

CURRICULUM VITAE

Permanent Address:

Dr. S.KALIAPPAN

S/o P.Seeniappan (Late)
Jakkammal patty,
Kotha patty (Post),
Theni Dist. - 625 512.
Madurai



Communication Address :

Dr. S.KALIAPPAN

No.8, F3, SAI KRISHH Apartment,
2nd Main Road , 2nd Layout,
Teachers Colony,
Lakshmipuram, Kolathur,
Chennai-600 099.
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I am having 28 years teaching experience & 1 year industrial experience. Now I am working as **PROFESSOR / Mechanical Engineering Department in KCG College of Technology, Chennai**. I am a recognized supervisor, Reference Number. **4120153** in Anna University in the **Department of Mechanical Engineering** in the research area **Thermal Engineering, Heat Transfer, CFD, Composite Materials**. I have been acknowledged by Elsevier and Stanford University, USA, as one of the '**Top 2% Scientists in the World**,' in the year 2023 and 2024 highlighting his significant contributions to his field.

I have been **published more than 300 Papers** in **SCI/WoS/Scopus Indexed journals** (Indexed in Scopus Database with **43 h-Index** and **5344 citations** with **432 Documents** , In Google. Scholar **45 h-index 140 i10 index Citations 6194**) , published **22 Indian Patent Publication** and **1 Indian Design Grant Patent**, **15 International Australian Grant Patents**, **20 Scopus indexed Book Chapters** , **30 Books** published with ISBN number and also Served as a Editor in **5 Scopus indexed Book Chapters**.

❖ RESEARCH INTERESTS :

- Thermal/ Heat Transfer/ CFD/ Composites/ Nano Fluids/ Internal Combustion Engine

❖ ANNA UNIVERSITY SUPERVISOR :

- Recognized supervisor, Reference Number. **4120153** in Anna University in the **Department of Mechanical Engineering** in the research area **Thermal Engineering, Heat Transfer, CFD, Composite Materials**.
- Guiding 4 research Scholars as **Supervisor** at Anna University, Chennai.
- Guiding 2 research Scholars as **Research Coordinator** at Anna University, Chennai.

❖ EDUCATION QUALIFICATION:

- **Ph.D (2020)**, Mechanical Engineering, Anna University, Chennai, Tamil Nadu, India.
- **Master of Engineering (2006)**, First Class, Internal Combustion Engineering - College of Engineering Gundy, Anna University, Chennai, Tamil Nadu, India.
- **Bachelor of Engineering (1997)**, First Class, Mechanical Engineering - R.V.S College of Engg. And Tech., Dindigul, Madurai Kamaraj University, Tamil Nadu, India.

❖ EXPERIENCE :

- **Professor -Mechanical Engineering Department**, KCG College of Technology, Chennai , July-2023 to Till Date.
- **Professor / HoD-Mechanical & Mechatronics Engineering Department**, Velammal Institute of Technology, Chennai , Dec 2021- Aug 2023.
- **Associate Professor / HoD-Mechanical Engineering Department**, Velammal Institute of Technology, Chennai , June 2012 – Dec 2021

- **Assistant Professor / HoD-Mechanical Engineering Department**, Velammal Institute of Technology, Chennai , June 2011 – May 2012
- **Professor/ HoD-Aeronautical Engineering Department**, SAMS College of Engineering and Technology, Chennai , Nov 2010- June 2011.
- **Assistant Professor/ HoD-Aeronautical Engineering Department**, SAMS College of Engineering and Technology, Chennai , May 2008 – Oct 2010.
- **Lecturer** , St. Peter's Engineering College, Chennai , Aug 2006 – Apr 2008.
- **Lecturer** , Rajarajeswari Engineering College, Chennai , July 2000 – Aug 2006.
- **Lecturer** , Thangavelu Engineering College, Chennai, July 1998 – Jun 2000.
- **Production Engineer**, Sels Industries (Sub-Contractor – Ashok Leyland), Chennai – 19, June-1997- July 1998.

❖ **ACADEMIC PROJECT:**

❖ **PhD:**

Thesis Title : Design of Trapezoidal Piston Motion Using an Innovative Connecting Rod for Improving the Performance of a Single Cylinder Diesel Engines.

Tools Used : Computational Fluid Dynamics (CFD)

Description :

1. A new technique of altering reciprocating motion of the piston in an IC engine is developed and proposed.
2. This new technique creates a trapezoidal motion that has significant advantages over the standard sinusoidal motion. Theoretical, experimental and numerical methodologies are utilized in the arrival of an optimal trapezoidal motion from different trials.
3. To validate CFD procedure an experimental investigation is done for existing engine with Sinusoidal Piston Movement.
4. The appropriate computational methodology is arrived from this validation study and applied to arrive the Optimum Trapezoidal Trajectory.

❖ **P.G PROJECT :**

Title : Parametric studies on the impact of piston velocity profile on the performance of single cylinder diesel engine.

Language : 'C' Language

Description :

1. To study the impact of the piston velocity profile on the thermodynamic and heat transfer processes of a single cylinder, 4- stroke diesel engine
2. To simulate the values of velocity, volume, pressure , temperature and their effect on Heat transfer rate for every 5 degree crank angle rotation with the help of C –Programming Language .

❖ **U.G PROJECT :**

Title : Computer Aided Design of Gears and Gear Box

Language : 'C' Language

Description :

1. This is software solution for Design and Drafting of various Gears and Gearbox in AutoCAD Environment.
2. The optimum design can be obtained by this software and it saves money and time.

❖ **SUBJECTS HANDLED:**

1. Engineering Graphics
2. Engineering Mechanics

3. Engineering Thermodynamics
4. Fluid mechanics and Machinery
5. Heat and Mass Transfer
6. Gas Dynamics and Jet Propulsion System

❖ **CONSULTANCY RECEIVED**

Title : **Machine Vision and Multiple Sensor Data Fusion based Semi Automated IoT based Management System for Rooftop Agriculture.**

Company Name: *ZRAE Global* , Chennai

Type : Research Project – Consultancy

Total Cost (in Rs.) : 25,000

Dated: 19-January-2024.

Duration : 3 Months.

Status: On Going

❖ **GRANTS RECEIVED AND PROPOSAL SUBMITTED:**

1. Title : **ASSESSMENT IN ENGINEERING EDUCATION: A PEDAGOGICAL APPROACH**

Scheme : **AICTE- Short Term Training Program (STTP)** under AQIS 2019-20.

Total Cost (in Rs.) : 2,67,000

Ref. No. 34-66/424/FDC/STTP/Policy-1/2019-20.

Dated: 10-Aug-2020.

Status: Completed

2. Title: **MULTIFACETED ELECTRIC WHEELCHAIR**

Name of the Agency : DST-TIDE

Total Cost (in Rs.) : 1 lakh

Date : 31/10/2019

Status : Not Considered

3. Title: **Magnesium based composites for biomedical applications using 3D printing process**

Name of the Agency : SERB(Core Research Grant)

Total Cost (in Rs.) : 26,24,472

Date : 17/03/2021

Status : Not Considered

4. Title : **Design and Development of low-cost leather Ironing Machine A Miniature model for leather artisans.**

Name of the Agency : DST-SEED(STI Hub for SC Community)

Total Cost (in Rs.) : 36,60,000

Date : 30/09/2021

Status : Not Considered

5. Title: **Autonomous Windows closing system for buildings and Automobiles**

Name of the Agency : MSME

Total Cost (in Rs.) : 1,00,000

Date : 05/04/2022

Status : 1st Level Selected.

6. Title: **Design of Ultra Sonic Gas and Steam Flow meter For Industrial Applications**

Name of the Agency : MSME

Total Cost (in Rs.) : 5,00,000

Date : 05/04/2022

Status : 1st Level Selected.

7. Title: Development of Food Dispensing Machine Using IOT & Artificial Intelligence Techniques

Name of the Agency : DST-SERB(SURA)

Total Cost (in Rs.) : 23,21,700

Date : 05/10/2022

Status : Proposal Not Considered

8. Title: Low Cost Calcium Ion Battery with Higher Efficiency Suitable For Electric Vehicle Application

Name of the Agency : MSME

Total Cost (in Rs.) : 7,99,520

Date : 14/11/2022

Status : 1st Level Sort listed and final level not considered.

9. Title: DEVELOPMENT OF BAMBOO FIBER WITH GRAPE STALK CELLULOSE FIBER COMPOSITE MATERIAL USING SMART MANUFACTURING PROCESS FOR HEALTHCARE APPLICATIONS.

Name of the Agency : DST-SERB(CRG)

Total Cost (in Rs.) : 29,41,000

Date : 16/3/2023

Status : Not considered

10. Title: Mechatronics Reverse Osmosis Filtration employing Variable Pressure and Low Cost Larger Pore Hole Thin Film Composite (TFC)

[DST/WTC/2K23/2023/91]

Name of the Agency : DST Water Technology Call for Proposals 2023

Total Cost (in Rs.) : 15,51,000

Date : 30/09/2023

Principal Investigator (PI) : Dr.S.Kaliappan

Co-Principal Investigator (Co-PI): Dr.T.Mothilal

Collaborating Industries : ZRAE Global , Chennai

Name : Kishore Abhishek M

Designation : Technical Director

Status : Not considered

11. Title: Large Radius & Short Length CST Parabolic Mirror with Two-Axis Tracking for Water Purification in Urban Areas

[DST/WTC/2K23/2023/87]

Name of the Agency : DST Water Technology Call for Proposals 2023

Total Cost (in Rs.) : 15,51,000

Date : 30/09/2023

Principal Investigator (PI) : Dr.T.Mothilal

Co-Principal Investigator (Co-PI): Dr.S.Kaliappan

Collaborating Industries : ZRAE Global , Chennai

Name : Kishore Abhishek M

Designation : Technical Director

Status : Not considered

12. Title: Low Cost AI based Mechatronics System for Electrocoagulation based Arsenic Removal from Industrial Water

[DST/WTC/2K23/2023/95]

Name of the Agency : DST Water Technology Call for Proposals 2023
Total Cost (in Rs.) : 15,51,000
Date : 30/09/2023
Principal Investigator (PI) : Dr. Muthukannan
Co-Principal Investigator (Co-PI) : Dr.S.Kaliappan
Collaborating Industries : ZRAE Global , Chennai
Name : Kishore Abhishek M
Designation : Technical Director
Status : Not considered

13. Title: Automated Robotic System for Efficient Dismantling and Separation of End-of-Life Solar Panels [TPN / 111160]

Name of the Agency : Department of Science & Technology (DST)
Programme/Scheme : Recovery and Recycling of End of Life Solar PV Panels/Modules
Total Cost (in Rs.) : 26,50,000
Date : 29/06/2024
Principal Investigator (PI) : Dr.S.Kaliappan
Co-Principal Investigator (Co-PI) : Dr.T.Mothilal
Status : Under Review

14. Title: Development of AI-powered Sorting System for Accurate Material Classification in End-of-Life Solar Panel Recycling [TPN / 111163]

Name of the Agency : Department of Science & Technology (DST)
Programme/Scheme : Recovery and Recycling of End of Life Solar PV Panels/Modules
Total Cost (in Rs.) : 18,88,000
Date : 29/06/2024
Principal Investigator (PI) : Dr. Muthukannan
Co-Principal Investigator (Co-PI) : Dr.S.Kaliappan
Status : 2nd Stage called for Presentation

15. Title: Applying AI tool to develop class monitoring and behaviour management of students

Name of the Agency : INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH
Programme/Scheme : Minor Projects
Total Cost (in Rs.) : 14,74,0000
Date : 11-08-2024
Principal Investigator (PI) : Dr.S.Kaliappan
Co-Principal Investigator (Co-PI) : 1. Dr.Andal 2. Mrs Shanmugapriya
Status : Under Review

16. Title: Quantifying the Triple Bottom Line of Sustainable Buildings in Tamil Nadu

Name of the Agency : INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH
Programme/Scheme : Major Projects
Total Cost (in Rs.) : 29,00,0000
Date : 11-08-2024
Principal Investigator (PI) : Dr.M.Muthukannan
Co-Principal Investigator (Co-PI) : 1. Dr.S.Kaliappan
Status : Under Review

17. Title: Real-Time Sustainability Assessment for Tamil Nadu's Automotive Sector

Name of the Agency : INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH
 Programme/Scheme : Major Projects
 Total Cost (in Rs.) : 29,50,0000
 Date : 11-08-2024
 Principal Investigator (PI) : Dr.T.Mothilal
 Co-Principal Investigator (Co-PI) : 1. Dr.S.Kaliappan
 Status : Under Review

18. Title: Cyber Security in Artificial Intelligence: Ethical AI for Proactive Cyber Threat Hunting and Incident Response.

