


CURRICULUM VITAE

	<p>Name : Dr. A. J. CLEMENT LOURDURAJ email ID : ajeevaclement@gmail.com Mobile No : 9894113340 Designation : Assistant Professor in Physics</p>	
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Skills:

- Ability to organize curricular and co- curricular events.
- Teaching and Research.
- Interested in Photography, Videography and Making Short films.

Areas of Research Interest:

- Ultrasonic
- Spectroscopy
- Nanoscience and Nanotechnology
- Computational Technology
- Materials Characterization and applications.

Personal Details:

Name : Dr. A. J. CLEMENT LOURDURAJ
Nationality : Indian
Date of Birth : 02.06.1977 Gender: Male
Designation : Assistant Professor in Physics
 St. Joseph's College (Autonomous)
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 1/199-2 CASA (de) MARIA,
 Rajiv Gandhi Nagar, Malliyampattu,
 Vayalur Road, Tiruchirappalli – 620 102.

Educational Qualifications:

S.No.	Degree	University	Year
1.	B. Sc.,(Physics)	St. Joseph's College(autonomous), Trichy, TN Bharathidasan University, Trichy, TN	April -1997
2.	M. Sc., (Physics)	St. Joseph's College(autonomous), Trichy, TN Bharathidasan University, Trichy, TN	April -2000
3.	PGDCSA	St. Joseph's College(autonomous), Trichy, TN Bharathidasan University, Trichy, TN	April -2001
4.	M.Phil., (Physics)	Manonmanium Sundaranar University, Triunelveli	November - 2003
5.	Ph.D., (Physics)	Bharathidasan University, Trichy, TN	November - 2011

Ph.D Thesis Title: “Ultrasonic and FTIR Spectroscopic Investigation of some Binary and Ternary Liquid Systems”

M.Phil Dissertation Title: “Microprocessor Based Weighing Scale”

Employment Record:

- Assistant Professor in Physics, St. Joseph's College (autonomous), Trichy from June 2002 – 2007 in Shift – I (Management Staff – Coordinator appointment)
- Assistant Professor in Physics, St. Joseph's College (autonomous), Trichy from June 2007 – 2012 in Shift – II (Management Staff – Coordinator appointment)
- Assistant Professor in Physics, St. Joseph's College (autonomous), Trichy since June 2012 in Shift – I (Government Aided Staff)
- Handling Classes for departments of Electronics, Visual Communication.

Administrative Experience:

- St. Joseph's College, Trichy Staff Association EC member in 2010 to 2012.
- NSS programme officer, St. Joseph's College, Trichy in 2013 – 2015.
- NSS – Coordinator , St. Joseph's College, Trichy in 2015 – 2016
- Department of Physics, St. Joseph's College, Trichy Micro Quality Circle (MCQ) member from 2006 to till date.
- Resource person for JASS – IAS coaching
- Resource Person for YSSP (Young Students Scientist Programme)

Publications:

❖ International Journal:

1. Ultrasonic studies on binary liquid mixture: Ethyl Acetate + 2-Butanone – *International Journal of Chemical, Environmental and Pharmaceutical Research, 2010.*
2. Synthesis and characterization of MnO₂ Nanoparticles using Co-precipitation Technique, *International Journal of Scientific Research in Science and Technology, 2017.*
3. Characterization of Spray Deposited MnO₂ Thin Films, *International journal of Scientific Research in Science and Technology, 2017.*
4. Structural and Surface Morphology Studies of Zinc Sulphide Nanopowers, *International Research Journal of Engineering and Technology, 2017.*
5. Bulk Synthesis and Characterization of Multiwalled Carbon Nanotubes by CVD method, *International journal of Scientific Research in Science and Technology, 2017.*
6. Synthesis of few Layer Graphene using Mechanical Exfoliation of Kitchen Blender Method for Super Capacitor Applications, *International journal of Scientific Research in Science and Technology, 2017.*
7. Large Scale Synthesis and Characterization of Few Layer Graphene Nanosheets for Supercapacitor Applications, *International Research Journal of Engineering and Technology, 2017.*

