

Dr. V.Kalyanavalli

14, bharath avenue

Paapakuirchi road, kattur,

Tiruchirappalli 620019

Email id : kalyanavalli@jmc.edu

Google Scholar :

<https://scholar.google.com/citations?user=IKxOAlwAAAAJ&hl=en>

EDUCATIONAL QUALIFICATIONS

Ph.D.	: Physics
Thesis Title	: Non- Destructive Evaluation of Basalt fiber reinforced composites using Infrared Thermography.
Awarded Year	2019
Position	: Research Scholar
Funding Agency	: Technical Education Quality Improvement Programme (TEQIP) Government of India.
Institute	: Department of Physics, National Institute of Technology, Tiruchirappalli
M. Sc.	: Material Science and Technology
Institution	: Thiagarajar College of Engineering, Madurai
Percentage of Marks	: 8.58/10.00 CGPA
Year of Passing	2004
B. Sc. (Hons)	: Physics
Institution	: Sri Sathya Sai Institute of Higher learning , Anantapur
Percentage of Marks	: 4.21/5.00 CGPA
Year of Passing	2002

RESEARCH EXPERIENCE

1. Position	: Research Scholar
Institution	: National Institute of Technology, Tiruchirappalli.
Title	: <i>Non- Destructive Evaluation of Basalt fiber reinforced composites using Infrared Thermography.</i>
Period	: March 2013- July 2019
Mentor	: Dr. D. Sastikumar, Professor, Department of Physics, National Institute of Technology, Tiruchirappalli.

- 2. Position** : Project Assistant- B
 Institution : Central Electro-chemical Research Institute – Karaikudi
 Title : *Development of fuel cells on hydrogen*
 Period : May 2005 to August 2006
 Mentor : Shri N. U. Nayak, Scientist, Instrumentation Department, CECRI
- 3. Position** : Project Fellow
 Institution : Indian Institute of Science, Bangalore
 Title : *Electrical switching characteristics of chalcogenide glasses*
 Period : December 2003 to April 2004
 Mentor : Dr. S. Ashokan, Professor, Instrumentation and Applied physics Department, IISc, Bangalore

TEACHING EXPERIENCE

1. **Position** : Assistant Professor, Department of Physics
 Institution : Jamal Mohamed College, Trichy
 Period : August 2020 till present
2. **Position** : Senior Lecturer, Department of Physics
 Institution : CARE group of Institutions, Tiruchirappalli
 Period : March 2011 to August 2012
3. **Position** : Lecturer, Department of Physics
 Institution : J.J. College of Engineering, Tiruchirappalli
 Period : December 2006 to August 2007

SUBJECTS HANDLED

UG Subjects

Wave Mechanics

Optics

Nuclear Physics

Semiconductor Devices

Digital Electronics

PG Subjects

Mathematical Physics I & II

Electromagnetic theory

Quantum Mechanics

Statistical Mechanics

Solid State Physics

RESEARCH INTERESTS

- ✓ Non-Destructive Evaluation
- ✓ Polymer composites
- ✓ Chalcogenide glasses
- ✓ Nanomaterials
- ✓ Infrared Thermography
- ✓ Thermal properties characterization
- ✓ Ultrasonic

HAND ON EXPERIENCE TECHNIQUES

- ✓ Infrared thermal camera
- ✓ Lock-in thermography
- ✓ Eddy current setup
- ✓ XRD
- ✓ Laser Flash
- ✓ Pulse and long pulse thermography
- ✓ Immersion C-scan setup
- ✓ Vacuum bagging composite Fabrication
- ✓ Simulation using COMSOL Multiphysics
- ✓ Softwares such as Origin, Matlab

LIST OF PUBLICATIONS

S.No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1	A Kalai Priya, Gaurav Kumar Yogesh, K Subha, V Kalyanavalli , D Sastikumar	<i>Synthesis of silver nano-butterfly park by using laser ablation of aqueous salt for gas sensing application</i>	Applied Physics A (SCI, IP 1.669)	127	1-12	2021
2	Gaurav Kumar Yogesh, EP Shuaib, A Kalai Priya, P Rohini, Sathyan Vivekanand Anandhan, Uma Maheswari Krishnan, V Kalyanavalli , Shivam Shukla, D Sastikumar	<i>Synthesis of water-soluble fluorescent carbon nanoparticles (CNPs) from nanosecond pulsed laser ablation in ethanol</i>	Optics & Laser Technology (SCI, IP 3.233)	135	106717	2020
3	DR Rajkumar, K Santhy, V Kalyanavalli	<i>Scratch characteristics of particle and fiber reinforced polymer composite</i>	Materials Today: Proceedings (SCOPUS,	44	506-511	2020
4	Jack J Kenned ,Sankaranarayananasamy K, V Kalyanavalli and Suresh Kumar C	<i>Characterization of indentation damage resistance and thermal diffusivity of needle-punched Musa sapientum cellulosic fiber/unsaturated polyester composite laminates using IR</i>	Polymer Composites (SCI, IP 2.264)	41	2933-2946	2020