Name of the Agency : Government of India, Ministry of Electronics and Information Technology (MeitY) , Cyber Security Group
 Programme/Scheme : Cyber Security
 Total Cost (in Rs.) : 32,00,0000
 Date : 15-09-2025
 Principal Investigator (PI) : Dr.S.Kaliappan
 Co-Principal Investigator (Co-PI) : Dr. N.Lakshmi
 Status : Applied

19. Title: Development of a Multi-Layered Intrusion Detection System for Connected and Autonomous Vehicles.

Name of the Agency : Government of India, Ministry of Electronics and Information Technology (MeitY) , Cyber Security Group
 Programme/Scheme : Cyber Security
 Total Cost (in Rs.) : 42,00,0000
 Date : 15-09-2025
 Principal Investigator (PI) : Dr. M. Muthukannan
 Co-Principal Investigator (Co-PI) : Dr.S.Kaliappan
 Status : Applied

❖ **EDITORIAL ACTIVITIES:**

1. One of the **Editor** in IGI Global publisher Book Chapter title, “**Cyber –Physical systems and supporting Technologies for Industrial Automation**” - Published.
2. One of the **Editor** in IGI Global publisher Book Chapter title, “**Metaheuristics Algorithm and Optimization of Engineering and Complex Systems**” , Thanigaivelan R, Suchithra M, Kaliappan S, Mothilal T – Published.
3. One of the **Editor** in IGI Global publisher Book Chapter title, “**Metaheuristic and Machine Learning Optimization Strategies for Complex Systems**”, Thanigaivelan R, Suchithra M, Kaliappan S, Mothilal T – Published.
4. One of the **Editor** in Apple Academic Press(AAP) Book Chapter title, “**Data Driven Smart Manufacturing : Insight and Novel Approaches** ”, Thanigaivelan R, Suchithra M, Kaliappan S, Dr. S. Vijayakumar – Processing.
5. One of the **Editor** in Apple Academic Press(AAP) Book Chapter title, “**Next-Generation Smart Manufacturing: AI, Renewable Energy, and Intelligent Process Control** ”, Thanigaivelan R, Suchithra M, Kaliappan S, Dr. S. Vijayakumar – Processing.

❖ **RESEARCH GUIDANCE & DC MEMBER:**

RESEARCH GUIDANCE:

The scholars Details:

1. Raj Kamal M D (24132991235) – January-2024

2. Premkumar (24142997264) – July-2024
3. D Roseline Velankanni T (25247991198) – January-2025
4. N.Prasanath (25132997206) – July-2025

Research Coordinator:

1. Sukumar (17142997124) – July-2017
2. Manikandan (18142997192) – July-2018

DC MEMBER:

- Acting as **DC member** for Ph.D. (3 Research Scholars) at **Anna University Chennai** and (2 Research Scholars) at **Saveetha School of Engineering, SIMATS, Chennai - 602 105, Tamil Nadu.**

❖ **REVIEWER/ EDITORIAL BOARD MEMBER/ SESSION CHAIR MEMBER/KEY NOTE SPEAKER (International Conference):**

2026

- Acted as **Keynote Speaker** at **Recent Advances and Trends in Science, Technology, Engineering and Management-RATSTEM 2026** *Jointly Organized by Loyola Institute of Technology, Palanchur, Nazarethpett Post, Chennai – 60012 Tamil Nadu, India* **Conference Dates: 12 May 2026 & 13 May 2026.**
- Acted as **Session Chair** at **Second International Conference on Innovations in Materials Science, Technology, Engineering, and Management for Sustainable Development (IMSTEM 2026)** *Jointly Organized by the Department of Science, St. Joseph's College of Engineering, OMR, Chennai, Tamilnadu, India & RSP Research Hub, Coimbatore, Tamil Nadu, India* **Conference Dates: 20/03/2026 & 21/03/2026.**
- Delivered lecture on **Advanced Concepts in Thermal Radiation and Heat Transfer** at **Loyola Institute of Technology, Department of Mechanical Engineering, and the Association of Radiant Mechanical Students (ARMS)** on 02-03-2026.

2025

- Acted as a Judge for **National Science Expo** hosted by **Rishs International School, Chennai** on **Saturday, December 13, 2025**
- Acted as a judge for **Facturerz'25 (Paper Presentation)** at **CIPET-IPT, Guindy, Chennai** from 18-09-2025 to 19-09-2025.
- Acted as **Session Chair** at **First International Conference on Research Communications in Engineering, Science and Management (ICRCESM)- 2025** Organized by: **M2E2C2 (Mechanical, Management, Electrical, Electronics, Civil and Computer Science Engineering Departments), Ramachandra College of Engineering (A), Eluru, Andhra Pradesh, India** Event Partner: **RSP Research Hub, Coimbatore, Tamil Nadu, India** **Conference Dates: 30/05/2025 & 31/05/2025.**
- Acted as **Session Chair** at **International Conference on Advancement in Science, Engineering & Management (ICSEM)- 2025** Organized by the **Department of Computer Science, Vidya Vihar Institute of Technology, Purnea, Bihar, India.** Event Partner: **Global Conference Hub, Coimbatore, Tamil Nadu, India** **Conference Dates: 10/05/2025 & 11/05/2025.**
- Acted as **Session Chair** at **International Conference on Advanced Data Analytics and Computing (ICADAC 2025)** *Jointly Organized by CRC Press – Taylor & Francis Group | IFERP | JIS Group Educational Initiatives* held from **28th February to 1st March 2025**

- Acted as Session Chair at **International Conference on Innovations in Engineering, Management and Science ICIEMS - 2025** *Jointly Organized by Research & Development Cell & Department of CSE Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India & RSP Conference Hub, Coimbatore, Tamil Nadu, India* on Conference Date: 31/01/2025 & 01/02/2025.

2024

- Acted as Keynote Speaker and Session Chair in **International Conference on Advancements in Engineering, Science & Management (ICAESM) 2024** Jointly Organized by Department of Computer Science and Engineering, Radhakrishna Institute of Technology and Engineering, Bhubaneswar, Odisha, India & Global Conference Hub, Coimbatore, Tamil Nadu, India on **30/08/2024 & 31/08/2024**.
- Acted as a resource person in **GREATER KOLKATA COLLEGE OF ENGINEERING AND MANAGEMENT, BARUIPUR**, Five Days Online Faculty Development Program on **Innovation in Emerging Field** organized by IQAC Cell and IIC GKCEM in association with Department of EE & CSE, GKCEM & Wegrow on 17th July, 2024 in the topic of **Emerging Technology – Computational Fluid Dynamics**.

2023

- Acted as Keynote Speaker and Session Chair at **AICTE-Sponsored International Conference on “RECENT ADVANCES & INNOVATIONS IN SCIENCE, TECHNOLOGY, ENGINEERING & MANAGEMENT”**, in Loyola Institute of technology, Palanchur, Chennai -600123, on **05.10.2023**.
- Acted as Keynote Speaker at **2nd International Conference on recent trends in Management, Engineering and Technology (ICMET) Organized by** Vidya Vihar Institute of Technology, Bihar India & Global Conference Hub, Coimbatore, Tamil Nadu, India on the topic of **“Recent Trends in Mechanical Engineering”** on 22.12.2023 & 23.12.2023 Coimbatore.
- Act as a Session Chair in **International Conference on Intelligence in Manufacturing, Energy and Design – ICIMED 2023** ‘at **Saveetha Engineering College, Chennai-602105** by **Mechanical Engineering Department**, on 12th April and 13th April, 2023.

2020

- Act as a Session Chair in International Conference titled, ‘**International Conference on research Advancements & Challenges in engineering Sciences (ICRACE’20)**’, at **Velammal Institute of Technology, Chennai-601204** jointly organized by the CSE, IT,ECE,EEE, H&S and Mechanical Engineering Department on 06th & 07th March 2020.

2018

- Act as a Session Chair in International Conference on **Automation and Computing Technologies (ICACT’18)** ‘at **Velammal Institute of Technology, Chennai-601204** by **EEE, ECE & Mechanical Engineering Department**, on 17-03-2018.

❖ Reviewer Panel Members in the following journals:

- Next Sustainability
- Results in Engineering Journal
- Heliyon
- Industrial Crops and Products
- Measurement
- Journal of Science Advanced Materials and Devices of Elsevier,
- Journal of Cleaner Production of Elsevier
- Corpus Online Journal of Civil Engineering (COJCE)” from 28-04-2023.

- Applied Energy from 11-04-2022.
- Journal of Industrial Textiles from 07-04-2022.
- Materials Today Proceedings from 01-02-2022.
- Biomass Conversion and Biorefinery from 01-02-2022.
- International Research Journal of Automotive Technology” (IRJAT) (E ISSN 2581-5865) from 01-09-2020
- Technium: Romanian Journal of Applied Sciences and Technology from 28-05-2020
- International journal of Engineering Research & Technology (IJERT) from 13-10-2017.
- Editorial Board Member in the following journals:
- Journal of Coating Technology and Innovation from 01-08-2023.
- Journal of Computer Aided Manufacturing and Automation from 24-04-2021.
- Journal of Thermal Engineering and Technology from 24-04-2021.
- Journal of Automotive Engineering and Technology from 24-04-2021.
- The Hertz Journal of Engineering from 13-06-2020.
- Engineering Report from 03-01-2019.
- International Journal of Theoretical and Applied Mechanics (IJTAM) from 11-06-2018.

❖ **LIST OF PUBLICATIONS:**

No of SCI / Scopus Indexed / WoS /Anna University Annexure Journals
315

Sl.No	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
1	7	2	2	12	1	3	10	44	92	37	63	42	316

AY2026

1. Basavegowda, N., Sharma, P., Kedia, N. *et al.* Heat-treated and functionalized horsetail biosilica reinforced polyhydroxyalkanoate composite fabricated via additive manufacturing: insights into mechanical, wear, and flame-resistant performance. *Polym. Bull.* 83, 187 (2026). <https://doi.org/10.1007/s00289-025-06087-6>. **(Anna University Journal list/SCIE/ SCOPUS with Impact Factor 4.0, Q2 journal)**
2. Soudagar, M.E.M., Singh, R.P., Mohanavel, V. *et al.* Synthesis of nanocellulose from *Solanum tuberosum* peels and it's aloe vera fibre-polyester composites: mechanical, DMA, fatigue and creep properties. *Polym. Bull.* 83, 201 (2026). <https://doi.org/10.1007/s00289-025-06248-7> **(Anna University Journal list/SCIE/ SCOPUS with Impact Factor 4.0, Q2 journal)**
3. Chandramohan, R., Kaliappan, S., Ramya, M. *et al.* Development of a PVA-based biocomposite film reinforced with ginger-stalk microfibers and pumpkin-seed-husk cellulose, toughened with clove oil for antimicrobial packaging applications. *Polym. Bull.* 83, 230 (2026). <https://doi.org/10.1007/s00289-025-06273-6>. **(Anna University Journal list/SCIE/ SCOPUS with Impact Factor 4.0, Q2 journal)**
4. Srithar, A., Kaliappan, S., Natrayan, L. *et al.* Green-synthesized silane-modified biosilica from *Manihot esculenta* tuber skins and its reinforcing effect on bamboo fibre epoxy composites. *Biomass Conv. Bioref.* 16, 68 (2026). <https://doi.org/10.1007/s13399-025-06934-6>. **(WOS/SCIE/Anna University Annexure-1).Impact factor : 4.050 Q2 Journal**
5. Pratheesh, K., Kaliappan, S., Natrayan, L. *et al.* Effect of silane surface treatment on aged areca fiber-latex rubber waste powder vinyl ester composite: creep, fatigue, drop load impact and water absorption behavior. *Polym. Bull.* 83, 237 (2026). <https://doi.org/10.1007/s00289-025-06262-9> **(Anna University Journal list/SCIE/ SCOPUS with Impact Factor 2.9, Q2 journal)**

