

## NEHRU MEMORIAL COLLEGE (AUTONOMOUS)

PUTHANAMPATTI-621007

### STAFF PROFILE



**NAME OF THE STAFF** : DR.A.RAJENDRAN  
**DESIGNATION** : Associate Professor  
**DEPARTMENT** : PG & Research Department of Physics

### 1. CONTACT

**Address (Residence)** : 79, MURUGAN NAGAR EXTN  
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**Skype id** :

### 2. ACADEMIC QUALIFICATIONS

Degree	Name of the Institution	Year of Passing/ Awarded
Ph.D., Applied Physics (Instrumentation)	Bharathidasan University, Tiruchirappalli, Tamil Nadu	2005
M.Sc., Applied Physics (Instrumentation)	Nehru Memorial College, Puthanampatti, Tiruchirappalli	1997
PGD in Microprocessors and Computer Hardwar	AVVM Sri Pushpam College(Autonomous), Poondi, Thanjavur	1995
B.Sc., Applied Physics (Instrumentation)	Adaikalamatha College. Vallam, Thanjavur	1994

**3. TEACHING EXPERIENCE**

S. No.	Institution	Duration	No. of Years	
			UG	PG
1	Nehru Memorial College	From 21.06.1997 to till date	24	24

**4. RESEARCH EXPERIENCE (in years) : 15 Years**

**5. AREA OF RESEARCH :** Instrumentation  
Embedded Systems  
Nanomaterials  
Luminescence

**6\*\*. RESEARCH GUIDANCE (In Numbers)**

Program of Study		Completed	Ongoing
Research	Ph. D.	3	3
	M. Phil.	28	--
Project	PG	37	--

**7\*\*. PUBLICATION(S) (In Numbers)**

Journal(s)		Proceeding(s)	
International	National	International	National
35	5	9	2

<b>Cumulative Impact Factor (as per JCR)</b>	
<b>h-index</b>	<b>8</b>
<b>Total Citations</b>	<b>191</b>

**8\*\*. PRESENTATION(S) (In Numbers)**

Events	International	National	State	Regional
Conference(s)	21	24	--	--
Seminar(s)		13	--	--

**9\*\*. PARTICIPATION (In Numbers)**

Events	International	National	State	Regional
Conference(s)	21	24		
Seminar(s)		7		
Workshop(s)		9		
Symposium(s)		6		

**10\*\*. PROFESSIONAL DEVELOPMENT (In Numbers)**

Orientation Programme(s)	Refresher Course(s)	Faculty Development Programme(s)	Short Term Course(s)	Online Course(s)
2	2	5	1	4

**11. RESEARCH PROJECT(S)**

S.No	Name of the projects	Duration	Amount/fund received	Funding agency	Year of sanction
1	Environmental friendly biosynthesis of Metal and Nonmetal Nanoparticles Characterization, for photo degradation of dyes and toxicity analysis and its antitumor Cancer activity	2016-17	INUP program, Department of Electrical Electronics, Indian Institute of Technology, Bombay, Mumbai provide all financial supports and other facilities.	Ministry of Electronics and Information Technology, Government of India	2016-17
2	Plant-Mediated Green Biomimetic Synthesis of TiO <sub>2</sub> /CeO <sub>2</sub> nanoparticles Characterization, for photo degradation of dyes and toxicity analysis	2016-17	INUP program, Department of Electrical Electronics, Indian Institute of Technology, Bombay, Mumbai provide all financial supports and other facilities.	Ministry of Electronics and Information Technology, Government of India	2016-17
3	Biosynthesis of CeO <sub>2</sub> /TiO <sub>2</sub> nanoparticles using an aqueous extract of Diospyros ebenum.	2016-17	INUP program, Department of Electrical Electronics, Indian Institute of Technology, Bombay, Mumbai provide all financial supports and other facilities.	Ministry of Electronics and Information Technology, Government of India	2016-17
4	Green Synthesis of rare earth doped Metal oxide using difference leaf extract for photo catalysis and biomedical application.	2016-17	INUP program, Department of Electrical Electronics, Indian Institute of Technology, Bombay, Mumbai provide all financial supports and other facilities.	Ministry of Electronics and Information Technology, Government of India	2016-17

**12. EVENT(S) ORGANIZED**

<b>S. No.</b>	<b>Name of the Programme</b>	<b>Role of Responsibility held</b>	<b>Name of the sponsoring Agency</b>	<b>Grant received</b>	<b>Date of the Event</b>
1	Workshop on Career Guidance and Counseling	Convener	University Grants Commission, New Delhi under UGC Merged Scheme (Career Guidance and Counseling Cell)	30,000	23.10.2011
2	Training Programme on Poultry and Dairy Farming	Convener	University Grants Commission, New Delhi under UGC Merged Scheme (Career Guidance and Counseling Cell)		02.02.2012 to 04.02.2012
3	State Level Seminar on Embedded Systems and its Applications	Organizing Secretary	University Grants Commission, New Delhi under Autonomous Grant	40,000	13.03.2012
4	Application of Science and Technology for Rural Areas (ASTRA Programme)	Coordinator	Tamil Nadu State Council for Science and Technology, Chennai	1, 40,000	November 2012 to April 2013
5	Workshop on Personality Development and Life Skills	Convener	Rajiv Gandhi National Institute of Youth Development, Ministry of Skill Development, Entrepreneurship, Youth Affairs & Sports, Govt. of India, Sriperumpudur, Tamil Nadu	1, 18,000	20-21 February 2015
6	UGC Innovative Programme M.Sc., Embedded Systems	Coordinator	UGC Innovative Programme M.Sc., Embedded Systems	33.5 L	2013-2017
7	Peer Group discussion on Industrial Electronics: 8051 Microcontroller	Mentor	Collaboration with Department of Physics, Ayya Nadar Janaki Ammal College (Autonomous), Puthanampatti	Management	28-05-2021