❖ **National Journals:**

1. Ultrasonic and Spectroscopic studies of binary mixture 2-Ethoxy Ethanol + DMSO at 303.15 K., *Journal of Pure and Applied Ultrasonics*, **2006**.
2. Ultrasonic and Spectroscopic studies of binary mixtures of Cyclohexanone with Hexane and Heptane, *Journal of Pure and Applied Ultrasonics*, **2008**.
3. Ultrasonic and Spectroscopic studies of binary mixtures Benzaldehyde + Benzyl Chloride and Benzyl Chloride + 2-Butanone, *Journal of Acoustical Society of India*, **2010**.
4. Ultrasonic and Spectroscopic studies of ternary mixture Ethyl Acetate + 2-Butanone + Hexane, *Journal of Acoustical Society of India*, **2010**.
5. Ultrasonic and Spectroscopic studies of binary mixtures Ethyl Acetate + 2-Butanone and Ethyl Acetate + Hexane, *Journal of Acoustical Society of India*, **2010**.
6. Thermodynamic Study on Binary Mixture of DMSO + Benzaldehyde, *Journal of Acoustical Society of India*, **2010**.
7. Confirmation of Ultrasonic parameters using FTIR analyze for binary mixture of Methyl Benzoate + 2-Ethoxy Ethanol and Methyl Benzoate + 2-Butoxy Ethanol, *Journal of Acoustical Society of India*, **2016**.

❖ **Conference / Symposium Proceedings:**

1. Confirmation study of ultrasonic parameter using FTIR method for binary mixture of Hexane + Heptane – Published in the proceedings of XVIII National Symposium on Ultrasonics (NSU – 2009), 324-328
2. Investigation of ultrasonic parameter and spectroscopic study of binary mixture Benzaldehyde + Hexane - Published in the proceedings of XVIII National Symposium on Ultrasonics (NSU – 2009), 592-595.
3. Ultrasonic and spectroscopic studies of ternary mixtures Cyclohexanone + Hexane + Heptane - Published in the proceedings of XVIII National Symposium on Ultrasonics (NSU – 2009), 596-600.

4. Ultrasonic and spectroscopic studies of binary mixture Ethyl Acetate + Benzylchloride - Published in the proceedings of XVIII National Symposium on Ultrasonics (NSU – 2009), 601-603.
5. Acoustical and Spectroscopic Investigation of Molecular Interactions in Ionic Liquids - Published in the proceedings of National Symposium on Acoustics (NSA-2010), 18 - 24.
6. Ultrasonic, Thermodynamic parameters and FTIR studies on ternary liquid mixture Cyclohexanone + 2butanone + Ethyl Acetate – Published in the proceedings of National Symposium on Acoustics (NSA-2010), 40 - 43.
7. Acoustic, Thermodynamic and FTIR studies on binary mixture Heptane + Benzyl Chloride – Published in the proceedings of National Symposium on Acoustics (NSA-2010), 44 - 52.
8. Confirmation of Ultrasonic parameter using FTIR method for binary mixture of Cyclohexanone + Benzyl Chloride – Published in the proceedings of National Symposium on Acoustics (NSA-2010), 53 - 59.
9. Non Linear study on binary liquid mixture of DMSO + Benzaldehyde – Published in Acoustics Waves (Proceedings of NSA – 2011), 51 – 51.
10. Thermodynamic study on binary mixture of DMSO + Benzaldehyde - Published in Acoustics Waves (Proceedings of NSA – 2011), 163 – 170.
11. Ultrasonic study on binary mixture of DMSO + Cyclohexanone - Published in Applied Ultrasonics (Proceedings of NSA – 2011), 32 – 37.
12. Ultrasonic study on binary mixture of DMSO + 2-Butanone - Published in Applied Ultrasonics (Proceedings of NSA – 2011), 96 – 101.
13. Ultrasonic And Spectroscopic Studies On Liquid Mixture of 2-Ethoxy Ethanol + Diethylether – Published in Proceedings of International Conference on Acoustics – 2013 New Delhi – Nov 10 -15, 2013, 743 – 749.
14. “Ultrasonic parameter confirmed by using FTIR method for Binary Mixture of 2-Ethoxy Ethanol + Hexane” – Proceedings of International Conference on Acoustics – 2013 New Delhi – November 10 -15, 2013, 750 – 757.

