** and S. Gunasekaran, Serum based analysis of asthma and study of efficacy of drug therapy using FTIR-ATR technique, *International Conference on Recent Advances in Applied Sciences (ICRAAS)*, February 2016, St. Peter's University, Avadi, Chennai, India.
- (ix) **P.Sasi Rekha** and S. Gunasekaran, Serum based analysis of asthma using FTIR-ATR technique, *National Conference on Materials for Modern world (NCMMW)*, September 2015, Eswari Engineering College, Chennai India.

Faculty Development Programme

1. Participated in the Faculty Development Programme (FDP) on PRIME pedagogy, held on 20th Nov 2020, by MEASI Institute of Management.
2. Participated in the Faculty Development Programme (FDP) on Entrepreneurship (12th – 24th December 2016), sponsored by National Science & Technology Entrepreneurship Development Board, DST, Govt. of India.

Seminars / Workshops

Participated in Workshop on 'An Introduction to Research Tools for UG Science students', on Feb 13th 2021, organised by D.A.V. College, New Delhi, India, under DBT Star College Scheme.

Awards and Recognitions

Best Paper Presentation Award

Received Best Paper Award (oral presentation) during *National Conference on Recent Advancements in Material Science (NCRAMS)*, July 2017 at Tiruvannamalai Govt.Arts College, Tiruvannamalai ,TN, India.

Involvement with conferences, workshop and Internship Programmes

- Acted as **Spokesperson** to the International Conference on Recent Advances in Applied Sciences (ICRAAS 2016), St. Peter's Institute of Higher Education and Research, Avadi, Chennai – 600 054.
- Served as **Member of Editorial Board** to the International Conference on Recent Advances in Applied Sciences (ICRAAS 2016), St. Peter's Institute of Higher Education and Research, Avadi, Chennai – 600 054.
- Acted as **Resource Person** in the National Workshop on Analytical Instrumentation Techniques (NWAIT 2015), Sophisticated Analytical Instrumentation Facility (SAIF-SPIHER), St. Peter's University, Avadi, Chennai – 600 054.
- Acted as **Co-ordinator** in the Internship Programme for M.Sc Physics Students 2018-2019, at Sophisticated Analytical Instrumentation Facility (SAIF-SPIHER), St. Peter's Institute of Higher Education and Research, Avadi, Chennai – 600 054

Served as *Research Facilitator* for the following M.Sc. and M.Phil. Projects:

S.No	Name	Month & Year	Title	University
1	R. Settu	April-2017	FTIR-ATR spectroscopic analysis on single human hair fibre to detect swine flu disease.	M. Sc. St.Peter's Institute of Higher Education and Research
2	M. Muniyan	April-2017	Asthmatic disease diagnoses using FTIR-ATR spectroscopic technique on human nail tissues.	M.Sc. St.Peter's Institute of Higher Education and Research
3	A. Anitha	April-2017	Fourth derivative FTIR-ATR spectroscopy in the early detection of cancer using human hair fiber	M.Sc. University of Madras
4	A. Abirami	April-2017	Single bounce FTIR-ATR spectroscopic investigation on the impact of cosmetic treatment over human hair fiber	M.Sc. University of Madras
5	R. Ananthi	April-2017	Investigation on the trace elemental constituents (Cr, Cu & Fe) by Atomic Absorption spectroscopy through human hair fiber tissue	M.Sc. University of Madras
6	E. Lakshmi	May -2017	Fourth Derivative FTIR-ATR Spectroscopic Analysis on the Efficacy of Ayurvedic drugs in Treating Tenia pedis and Vitiligo	M.Phil. St. Peter's University
7	P. Elango	April-2016	Effect of anti-dandruff shampoo on human hair fiber by fourth derivative spectroscopy	M.Sc. St. Peter's University
8	A. Rajeshwari	June- 2016	Spectroscopic analysis on normal and diabetic hair sample using FTIR-ATR technique	M.Phil. St. Peter's University
9	S. Natchathira	June 2016	FTIR-ATR Spectroscopy in the analysis of wheat polysaccharides	M.Phil. St. Peter's University
10	L. Sangeetha	June 2016	FTIR-ATR Spectroscopy in qualitative and quantitative analysis of different species of milk	M.Phil. St. Peter's University
11	S. Revathi	June 2016	Fourth Derivative FTIR-ATR spectroscopic analysis on soil nutrients	M.Phil. St. Peter's University

12	M. Balamanjunathan	June-2015	Analysis of healthy and hypercholesterol blood samples using FTIR-ATR and UV-Visible spectroscopic techniques	M.Phil. St. Peter's University
13	T. Mohanasundari	June-2015	FTIR-Single bounce reflection spectroscopic technique in the discrimination of diseased blood samples	M.Phil. St. Peter's University

Declaration

I, P. Sasi Rekha hereby declare that the above particulars furnished by me are true and correct to the best of my knowledge.

P. Sasi Rekha