### **13. ACADEMIC / ADMINISTRATIVE RESPONSIBILITIES HELD**

- i. Associate NCC officer (2010-2019)
- ii. IQAC coordinator (2008-2013)
- iii. Senate Member, Bharathidasan University, Tiruchirappalli (2008-2010)
- iv. Chairman, Board of Studies, M.Sc, Embedded Systems, Nehru Memorial College (Autonomous), Puthanampatti, Tiruchirappalli.
- v. Member-Board of Studies, World Class Curriculum syllabus Committee, Bharathidasan University, Tiruchirappalli.  
Member- Board of Studies, Department of Computer Science, AVVM Sri Pushpam College, Poondi, Thanjavur
- vi. Deputy Warden of Boys hostel at Nehru Memorial College, Puthanampatti, 1997-2003.
- vii. Warden of Boys hostel at Nehru Memorial College, Puthanampatti, 2003-2007.
- viii. Coordinator -Career Guidance and Counseling Cell
- ix. In-Charge, Audio Visual Education
- x. Member, Examination Reforms Committee
- xi. Camp officer, Valuation of answer scripts
- xii. Coordinator- Job oriented courses (Sponsored by UGC)
- xiii. Member, IQAC ( 2013 to till date)

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

1. Delivered Lecture in the Faculty Development Programme on “Virtual Lab and Classroom” on the topic “Advanced Microcontroller and Programming” under UGC PARAMARSH scheme at ANJA College, Sivakasi on 23.09.2021.
2. Delivered lecture and handled practical session on 8051 Microcontroller, National College, Trichy on 24.12.2019.
3. Delivered a special lecture on general science at Srinivasan College of Arts & Science, Perambalur on 28-Feb 2018.
4. Delivered lecture and handled practical session on 8051 Microcontroller at faculty improvement programme on 12<sup>th</sup> and 13<sup>th</sup> Feb-2018 at Department of Physics, Bishop Heber College, Tiruchirappalli.
5. Delivered lecture and handled practical session on 8051 Microcontroller and application on 23 Feb-2015 at Department of Physics, Jamal Mohamed College, Tiruchirappalli.
6. Delivered lecture and handled practical session on 8051 Application and Demonstration on 30<sup>th</sup> Sep-2015 at Nehru Memorial College, Puthanampatti, Tiruchirappalli.
7. Delivered lecture and handled practical session Programmable Systems on Chip on 31<sup>st</sup> Aug-2015 at Chidambaram Pillai College, Mannachanallur.
8. Delivered a special lecture on Embedded System Applications in Physics on 21<sup>st</sup> Aug-2014 at AVVM Pushpam College, Poondi, Thanjavur.

### **15. DETAILS OF MEMBERSHIP**

<b>Editorial Board</b>	----
<b>Referee (Peer Reviewed Journal)</b>	<ul style="list-style-type: none"> <li>i. Journal of Physics and Chemistry of solids (Elsevier journal)</li> <li>ii. Journal of Nanostructure in Chemistry (Springer Journal)</li> <li>iii. Journal of Analytical Science and Technology (Springer Journal)</li> <li>iv. Journal of Advanced Oxidation Technologies (AOP)</li> </ul>
<b>Academic Bodies (Board of studies)</b>	<ul style="list-style-type: none"> <li>i. Member-Board of Studies, World Class Curriculum syllabus Committee, Bharathidasan University, Tiruchirappalli. Chairman, Board of Studies, M.Sc, Embedded Systems, Nehru Memorial College (Autonomous), Puthanampatti, Tiruchirappalli.</li> <li>ii. Member-Board of Studies, Department of Computer Science, AVVM Sri Pushpam College, Poondi, Thanjavur.</li> <li>iii. Member-Board of Studies, B.Sc., Physics, M.Sc, Physics, Nehru Memorial College (Autonomous), Puthanampatti, Tiruchirappalli.</li> <li>iv. Chairman, Question paper setting for B.Sc., Physics, Periyar University, Salem</li> </ul>
<b>Professional Bodies</b>	
<b>Any Other</b>	Member, Tiruchirappalli Table Tennis Association

## 16. EXTENSION ACTIVITIES / OUTREACH PROGRAMME

S. No	Title	Place	Duration	Beneficiaries
1	Application of Science and Technology for Rural Areas (ASTRA Programme)	Puthanampatti	November 2012 to April 2013	Students, Public

**16. ANY OTHER ACTIVITIES**

Articles published in Newspaper(s) / Magazine(s)	
Products Developed	
Number of Ph. D. thesis evaluated	1
Number of Ph. D. Public Viva Voce Examination conducted	1

**17. DETAILS OF RESEARCH GUIDANCE**

<b>Ph. D. (Completed)</b>			
S. No.	Name	Title of thesis	Year of award
1	T.Kavitha	Sol-Gel synthesis of TiO <sub>2</sub> -SiO <sub>2</sub> Nanocomposites and their Nanofluids for Heat Transfer Applications	2017
2	S.Senthilkumar	Plant-Mediated Green biomimetic synthesis metal and nonmetal Nanoparticles, characterization, toxicity analysis for antitumor cancer activity and its photo degradation dyes	2019
<b>M. Phil. (Completed)</b>			
S. No.	Name	Title of thesis	Year of award
1	S.Bhuvanewari	Eco-Friendly Synthesis And Characterization Of Nanostructured SnO <sub>2</sub> Thin Film Using Catharanthus Roseus Extract By Spin Coating Method	2019
2	S.Jesman	Realization Of Hidden Attractors In Dynamical System Using C8051F020 Microcontroller	2018
3	M.Deivamani	Eco-Friendly Synthesis And Characterization Of Nanostructured SnO <sub>2</sub> Thin Film Using Citrus Aurantifolia Peel Extract By Spin Coating Method	2017
4	S. Bharathiraja	Synthesis And Characterization BiPO <sub>4</sub> /ZnO Nanocomposite And Photocatalytic Activity	2017
5	N.Manikandan	Green Synthesis Of Copper Nanoparticles Using Cassia Auriculata Extract And Their Characterization	2017
6	P.Meena	PMMA Films Spin Coated From Chloroform	2015
7	A.Divya	Plants : Emerging As Green Source Towards Biosynthesis Of Copper Nano Particles And Its Characterization	2015
8	T.Pazhanivel	Plants: Green Synthesis Of Copper Nano Particles Using Ricinus Communis Leaf Extract And Its Characterization	2015
9	M.Vennila	PMMA Films Spin Coated From Toluene Solutions	2015
10	P.Boornima	Characterization Of Iron Based Drug: Aya Chenduram	2013
11	N.Manoprabha	Study Of Dispersion Induced Pulse Broadening Of Positive And Negative Chirped Hyperbolic-Secant Pulses In The Normal And Anomalous Dispersion Regions Of The Dielectric Media	2013
12	P.Valarmathi	Characterization Of Mercury Based Drug: Chandamarutha Chenduram	2013
13	N.Arularasi	ATMEGA32 Microcontroller Based Sodium Measurement In	2011