15. “Confirmation of Ultrasonic parameters using FTIR method for Binary Mixture of 2-Ethoxy Ethanol + Ethyl Acetate” – Published in Proceedings of International Conference on Acoustics – 2013 New Delhi – November 10 -15, 2013, 735 – 742
16. Ultrasonic and Spectroscopic studies on liquid mixture of 1,2 Dichloroethane + 2-Ethoxy Ethanol, *Proceedings of CTNM - 2013*
17. “Ultrasonic And Spectroscopic Studies on Ternary Mixture of Cyclohexanone + 2-Ethoxy Ethanol + Ethyl Acetate” – Proceedings of National Symposium on Acoustics – NSA-2014, AIISH, Mysore – November 13 – 15, 2014.
18. Thermodynamic studies on binary mixture Methly Benzonate + 2-Butoxy Ethanol, *Proceedings of National Symposium on Acoustics, 2015.*
19. Thermodynamic studies on binary mixture Methly Benzonate + 2-Ethoxy Ethanol, *Proceedings of National Symposium on Acoustics, 2015.*
20. Confirmation of Ultrasonic parameter using FTIR analyse for binary mixture of Methly Benzonate + 2-Ethoxy Ethanol, *Proceedings of National Symposium on Acoustics, 2015.*
21. Confirmation of Ultrasonic parameter using FTIR analyse for binary mixture of Methly Benzonate + 2-Butoxy Ethanol, *Proceedings of National Symposium on Acoustics, 2015.*
22. Facile single step electrochemical synthesis of Few Layered Graphene for energy storage applications, *RETELL, 2017.*
23. Leaf Extract Mediated Green Synthesis of Ce-Doped NiO Nanoparticles using Moringa Oliefera Leaf for its Antibacterial Studies, *Conference on Material and Technologies for Energy Conversion and Storage (M-TECS'18), BARC, Mumbai.*
24. Analysis of Antibacterial Activities of Synthesized Silver Doped Zinc Oxide Nanomaterials using Sol-Gel method, *International Conference on Nanoscience and Nanotechnology (ICON 2019),SRM, Chennai.*

25. Characterization and Evaluation of Antibacterial Activities of Chemically Synthesized Ag/ZnO Nanoparticles, *International Conference on Advanced Materials and its Applications (ICAMA – 18)*, Thanthai Hans Rover College, Perambalur.
26. Investigation of Cytotoxicity and Antimicrobial Activity of Green Synthesized Iron:Zinc bimetallic Nanoparticles, *Proceedings of India-UK Joint International Conference on Advanced Nanomaterials for Energy, Environment and Healthcare Applications (ANEH-2018)*, Triuchengode, Namakkal.
27. Investigation of Antimicrobial Activity of Green Synthesized Iron:Manganese Bimetallic Nanoparticles via Solanum Trilobatum, *Proceedings of the India-UK Second International Conference on Advanced Nanomaterials for Energy, Environment and Healthcare Applications (ANEH-2019)*, BHC, Trichy.