6. R. Yamuna, S. Kaliappan, R. M and S. K. Pathuri, "Optimized YOLO and Gradient Boosting System for Breast Cancer Tumor Detection in Medical Imaging," *2025 IEEE 6th Global Conference for Advancement in Technology (GCAT)*, Bangalore, India, 2025, pp. 1-6, doi: 10.1109/GCAT66372.2025.11368370. **(Scopus)**
7. P. N. Rao, S. Kaliappan, R. M and S. K. Pathuri, "Deep Ensemble Emotion Recognition from Speech Using YOLO Feature Extraction and RFXGB Classification," *2025 IEEE 6th Global Conference for Advancement in Technology (GCAT)*, Bangalore, India, 2025, pp. 1-6, doi: 10.1109/GCAT66372.2025.11368603. **(Scopus)**
8. K. B. Vara Prasad, G. Sushma, K. P. Raju, S. Kaliappan, R. Maranan and S. K. Pathuri, "Hybrid Deep Ensemble Approach Using ResNet101 and RFGB for Cardiovascular Disease Prediction," *2025 5th International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT)*, MANDYA, India, 2025, pp. 1-7, doi: 10.1109/ICERECT65215.2025.11377934. **(Scopus)**
9. Basavegowda, N., Sharma, P., Kedia, N. *et al.* Structure–property relationships of heat-treated and chemically modified horsetail biosilica in additively manufactured polyhydroxyalkanoate (PHA) composites. *J Therm Anal Calorim* (2026). <https://doi.org/10.1007/s10973-026-15320-x>. **(SCI/Anna University Annexure/SCOPUS with Impact Factor: 3.1 Q2 journal)**
10. Kaliappan, S., Natrayan, L., Muthukannan, M. *et al.* Performance evaluation of silane-treated sandwich-structured AL₂O₃ coated glass fabric and puya mirabilis fiber reinforced polyester composites. *Polym. Bull.* **83**, 275 (2026). <https://doi.org/10.1007/s00289-025-06158-8>. **(Anna University Journal list/SCIE/SCOPUS with Impact Factor 4.0, Q2 journal)**
11. Natrayan L, Chenga Reddy Peddamangari, M Prem Kumar Reddy, Seeniappan Kaliappan, Ramya Maranan, Anand Rajendran, Diffusion-Driven Adaptive Radiance Refinement with PPO-Based Optimization for Robust Solar Irradiance Forecasting, *Results in Engineering*, 2026, 109718, ISSN 2590-1230, <https://doi.org/10.1016/j.rineng.2026.109718>. (<https://www.sciencedirect.com/science/article/pii/S2590123026007577>) **(SCOPUS / Emerging Sources Citation Index (ESCI) with Impact Factor 7.9 , Q1)**
12. P Priya Rachel *et al* 2026 *Phys. Scr.* 101 096001. DOI 10.1088/1402-4896/ae46f3 **(Anna University Annexure Listed/ UGC CARE/Scopus/Web of Science (SCIE) with Impact Factor 2.6, Q2).**
13. Chidambaram, V., Jayabalakrishnan, D., Seeniappan Kaliappan *et al.* Influence of Biochar Content on the Mechanical, Thermal conductivity, and Water absorption Properties of Lyocell Bamboo Fiber Reinforced Polyester Composites. *Chemistry Africa* **9**, 93 (2026). <https://doi.org/10.1007/s42250-025-01533-4>. **(Web of Science (ESCI/SCIE) and Scopus with Impact Factor 2.2, Q2).**
14. Kaliappan, S., Mothilal, T., Ramya, M. *et al.* Impact of water and temperature ageing on silane surface-treated pineapple fibre-waste micro rubber vinyl ester composite. *J Rubber Res* (2026). <https://doi.org/10.1007/s42464-026-00345-6>. **(Anna University Annexure Listed/Scopus/Web of Science (SCIE) with Impact Factor 1.5).**
15. Srithar, A., Singh, P.K., Mohanavel, V. *et al.* Development of sugarcane leaf fiber and *Helianthus annuus* cellulose-reinforced vinyl ester biocomposite. *Polym. Bull.* **83**, 293 (2026). <https://doi.org/10.1007/s00289-025-06193-5>. **(Anna University Journal list/ SCIE/SCOPUS with Impact Factor 4.0, Q2 Journal)**
16. Swarnalatha, A., Kaliappan, S., Natrayan, L. *et al.* Creep, fatigue and dynamic mechanical properties of a polymer-based metamaterial reinforced by waste rubber particles. *J Rubber Res* (2026). <https://doi.org/10.1007/s42464-026-00353-6>. **(Anna University Annexure Listed/Scopus/Web of Science (SCIE) with Impact Factor 1.5).**
17. Pratheesh K, B Jebaraj D, Kaliappan S, *et al.* Development of artificial human prosthetic using Hordeumvulgare husk silicon oxynitride and Pterospermumacerifolium stem fibre reinforced epoxy

- composite. *Journal of Composite Materials*. 2026;0(0). doi:[10.1177/00219983261436908](https://doi.org/10.1177/00219983261436908). **(Anna University Journal list/ SCIE/SCOPUS with Impact Factor 2.4 Q2)**
18. ARUN MOHAN, A.M.; KALIAPPAN, S.; NATRAYAN, L., et al (2026). TiO₂ nanoparticle-enhanced kevlar fiber epoxy composites: development, characterization, and performance analysis. *Revista Matéria*. Advance online publication. <https://doi.org/10.1590/1517-7076-RMAT-2025-0796>. **(Anna University Journal list/ SCOPUS/WoS with Impact Factor 1.22, Q3 Journal)**.
 19. P. Ramesh, S. Kaliappan, R. Maranan and S. K. Pathuri, "Optimized Hybrid Ensemble Learning Using Random Forest and CatBoost for Liver Disease Diagnosis," *2025 IEEE International Conference on Emerging Trends in Computing and Communication (ETCOM)*, Mangalore, India, 2025, pp. 1-6, doi: 10.1109/ETCOM66606.2025.11437080. **(Scopus)**
 20. N. L, S. Uranakar, S. Kaliappan, R. Maranan, S. Subashini and S. K. Pathuri, "YOLO-Enhanced RFGB Architecture for Deep Ensemble Analysis of Post-COVID Cardiovascular Risk," *2025 IEEE International Conference on Emerging Trends in Computing and Communication (ETCOM)*, Mangalore, India, 2025, pp. 1-6, doi: 10.1109/ETCOM66606.2025.11436883. **(Scopus)**
 21. Swarnalatha, A., Kaliappan, S., Natrayan, L. *et al*. High-temperature thermo-mechanical and dynamic properties of surface-modified waste-rubber and aluminised glass fibre reinforced UAV composites. *J Rubber Res* (2026). <https://doi.org/10.1007/s42464-026-00350-9>. **(Anna University Annexure Listed/Scopus/Web of Science (SCIE) with Impact Factor 1.5).**
 22. Meby Selvaraj R, Pratheesh K, Kaliappan S, Ramya M. Fatigue, creep, DMA and flammability behaviour of beet root stem fibre and rice husk powder epoxy composite. *Journal of Composite Materials*. 2026;0(0). doi:[10.1177/00219983261447421](https://doi.org/10.1177/00219983261447421). **(Anna University Journal list/ SCIE/SCOPUS with Impact Factor 2.4 Q2)**
 23. S. Kaliappan, M.Muthukannan, S. Jain, M. Kaur, D. Garg and R. Khomane, "InceptionV3-Based Classification of Night Jasmine Leaf Diseases: Advancing Early Detection in Precision Agriculture," *2025 International Conference on Decision Aid Sciences and Applications (DASA)*, Manama, Bahrain, 2025, pp. 369-374, doi: 10.1109/DASA68193.2025.11499030. **(Scopus)**
 24. M. Sreevani, S. Kaliappan, M.Muthukannan and D. Bhardwaj, "Deep Learning-Based Classification of Nail Diseases Using ResNet101: A Study on Healthy Nails, Onychomycosis, and Psoriasis," *2025 International Conference on Decision Aid Sciences and Applications (DASA)*, Manama, Bahrain, 2025, pp. 1462-1467, doi: 10.1109/DASA68193.2025.11499004. **(Scopus)**
 25. K. Niranjan, S. Kaliappan, R. Priyadarshini and R. Joshi, "GhostNet-Based Peach Tree Disease Detection with Class-Aware Augmentation," *2025 International Conference on Decision Aid Sciences and Applications (DASA)*, Manama, Bahrain, 2025, pp. 1598-1603, doi: 10.1109/DASA68193.2025.11498916. **(Scopus)**
 26. N. Verma, M.Muthukannan, S. Kaliappan, E. A. Banu, D. Joseph and D. Sharma, "MobileNetV3-Large for Retinopathy Severity and Edema Risk from Fundus Images and Clinical Captions," *2025 International Conference on Decision Aid Sciences and Applications (DASA)*, Manama, Bahrain, 2025, pp. 2111-2116, doi: 10.1109/DASA68193.2025.11499102. **(Scopus)**
 27. S. Kaliappan, E. A. Banu, M.Shanmugapriya, S. N. Sashmi, Y. Bhaghal and G. Kumar, "TinyViT-Based Sugarcane Leaf Disease Detection with Balanced Dataset and Comprehensive Evaluation," *2025 International Conference on Decision Aid Sciences and Applications (DASA)*, Manama, Bahrain, 2025, pp. 2178-2183, doi: 10.1109/DASA68193.2025.11498854. **(Scopus)**
 28. G. Lokesh, S. Kaliappan, N.Lakshmi and Divyajot, "Deep Learning–Driven Histopathological Analysis of Lung Cancer Using MobileNetV4-Large Architecture for Enhanced Diagnostic Accuracy," *2025 International Conference on Decision Aid Sciences and Applications (DASA)*, Manama, Bahrain, 2025, pp. 2562-2567, doi: 10.1109/DASA68193.2025.11498859. **(Scopus)**

29. P. Kaushik, S. Kaliappan, M. I. A. Saral, D. Joseph and S. Sneha, "Efficient Diagnosis of Jackfruit Leaf Diseases through GhostNet-Based Deep Learning Framework," *2025 International Conference on Decision Aid Sciences and Applications (DASA)*, Manama, Bahrain, 2025, pp. 2574-2579, doi: 10.1109/DASA68193.2025.11498791. **(Scopus)**
30. Bhardwaj, G., Pamuluri, V.K.N., Dev, A. *et al.* Characterization study on mechanical, wear, and water absorption properties of stacking ordered natural kenaf/sisal fiber and cellulose particle reinforced epoxy biocomposite. *Chem. Pap.* (2026). <https://doi.org/10.1007/s11696-026-05080-1>. **(Anna University Journal list/ SCIE/SCOPUS with Impact Factor 2.5 Q2)**
31. N. S. Kumar, **S. Kaliappan**, Y. Saini and J. Lande, "Federated Learning for Privacy-Aware and Secure Medical Decision Support Systems," *2026 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETISIS)*, Manama, Bahrain, 2026, pp. 161-166, doi: 10.1109/ICETISIS68266.2026.11549229. **(Scopus)**
32. M. Amreen, S. Kaliappan, K. R. Chythanya and D. Garg, "A Deep Transfer Learning Framework Based on EfficientNetB4 for Robust Neem Leaf Disease Diagnosis," *2026 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETISIS)*, Manama, Bahrain, 2026, pp. 832-837, doi: 10.1109/ICETISIS68266.2026.11549366. **(Scopus)**
33. K. Uma Maheswari, S. Kaliappan, R. Sujitha and D. Garg, "ResNet101-Based Classification of Night Jasmine Leaf Diseases Using Transfer Learning," *2026 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETISIS)*, Manama, Bahrain, 2026, pp. 838-843, doi: 10.1109/ICETISIS68266.2026.11549375. **(Scopus)**
34. S. L. Lakshmi, S. Kaliappan, M. Ankushavali and A. Mittal, "Eye Focused Efficientnetb3 for Lightweight and Accurate Crossed Versus Normal Eye Classification," *2026 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETISIS)*, Manama, Bahrain, 2026, pp. 1139-1144, doi: 10.1109/ICETISIS68266.2026.11548906.. **(Scopus)**
35. P. Bindumadhavi, S. Kaliappan, K. R. Chythanya and A. S. Bangari, "Risk-Aware Calibration and Interpretable Baselines for Mental Health Text Classification," *2026 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETISIS)*, Manama, Bahrain, 2026, pp. 1177-1182, doi: 10.1109/ICETISIS68266.2026.11549367. **(Scopus)**
36. B. Bharathi, S. Kaliappan, N. Yamsani and A. Sain, "GhostNetV2-Based Lightweight Deep Learning Framework for Automated Betel Leaf Disease Classification," *2026 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETISIS)*, Manama, Bahrain, 2026, pp. 1697-1702, doi: 10.1109/ICETISIS68266.2026.11549057. **(Scopus)**.
37. Subramanian, J., Seeniappan, K., Sekar, S.M. *et al.* Effect of stacking sequence on mechanical, fatigue and impact behavior of kender-N/*Cycasrevoluta* hybrid fibreand waste grape stalk lignin toughened epoxy composites. *Chem. Pap.* (2026). <https://doi.org/10.1007/s11696-026-05189-3>. **(Anna University Journal list/ SCIE/SCOPUS with Impact Factor 2.5 Q2)**
38. Teja, M.V., Mothilal, T., Kaliappan, S. *et al.* Epoxy Composites Reinforced with Cyperus platystylis Stem Fiber and Setaria italica Husk Silica. *emergent mater.* **9**, 163 (2026).<https://doi.org/10.1007/s42247-026-01456-x>. **(Scopus)**
39. Natrayan Lakshmaiya, Putta Nageswara Rao, Hari Chandra Prasad, Seeniappan Kaliappan, Ramya Maranan, Anand Rajendran, Explainable Ensemble Learning with Bayesian Optimization for Microstructure-Driven Tensile Strength Prediction and Design Optimization of Al–SiC Metal Matrix Composites, *Journal of Materials Research and Technology*, 2026, ISSN 2238-7854, <https://doi.org/10.1016/j.jmrt.2026.07.030>. (<https://www.sciencedirect.com/science/article/pii/S2238785426017618>) **(Anna University List/SCI/SCOPUS/WoS with Impact Factor 7.3, Q1)**