		Fruits And Vegetables	
14	P.Muthulakshmi	Characterization Of Polyvinyl Alcohol And Maleic Acid Based Taste Sensor	2011
15	S.Suganthi	Ultrasonic Investigation Of L-Alanine L-Phenyl Alanine, L-Tyrosine In Aqueous Medium	2010
16	P.Govindaraj	Characterization Of Polyvinyl Alcohol And Maleic Acid Based Taste Sensor	2010
17	P.Ramesh	Preparation And Characterization Of Polyvinyl Alcohol And Tartaric Acid Based Taste Sensing	2010
18	S.Priya	Study Of Characteristics Of Polyvinyl Alcohol Based Taste Sensors	2010
19	V.Ganesan	Ultrasonic Investigation Of Amino Acids(L-Leucine, L-Tryptophan, L-Lysine ) In Aqueous Medium	2010
20	A.Sridevi	Fabrication Of Bio Taste Sensor	2007
21	P.R.Sudha	Design And Development Of Taste Sensor	2007
22	T. Suganya	Measurement Of Nitrate In Water Samples Using Spectrophotometer	2006
23	M.Suganya	Measurement Of Nitrate In Soil Samples Using Spectrophotometer	2006
24	I.Manimehan	Experimental And Numerical Study Of Robust Forced Parallel LCR Nonlinear Oscillator	2004

## 18. 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.	P.Rubalajyothi <b>A.Rajendran</b> Lakshmi Gangadhar	Crystallography, surface morphology and thermoluminescence energy of Dy <sup>3+</sup> phosphorous by gamma emission ( <a href="http://solidstatetechnology.us/index.php/JSST/issue/view/50">http://solidstatetechnology.us/index.php/JSST/issue/view/50</a> )	International	Solid State Technology	Volume: 63 Issue: 2s, 2020	0038-111X
2.	P.Rubalajyothi <b>A.Rajendran</b>	Thermoluminescence Characteristics studies of phosphor material with anti-bacterial activity ( <a href="http://www.jcreview.com/fulltext/197-1580712178.pdf?1582789482">http://www.jcreview.com/fulltext/197-1580712178.pdf?1582789482</a> )	International	Journal of Critical Reviews	(2020) Vol. 7(1)	2394-5125
3.	P.Rubalajyothi <b>A.Rajendran</b>	Evaluation of dose in gamma-ray with white light-sensitive phosphor material in low temperature ( <a href="http://www.testmagzine.biz/index.php/testmagzine/article">http://www.testmagzine.biz/index.php/testmagzine/article</a> )	International	Test Engineering And Management	2020 pp:8137-8150	0193-4120



		<a href="#">e/view/2131</a> )				
4.	S.Senthilkumar L. Kashinath M.Ashok C.Sanjeeviraja <b>A. Rajendran</b>	Green synthesis of CeO <sub>2</sub> -TiO <sub>2</sub> compound using Cleome chelidonii leaf extract for excellent photocatalytic activity ( <a href="https://link.springer.com/article/10.1007/s10854-018-9534-x">https://link.springer.com/article/10.1007/s10854-018-9534-x</a> )	International	Journal of Materials Science: Materials in Electronics	(2018) Vol.29, (16)	0957-4522
5.	S.Senthilkumar <b>A.Rajendran</b>	Biosynthesis of TiO <sub>2</sub> Nanoparticles using Justicia gendarussa leaves for photocatalytic and toxicity studies ( <a href="https://link.springer.com/article/10.1007/s11164-018-3464-3">https://link.springer.com/article/10.1007/s11164-018-3464-3</a> )	International	Journal Chemical Intermediate Research.	(2018)	0922-6168
6.	<b>A.Rajendran</b> C.Dhanraj E.Siva S.Senthilkumar	Biosynthesis of Copper Oxide Nanoparticles using Hibiscus Rosa-Sinensis flower extracts and its subsequent Antibacterial activities. ( <a href="https://www.hilarispublisher.com/open-access/a-green-and-facile-approach-for-the-synthesis-copper-oxidenanoparticles-using-hibiscus-rosasinensis-flower-extracts-and-itsantibac-2155-9821-1000324.pdf">https://www.hilarispublisher.com/open-access/a-green-and-facile-approach-for-the-synthesis-copper-oxidenanoparticles-using-hibiscus-rosasinensis-flower-extracts-and-itsantibac-2155-9821-1000324.pdf</a> )	International	Journal of Bioprocessing & Biotechniques.	(2018), Vol.8(3): 324.	2155-9821
7.	S.Senthilkumar M. Ashok L. Kashinath C.Sanjeeviraja <b>A. Rajendran</b>	Phytosynthesis and Characterization of TiO <sub>2</sub> Nanoparticles using Diospyros ebenum leaf Extract and their antibacterial and photocatalytic degradation of crystal violet ( <a href="https://www.researchgate.net/publication/321727356_Phytosynthesis_and_Characterization_of_TiO_2_Nanoparticles_using_Diospyros_ebenum_Leaf_Extract_and_their_Antibacterial_and_Photocatalytic_Degradation_of_Crystal_Violet/link/5b50332fa6fdcc8dae2b536a/download">https://www.researchgate.net/publication/321727356_Phytosynthesis_and_Characterization_of_TiO_2_Nanoparticles_using_Diospyros_ebenum_Leaf_Extract_and_their_Antibacterial_and_Photocatalytic_Degradation_of_Crystal_Violet/link/5b50332fa6fdcc8dae2b536a/download</a> )	International	Journal of Smart Science,	(2017) PP:1-9	2308-0477
8.	S.Senthilkumar <b>A. Rajendran</b>	Eco-friendly Synthesis and Characterization of	International	Journal of Nanomedicine	(2017) Vol. 6 (4)	2377-4282