Research papers presented in conferences/symposiums

1. Laser based ultrasound generation and detection – presented in National Seminar on Lasers in Technological and Biomedical Applications, at St. Joseph's College (Autonomous), Trichy – 2 on 27 – 28 January 2005.
2. Ultrasonic and Spectroscopic studies of binary mixtures Cyclohexanone + Hexane and Cyclohexanone + Heptane – presented in NSU-XVI, 2007 at CUSAT, Cochin.
3. Ultrasonic and Spectroscopic studies of binary mixtures Benzaldehyde + Benzyl Chloride and Benzyl Chloride + 2Butanone – presented in NSA-2008 at NSTL, Vishakapatnam.
4. Ultrasonic and Spectroscopic studies of binary mixtures Ethyl Acetate + 2Butanone and Ethyl Acetate + Hexane – presented in NSA-2009 at DRDO, Hyderabad.
5. Ultrasonic and Spectroscopic studies of ternary mixture Ethyl Acetate + 2Butanone + Hexane – presented in NSA-2009 at DRDO, Hyderabad.

6. Confirmation study of ultrasonic parameter using FTIR method for binary mixture of Hexane + Heptane – presented in NSU-2009, VIT, Vellore.
7. Ultrasonic, Thermodynamic parameters and FTIR studies on ternary liquid mixture Cyclohexanone + 2butanone + Ethyl Acetate – presented in NSA-2010 at PG college for Arts and Science, Rishikesh.
8. Acoustic, Thermodynamic and FTIR studies on binary mixture Heptane + Benzyl Chloride – presented in NSA-2010 at PG College for Arts and Science, Rishikesh.
9. Confirmation of Ultrasonic parameter using FTIR method for binary mixture of Cyclohexanone + Benzyl Chloride – presented in NSA-2010 at PG college for Arts and Science, Rishikesh.
10. Non Linear study on binary liquid mixture of DMSO + Benzaldehyde – Presented in NSA-2011 at Bundelkhand University, Jhansi(UP).
11. Thermodynamic study on binary mixture of DMSO + Benzaldehyde - Presented in NSA-2011 at Bundelkhand University, Jhansi(UP).
12. Confirmation of Ultrasonic parameter using FTIR analyse for binary mixture of Methyl benzoate + 2-Ethoxy Ethanol, National Symposium on Acoustics, Dona Paula, Goa 7-9 October 2015.
13. Ultrasonic and FTIR studies on liquid mixture of 1-proponal + Hexane, International Symposium on Acoustics for Engineering Applications (NSA-2016), KIIT college of Engineering, Haryana.

Research Projects:

1. Principal Investigator: Liquid Stage Chemical Physics, Minor Projector, UGC, 2015 – 2017, Rs. 2,75,000.00.

Awards / Recognition:

1. Received the Best Research Paper Award from “Madras –India regional chapter of the Acoustical society of America” (MIRC-ASA) and “Acoustical Society of India” (ASI) on 11th – 13th November 2010 held at Rishikesh, Utrarakhand.

Paper Title: Confirmation of Ultrasonic Parameter using FTIR method for binary

mixture of Cyclohexanone + Benzyl Chloride.

2. Received Dr. R. Srinivasamoorthy cash award for the Best Research Publications by Physics Department Staff at St. Joseph's College 167th College day on 18th March 2011.

3. M.Phil Guide/Research advisor recognition from Bharathidasan University, Trichy. 2008

4. Ph.D Guide / Research advisor recognition from Bharathidasan University, Trichy. 2014

Seminars , Conferences and Orientation Programme attended:

Title	Organization Name	Place	Days	Date
International Conference On Lasers And Their Applications - Incola - 2000	Department of Physics,St. Joseph's College	TRICHY	4	2000-03-01
Latex	Department of Physics,St. Joseph's College	TRICHY	1	2005-01-29
Recent Trends In Thin Film Technology	Department of Physics,St. Joseph's College	TRICHY	1	2003-02-14
Ultrasonics	Department of Physics,St. Joseph's College	TRICHY	1	2004-10-29
Latex	Department of Physics,St. Joseph's College	TRICHY	1	2005-01-29
Lasers In Technological And Biomedical Applications	Department of Physics,St. Joseph's College	T	2	2005-01-27
Digitalised Information Exchange For Quality Sustenance And Enhancement	Department of Physics,St. Joseph's College	TRICHY	2	1900-01-01
Inter Personal Skills For Staff Members	Department of Physics,St. Joseph's College	TRICHY	2	2007-03-03
On Going Orientation Program For Newly Recruited Staff Members	Jesuit Higher Education Madurai Province	LOYOLA COLLEGE (Autonomous), CHENNAI	10	2013-05-17