40. Singhal, P., Pamuluri, V.K.N., Dev, A. *et al.* Mechanical, thermal, and antimicrobial properties of betel nut husk and abaca fiber reinforced epoxy bio-composites. *Chem. Pap.* (2026). <https://doi.org/10.1007/s11696-026-05233-2>. (Anna University Journal list/ SCIE/SCOPUS with Impact Factor 2.5 Q2)
 41. Chetia, P., G, A.J., S, R. *et al.* Production & Characterization of Recycled Nutmeg Short Fiber and *Butea monosperma* Leaf Ash nanosilica Polyester Composite. *Silicon* (2026). <https://doi.org/10.1007/s12633-026-03739-8> (Anna University Journal list/ SCIE/SCOPUS in Springer Nature with Impact Factor 4.1 Q2)
 42. Natrayan, L., Kaliappan, S., Kumar, S.S. *et al.* Effect of Silane Treatment and Stacking Order on Mechanical, Low Velocity Impact and Drilling Behaviour of Kevlar/*Tithonia diversifolia* Natural Stem Fiber-epoxy Composite. *Silicon* (2026). <https://doi.org/10.1007/s12633-026-03745-w>. (Anna University Journal list/ SCIE/SCOPUS in Springer Nature with Impact Factor 4.1 Q2)
- AY2025**
43. Arvinda Pandian, C., Balaji, N., Seeniappan, K., Natrayan, L. *et al.*, "Advancements in Lightweight Composite Materials for Enhancing the Structural Integrity of Automotive Component," SAE Technical Paper 2025-01-5005, 2025, <https://doi.org/10.4271/2025-01-5005>. (Scopus)
 44. Karthigairajan, M., Seeniappan, K., Balaji, N., Natrayan, L. *et al.*, "Performance Analysis of Graphene-Coated Heat Pipe Heat Exchangers for Automobile Exhaust Cooling and Purification," SAE Technical Paper 2025-01-5006, 2025, <https://doi.org/10.4271/2025-01-5006>. (Scopus)
 45. Sivaperumal, M., Kumar, J.P., Natrayan, L. *et al.* Characterization of Pearl Millet Husk Biosilica and Areca Microfibre toughened polyvinyl alcohol flexible food packaging composite. *J Aust Ceram Soc* (2025). <https://doi.org/10.1007/s41779-025-01152-9> (Anna University Journal list/ SCOPUS/Science Citation Index Expanded (SCIE)/UGC-CARE List (India) with Impact Factor 1.8, Q3 journal)
 46. Natrayan, L., Kaliappan, S., Swamy Nadh, V., Maranan, R. *et al.*, "A Novel Approach for Integrating Virtual Reality in the Ergonomic Testing of Automotive Interior Designs," SAE Technical Paper 2024-01-5243, 2025, <https://doi.org/10.4271/2024-01-5243>. (Scopus)
 47. Natrayan, L., Kaliappan, S., Mothilal, T., Balaji, N. *et al.*, "Utilizing High-Performance Thermoplastics to Improve Durability and Efficiency in Automotive Instrument Panels," SAE Technical Paper 2024-01-5245, 2025, <https://doi.org/10.4271/2024-01-5245>. (Scopus)
 48. Kumar, Pitchai Marish, Karthick, Alagar, Kaliappan, Seeniappan, Muhibbullah, Md, Investigation of Concentrated Semitransparent Photovoltaic System for Hot and Humid Climatic Conditions, *International Journal of Photoenergy*, 2025, 1321921, 10 pages, 2025. <https://doi.org/10.1155/ijph/1321921>. (Anna University Journal list/ SCOPUS /Science Citation Index Expanded (SCIE)/WoS) with Impact Factor 2.1, Q2)
 49. K.S.Ashraff Ali, Samraj Ravi, Vinayagam Mohanavel, Manikandan Ayyar, Selvakumar Kathiresan, Sathish Kannan, Arunkumar Munimathan, Manzoore Elahi M. Soudagar, **Seeniappan Kaliappan**, Effect of continuous fiber reinforcement on mechanical and tribological characteristics of cellulose and human hair fiber polymer composites, *Results in Engineering*, Volume 25, 2025, 104480, ISSN 2590-1230, <https://doi.org/10.1016/j.rineng.2025.104480>. <https://www.sciencedirect.com/science/article/pii/S2590123025005584?via%3Dihub> . (Anna University Journal list/ UGC Care/SCOPUS /WoS/Science Citation Index Expanded (SCIE)) with Impact Factor 6.0, Q1)
 50. Natarajan, G., Krishnan, G., Seeniappan, K., & Lakshmaiya, N. (2025). *Influence of heat treated Manihot Esculenta biosilica on friction stir welded AA 6065-Al2O3 metal matrix composite and microstructural, mechanical, and fatigue analysis*. *Materials Research*, 28, e20240473. <https://doi.org/10.1590/1980-5373-MR-2024-0473>. (Anna University Journal list/ UGC Care/SCOPUS/ Science Citation Index Expanded (SCI)) with Impact Factor 1.46 , Q3)

51. K. Karpagavadivu, S. Sakthivel, M. Ramya, S. Kaliappan, R. Maranan and N. S, "High-Resolution NLP for Social Healthcare Networks: Text Classification through Integration of Causal Dilated Cosine Architecture Optimized by Weighted Leadership Navigator for Advanced Insights," *2024 IEEE 4th International Conference on ICT in Business Industry & Government (ICTBIG)*, Indore, India, 2024, pp. 1-7, doi: 10.1109/ICTBIG64922.2024.10911601. **(Scopus)**.
52. S. Kaliappan, B. Sinha, M. Ramya, S. Aluvala, N. S and R. Maranan, "Random Coupled Neural Network with Sand Cat Swarm Optimization for Automatic Object Detection in Aerial Images," *2024 IEEE 4th International Conference on ICT in Business Industry & Government (ICTBIG)*, Indore, India, 2024, pp. 1-7, doi: 10.1109/ICTBIG64922.2024.10911661. **(Scopus)**.
53. S. Kaliappan, M. Muthukannan, N. D. Devi, M. M. Irfan, R. Maranan and M. Ramya, "A Novel Approach to Hand Gestures Recognition Using Optimized Quantum GAN and ResNet-152 Features," *2024 IEEE 4th International Conference on ICT in Business Industry & Government (ICTBIG)*, Indore, India, 2024, pp. 1-7, doi: 10.1109/ICTBIG64922.2024.10911217. **(Scopus)**.
54. S. Kaliappan, R. Maranan, M. Muthukannan, R. Deshmukh, J. Gnanasekaran and M. Ramya, "An Optimized Hamiltonian Quantum Generative Network Based Drug-Drug Interactions Prediction Through Combining Local And Global Features," *2024 IEEE 4th International Conference on ICT in Business Industry & Government (ICTBIG)*, Indore, India, 2024, pp. 1-7, doi: 10.1109/ICTBIG64922.2024.10911684. **(Scopus)**.
55. R, C., Kaliappan, S., Natrayan, L. *et al.* Optimization of tensile and water absorption properties of biosilica dispersed cardanol oil blended PLA/PCL biocomposite for packaging applications. *J Aust Ceram Soc* (2025). <https://doi.org/10.1007/s41779-025-01175-2> **(Anna University Journal list/ SCOPUS/Science Citation Index Expanded (SCIE)/UGC-CARE List (India) with Impact Factor 1.8, Q3 journal)**
56. Natrayan Lakshmaiya, Naga Dheeraj Kumar Reddy Chukka, Seeniappan Kaliappan, V. Balaji, Nimel Sworna Ross, Ramya Maranan, An integrated Artificial neural network technique to optimize the various parameters of Pineapple/SiO₂/epoxy-based nanocomposites under NaOH treatment, *Results in Engineering*, Volume 26, 2025, 104737, ISSN 2590-1230, <https://doi.org/10.1016/j.rineng.2025.104737>. (<https://www.sciencedirect.com/science/article/pii/S259012302500814X>) **(SCOPUS / Emerging Sources Citation Index (ESCI) with Impact Factor 6.0, Q1)**
57. U. S. Patil, S. Kaliappan, L. Natrayan, T. Mothilal, N. D. Devi, and M. Muthukannan, "Optimized Energy Management in Renewable Energy Integrated Microgrids Using Pyramidal Dilation Attention Convolutional Neural Networks," *J. Environ. Nanotechnol.*, vol. 14, no. 1, pp. 444–452, Mar. 2025, doi: 10.13074/jent.2025.03.2441156. **(SCOPUS)**
58. Natrayan Lakshmaiya, Naga Dheeraj Kumar Reddy Chukka, M. Karthick, Nimel Sworna Ross, Seeniappan Kaliappan, Ramya Maranan, Optimization of thermal efficiency in double pass solar air heating systems with emphasis on collector design parameters and operating conditions, *Results in Engineering*, Volume 26, 2025, 104948, ISSN 2590-1230, <https://doi.org/10.1016/j.rineng.2025.104948>. (<https://www.sciencedirect.com/science/article/pii/S2590123025010242>) **(SCOPUS / Emerging Sources Citation Index (ESCI) with Impact Factor 6.0, Q1)**
59. Seeniappan Kaliappan, G. Muthu, S. Sivacharan, M. Ramya, and Maranan R. (2025). "Biodegradable flax fiber-based nonwovens for oil spill mitigation and environmental protection", *Proc. SPIE 13631, International Conference on Medical Imaging, Electronic Imaging, Information Technologies, and Sensors (MIEITS 2025)*, 136310J (2 May 2025); <https://doi.org/10.1117/12.3058643>**(SCOPUS)**
60. Seeniappan Kaliappan, G. Muthu, M. Sai Chaithanya, M. Ramya, and Maranan R. (2025). "Low-temperature sol-gel synthesis of nanocrystalline aluminium oxide in hemp fibres for enhanced UV resistance", *Proc. SPIE 13631, International Conference on Medical Imaging, Electronic Imaging,*