		Nanostructure SnO <sub>2</sub> Thin Films Using Citrus aurantifolia Peel Extract by Spin Coating Method. ( <a href="https://www.researchgate.net/publication/324625411_Eco-friendly_Synthesis_and_Characterization_of_Nanostructure_SnO_2_Thin_Films_Using_Citrus_aurantifolia_Peel_Extract_by_Spin_Coating_Method/link/5ad946ff458515c60f5a6b59/download">https://www.researchgate.net/publication/324625411_Eco-friendly_Synthesis_and_Characterization_of_Nanostructure_SnO_2_Thin_Films_Using_Citrus_aurantifolia_Peel_Extract_by_Spin_Coating_Method/link/5ad946ff458515c60f5a6b59/download</a> )		Research,	PP:1-3	
9.	S.Senthilkumar M.Ashok <b>A.Rajendran</b>	Antibacterial Properties and Mechanism of Gold Nanoparticles Obtained from Pergularia daemia Leaf Extract. ( <a href="https://www.researchgate.net/publication/319356468_Antibacterial_Properties_and_Mechanism_of_Gold_Nanoparticles_Obtained_from_Pergularia_Daemia_Leaf_Extract/link/5b50369ea6fdcc8dae2b5a07/download">https://www.researchgate.net/publication/319356468_Antibacterial_Properties_and_Mechanism_of_Gold_Nanoparticles_Obtained_from_Pergularia_Daemia_Leaf_Extract/link/5b50369ea6fdcc8dae2b5a07/download</a> )	International	Journal of Nanomedicine Research,	(2017) Vol. 6 (1) PP:1-5	2377-4282
10.	S.Senthilkumar <b>A. Rajendran</b>	Synthesis, Characterization and Electrical Properties of Nano Metal and Metal-Oxide Doped with Conducting Polymer Composites by in-Situ Chemical Polymerization. ( <a href="https://www.researchgate.net/publication/324628008_Synthesis_Characterization_and_Electrical_Properties_of_Nano_Metal_and_Metal-Oxide_Doped_with_Conducting_Polymer_Composites_by_in-Situ_Chemical_Polymerization">https://www.researchgate.net/publication/324628008_Synthesis_Characterization_and_Electrical_Properties_of_Nano_Metal_and_Metal-Oxide_Doped_with_Conducting_Polymer_Composites_by_in-Situ_Chemical_Polymerization</a> )	International	International Journal of Polymer Science.	(2017) Vol. 1 (6) PP:192-195	1687-9422
11.	S.Senthilkumar E.Siva <b>A.Rajendran</b>	Characterization and Antimicrobial Activity of ECO-Friendly Biosynthesis of Silver Nano Particles Using An Aqueous Leaf Extract of Catharanthus Roseus ( <a href="https://www.researchgate.net">https://www.researchgate.net</a> )	National	IOSR Journal of Applied Physics (IOSR-JAP)	(2017) PP: 71-75	2278 - 4861

		<a href="https://www.researchgate.net/publication/312925919">et/publication/312925919</a> Characterization and Antimicrobial Activity of ECO-Friendly Biosynthesis of Silver Nano Particles Using An Aqueous Leaf Extract of Catharanthus Roseus)				
12.	S.Senthilkumar <b>A. Rajendran</b>	Preparation and Characterization of Ni Added ZnO Thin Film by Sol-Gel Spin Coating Techniques ( <a href="https://www.researchgate.net/publication/319199578">https://www.researchgate.net/publication/319199578</a> Preparation and Characterization of Ni Added ZnO Thin Film by Sol-Gel Spin Coating Techniques)	International	Bulletin of Pure and Applied Sciences Section D – Physics	(2017) Vol. 36(1), PP:10-14	0970-6569
13.	S.Senthilkumar <b>A. Rajendran</b>	Investigation of Antimicrobial activity and Mechanism of Silver Nanoparticles synthesized from Aerial roots of Rhabdophora Aural leaf extract ( <a href="https://www.researchgate.net/publication/320612032">https://www.researchgate.net/publication/320612032</a> Investigation of Antimicrobial activity and mechanism of Silver nanoparticles Synthesized from Aerial roots of Rhabdophora Aural leaf Extract/link/5ab8aa8f45851515f59f8dfb/download)	International	Journal of Applied Science and Engineering Methodologies	(2016), Vol.2(3) pp:342-345	2395 – 5341
14.	A. Durairajan T. Kavitha <b>A. Rajendran</b> L.A. Kumaraswamidhas	Heat transfer intensification by Nanofluids- an Outline ( <a href="https://www.researchgate.net/publication/286005879">https://www.researchgate.net/publication/286005879</a> Heat transfer intensification by Nanofluids- an Outline/link/5a002616458515d0706e81ea/download)	International	Journal of Scientific & Industrial Research	(2014) Vol.73 pp: 711-712	0975-1084
15.	P. Ramesh <b>A. Rajendran</b> Arumugam Subramanian	Synthesis of Zinc Oxide Nanoparticles from Fruit of Citrus Aurantifolia by Chemical and Green Method ( <a href="https://www.researchgate.net/publication/271048683">https://www.researchgate.net/publication/271048683</a> SYNTHESIS OF ZINC OXIDE NANOPARTICLE FR	National	Asian Journal of Photomedicine and Clinical Research	(2014) Vol.2(4) pp:189-195	2321-0915