		<i>thermography</i>				
5	V Kalyanavalli, PM Mithun, D Sastikumar	<i>Analysis of long-pulse thermography methods for defect depth prediction in transmission mode</i>	Measurement Science and Technology (SCI, IP 1.806)	31	014002	2019
6	V. Kalyanavalli, T.K. Abilasha Ramadhas, D. Sastikumar	<i>Determination of thermal diffusivity of Basalt fiber reinforced epoxy composite using infrared thermography</i>	Measurement (SCI, IP 2.791)	134	674-678	2019
7	V. Kalyanavalli, T.K. Abilasha Ramadhas, D. Sastikumar	<i>Long pulse thermography investigations of basalt fiber reinforced composite</i>	NDT and E International (SCI, IP 2.934)	100	84-91	2018
8	P. Porkodi, V. Yegnaraman, P. Kamaraj, V. Kalyanavalli , and D. Jeyakumar	<i>Synthesis of NASICON - A molecular precursor- based approach</i>	Chemistry of Materials (SCI, IP 10.159)	20	6410–6419	2008

AWARDS & RECOGNITIONS

Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S.No	Name of Award	Awarding Agency	Year
1.	Received award for securing Class topper	Thiagarajar College of Engineering, Madurai, Tamilnadu	2004
2.	GATE Qualified in XE – Engineering Sciences	Ministry of Human Resource Development (MHRD).	2012
3.	Level-II certification in Infrared Thermography	Indian Society of Non- Destructive Testing (ISNT)	2016

PAPER PRESENTED IN CONFERENCES

1. Ragavi T Kalyanavalli.V and D. Sastikumar. “Thermal Characterization of basalt fiber reinforced composites” ICRIMS-2023 INTERNATIONAL CONFERENCE ON RECENT INNOVATIONS IN MATERIALS SCIENCES AND SPECTROSCOPY on 10th January 2023, Jamal Mohamed College, Trichy
2. Kalyanavalli. V, T.K. Abilasha Ramadhas and D. Sastikumar. “Nondestructive evaluation of basalt fiber reinforced composites- Material and Defect characterization”. NDE 2018, Frontiers in NDE: Science and technology from 19th – 21st of December 2018, Mumbai.
3. Kalyanavalli. V, T.K. Abilasha Ramadhas and D. Sastikumar “Pulsed Thermography for Non-Destructive Evaluation of Adhesive Bonds in Basalt Composites”. QIRT-ASIA conference on Quantitative infrared thermography from 6th to 10th of July 2015, Chennai.
4. Kalyanavalli. V, T.K. Abilasha Ramadhas and D. Sastikumar” A Comparative Study of Basalt and Glass Fiber Reinforced Composites by Thermography”. QIRT-ASIA conference on Quantitative infrared thermography from 6th to 10th of July 2015, Chennai.
5. Kalyanavalli. V, T.K. Abilasha Ramadhas and D. Sastikumar. “Nondestructive studies of basalt fiber reinforced composites”. International Symposium for Research scholars on Metallurgy, Materials Science and Engineering from 11th to 13th 2014, IITM Chennai.
6. Kalyanavalli. V, T.K. Abilasha Ramadhas and D. Sastikumar “A Comparative Study Of Basalt And Glass Fiber Reinforced Composites By NonDestructive Evaluation”. NDE 2014- conference on Non-Destructive Testing from 04th - 06nd December 2014, Pune.

FACULTY DEVELOPMENT PROGRAMMES/WORKSHOP/ SEMINARS/WEBINARS ATTENDED

1. Participated in workshop titled “Workshop on Fundamentals of Probability Theory and Detection Estimation Theory” jointly organized by PG and Research Department of Mathematics, Jamal Mohamed College, Trichy with Pentagram Technologies, India from 06.10.2022 to 08.10.2022.
2. Participated in online workshop titled “Materials Science and Computational Methods” organized by PG and Research Department of physics, Jamal Mohamed College, Trichy from 15.02.2022 to 16.02.2022.

3. Participated in online Teachers outreach programme titled “HAM RADIO as Technical Hobby for social service” organized by PG and Research Department of physics Jamal Mohamed College, Trichy on 05.02.2022.
4. Participated in online FDP titled “Research Essentials” organized by Department of Computer Science & Engineering, Chandigarh University, Punjab 31.01.2022 to 05.02.2022.
5. Participated in online FDP titled “Condensed Matter Physics” organized by PG and Research Department of physics and Internal Quality Assurance Cell, Jamal Mohamed College, Trichy in collaboration with Indian Spectrophysics Association(ISPA-Chennai) from 24.01.2022 to 25.01.2022.
6. Participated in online Teachers outreach programme titled “Neutrino-An elusive particle” organized by PG and Research Department of physics Jamal Mohamed College, Trichy on 16.11.2021.
7. Participated in webinar titled “Intellectual Property Rights with Focus on Patents & Copyright” organized by Intellectual Property Rights Cell, Jamal Mohamed College, Trichy in collaboration with Indian Spectrophysics Association(ISPA-Chennai) from on 21.01.2021.