National Symposium On Ultrasonics - XVI	Ultrasonics Society Of India	CUSAT, Cochin, Kerala	3	2007-12-17
National Symposium On Acoustics - 2008	Acoustical Society Of India	NSTL - Vishakapattinam	3	2008-12-22
National Symposium On Acoustics - 2009	Acoustical Society Of India	DRDO - Hyderabad	3	2009-11-19
National Symposium On Ultrasonics - XIX	Ultrasonics Society Of India	VIT - Vellore	3	2009-12-21
National Symposium On Acoustics - 2010	Acoustical Society Of India	PG College for Arts and Science - Rishikesh, Uttarkand.	3	2010-11-11
National Symposium On Acoustics - 2011	Acoustical Society Of India	Bundelkhand University - Jhansi, Uttarpradash	3	2011-11-17
Ctmn - 2013	Department Of Physics And Chemistry - Cauvery College For Women, Trichy	Cauvery College for woman, Trichy	2	2013-01-23
On Going Orientation Program For Newly Recruited Staff Members	Jesuit Higher Education Madurai Province	Anugraga Animation Center, Nochiodaipatti, Dindigul	4	2013-11-19
National Conference on Advanced Materials	Depts of Physics and Electronics	St. Joseph`s College (Autonomous), Tiruchirappalli	1	2014-02-06
National Symposium on Acoustics - 2015	CSIR-National Institute of Oceanography (NIO)	Dona Paula - GOA	3	2015-10-07
National Conference on Higher Education in Knowledge Age: Techno-	IQAC-St. Joseph`s College, Trichy	St. Joseph`s College, Trichy	2	2016-02-24

Pedagogical Perspectives and Innovations				
Workshop on Advanced Physics Experiments for college Teachers	Department of Physics, St. Joseph`s College, Trichy	Department of Physics, St. Joseph`s College, Trichy	2	2015-12-18
Capacity Building Workshop for Faculty on e-Content Development	IQAC-St. Joseph`s College, Trichy	St. Joseph`s College, Trichy	4	2015-06-09
91st Orientation programme.	HRDC-Bharathidasan University, Tiruchirappalli - 24	Bharathidasan University, Trichy - 24	28	2016-05-19
National Conference on Advanced Materials (NCAM-2016)	Dept. of Physics, St. Joseph`s College	Tiruchirappalli	1	2016-10-07
International Symposium on Acoustics for Engineering Applications (NSA - 2016)	ASI & KIIT College of Engineering	Gurgaon, New Delhi	3	2016-11-17
Science Academics	PG and Research Development of Physics	Periyar EVR College, Trichy	1	2017-02-07
Nikon School Workshop for Digital Photography	Nikon School	St. Joseph`s college- Trichy	1	2017-08-31
Kalam Young Researchers Conference (KYRC)-01	CSIR-Central Electrochemical Research Institute, Karaikudi	CSIR-CECRI, Karaikudi	1	2017-10-16
International Conference on Advanced Materials	Department of Physics, St. Joseph`s College, Trichy	St. Joseph`s College, Trichy	2	2017-12-14
India-UK Second International Conference on Advanced Nanomaterials for Energy, Environment and Healthcare Applications (ANEH-2019)	Department of Physics, Bishop Heber College, Trichy	BHC, India and Swansea University, UK	3	4-6 February 2019

Contribution to Curriculum Development:**M.Sc Guided:** More than 30 M.Sc Students**Ph.D Guiding:** 04**M. Phil Awarded:** 16