		<a href="#">OM FRUIT OF CITRUS AURANTIFOLIA BY CHEMICAL AND GREEN METHOD</a> )				
16.	T. Kavitha <b>A. Rajendran</b> A. Durairajan.	Synthesis and characterization of Nanosized TiO <sub>2</sub> Powder Derived from a Sol – Gel Process in Acidic Conditions ( <a href="http://www.ijeset.com/media/0001/11N8-IJESET0402809.pdf">http://www.ijeset.com/media/0001/11N8-IJESET0402809.pdf</a> )	International	International Journal of Engineering Sciences & Emerging Technologies	(2013) Vol.4( 2) pp: 90-95.	2231 -6604
17.	T. Kavitha <b>A. Rajendran</b> A. Durairajan	Preparation and Characterization of Nanosized TiO <sub>2</sub> Powder by Sol –Gel Precipitation Route ( <a href="https://www.researchgate.net/publication/281430858_Preparation_and_characterization_of_nanosized_TiO2_powder_by_sol-gel_precipitation_route">https://www.researchgate.net/publication/281430858_Preparation_and_characterization_of_nanosized_TiO2_powder_by_sol-gel_precipitation_route</a> )	International	International Journal of Emerging Technology and Advanced Engineering	(2013) Vol.3( 1) pp: 636-639.	2250 – 2459
18.	T. Kavitha <b>A. Rajendran</b> A. Durairajan	Synthesis and characterization of TiO <sub>2</sub> Nanopowders and TiO <sub>2</sub> – SiO <sub>2</sub> Nanocomposites by Sol – Gel technique ( <a href="https://www.elixirpublishers.com/articles/1371896779_59%20(2013)%2015919-15922.pdf">https://www.elixirpublishers.com/articles/1371896779_59%20(2013)%2015919-15922.pdf</a> )	International	Elixir Nanocomposites Materials	(2013) Vol. 59 pp: 15919 - 15922.	2229- 712X
19.	T. Kavitha <b>A. Rajendran</b> A. Durairajan M. Syadabuthahir	Advanced Heat Transfer Enhancement using TiO <sub>2</sub> water based nano fluids ( <a href="http://interscience.in/IJMIE_Vol2Iss4/69-71.pdf">http://interscience.in/IJMIE_Vol2Iss4/69-71.pdf</a> )	International	International Journal of Mechanical and Industrial Engineering	(2012) Vol.2( 4) pp: 69-71	2231 – 6477
20.	T. Kavitha <b>A. Rajendran</b> A. Durairajan.	Synthesis, characterization of TiO <sub>2</sub> nano powder and water based Nanofluids using two step method ( <a href="https://www.scholarsresearchlibrary.com/articles/synthesis-characterization-of-tio2-nano-powder-and-water-based-nanofluids-using-two-step-method.pdf">https://www.scholarsresearchlibrary.com/articles/synthesis-characterization-of-tio2-nano-powder-and-water-based-nanofluids-using-two-step-method.pdf</a> )	International	European Journal of Applied Engineering and Scientific Research	(2012) Vol. 1 (4) pp:235-240	2278- 0041
21.	A. Durairajan T. Kavitha <b>A. Rajendran</b> L A. Kumaraswamidhas	Design and manufacturing of Nano Catalytic Converter for pollution control in automobiles for green environment ( <a href="https://www.researchgate.net">https://www.researchgate.net</a>	National	Indian J. Innovations Dev.	(2012) Vol. 1( 5 ) pp: 314-319	2277 - 5382

		<a href="http://www.researchgate.net/publication/320868745_Design_and_manufacturing_of_Nano_catalytic_converter_for_pollution_control_in_automobiles_for_green_environment">et/publication/320868745 Design and manufacturing of Nano catalytic converter for pollution control in automobiles for green environment</a>				
22.	A. Durairajan T. Kavitha <b>A. Rajendran</b>	Experimental Investigation and control the toxic emissions in IC engines by nano materials <a href="http://www.discoveryjournals.org/discoveryscience/current_issue/2012/A1.pdf">http://www.discoveryjournals.org/discoveryscience/current_issue/2012/A1.pdf</a>	National	Discovery Science	(2012) Vol. 1(1) pp: 3-9.	2278 -5485
23.	T. Kavitha <b>A. Rajendran</b> A. Durairajan A. Shanmugam	Heat Transfer Enhancement using Nano Fluids and Innovative methods – An Overview <a href="https://www.researchgate.net/publication/286287509_Heat_transfer_enhancement_using_Nano_fluids_and_innovative_methods_-_an_overview">https://www.researchgate.net/publication/286287509 Heat transfer enhancement using Nano fluids and innovative methods - an overview</a>	International	International Journal of Mechanical Engineering and Technology (IJMET)	(2012) Vol: 3( 2) pp: 769-782.	0976 - 6359
24.	P.Neelamegam A.Jamaludeen K.Muruganathan <b>A. Rajendran</b>	Measurement of Urinary calcium using AT89C51RD2 Microcontroller <a href="https://www.researchgate.net/publication/24392749_Measurement_of_urinary_calcium_using_AT89C51RD2_microcontroller">https://www.researchgate.net/publication/24392749 Measurement of urinary calcium using AT89C51RD2 microcontroller</a>	International	Review of Scientific Instruments	2009 Vol.80(044704) pp :1-6	0034-6748
25.	P.Neelamegam A. Jamaludeen K.Muruganathan <b>A.Rajendran</b>	Estimation of Calcium Using a Low Cost Embedded System in Blood Serum <a href="https://www.researchgate.net/publication/233156544_Estimation_of_Calcium_Using_a_Low_Cost_Embedded_System_in_Blood_Serum">https://www.researchgate.net/publication/233156544 Estimation of Calcium Using a Low Cost Embedded System in Blood Serum</a>	International	Instrumentation Science & Technology	(2009) vol:37(5) pp:606-614	1073-9149
26.	<b>A.Rajendran</b> P.Neelamegam	An approach to measure densities of solids using artificial neural network <a href="https://www.researchgate.net/publication/245331810_An_Approach_to_Measure_the_Densities_of_Solids_using_an_Artificial_Neural_Network">https://www.researchgate.net/publication/245331810 An Approach to Measure the Densities of Solids using an Artificial Neural Network</a>	International	Journal on Instrumentation Science and Technology	(2007) Vol. 35(2) pp 189-199	1073-9149
27.	<b>A.Rajendran</b> P.Neelamegam	Design and Development of low cost	International	Journal on Instrumentation	(2006) pp: 1-5.	1748-0221