- Information Technologies, and Sensors (MIEITS 2025), 136310G (2 May 2025); <https://doi.org/10.1117/12.3058644>(SCOPUS)
61. Seeniappan Kaliappan, V. Balaji, Talapa Reddy Suman Kumar, M. Ramya, and Maranan R. (2025). "Development and characterization of kenaf filament reinforced chitosan biocomposites", Proc. SPIE 13631, International Conference on Medical Imaging, Electronic Imaging, Information Technologies, and Sensors (MIEITS 2025), 136310N (2 May 2025); <https://doi.org/10.1117/12.3058645>(SCOPUS)
 62. Seeniappan Kaliappan, Naga Dheeraj Kumar Reddy Chukka, M. Ramya, Vinay Kumar Reddy, and Maranan R. (2025). "Enhancing moisture management and UV protection in cotton fabrics using nano-TiO₂ and hydrophilic sprays", Proc. SPIE 13631, International Conference on Medical Imaging, Electronic Imaging, Information Technologies, and Sensors (MIEITS 2025), 136310S (2 May 2025); <https://doi.org/10.1117/12.3058646>(SCOPUS)
 63. Seeniappan Kaliappan, Vandanapu Swamy Nadh, M. Ramya, Pankaj Kumar, and Maranan R. (2025). "Comparative study of treated and untreated *Crotalaria juncea* L. fibres in polyester matrices", Proc. SPIE 13631, International Conference on Medical Imaging, Electronic Imaging, Information Technologies, and Sensors (MIEITS 2025), 136310A (2 May 2025); <https://doi.org/10.1117/12.3058647>(SCOPUS).
 64. Lakshmaiya, N., Nadh, V.S., **Kaliappan, S. et al.** (2025). Enhanced tribological performance of AA6018 aluminium composites reinforced with copper chromate exploring ceramic-based strengthening mechanisms. *J Aust Ceram Soc* (2025). <https://doi.org/10.1007/s41779-025-01215-x>. (**Anna University Journal list/ SCOPUS/Science Citation Index Expanded (SCIE)/UGC-CARE List (India) with Impact Factor 1.8, Q3 journal**)
 65. K. Pratheesh, **S. Kaliappan**, L. Natrayan, and M. Ramya (2025), "Mechanical, tribological, fatigue, and creep performance of AA 7075 composites reinforced with annealed and functionalized biosilica from red matta rice husk," *Surface Review and Letters*, Jul. 2025. [Online]. Available: <https://doi.org/10.1142/S0218625X25501975>. (**Anna University Journal list/ SCOPUS/Science Citation Index Expanded (SCIE) with Impact Factor 1.2, Q3 journal**)
 66. Arun Mohan, A. M., **Kaliappan, S.**, Natrayan, L., & Maranan, R. (2025). Smart self-healing concrete infused with nanomaterials for sustainable construction and real-time structural monitoring. *Revista Matéria*. Advance online publication. <https://doi.org/10.1590/1517-7076-RMAT-2024-0969> . (**Anna University Journal list/ SCOPUS/WoS with Impact Factor 1.22, Q3 Journal**)
 67. **Kaliappan, S.**, Natrayan, L., Muthukannan, M. et al. Static and Dynamic Analysis of Sandwiched Silane Treated Aluminum Coated Glass Fabric and Pineapple Fibre/Granite Dust Polyester Composite. *Fibers Polym* (2025). <https://doi.org/10.1007/s12221-025-01129-2>. (**Anna University Journal list/ SCIE/SCOPUS with Impact Factor 2.3, Q2 Journal**)
 68. **Kaliappan, S.**, Manikanta, C., Natrayan, L. et al. Sustainable EMI shielding in flexible PVA matrix using *Cymbopogon citratus*-derived ZnO nanoparticles and natural fiber hybridization. *J Mater Sci: Mater Electron* 36, 1524 (2025). <https://doi.org/10.1007/s10854-025-15536-x>. (**Anna University Journal list/SCIE/SCOPUS with Impact Factor 2.8, Q2 journal.**)
 69. Natrayan Lakshmaiya, Naga Dheeraj Kumar Reddy Chukka, Nimel Sworna Ross, **Seeniappan Kaliappan**, Ramya Maranan, Prabhu Paramasivam, Abinet Gosaye Ayanie, Experimental evaluation of a solar water heating system integrating thermal mass and phase change material for enhanced efficiency in residential applications, *International Journal of Low-Carbon Technologies*, Volume 20, 2025, Pages 1674–1681, <https://doi.org/10.1093/ijlct/ctaf108>. (**Anna University Journal list/SCIE/SCOPUS with Impact Factor 2.3, Q1 Journal**)
 70. **Kaliappan, S.**, Kilari, N., Natrayan, L. et al. Performance evaluation of PVA composites reinforced with macadamia shell-based silicon carbide and natural fibers for EMI shielding applications. *Polym.*

Bull. (2025). <https://doi.org/10.1007/s00289-025-06030-9>. (Anna University Journal list/ SCIE/SCOPUS with Impact Factor 4.0, Q2 Journal)

71. Subramanian, J. *et al.* (2025) "Eco-Friendly Synthesis of Chitosan-Ag Nanocomposites Using *Tabernaemontana divaricata*: A Multi-Scale Analysis of their Structural, Thermal, and Mechanical Properties", *Global NEST Journal*, 27(7). Available at: <https://doi.org/10.30955/gnj.07179>. (Anna University Journal list/ SCIE/SCOPUS with Impact Factor 1.5, Q3 Journal)
72. Arun Mohan, A. M., Kaliappan, S., Natrayan, L., & Maranan, R. (2025). Smart self-healing concrete infused with nanomaterials for sustainable construction and real-time structural monitoring. *Revista Matéria*. Advance online publication. <https://doi.org/10.1590/1517-7076-RMAT-2024-0968>. (Anna University Journal list/ SCOPUS/WoS with Impact Factor 1.22, Q3 Journal)
73. Vinodh, D., Lakshmaiya, N., Kumar, T.R.S. *et al.* Sustainable hybrid biocomposites using agricultural waste fillers and natural fibers for material recycling. *J Mater Cycles Waste Manag* (2025). <https://doi.org/10.1007/s10163-025-02395-1>. (Anna University Journal list/ SCOPUS/WoS with Impact Factor 3, Q2 journal.)
74. A. Karthick, T. Rajalakshmi, S. Kaliappan and M. Suganya, "A Deep Learning Approach for Brain Tumor Detection using ResNet Architecture," *2025 3rd International Conference on Sustainable Computing and Data Communication Systems (ICSCDS)*, Erode, India, 2025, pp. 1-4, doi: 10.1109/ICSCDS65426.2025.11167537. (SCOPUS)
75. A. Karthick, K. Naveen, S. Kaliappan and V. T. Thangam, "Prediction of PV Power using Ensemble Learning Techniques with Meteorological Data," *2025 International Conference on Modern Sustainable Systems (CMSS)*, Shah Alam, Malaysia, 2025, pp. 646-650, doi: 10.1109/CMSS66566.2025.11182400. (SCOPUS)
76. A. Karthick, R. Yamuna, S. Kaliappan and R. Anitha, "Random Forest Regression for Solar Radiation Forecasting with Meteorological Inputs," *2025 International Conference on Modern Sustainable Systems (CMSS)*, Shah Alam, Malaysia, 2025, pp. 696-700, doi: 10.1109/CMSS66566.2025.11182571. (SCOPUS)
77. A. Karthick, P. Bindumadhavi, S. Kaliappan and S. K. Jebaseeli, "LSTM based Deep Learning Model for PV Power Forecasting," *2025 International Conference on Modern Sustainable Systems (CMSS)*, Shah Alam, Malaysia, 2025, pp. 113-117, doi: 10.1109/CMSS66566.2025.11182300. (SCOPUS)
78. A. Karthick, C. Manikanta, S. Kaliappan and U. Esakkiammal, "Prediction of Photovoltaic Output Power using GRU and Weather Data Fusion," *2025 International Conference on Modern Sustainable Systems (CMSS)*, Shah Alam, Malaysia, 2025, pp. 1-4, doi: 10.1109/CMSS66566.2025.11182565. (SCOPUS)
79. Basavegowda, N., Sharma, P., Kedia, N. *et al.* Surface-modified horsetail biosilica infused polyhydroxyalkanoate additively printed composite: mechanical, tribological and flammability properties. *Int J Adv Manuf Technol* (2025). <https://doi.org/10.1007/s00170-025-16753-8>. (Anna University Journal list/ SCOPUS/WoS with Impact Factor 3.1, Q2 journal)
80. L. Natrayan, S. Kaliappan, S. G., S. Sivacharan, B. Pallavi and S. K.V., "AI-Powered Economic Systems: A New Paradigm in Data-Driven Decision-Making," *2025 International Conference on Technology Enabled Economic Changes (InTech)*, Tashkent, Uzbekistan, 2025, pp. 987-991, doi: 10.1109/InTech64186.2025.11198278. (Scopus)
81. L. Natrayan, S. Kaliappan, A. N. Sai, A. Ranjithkumar, P. Sheker and L. Jayanthi, "Economic Efficiency Through AI: Exploring Advanced Forecasting and Optimization Models," *2025 International Conference on Technology Enabled Economic Changes (InTech)*, Tashkent, Uzbekistan, 2025, pp. 992-997, doi: 10.1109/InTech64186.2025.11198444. (Scopus)
82. L. Natrayan, S. Kaliappan, R. Karthikeyan, A. N. Sai, M. Ramesh and M. Shakunthala, "Advanced Big Data Analysis for Scalable Decision-Making and Predictive Insights," *2025 International Conference on*

- Technology Enabled Economic Changes (InTech)*, Tashkent, Uzbekistan, 2025, pp. 998-1002, doi: 10.1109/InTech64186.2025.11198238. **(Scopus)**
83. L. Natrayan, S. Kaliappan, P. U. M. Rao, C. K. Kamalam, Manjuvani and M. Srinivasan, "A Deep Dive into Big Data Analytics: From Frameworks to Real-World Applications," *2025 International Conference on Technology Enabled Economic Changes (InTech)*, Tashkent, Uzbekistan, 2025, pp. 1003-1007, doi: 10.1109/InTech64186.2025.11198430. **(Scopus)**
 84. L. Natrayan, S. Kaliappan, S. V., G. F. R. A., N. Bhaskarani and L. C. Kasireddy, "Enhancing Trust and Security in Digital Ecosystems with Blockchain Technology," *2025 International Conference on Technology Enabled Economic Changes (InTech)*, Tashkent, Uzbekistan, 2025, pp. 1008-1013, doi: 10.1109/InTech64186.2025.11198514. **(Scopus)**
 85. Srithar, A., Kaliappan, S., Natrayan, L. et al. Sustainable Synthesis of Biosilica Nanoparticles from Cassava Peels and Bamboo Fiber-reinforced Epoxy Composite and Analyse their Performances. *Silicon* (2025). <https://doi.org/10.1007/s12633-025-03492-4> **(SCIE/Anna University Annexure-1/SCOPUS). Impact Factor: 2.8 Q2 Journal**
 86. Natrayan, L., Kaliappan, S., Nagajothi, G. *et al.* High-temperature-resistant vinyl ester composites enhanced by fumed silica and rockwool: thermal and mechanical insights. *J Therm Anal Calorim* (2025). <https://doi.org/10.1007/s10973-025-15043-5>. **(SCI/Anna University Annexure/SCOPUS with Impact Factor: 3.1 Q2 journal)**
 87. Natrayan, L., Chennaiah, M.P., Kaliappan, S. *et al.* Development of lightweight basalt fiber-reinforced polymer composite with silane-treated activated biocarbon for enhanced mechanical, dielectric, and EMI shielding performance. *J Therm Anal Calorim* (2025). <https://doi.org/10.1007/s10973-025-15092-w>. **(SCI/Anna University Annexure/SCOPUS with Impact Factor: 3.1 Q2 journal)**
 88. Natrayan, L., Chennaiah, M.P., **Kaliappan, S.** *et al.* Characterization study on fatigue, shear, magnetic and electromagnetic shielding effectiveness of biomass extracted silver nanoparticle, carbon quantum dots, *cissusquadrangularis* fiber-reinforced polyester composite. *J Mater Sci: Mater Electron* 36, 2160 (2025). <https://doi.org/10.1007/s10854-025-16256-y>. **(Anna University Journal list/SCIE/SCOPUS with Impact Factor 2.8, Q2 journal.)**
 89. Natrayan, L., Chennaiah, M., **Kaliappan, S.** *et al.* Light weight shielding polymer composite by using mineral fiber and activated biocarbon and their evaluation of performance. *Polym. Bull.* 83, 37 (2026). <https://doi.org/10.1007/s00289-025-06122-6>. **(Anna University Journal list/ SCIE/SCOPUS with Impact Factor 4.0, Q2 Journal)**
 90. Lakshmana kumar, S., **Kaliappan, S.**, Natrayan, L. *et al.* Effect of sugarcane lignin and Bagasse fiber on the mechanical and thermal performance of vinyl ester composites. *Polym. Bull.* **83**, 40 (2026). <https://doi.org/10.1007/s00289-025-06060-3>. **(Anna University Journal list/ SCIE/SCOPUS with Impact Factor 4.0, Q2 Journal)**
 91. S, M.K., G, M., S, K. *et al.* Fabrication and Performance Assessment of Hot Water Conditioned Epoxy Composites Reinforced With Modified Mango Peel Nanofibers and Jackfruit Peel Powder. *Silicon* (2025). <https://doi.org/10.1007/s12633-025-03566-3>. **(SCIE/Anna University Annexure-1/SCOPUS). Impact Factor: 3.3 Q2 Journal**
 92. Soudagar, M.E.M., Sharma, K., Mohanavel, V. *et al.* Synthesis of pectin from orange peel and innovation of biodegradable polyhydroxyalkanoate film for packaging application. *Polym. Bull.* **83**, 114 (2026). <https://doi.org/10.1007/s00289-025-06199-z>. **(Anna University Journal list/ SCIE/SCOPUS with Impact Factor 4.0, Q2 Journal)**
 93. P. S. Rani, G. S. Raju, S. K. Pathuri, S. M. Ali, P. N. V. S. R. M and S. Kaliappan, "Deep Learning and AdaBoost Ensemble Integration for Nodular Goiter Diagnosis Using ResNet101 Features," *2025 First*

