



**NAME OF THE STAFF : Dr. R.SANGEETHA**  
**DESIGNATION : ASSOCIATE PROFESSOR**  
**DEPARTMENT : PHYSICS**

#### **CONTACT**

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#### **ACADEMIC QUALIFICATIONS**

Degree	College/University/Board	Year of Passing/ Awarded
Ph.D	Periyar University,Salem	2015
M.Phil	Nehru Memorial College, Puthanampatti	2003
M.Sc	Nehru Memorial College, Puthanampatti	2000
B.Sc	Shrimathi Indra Gandhi College, Trichy	1998

**Ph.D Thesis**

Title of the Thesis : Investigation of molecular structure and spectral analysis of some polyatomic molecules based on DFT

Place : Department of Physics  
Periyar University  
Salem

Research Supervisor : Prof. V.Krishnakumarumar

Duration : July 2010 – December 2015

**POSITION HELD****TEACHING EXPERIENCE**

S. No.	Institution	Duration	No. of Years	
			UG	PG
1	Nehru Memorial College(SF)	09.09.2000 to 27.08.2007	7	4
2	Nehru Memorial College(Aided)	28.08.2007 to till date	14	14

**RESEARCH EXPERIENCE (in years) : 14 years**

**AREA OF RESEARCH : Spectroscopy**

**RESEARCH GUIDANCE (In Numbers)**

Program of Study		Completed	Ongoing
Research	M. Phil.	19	...
Project	PG	30	1

**PUBLICATION(S) (In Numbers)**

Journal(s)		Proceeding(s)		Book(s) / Chapter(s) / Monograph(s) / Manual(s)
International	National	International	National	
2	-	-	-	-

Cumulative Impact Factor (as per JCR)	12.316
h-index	2
Total Citations	13

**PRESENTATION(S) (In Numbers)**

Events	International	National	State	Regional
Conference(s)		4		
Seminar(s)				

**PARTICIPATION (In Numbers)**

Events	International	National	State	Regional
Conference(s)				
Seminar(s)		5		
Workshop(s)		3		
Symposium(s)				

**PROFESSIONAL DEVELOPMENT (In Numbers)**

Orientation Programme(s)	Refresher Course(s)	Faculty Development Programme(s)	Short Term Course(s)	Online Course(s)
2	4	12		

**DISTINCTIVE ACHIEVEMENT(S) / RECOGNITION(S) / AWARD(S)**

University 3<sup>rd</sup> Rank in M.Sc., program, Nehru Memorial College, Puthanampatti, Tiruchirappalli, Tamilnadu, India (Year 2000)

**ACADEMIC / ADMINISTRATIVE RESPONSIBILITIES HELD**

- a. Guiding PG and M.Phil students
- b. Lab in-charge for B.Sc (Physics) students
- c. Web team member in Physics department

**SERVED AS A RESOURCE PERSON (INVITED TALKS / GUEST LECTURES)**

1. Delivered a special lecture on “Vibrational spectroscopic studies of Organic compounds”, **NMC Physics Seminar Circuit** held at Nehru Memorial College, Puthanampatti during, 25.07.2016.
2. Acted as a Resource person for the International Women’s day celebration in the year 2018 & 2019 at B.Ed, Nehru Memorial College on March 8.

**DETAILS OF MEMBERSHIP**

**Academic Bodies (such as Board of Studies etc.,)**

- Board of Studies: B.Sc., M.Sc. and M. Phil. Physics (Nehru Memorial College, puthanampatti).

**EXTENSION ACTIVITIES / OUTREACH PROGRAMME**

Served as NSS Programme Officer from 28.07.2011 to 28.07.2014, during the period conducted awareness programme for the NSS adopted village people and attended special Camp with NSS student volunteers.

**Activities under N.S.S Programme**

1. Conducted a 7 days N.S.S Special Camp and stayed with N.S.S. volunteers during the camp in Edhumalai and Thenur from 21.02.2012 to 27.02.2012.
2. Actively involved in Tree Plantation Programme with our College N.S.S Programme Officers and student volunteers in our college.
3. Actively organized Kolam competition with other program officers of N.S.S in our College on 11.01.2012.
4. Organized Essay writing, Oratory, Slogan writing and Quiz Competitions related to National Voters day held at our College on 12.01.2012 under the guidance of the Ministry of Youth Affairs.
5. Actively organized Rally for National Voters day with other Programme Officers of N.S.S in our College on 25.01.2012 and Our College Principal inaugurated the function.
6. Organized N.S.S foundation day on 24.09.2011 with other Programme officers and our college president inaugurated the function.
7. Helped N.S.S volunteer K. Bhuvanawari of II B.Sc physics to participate Winter Adventure Camp at Manali (Himachal Pradesh) from 21.03.2012 to 30.03.2012.
8. Organized industrial visit for UG students (2015).
9. Organized industrial visit for PG and UG students (2020).