		thermoluminescence measurement system using PIC16F877 Microcontroller ( <a href="https://www.researchgate.net/publication/230920290_Design_and_development_of_low_cost_thermoluminescence_measurement_system_using_PIC16F877_microcontroller">https://www.researchgate.net/publication/230920290_Design_and_development_of_low_cost_thermoluminescence_measurement_system_using_PIC16F877_microcontroller</a> )		(IOP & SISSA)		
28.	<b>A.Rajendran</b> P.Neelamegam	Design of AT89C52 microcontroller based system for the measurement of temperature and control	International	Journal on Instrument Society of India	(2005) Vol:35 pp: 99-105	0970-9983
29.	P. Neelamegam <b>A. Rajendran</b>	Automated heating rate controller for thermoluminescence measurements using microcontroller ( <a href="https://www.researchgate.net/publication/245331838_Automated_Heating_Rate_Controller_for_Thermoluminescence_Measurements_Using_a_Microcontroller">https://www.researchgate.net/publication/245331838_Automated_Heating_Rate_Controller_for_Thermoluminescence_Measurements_Using_a_Microcontroller</a> )	International	Instrumentation Science & Technology	(2004) Vol:32(4) pp: 379-386.	1073-9149
30.	<b>A. Rajendran</b> P.Neelamegam	Dielectric constant measurement using an Artificial Neural Network ( <a href="https://www.researchgate.net/publication/233481073_Dielectric_Constant_Measurement_Using_an_Artificial_Neural_Network">https://www.researchgate.net/publication/233481073_Dielectric_Constant_Measurement_Using_an_Artificial_Neural_Network</a> )	International	Instrumentation Science & Technology	(2004) Vo:32(4) pp: 413-422	1073-9149
31.	<b>A. Rajendran</b> P.Neelamegam	Design and Development of Microcontroller based conductivity measurement system ( <a href="https://www.researchgate.net/publication/265156405_Design_and_development_of_microcontroller_based_conductivity_measurement_system">https://www.researchgate.net/publication/265156405_Design_and_development_of_microcontroller_based_conductivity_measurement_system</a> )	National	Indian Journal on Pure and Applied Physics	(2004) Vol:42, pp: 182-188	0975-1041
32.	<b>A. Rajendran</b> P.Neelamegam	Measurement of conductivity of liquids using AT89C55WD microcontroller ( <a href="https://www.researchgate.net/publication/245222007_Measurement_of_conductivity_of_liquids_using_AT89C">https://www.researchgate.net/publication/245222007_Measurement_of_conductivity_of_liquids_using_AT89C</a> )	International	Measurement	(2004) No:35 pp:59-63	0263-2241

		<a href="#">55WD microcontroller)</a>				
33.	<b>A. Rajendran</b> P.Neelamegam	Microcontroller based dielectric constant measurement ( <a href="https://pdfs.semanticscholar.org/cd12/b6aea45c43edb13aa24bd8b1172829abd3aa.pdf?ga=2.40545252.798583753.1582792147-2127468749.1576560354">https://pdfs.semanticscholar.org/cd12/b6aea45c43edb13aa24bd8b1172829abd3aa.pdf?ga=2.40545252.798583753.1582792147-2127468749.1576560354</a> )	International	Sensors & Transducers Magazine	(2004) Vol:41(3) pp: 181-190	1726-5479
34.	<b>A. Rajendran</b> P.Neelamegam	An instrument for measurement of dielectric constant of liquids using 8031 microcontroller ( <a href="https://www.researchgate.net/publication/290325851_An_instrument_for_measurement_of_dielectric_constant_of_liquids_using_8031_microcontroller">https://www.researchgate.net/publication/290325851_An_instrument_for_measurement_of_dielectric_constant_of_liquids_using_8031_microcontroller</a> )	International	Bulletin of Electrochemistry	(2004) Vol:20(2) pp: 59-62	0256-1654
35.	P. Neelamegam <b>A. Rajendran</b>	Neural Network based density measurement ( <a href="https://www.researchgate.net/publication/267194808_Neural_Network_Based_Density_Measurement">https://www.researchgate.net/publication/267194808_Neural_Network_Based_Density_Measurement</a> )	International	Bul.J.Phys.	(2004) Vol.31 pp:163-169.	1310-0157
36.	P. Neelamegam <b>A. Rajendran</b>	Classification of surface roughness and distance measurement using artificial neural network ( <a href="https://www.researchgate.net/publication/233461698_Classification_of_Surface_Roughness_and_Distance_Measurement_Using_Artificial_Neural_Network">https://www.researchgate.net/publication/233461698_Classification_of_Surface_Roughness_and_Distance_Measurement_Using_Artificial_Neural_Network</a> )	International	Instrumentation Science & Technology	(2003) Vol:31(4) pp: 417-423	1073-9149
37.	P.Neelamegam <b>A. Rajendran</b>	Linear heating system for measurement of Thermoluminescence measurements using 8031/51 microcontroller ( <a href="https://www.ias.ac.in/article/fulltext/boms/026/05/0565-0568">https://www.ias.ac.in/article/fulltext/boms/026/05/0565-0568</a> )	International	Bulletin of Materials Science	(2003) Vol: 26(5) pp: 565-568	0250-4707
38.	<b>A.Rajendran</b> P.Neelamegam	A Low cost conductivity measurement system using Microcontroller	International	Bulletin of Pure and Applied Sciences (Physics)	(2003) Vol:22D (2) pp:107-114	0970-6569