- International Conference on Intelligent Computing and Communication Systems (CICCS)*, Bengaluru, India, 2025, pp. 1-6, doi: 10.1109/CICCS66437.2025.11280081. **(Scopus)**
94. N. L, V. S. Saranya, J. V. R. Kumar, S. Kaliappan, R. Maranan and S. K. Pathuri, "A Hybrid RF and AdaBoost Ensemble Model for Detecting Cyberbullying on Social Media," *2025 First International Conference on Intelligent Computing and Communication Systems (CICCS)*, Bengaluru, India, 2025, pp. 1-7, doi: 10.1109/CICCS66437.2025.11280190. **(Scopus)**
 95. N. L, S. S. Kumar, G. P. Rao, S. Kaliappan, R. Maranan and S. K. Pathuri, "AI-Driven Crime Forecasting: Leveraging Digital Shadows for Safer Urban Spaces," *2025 5th Asian Conference on Innovation in Technology (ASIANCON)*, PIMPRI, India, 2025, pp. 1-8, doi: 10.1109/ASIANCON66527.2025.11280644. **(Scopus)**
 96. N. L, P. T. Chiranjeevi Swamy, S. V. S. S. Lakshmi, S. Kaliappan, R. Maranan and S. K. Pathuri, "YOLO-Based Segmentation and RFGB Classification Model for Nodular Goiter/Thyroid Diagnosis," *2025 5th Asian Conference on Innovation in Technology (ASIANCON)*, PIMPRI, India, 2025, pp. 1-6, doi: 10.1109/ASIANCON66527.2025.11281067. **(Scopus)**
 97. N. L, N. V. Anand, D. Srikar, S. Kaliappan, R. Maranan and S. K. Pathuri, "A Novel Approach for Freshness Detection in Vegetables Fruits Using Deep Learning and Principal Component Analysis," *2025 IEEE International Conference on Advances in Computing Research On Science Engineering and Technology (ACROSET)*, INDORE, India, 2025, pp. 1-7, doi: 10.1109/ACROSET66531.2025.11280784. **(Scopus)**
 98. N. L, K. Doppalapudi, G. P. Rao, S. Kaliappan, R. Maranan and S. K. Pathuri, "A Hybrid Deep Learning and Ensemble Approach for Nodular Goiter Diagnosis using YOLO and AdaBoost," *2025 IEEE International Conference on Advances in Computing Research On Science Engineering and Technology (ACROSET)*, INDORE, India, 2025, pp. 1-6, doi: 10.1109/ACROSET66531.2025.11281050. **(Scopus)**
 99. N. L, S. J, J. V. R. Kumar, S. Kaliappan, R. Maranan and S. K. Pathuri, "A Multi-Model Ensemble Learning Approach for Cyberbullying Detection in Social Networks," *2025 IEEE International Conference on Advances in Computing Research On Science Engineering and Technology (ACROSET)*, INDORE, India, 2025, pp. 1-6, doi: 10.1109/ACROSET66531.2025.11281039. **(Scopus)**
 100. Kaliappan, S., Natrayan, L., Ramya, M. *et al.* Mechanical, fatigue, creep and water absorption behaviour of silane surface treated pineapple fibre and tuna skin collagen powder epoxy composite. *J Polym Res* **33**, 4 (2026). <https://doi.org/10.1007/s10965-025-04697-2>. **(Anna University Journal list/SCIE/SCOPUS with Impact Factor 2.9, Q2 journal.)**
 101. N. L, S. Kaliappan, T. R. Velankanni, N. Lakshmi and R. M, "LoRA Enhanced Large Language Models for Fault Diagnosis in Smart Factories," *2025 IEEE 5th International Conference on ICT in Business Industry & Government (ICTBIG)*, Indore, Madhya Pradesh, India, India, 2025, pp. 1-6, doi: 10.1109/ICTBIG68706.2025.11323773. **(Scopus)**
 102. L. N, S. Kaliappan, M. Muthukannan, T. R. Velankanni and R. M, "Bayesian Network-Based Attention Mechanism for Data Fusion in ADAS Vehicular Scenario," *2025 IEEE 5th International Conference on ICT in Business Industry & Government (ICTBIG)*, Indore, Madhya Pradesh, India, India, 2025, pp. 1-6, doi: 10.1109/ICTBIG68706.2025.11323931. **(Scopus)**
 103. N. L, S. Kaliappan, T. R. Velankanni, N. Lakshmi and R. M, "Hybrid DQN-GA Framework with Large Language Models for Multi-Objective Optimization in 3D Printing," *2025 IEEE 5th International Conference on ICT in Business Industry & Government (ICTBIG)*, Indore, Madhya Pradesh, India, India, 2025, pp. 1-6, doi: 10.1109/ICTBIG68706.2025.11323641. **(Scopus)**
 104. N. L, S. Kaliappan, M. Muthukannan, R. Priyadharshini and R. M, "GNN-Based Data Integration Using Ensemble Learning for Autonomous Vehicle Systems," *2025 IEEE 5th International Conference on ICT in*

Business Industry & Government (ICTBIG), Indore, Madhya Pradesh, India, India, 2025, pp. 1-6, doi: 10.1109/ICTBIG68706.2025.11323761 (**Scopus**)

105. L. N, S. Kaliappan, M. Muthukannan, R. Priyadharshini and R. M, "Soft Actor Critic Reinforcement Learning for Decentralized Secured Drone System," *2025 IEEE 5th International Conference on ICT in Business Industry & Government (ICTBIG)*, Indore, Madhya Pradesh, India, India, 2025, pp. 1-6, doi: 10.1109/ICTBIG68706.2025.11323988. (**Scopus**)

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106. Jeevanantham, S., Kaliappan, S., Natrayan, L. *et al.* Influence of peanut husk derived heat-treated Si₃N₄ on load bearing properties of basalt fibre-reinforced polyester composite. *J Aust Ceram Soc* (2024). <https://doi.org/10.1007/s41779-024-01104-9> (**Anna University Journal list/ SCOPUS/Science Citation Index Expanded (SCIE)/UGC-CARE List (India) with Impact Factor 1.8, Q3 journal**)
107. S. Kaliappan, M. D. R. Kamal, V. Balaji and G. R. Kumar, "Advanced Neural Network Models for Predictive Analytics and Healthcare Management in Neurodegenerative Diseases," *2024 International Conference on Advancements in Smart, Secure and Intelligent Computing (ASSIC)*, Bhubaneswar, India, 2024, pp. 1-6, doi: 10.1109/ASSIC60049.2024.10508005. (**Scopus**)
108. S. Kaliappan, V. Balaji, G. B. Bharathi and S. Aluvala, "Data Mining for Predictive Analytics and Optimization of Treatment Plans in Cardiovascular Disease Management using Neural Networks," *2024 International Conference on Advancements in Smart, Secure and Intelligent Computing (ASSIC)*, Bhubaneswar, India, 2024, pp. 01-06, doi: 10.1109/ASSIC60049.2024.10507964. (**Scopus**)
109. S. Kaliappan, V. Balaji, S. Socrates and N. Yamsani, "Enhancing Precision Medicine through Artificial Neural Networks for Phenotyping and Risk Prediction of Rare Genetic Disorders," *2024 International Conference on Advancements in Smart, Secure and Intelligent Computing (ASSIC)*, Bhubaneswar, India, 2024, pp. 1-6, doi: 10.1109/ASSIC60049.2024.10507974. (**Scopus**)
110. Pratheesh, K., Kaliappan, S., Natrayan, L. *et al.* Dry and wet sliding, fatigue, creep and mechanical properties of AA-7475 metal matrix composite reinforced with Si₂N₂O from rice husk ash. *J Aust Ceram Soc* (2024). <https://doi.org/10.1007/s41779-024-01131-6> (**Anna University Journal list/ SCOPUS/Science Citation Index Expanded (SCIE)/UGC-CARE List (India) with Impact Factor 1.8, Q3 journal**)
111. Mariya Louis D, Manivel S, **Seeniappan K**, L N. Multiresponse optimization and network-based prediction modelling for the WEDM of AM60B biomedical material. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*. 2024;0(0). doi:10.1177/09544062241264939. (**Anna University Journal list/SCI/Scopus Impact Factor 1.8, Q2**)
112. Optimizing Aluminum Metal Matrix Composites with SiC Nanoparticles using Taguchi-ANN Approach for Enhanced Mechanical Performance , Mohammed Saleh Al Ansari, K.M.B. Karthikeyan, **Seeniappan Kaliappan**, S. Yogeswari, Ramya Maranan, Pawan Devidas Meshram , E3S Web Conf. 556 01019 (2024), DOI: 10.1051/e3sconf/202455601019. (**Scopus**)
113. Optimizing Surface Roughness in Turning of Al7072 with nano particles of Carbon Metal Matrix Composite using Taguchi Analysis and ANN Prediction, Mohammed Saleh Al Ansari, **Seeniappan Kaliappan**, P. Bhargavi, Shital P. Dehankar, T. Mothilal, Ramya Maranan, E3S Web Conf. 556 01020 (2024), DOI: 10.1051/e3sconf/202455601020. (**Scopus**)
114. Estimation of Machining Performance in Wire EDM of Aluminum Silicon Nitride Composite an Experimental Analysis and ANN Modeling ,Mohammed Saleh Al Ansari, **Seeniappan Kaliappan**, G. Bharath Reddy, M. Muthukannan, Ramya Maranan, Parthasarathi Mishra, E3S Web Conf. 556 01022 (2024), DOI: 10.1051/e3sconf/202455601022. (**Scopus**)
115. Experimental Insights and ANN-Based Surface Roughness Prediction through analysis of Machined Surface Quality of Al2024/SiCp Composites, Mohammed Saleh Al Ansari, A. Krishnakumari, M.

- Saravanan, Chappeli Sai Kiran, **Seeniappan Kaliappan**, Ramya Maranan, E3S Web Conf. 556 01023 (2024), DOI: 10.1051/e3sconf/202455601023. **(Scopus)**
116. A Comparative Analysis of ANN and taguchi for Enhancing Predictive modelling and optimisation for Al-Base Metal Matrix Composites reinforced with nanoparticles of SiC, Avinash Malladi, T. Mothilal, **Seeniappan Kaliappan**, Lava Kumar Polisetty, M. Muthukannan, Ramya Maranan, E3S Web Conf. 556 01024 (2024), DOI: 10.1051/e3sconf/202455601024. **(Scopus)**
117. Predicting Wear Properties of Alloy 7090/SiC Nanoparticle Composites Using Artificial Neural Networks for aerospace application , Beporam Iftekhar Hussain, **Seeniappan Kaliappan**, Manikandan I, Lava Kumar Polisetty, M. Saravanan, Ramya Maranan , E3S Web Conf. 556 01025 (2024), DOI: 10.1051/e3sconf/202455601025. **(Scopus)**
118. Optimizing Mechanical Properties of Magnesium Matrix Composites via Stir Casting for Automobile Applications Arangarajan M, **Seeniappan Kaliappan**, P. Jayaraman, A.L.N. Arun Kumar, S. Arulmurugan, Ramya Maranan, E3S Web Conf. 556 01026 (2024), DOI: 10.1051/e3sconf/202455601026. **(Scopus)**
119. Experimental investigation on mechanical properties of Jute nano SiC and Nano carbon Hybrid polymer composite, **Seeniappan Kaliappan**, S. Yogeswari, Manikandan I, Pranav Kumar Prabhaka, A. Krishnakumari, Ramya Maranan, E3S Web Conf. 556 01027 (2024), DOI: 10.1051/e3sconf/202455601027. **(Scopus)**
120. Natrayan, L., **Kaliappan, S.**, Okla, M.K. *et al.* Extraction of Lignin from Fluorescent Perianths of Jack Fruit and it's Mechanical, Wear, Creep and Flammability Behaviour of Abaca-Polyester Composites. *Waste Biomass Valor* (2024). <https://doi.org/10.1007/s12649-024-02556-7>. **(SCIE/ SCOPUS) Impact Factor 3.2 Q2.**
121. **Seeniappan, K.** and Natrayan, L., "Surface Modification of Henequen Fibers with Catalyst for Improving Mechanical and Thermal Properties in Phenolic Composites for Automotive Uses," SAE Technical Paper 2024-01-5029, 2024, <https://doi.org/10.4271/2024-01-5029>. **(Scopus).**
122. Natrayan, L., **Kaliappan, S.**, Balaji, V., and Mahesh, V., "Effects of Injection Molding on Linum usitatissimum Fiber Polyvinyl Chloride Composites for Automotive Underbody Shields and Floor Trays," SAE Technical Paper 2024-01-5053, 2024, <https://doi.org/10.4271/2024-01-5053>. **(Scopus)**
123. Natrayan, L., and **Seeniappan, K.**, "Optimizing Carbon Monoxide Emission Reduction Using Rice Husk Activated Carbon in Automobile Exhaust Systems," SAE Technical Paper 2024-01-5054, 2024, <https://doi.org/10.4271/2024-01-5054>. **(Scopus)**
124. B., Ashok, Ravishankar S., Manoj Kumar N., Anushkannan N.K., **Kaliappan S.**, and Karthikeyan N. "A New Design of UPQC-Based Hybrid Multi-Carrier Modulation for Transformer Less Grid Connected PV-Based Active Power Filter", Electric Power Components and Systems, (2024), 1–23. doi:10.1080/15325008.2024.2303716. **(WoS/ SCIE/ SCOPUS) Impact Factor 1.5 Q3**
125. Malladi, A., **Kaliappan, S.**, Natrayan, L., and Mahesh, V., "Effectiveness of Thermal and Mechanical Properties of Jute Fibers under Different Chemical Treatment for Automotive Interior Trim," SAE Technical Paper 2024-01-5008, 2024. DOI: <https://doi.org/10.4271/2024-01-5008> **(Scopus)**
126. Prachi Singh , Vikas Mahor , Natrayan Lakshmaiya, Kandukuri Shanker , **Seeniappan Kaliappan**, Muthiah Muthukannan , Gopinath Rajendran (2024) , "Prediction of groundwater contamination in an open landfill area using a novel hybrid clustering-based AI model", Environment Protection Engineering, Vol. 50 No. 1 2024, DOI: 10.37190/epe240106. **(SCIE/ Anna University Journal list) Impact Factor 0.6 Q4**
127. L.Natrayan, Gorti Janardhan, V. Swamy Nadh, Chidurala Srinivas, **S.Kaliappan** & G.Velmurugan . Eco-friendly zinc oxide nanoparticles from Moringa oleifera leaf extract for photocatalytic and antibacterial applications. Clean Techn Environ Policy (2024).