### DETAILS OF PUBLICATIONS

#### (a) JOURNAL(S)

S. No.	Name of the author/s	Title of the paper with e-link	National/ International	Name of journal	Volume Page No & Year	ISSN
1	R.Sangeetha	Vibrational assignment of the spectral data, molecular dipole moment, polarizability, first hyperpolarizability, HOMO-LUMO and thermodynamic properties of 5 nitro indane using DFT quantum chemical calculations	International	Spectrochimica Acta Part A	118 (663-671) & 2014	
2	R.Sangeetha	DFT, Comparative vibrational spectroscopic studies, HOMO-LUMO, first hyperpolarizability analyses of 2-fluoro 5-nitrotoluene and 2-bromo 5-nitrotoluene	International	Spectrochimica Acta Part A	104 (77-86) & 2013	-

**DETAILS OF PRESENTATION(S)**

(Conference(s) / Seminar(s))

S. No.	Name of the Paper	Name of the Conference / Seminar	National/ International	Place	Duration/ Date
1	Molecular Structure, Vibrational spectra, HOMO-LUMO, NLO and NMR studies of OMA and PMA based on DFT quantum chemical calculations	12 <sup>th</sup> National Conference on Science, Engineering and technology	National	VIT University, Chennai	2 <sup>nd</sup> -3 <sup>rd</sup> May 2017
2	DFT investigations on the conformational stability, Molecular structure, hyperpolarizability, NLO and Vibrational spectra of 2-OXO-2h-chromene-3-carboxylic acid	National Conference on Nanomaterials	Arignar Anna Govt. College, Namakkal	20-21 July 2017	
3	Vibrational assignment of the spectral data, molecular dipole moment, polarizability, first hyperpolarizability, HOMO-LUMO and thermodynamic properties of 5 nitro indane using DFT quantum chemical calculations	National conference on Recent Trends in Material Science	Vivekanandha College of Arts and Sciences for Women	25.01.2014	
4	DFT, Comparative vibrational spectroscopic studies, HOMO-LUMO, first hyperpolarizability analyses of 2-fluoro 5-nitrotoluene and 2-bromo 5-nitrotoluene	National conference on Recent Trends in Material Science	Vivekanandha College of Arts and Sciences for Women	28.02.2013	

**DETAILS OF PARTICIPATION**

(Conference(s) / Seminar(s) / Workshop(s) / Symposium(s))

S. No.	Name of the event(s)	Sponsored by	Conducted by	Place	Duration/ Date
<b>Conference(s)</b>					
<b>Seminar(s)</b>					
1	Special seminar on Crystallographic technique	UGC	Nehru Memorial College	Puthana mpatti	08.08.2014
2	Seminar on Examinations Reforms	UGC	Nehru Memorial College	Puthana mpatti	16.02.2013
3	Seminar on materials of this Millennium	UGC	Nehru Memorial College	Puthana mpatti	14.02.2014
4	Seminar on Examinations Reforms	UGC	Nehru Memorial College	Puthana mpatti	15.03.2012
5	Seminar on embedded systems and its applications	UGC	PG and Research Dept. of Physics, Nehru Memorial College	Puthana mpatti	13.03.2012

Workshop(s)					
1	Workshop on GST	-	PG and Research Dept. of Mathematics,NMC	Puthana mpatti	Feb 2017
2	Workshop on LATEX	-	Nehru Memorial College	Puthana mpatti	11 & 12 <sup>th</sup> Nov 2013
3	Workshop on Nonlinear Physics: Theory,Experiments and Applications	-	PG and Research Dept. of Physics,Nehru Memorial College	Puthana mpatti	29 to 31.03.2010
Symposium(s)					

## 24. DETAILS OF PROFESSIONAL DEVELOPMENT

(Orientation / Refresher Course / FDP / Short Term Course / Online Course)

S. No.	Name of the events	Sponsored by	Conducted by	Place	Duration/ Date
Orientation Programme					
1	NSS Orientation course	Ministry of Youth Affairs and Sports	Empanelled Training Institution	Madras School of Social Work, Chennai	12.12.2012 to 18.12.2012
2	Orientation course	UGC	Academic Staff College	BDU, Trichy	16.12.2008 to 12.01.2009
Refresher Course					
1	Refresher course	UGC	Academic Staff College	Bangalore University, Bangalore	15.03.2021 to 28.03.2021
2	Refresher course	UGC	Academic Staff College	BDU, Trichy	23.10.2019 to 5.11.2019
3	Refresher course	UGC	Academic Staff College	BDU, Trichy	01.02.2014 to 21.02.2014
4	Refresher course	UGC	Academic Staff College	BDU, Trichy	27.01.2012 to 16.02.2012
Faculty Development Programme					
1	Faculty Development Programme	UGC	Nehru Memorial College	Puthanampatti	11 <sup>th</sup> and 12 <sup>th</sup> June 2018
2	Faculty Development Programme	UGC	Nehru Memorial College	Puthanampatti	30.05.2019
3	Workshop on outcome based Education	UGC	Nehru Memorial College	Puthanampatti	25.08.2018
4	Innovative Curriculum Designing	UGC	Nehru Memorial College	Puthanampatti	24 & 25.11. 2017
5	Effective Teaching	UGC	Nehru Memorial College	Puthanampatti	12.06.17
6	FDP Programme on Revisiting Examination system	UGC	Nehru Memorial College	Puthanampatti	19.03.2016
7	Sustenance/Enhancement	UGC	Nehru	Puthanampatti	05.08.2015

	of Quality in Higher Education		Memorial College		
8	Faculty Development Programme on Impact of Research on Teaching in Higher Education	UGC	Nehru Memorial College	Puthanampatti	11.06.2014
9	FDP on Higher Education	UGC	IQAC, Nehru Memorial College	Puthanampatti	21.01.2012
10	Menstrual Hygiene Management	-	Dept.of Women's Studies	BDU,Trichy	30.08.2011
11	Mathematical computations with MATLAB	-	Dept. of Mathematics, Nehru Memorial College	Puthanampatti	19.09.2008
12	Training of college teachers on Soft-skill Development	-	BDU technical park and Confederation of Indian Industry	Trichy	06.02.2007 to 10.02.2007
<b>Short Term Course(s)</b>					
<b>Online Course(s)</b>					