(b) PROCEEDING(S)

S. No.	Name of the author/s	Title of the paper	National / International	Name of Conference	Year
	<b>P.Rubalajyoth</b> A. Rajendran	Studies on the emission of thermoluminescence energy and the types of their structure , Materials And Technology	International	Synthesis, Processing And Applications (ICMAT - SPA)	2020
1	S.Senthilkumar A.Rajendran	Green Synthesis of MnO <sub>3</sub> /TiO <sub>2</sub> nanocomposites and investigation of its excellent photo catalytic activity for reduction of variety of dyes in water	International	J. Society for Environmental Chemistry and Allied Science (SECAS)	2017
2	S.Senthilkumar <b>A.Rajendran</b>	Characterization and Antimicrobial Activity of eco- Friendly Biosynthesis of Silver Nano Particles Using An Aqueous Leaf Extract of <i>Cantharanthus Roseus</i>	International	Journal of Applied Physics	2017
3	S.Senthilkumar <b>A.Rajendran</b>	Photo degradation of dyes and bacterial interaction of Biosynthesis, Characterization and Morphology of high Crystalline anatase TiO <sub>2</sub> nanoparticles Using <i>Cynodan Dactylon</i> Plant	International	International Journal of Nanoscience	2017
4	S.Senthilkumar <b>A.Rajendran</b>	Cleome Chelidonii leaf extract Mediated Green Synthesis of CeO <sub>2</sub> / TiO <sub>2</sub> nanocomposite and investigation of its excellent Photocatalytic activity for reduction of Variety of dyes in water.	International	International Journal of CSIR NPL.	2017
5	S.Senthilkumar <b>A.Rajendran</b>	<i>Syzygium Cumini</i> leaf Extract As a Green Source to Synthesize of SnO <sub>2</sub> Nanoparticles and Their Characterization	International	Environmental Chemistry	2016
6	P.Neelamegam <b>A.Rajendran</b> R.Dhineshkumar.	Automated inductance measurement using an embedded system	International	Intelligent integrated control and automation	2006



7	P.Neelamegam R.Vasumathi <b>A. Rajendran.</b>	Microcontroller based measurement system to measure concentration of potassium in soil	National	National symposium on Instrumentation (NSI-30)	2005
8	P.Neelamegam <b>A.Rajendran</b> A.Venkatesan V.Saravanan.	Studies on the effects of fertilizer on ' <i>eichornia crassipes</i> ' growth and electrical conductivity of the native medium using microcontroller	National	National symposium on Instrumentation (NSI-30)	2005
9	<b>A.Rajendran</b> P.Neelamegam	Microcontroller Based Instrumentation System for Study of Biochemical Variations Induced by Monocrotophos in <i>Cyprinus carpio</i> during the Exposure and Recovery period	International	Trends in Industrial measurements and automation- (TIMA'2004)	2004
10	A.Rajendran P.Neelamegam C.Maruthanayagam M.Mohanraja.	Automated Thermoluminescence measurements using a microcontroller	International	Trends in Industrial measurements and automation"(TIMA'99)	1999

### 19. DETAILS OF PRESENTATION(S)

S.No	Name of the Conference	Conducted by	Place	Duration/Date
1.	International Conference	Materials And Technology – Synthesis, Processing And Applications Tamil Nadu State Council for Science and Technology, Govt. of Tamil Nadu & UGC Autonomy Grant	Department of Physics, Sri. S. Ramasamy Naidu Memorial College, Sattur - 626203, Tamilnadu	13th & 14 <sup>th</sup> March, 2020
2.	International conference	IISF	Kolkata	5 <sup>th</sup> -8 <sup>th</sup> November 2019
3.	International conference	Nanoscience and nanotechnology (ICONN 2019)	kattankulathur, Tamil nadu ISBN: 9-789384136161	28 <sup>th</sup> – 30 <sup>th</sup> January 2019
4.	International conference	Advanced Materials for Sustainable Energy and Sensors (INCAMSES-2019)	Alagappa University ISBN:978-81-9204635	16 <sup>th</sup> – 17 <sup>th</sup> September 2019
5.	International Conference	Advanced Material Science-2019 (ICAMS 2019)	Thanthai Hans Rover College, Perambalur	13 <sup>th</sup> -14 <sup>th</sup> August 2019
6.	National Conference	recent advances in nanotechnology (RAIN-2019)	A.V.V.M Sri Pushpam College (Autonomous), Poondi.	16 <sup>th</sup> & 17 <sup>th</sup> August 2019
7.	International Conference	Nehru Memorial College	Puthanampatti, Tamilnadu,	09 <sup>th</sup> , 10 <sup>th</sup> February - 2018.
8.	International Conference	Thanthai Hans Rover College	Perambalur , Tamilnadu	13-14 <sup>th</sup> August-2018