<https://doi.org/10.1007/s10098-024-02814-1>. (WoS/ SCIE/ Anna University Journal list) **Impact Factor 4.2 Q1**

128. Natrayan, L., Ameen, Fuad, Chinta, Neelima Devi, Teja, Nalla Bhanu, Muthu, G., **Kaliappan, S.**, Ali, Saheb and Vadiveloo, Ashiwin. "Antibacterial and dynamical behaviour of silicon nanoparticles influenced sustainable waste flax fibre-reinforced epoxy composite for biomedical application" *Green Processing and Synthesis*, vol. 13, no. 1, 2024, pp. 20230214. <https://doi.org/10.1515/gps-2023-0214>. (WoS/ SCIE/ Anna University Journal list) **Impact Factor 4.2 Q1**
129. Natrayan, L., Surakasi, R., **Kaliappan, S. et al.** Effectiveness of natural dye adsorption on ILSS and optical properties of bio synthesised TiO₂ nano particles and reinforced with flax seed fiber/epoxy based hybrid composites. *Discov Appl Sci* 6, 125 (2024). <https://doi.org/10.1007/s42452-024-05758-9>. (**Web of Science's Emerging Sources Citation Index (ESCI), SCOPUS**).
130. Pandian, A., **Kaliappan, S.**, Natrayan, L., and Reddy, V., "Analyzing the Moisture and Chemical Retention Behavior of Flax Fiber– Ceramic Hybrid Composites for Automotive Underbody Shields," SAE Technical Paper 2024-01-5006, 2024, doi:10.4271/2024-01-5006. (**Scopus**)
131. Natrayan, L., Ashok, S.K., **Kaliappan, S.**, and Kumar, P., "Effect of Stacking Sequence on Mechanical Properties of Bamboo/ Bagasse Composite Fiber for Automobile Seat Cushions and Upholstery Application," SAE Technical Paper 2024-01-5013, 2024, doi:10.4271/2024-01-5013. (**Scopus**)
132. Natrayan L, Jayakrishna M, Shanker K, Muthu G, **Kaliappan S**, Velmurugan G (2024), "Green Synthesis of Silver Nanoparticles using Lawsonia inermis for Enhanced Degradation of Organic Pollutants in Wastewater Treatment", The *Global NEST Journal*, DOI: <https://doi.org/10.30955/gnj.005463> (**SCI/Scopus**) **Impact factor: 1.1.**
133. **Seeniappan Kaliappan**, L. Natrayan, H. Mohammed Ali, Pankaj Kumar (2024), "Thermal and Mechanical Properties of Abutilon indicum Fiber-Based Polyester Composites under Alkali Treatment for Automotive Sector", SAE Technical Paper 2024-01-5031, 2024, <https://www.sae.org/publications/technical-papers/content/2024-01-5031/>. (**Scopus**)
134. Natrayan, L., Chinta, Neelima Devi, Gogulamudi, Balakrishna, Swamy Nadh, V., Muthu, G., **Kaliappan, S.** and Srinivas, Chidurala. "Investigation on mechanical properties of the green synthesis bamboo fiber/eggshell/coconut shell powder-based hybrid biocomposites under NaOH conditions" *Green Processing and Synthesis*, vol. 13, no. 1, 2024, pp. 20230185. <https://doi.org/10.1515/gps-2023-0185> (**WoS/ SCIE/ Anna University Journal list**) **Impact Factor 4.2 Q1**
135. Kumar, J.V.S.P., **Kaliappan, S.**, Natrayan, L. *et al.* (2024), "Isolation of biosilica from biomass waste *Setaria italica* husks and its reinforcement effect on banana fiber-epoxy composite". *Biomass Conv. Bioref.* (2024). <https://doi.org/10.1007/s13399-024-05334-6>. (**WOS/SCIE/Anna University Annexure-1**).**Impact factor : 4.050 Q2 Journal**
136. Jeevanantham, S., **Kaliappan, S.**, Natrayan, L. *et al.* (2024), "Characterization of peanut husk-derived Si₃N₄ basalt fiber-reinforced unsaturated polyester resin composites.", *Biomass Conv. Bioref.* (2024). <https://doi.org/10.1007/s13399-024-05385-9>. (**WOS/SCIE/Anna University Annexure-1**).**Impact factor : 4.050 Q2 Journal**
137. L. Natrayan, **Seeniappan Kaliappan**, N. Balaji, V. Mahesh (2024), "Dynamic Mechanical and Thermal Properties of Polymer-Coated Jute Fibers for Enhanced Automotive Parts", SAE Technical Paper 2024-01-5019, 2024. (**Scopus**)
138. Lakshmaiya, Natrayan, S. **Kaliappan**, Neelima Devi Chinta, and Padmanaban Govindarajulu. 2024. "Mechanical and Thermal Characteristics of Coir Powder-Filled Epoxy Composites for Industrial Application" *Engineering Proceedings* 61, no. 1: 13. <https://doi.org/10.3390/engproc2024061013> (**Scopus**)

139. Lakshmaiya, Natrayan, Kunnathur Periyasamy Yuvaraj, **Seeniappan Kaliappan**, Vinay Kumar Reddy, and Haleem Mohammed Ali. (2024). "Evaluating the Wear and Mechanical Properties of Cotton Fabrics for Women's Summer Clothing" *Engineering Proceedings* 61, no. 1: 15. <https://doi.org/10.3390/engproc2024061015> (**Scopus**)
140. Singh, Digvijay, Chaudhary, Rubina, Karthick, Alagar, Patil, Praveen P., **Kaliappan, Seeniappan** (2024), "Economic and life cycle cost analysis of building-integrated photovoltaic system for composite climatic conditions", *Environmental Science and Pollution Research*, 1614-7499, <https://doi.org/10.1007/s11356-023-31781-1>. (**SCI/Anna University Journal List /WoS/Scopus, Q1, Impact Factor: 5.8**).
141. Natrayan, L., Chinta, N.D., Teja, N.B. et al (2024). Evaluating mechanical, thermal, and water absorption properties of biocomposites with Opuntia cladode fiber and palm flower biochar for industrial applications. *Discov Appl Sci* 6, 30 (2024). <https://doi.org/10.1007/s42452-024-05660-4>. (**Web of Science's Emerging Sources Citation Index (ESCI), SCOPUS**)
142. T. Sathish, D.B. Sivakumar, G.A. Sivasankar, K.T. Thilagham, **Seeniappan Kaliappan**, R. Saravanan, Mohd Ubaidullah, Mohaseen S. Tamboli, Manish Gupta (2024), "Building heating by solar parabolic through collector with metallic fined PCM for net zero energy/emission buildings", *Case Studies in Thermal Engineering*, Volume 53, 2024, 103862, ISSN 2214-157X, <https://doi.org/10.1016/j.csite.2023.103862>. (<https://www.sciencedirect.com/science/article/pii/S2214157X23011681>) (**SCI/Anna University Journal List /WoS/Scopus, Q1, Impact Factor: 6.8**).

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143. **Kaliappan, S.** and Natrayan, L., "Revolutionizing Automotive Materials through Enhanced Mechanical Properties of Epoxy Hybrid Bio-Composites with Hemp, Kenaf, and Coconut Powder," *SAE Technical Paper* 2023-01-5185, 2024. DOI: <https://doi.org/10.4271/2023-01-5185>. (**Scopus**)
144. **Kaliappan, S.** and Natrayan (2023), L., "Enhancement of Mechanical and Thermal Characteristics of Automobile Parts using Flax/Epoxy-Graphene Nanofiller Composites," *SAE Technical Paper* 2023-01-5116, 2024. DOI: <https://doi.org/10.4271/2023-01-5116> (**Scopus**)
145. Neelima Devi Chinta, K. Raja Karthikeyan, L. Natrayan, S. Kaliappan, Pressure Induced Variations in Mode II Behaviour of Uni-Directional Kenaf Reinforced Polymers, *International Journal of Vehicle Structures and Systems: Vol. 15 No. 7 (2023)* DOI: <https://doi.org/10.4273/ijvss.15.7.19> (**Scopus**).
146. Ramesh Velumayil, G. Gnanakumar, L. Natrayan, Neelima Devi Chinta, S. Kaliappan, Bifunctional Aluminum Oxide/Carbon Fiber/Epoxy Nanocomposites Preparation and Evaluation, *International Journal of Vehicle Structures and Systems: Vol. 15 No. 7 (2023)*. DOI: <https://doi.org/10.4273/ijvss.15.7.18> (**Scopus**).
147. **S. Kaliappan**, R. Maranan, V. R. Niveditha and V. Veeramsetty, "Enhancing the Efficiency of Computational Genetic Epidemiology using HPC-Driven AI Models," 2023 IEEE International Conference on ICT in Business Industry & Government (ICTBIG), Indore, India, 2023, pp. 1-6, doi: 10.1109/ICTBIG59752.2023.10455975. (**Scopus**).
148. **S. Kaliappan**, V. Paranthaman, M. D. R. Kamal and V. Veeramsetty, "Enhancing the Resilience of Industrial Cyber-Physical Systems against External Threats," 2023 IEEE International Conference on ICT in Business Industry & Government (ICTBIG), Indore, India, 2023, pp. 1-6, doi: 10.1109/ICTBIG59752.2023.10456005. (**Scopus**).
149. **S. Kaliappan**, V. R. Niveditha, R. Maranan and M. M. Irfan, "Investigating the Synergies between Decentralized Protocols and Edge Intelligence for a Resilient Web3.0 Infrastructure," 2023 IEEE