Scholar Code	Scholar Name	Title	Date
09MPH120	R. Ilavarasi	Ultrasonic And Spectroscopic Studies On Ternary Mixtures Of Cyclohexanone + Hexane + 2-Butanone A	2010
09MPH113	I. Karoline Mary	Ultrasonic And Spectroscopic Studies On Ternary Mixtures Of Cyclohexanone + Heptane + 2-Butanone	2010
10MPH128	A. Bagya Jenifer	Ultrasonic And Spectroscopic Studies On Ternary Mixture Of Benzaldehyde + Ethyl Acetate + Heptane	2011
12MPH109	S. Rex Rosario	Ultrasonic And Spectroscopic Studies On Ternary Mixture Of 1,2 Dichloroethane + 2ethoxy Ethanol + Cy	2013
12MPH125	S. Sehbin Jose Antony	Ultrasonic And Spectroscopic Studies On Ternary Mixture Of Cyclohexanone + 2ethoxy Ethanol + Ethyl Acetate	2013
13MPH103	P.Marutha iraj	Ultrasonic And Spectroscopic Studies On Ternary Mixture Of Cyclohexanone + Hexane + 1propanol	2014
08MPH126	Amutha V	Ultrasonic And Spectroscopic Studies Of Ternary Liquid Mixtures (Ethyl Acetate + 2 Butanone + Hexane	2009
14MPH105	Francis Sanjai Kumar	Ultrasonic And Spectroscopic Studies On Ternary Mixture Of Methyl Benzoate+ 2-Methoxy Ethanol+ 2-But	2015
14MPH117	Muthulakshmi M	Ultrasonic And Spectroscopic Studies On Ternary Mixture Of Methyl Benzoate+ 2-Methoxy Ethanol+ 2-Eth	2015
15MPH107	Abirami T	Ultrasonic, Thermodynamic And first studies On Ternary Liquid Mixture Of Ethyl Methyl Ketone + N-Butyl	2016
15MPH127	Avinash M	Ultrasonic, Thermodynamic And Ft-IR Studies On Ternary Liquid Mixture Of Ethyl Methyl Ketone + N-But	2016
16MPH102	Premi Pavithra P	Study Of Thermodynamical Parameters Of Ternary Liquid Mixture (1-Propanol + Dimethyl Phthalate + Tol	2017

16MPH110	Little Dona M	Study Of Thermodynamical Parameters Of Ternary Liquid Mixture (1-Propanol + Dimethyl Phthalate + N-N)	2017
16MPH116	Jasmine Vinitha I	Study Of Thermo Dynamical Parameters Of Ternary Liquid Mixtures (1 ? Propanol, N-N Dimethyl Aniline)	2017
17MPH110	Kavi. G.K	Study on Thermodynamical Parameters of Ternary Liquid mixture (Triethyl Osthoformate + N-N Dimethyl Acetamide + 1Methoxy 2 Propanol)	2018
17MPH119	Muthamil Selvi. M	Ultrasonic, Thermodynamic and FTIR studies on Ternary Liquid mixtures of (1 Methoxy 2 Proponal + Tributylamine + Triethyl Osthoformate)	2018

Course Taught:

UG Level:

- ✓ Mechanics and Properties of Matter
- ✓ Sound and Thermal Physics
- ✓ Mathematical Physics
- ✓ Electricity and Magnetism
- ✓ C Programming
- ✓ Optics, Spectroscopy and Lasers
- ✓ Digital Electronics and Microprocessor
- ✓ Cell Phone servicing
- ✓ Electrical Wiring
- ✓ Photography

PG Level:

- ✓ Analog and Digital Electronics
- ✓ Microprocessor and Microcontroller
- ✓ Nuclear and Particle and Astrophysics
- ✓ Numerical and Statistical Physics
- ✓ Modern Photography and Digital Photography

M.Phil Level:

- ✓ Research Methodology
- ✓ Liquid State Chemical Physics (Project Guide Paper)
- ✓ Synthesis and characterization of Nano Materials (Project Guide Paper)