9.	International Science Festivals	NIOT, Anna University, CSIR, CLRI, CSIR-SERC, IIT Madras	Chennai.	13-16 <sup>th</sup> October 2017
10.	International Conference	Mother Teresa Women's University	Kodaikanal Tamilnadu India	04 <sup>th</sup> Aug2017
11.	National conference	Anna University (BIT Campus )	Tiruchirappalli Tamilnadu, India	19 <sup>th</sup> December-2017
12.	International Conference	SRM Institute of Science and Technology	Chennai Tamilnadu,	28 -30 <sup>th</sup> January-2017
13.	International Conference	Alagappa University	Karaikudi, Tamilnadu, India.	21 <sup>st</sup> to 23 <sup>rd</sup> June 2017
14.	National conference	Alagappa University	Karaikudi Tamilnadu, India	19 <sup>th</sup> January-2017
15.	National Conference	Alagappa University	Karaikudi, Tamilnadu,	27 -29 <sup>th</sup> November - 2017
16.	International Conference	M.Kumarasamy College of Engineering	Thalavapalayam Karur , Tamilnadu, India	07 <sup>th</sup> April-2017
17.	International Conference	St.John's College, Palayamkottai	Palayamkottai Tamilnadu, India	03&04 <sup>th</sup> February- 2017
18.	International Conference	Dr.R.K.Shanmugam , College of Arts & Science	Kallakuruchi Tamilnadu, India	11 <sup>th</sup> March - 2017
19.	National conference	AVVM Sri Pushpam College	Poondi, Thanjavur Tamilnadu, India	4 -5 <sup>th</sup> March - 2017
20.	National Conference	K.S.R. College of Engineering	Thiruchengode Tamilnadu, India	7-08th January-2017
21.	International Conference	International Science Festival 2016,CSIR-NPL,Ministry of Science & Technology	New Delhi, India.	07-11 <sup>th</sup> December 2016
22.	International Conference	Noorul Islam Centre For Higher Education.	Kumaracoil, Nagarcoil. Tamilnadu, India.	20-21 <sup>st</sup> June2016
23.	National Conference	Thanthai Hans Rover College	Perambalur Tamilnadu, India	1-2 <sup>nd</sup> April - 2016
24.	National Conference	KSR College, Thiruchengode	Thiruchengode	7-8th January-2016
25.	National Conference	Dr.R.K.Shanmugam, college of arts and science	Kallakuruchi	11 <sup>th</sup> Mar. 2017
26.	International Conference	Selvam College of Technology	Namakkal Tamilnadu, India	11 <sup>th</sup> March - 2016
27.	International Conference	Centre for Scientific and Applied Research, PSN College of Engineering and Technology,	Melathediyoor, Tirunelveli Tamilnadu, India	7-10 <sup>th</sup> September 2016
28.	National conference	Government Arts College	Tiruvannamalai, Tamilnadu Tamilnadu, India	21-22 <sup>nd</sup> August-2016
29.	National Conference	Thanthai Hans Rover College	Perambalur Tamilnadu, India	1-2 <sup>nd</sup> April - 2016
30.	National Conference	Periyar University,	Salem ,Tamilnadu	25-26 <sup>th</sup> February-

				2016
31.	National Conference	VIT Tech University	Chennai, Tamilnadu,	8 <sup>th</sup> & 9 <sup>th</sup> February-2016
32.	National Conference	Bharathidasan Institute of Technology, Anna University	Tiruchirappalli	October 2014
33.	International seminar	SASTRA University	Thanjavur	February-2007
34.	National seminar	Institute of Technology	Coimbatore	February-2006
35.	National Conference	Periyar University	Salem	February-2006
36.	National Conference	Coimbatore Institute of Technology,	Coimbatore	February-2006
37.	National symposium	Cochin University of Science and Technology	Cochin	November-2005
38.	National Workshop	Central Electrochemical Research Institute	Karaikudi	September-2004
39.	International Conferences	Central Electrical and Electronics Research Institute	Chennai	December-2004
40.	National seminar	Annamalai University	Chidambaram	March -2003
41.	National conference	Nehru Memorial College	Puthanampatti, Tiruchirappalli,	December -2002
42.	National symposium	Bharathiar University	Coimbatore	November-2002
43.	National Conference	Sri Venkateswara University	Tirupati	November.2002
44.	National symposium	IRDE	Dehradun	Octr-Nov.-2001
45.	National Seminar	Nehru Memorial College	Puthanampatti, Tiruchirappalli,	March-2001
46.	National symposium	Indian Institute of Science	Bangalore	November-2000
47.	National conference	Nehru Memorial College	Puthanampatti, Tiruchirappalli,	September –2000
48.	XXX National seminar	Sri Venkateswara University	Tirupati	June -2000
49.	National seminar	P.S.G College of Arts and Science	Coimbatore	March-2000
50.	National seminar	Nehru Memorial College	Puthanampatti, Tiruchirappalli,	July-1999
51.	National seminar	Alagappa University	Karaikudi	May-1999
52.	International conference	M.I.T	Chennai	January-1999
53.	National Symposium	Birla institute of technology	Ranchi	October- 1998
54.	National Symposium	National Physical Laboratory	New Delhi	October-1997

## 20. 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
<b>Orientation Programme</b>					
2	Orientation Course	UGC	Academic Staff College	Bharathidasan University	17.5.2013- 13.6.2013
<b>Refresher Course</b>					
1	Instrumentation Sciences	Academic Staff College	UGC	University of Madras, Chennai	28.11.2013- 18.12.2013
2	Physics	Academic Staff College	UGC	Bharathidasan University Tiruchirappalli	8.8.2009- 28.8.2009
<b>Online Course</b>					
1	Physics of Semiconductors	SWAYAM	Centre for Development of Technical Education Institute of Technology,	IIT, Kanpur	15.8.2017- 20.11.2017
2	Classical Electromagnetism - 1 (Electrostatics)	SWAYAM	Centre for Development of Technical Education Institute of Technology	IIT, Kanpur	<i>August 15 to December 13, 2020</i>
3	Learning Physics Through Simple Experiments	SWAYAM	Centre for Development of Technical Education Institute of Technology	IIT, Kanpur	<i>April 2 to June 10, 2020</i>
4	Advanced Course on Special theory of Relativity	SWAYAM	Centre for Development of Technical Education Institute of Technology	IIT, Kanpur	<i>January 26 to May 19, 2020</i>
<b>FDP</b>					
1	Online Faculty development Programme on Spectroscopic techniques	DBT STAR Scheme DST-FIST Funded	Department of Physics, Jamal Mohamed College	Tiruchirappalli	03-08-2020 to 05-08-2020

2	Online Teaching, Learning and Evaluation	The Management ,	Nehru Memorial College (Autonomous)	Puthanampatti	10-08-2020 to 11-08-2020
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