- International Conference on ICT in Business Industry & Government (ICTBIG), Indore, India, 2023, pp. 1-6, doi: 10.1109/ICTBIG59752.2023.10456119. (Scopus).
150. **S. Kaliappan**, M. Muthukannan, S. Socrates and R. Deshmukh, "The Healthcare Internet of Things as a Paradigm Shift in Hospital Management, Patient Care, and Medical Data Analysis," 2023 IEEE International Conference on ICT in Business Industry & Government (ICTBIG), Indore, India, 2023, pp. 1-6, doi: 10.1109/ICTBIG59752.2023.10455981. (Scopus).
 151. **S. Kaliappan**, S. Socrates, D. Ravi and G. Ranjith kumar, "A Comprehensive Framework for Data-Driven Management of Chronic Pain with Machine Learning and Advanced Analytics," 2023 IEEE International Conference on ICT in Business Industry & Government (ICTBIG), Indore, India, 2023, pp. 1-6, doi: 10.1109/ICTBIG59752.2023.10456199. (Scopus).
 152. **S. Kaliappan**, S. Radhika, D. Ravi and S. Aluvala, "A Data-Driven Approach to Improving Neonatal Care through Artificial Intelligence and Clinical Data Integration," 2023 IEEE International Conference on ICT in Business Industry & Government (ICTBIG), Indore, India, 2023, pp. 1-6, doi: 10.1109/ICTBIG59752.2023.10456148. (Scopus).
 153. **S. Kaliappan**, M. D. R. Kamal, V. Balaji and B. V. Kumar, "Integrating Wearable Sensor Data and AI for Remote Monitoring and Management of Chronic Respiratory Diseases," 2023 IEEE International Conference on ICT in Business Industry & Government (ICTBIG), Indore, India, 2023, pp. 1-6, doi: 10.1109/ICTBIG59752.2023.10455996. (Scopus).
 154. R. Ragumadhavan, D. S. Kumar, L. N. C. Rompicharla, S. A. Dhondiya, **S. Kaliappan** and L. Natrayan (2023), "Design and Development of Light Communication Systems Using Modulation Techniques," *2023 7th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*, Coimbatore, India, 2023, pp. 1637-1642, doi: 10.1109/ICECA58529.2023.10395831. (Scopus)
 155. L. Natrayan, **Kaliappan Seeniappan**, G. Vanya Sree (2023), "Enhancing the Mechanical and Thermal Properties of Kevlar Composites for Advanced Vehicle Components using Montmorillonite Nano Clay Integration", SAE Technical Paper 2023-01-5113, 2023, DOI: <https://doi.org/10.4271/2023-01-5113>. (Scopus)
 156. **S. Kaliappan**, L. Natrayan (2023), "Polypropylene Composite Materials with Natural Fiber Reinforcement: An Acoustic and Mechanical Analysis for Automotive Implementations", SAE Technical Paper 2023-01-5130, 2023, DOI: <https://doi.org/10.4271/2023-01-5130/>. (Scopus)
 157. L. Natrayan, **Kaliappan Seeniappan** (2023), "Effectiveness of Titanium Dioxide Nano Fillers on Sisal fiber for Enhanced Mechanical Properties and Occupant Protection in Hybrid Nanocomposites", SAE Technical Paper 2023-01-5114, 2023, DOI: <https://doi.org/10.4271/2023-01-5114/>. (Scopus)
 158. **S. Kaliappan**, L. Natrayan (2023), "Impact of Kenaf Fiber and Inorganic Nanofillers on Mechanical Properties of Epoxy-Based Nanocomposites for Sustainable Automotive Applications", SAE Technical Paper 2023-01-5115, 2023, DOI: <https://doi.org/10.4271/2023-01-5115>. (Scopus)
 159. Ramesh Velumayil, G. Gnanakumar, L. Natrayan, Neelima Devi Chinta, **S. Kaliappan** (2023), Bifunctional Aluminum Oxide/Carbon Fiber/Epoxy Nanocomposites Preparation and Evaluation, *International Journal of Vehicle Structures and Systems: Vol. 15 No. 7 (2023)*. (Scopus).
 160. Neelima Devi Chinta, K. Raja Karthikeyan, L. Natrayan, **S. Kaliappan** (2023), Pressure Induced Variations in Mode II Behaviour of Uni-Directional Kenaf Reinforced Polymers, *International Journal of Vehicle Structures and Systems: Vol. 15 No. 7 (2023)* (Scopus).
 161. **Seeniappan, Kaliappan** & Patil, Pravin & Ganesan, Saravanan & Thanigaivelan, R.. (2023). DEVELOPMENT AND PERFORMANCE OPTIMIZATION OF ECM PARAMETERS ON SCRAPPED ALLOY WHEEL METAL MATRIX COMPOSITES. *High Temperature Material Processes: An*

International Quarterly of High-Technology Plasma Processes. 10.1615/HighTempMatProc.2023048114. (SCIE/Anna University Annexure/Scopus Impact Factor: 0.4).

162. Arockiasamy, Felix Sahayaraj, Muthukrishnan, Mayakrishnan, Iyyadurai, Jenish, **Kaliappan, Seeniappan**, Lakshmaiya, Natrayan, Djearamane, Sinouvassane, Tey, Lai-Hock, Wong, Ling Shing, Kayarohanam, Saminathan, Obaid, Sami Al, Alfarraj, Saleh and Sivakumar, Subpiramaniya (2023). "Tribological characterization of sponge gourd outer skin fiber-reinforced epoxy composite with *Tamarindus indica* seed filler addition using the Box–Behnken method" *e-Polymers*, vol. 23, no. 1, 2023, pp. 20230052. <https://doi.org/10.1515/epoly-2023-0052>. (SCI/Anna University Annexure 1/WoS/Scopus, Q2, Impact Factor: 3.7).
163. M. Syamala, **Seeniappan Kaliappan**, H. M P, K. P. Aishwarya, R. Venkatesh and A. Raturi, "Performance Analysis of Lightweight Virtualization for Environments with Edge Computing Based on NFV," *2023 4th International Conference on Smart Electronics and Communication (ICOSEC)*, Trichy, India, 2023, pp. 687-691, doi: 10.1109/ICOSEC58147.2023.10275860. (Scopus). Cite Score: 31.2
164. S. Selvi, M. Mohanraj, P. Duraipandy, **S. Kaliappan**, L. Natrayan and N. Vinayagam, "Optimization of Solar Panel Orientation for Maximum Energy Efficiency," *2023 4th International Conference on Smart Electronics and Communication (ICOSEC)*, Trichy, India, 2023, pp. 159-162, doi: 10.1109/ICOSEC58147.2023.10276287. (Scopus). Cite Score: 31.2
165. **S. Kaliappan**, L. Natrayan and N. Garg, "Checking and Supervisory System for Calculation of Industrial Constraints using Embedded System," *2023 4th International Conference on Smart Electronics and Communication (ICOSEC)*, Trichy, India, 2023, pp. 87-90, doi: 10.1109/ICOSEC58147.2023.10275952. (Scopus). Cite Score: 31.2
166. L. Phaneendra Maguluri, J. Raja, S. Basheer Ahamed, V. Kumar, **S. Kaliappan** and D. Chitra Devi, "High Definition P2P Streaming: Quantitative Schema Analysis," *2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)*, Chennai, India, 2023, pp. 1-5, doi: 10.1109/ACCAI58221.2023.10200388. (Scopus). Cite Score: 31.2
167. Natrayan, L., Kaliappan, S., Saravanan, A., Vickram, A. S., Pravin, P., Abbas, Mohamed, Ahamed Saleel, C., Alwetaishi, Mamdooh and Saleem, Mohamed Sadiq Mohamed. "Recyclability and catalytic characteristics of copper oxide nanoparticles derived from bougainvillea plant flower extract for biomedical application" *Green Processing and Synthesis*, vol. 12, no. 1, 2023, pp. 20230030. <https://doi.org/10.1515/gps-2023-0030>. (WoS/ SCIE/ Anna University Journal list) Impact Factor 4.2 Q1
168. L N, Surakasi R, Paramasivam P, Dhanasekaran S, S. K and Patil PP (2023), Statistical experiment analysis of wear and mechanical behaviour of abaca/sisal fiber-based hybrid composites under liquid nitrogen environment. *Front. Mater.* 10:1218047. doi: 10.3389/fmats.2023.1218047. (SCIE/Scopus/WoS /Anna University Journal List). Impact Factor:3.2 Q2 Journal
169. Natrayan Lakshmaiya, Raviteja Surakasi, V. Swamy Nadh, Chidurala Srinivas, **Seeniappan Kaliappan**, Velmurugan Ganesan, Prabhu Paramasivam, and Seshathiri Dhanasekaran (2023), "Tanning Wastewater Sterilization in the Dark and Sunlight Using Psidium guajava Leaf-Derived Copper Oxide Nanoparticles and Their Characteristics" *ACS Omega* 2023 8 (42), 39680-39689, DOI: 10.1021/acsomega.3c05588.
170. Raja, Thandavamoorthy, Mohanavel, Vinayagam, Velmurugan, Palanivel, **Seeniappan, Kaliappan**, Singh, Durgesh Pratap, Djearamane, Sinouvassane, Tey, Lai-Hock, Wong, Ling Shing, Kayarohanam, Saminathan, Obaid, Sami Al, Alfarraj, Saleh and Sivakumar, Subpiramaniya (2023). "Fatigue behaviour of Kevlar/carbon/basalt fibre-reinforced SiC nanofiller particulate hybrid epoxy composite" *e-Polymers*, vol. 23, no. 1, 2023, pp. 20230048. <https://doi.org/10.1515/epoly-2023-0048>. (Scopus/WoS).

171. Natrayan, L. and Kaliappan, S. (2023), "Mechanical Assessment of Carbon–Luffa Hybrid Composites for Automotive Applications," SAE Technical Paper 2023-01-5070, 2023, doi:10.4271/2023-01-5070. (Scopus)
172. Patlola Madhusudhan, N.S.M.P. Latha Devi, Dr. Seeniappan Kaliappan, Dinesh Chandra Pandey, J. Sai Chandra, C.A. Jyothirmayee (2023), "Improving the productivity of the solar-based evaporative still (SBES) using the nano-coated absorber", Materials Today: Proceedings,2023, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2023.09.014>.(<https://www.sciencedirect.com/science/article/pii/S2214785323046734>) (Scopus/WoS). Cite Score: 2.3
173. SK. Fakruddin Babavali, N.S.M.P. Latha Devi, **Seeniappan Kaliappan**, Neha Garg, V. Nagalakshmi, N.R. Rajagopalan (2023), "Thermal management of PV panel through the circulation of a nano-MgO/water-based nanofluid", Materials Today: Proceedings, 2023, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2023.09.001>.(<https://www.sciencedirect.com/science/article/pii/S2214785323046606>) (Scopus/WoS). Cite Score: 2.3
174. Trupti S. Gajbhiye, Keval C. Nikam, **S. Kaliappan**, Pravin P. Patil, P. K. Dhal, C. K. Arvinda Pandian (2023), "Sustainable renewable energy sources and solar mounting systems for PV panels: A critical review", Proceedings of the International Conference on Materials for Emerging Technologies , AIP Conf. Proc. 2800, 020066-1–020066-10; <https://doi.org/10.1063/5.0163017>. (Scopus/WOS).
175. Laxmikant D. Jathar, S. Ganesan, Keval Chandrakant Nikam, Pravin P. Patil, **S. Kaliappan**, Pandurang Y. Patil (2023), "Physiochemical analysis of distillate output obtained from novel desalination unit", Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020150-1–020150-8; <https://doi.org/10.1063/5.0162822>. (Scopus/WOS).
176. **S. Kaliappan**, Pranav Kumar Prabhakar, Joseph Manuel, Pravin P. Patil, M. Sathya Prakash, Baskara Sethupathy Subbaiah (2023), "Recent advancements in aluminum metal matrix composites: A review of processing and application" Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020130-1–020130-6; <https://doi.org/10.1063/5.0168369>. (Scopus/WOS).
177. D. P. Kamble, Hanumant P. Jagtap, S. **S. Kaliappan**, Pravin P. Patil, Kshitij Anand (2023) , "Comparative analysis of heat pipe with PCM, Cu powder, and fin for thermal enhancement" , Proceedings of the International Conference on Materials for Emerging Technologies , AIP Conf. Proc. 2800, 020142-1–020142-11; <https://doi.org/10.1063/5.0163117>. (Scopus/WOS).
178. Anand K. Bewoor, Harish M. Shinde, Ajit A. Bhosale, Pravin P Patil, **S. Kaliappan**, S. Socrates (2023), "Ergonomic analysis and improvement for ease of work of post engine testing activities by using RULA and REBA techniques" , Proceedings of the International Conference on Materials for Emerging Technologies , AIP Conf. Proc. 2800, 020169-1–020169-18; <https://doi.org/10.1063/5.0165413>. (Scopus/WOS).
179. **S. Kaliappan**, Baskara Sethupathy Subbaiah, Pranav Kumar Prabhakar, Pravin P. Patil, S. Socrates, V. Balaji (2023) , "Sand-casting process parameters influence casting mechanical properties in stainless steel alloys" , Proceedings of the International Conference on Materials for Emerging Technologies , AIP Conf. Proc. 2800, 020235-1–020235-7; <https://doi.org/10.1063/5.016791>. (Scopus/WOS).
180. P. K. Prabhakar, B. S. Subbaiah, V. Balaji, P. P. Patil, R. K. Meivel Dhavamani, **S. Kaliappan** (2023), "Elemental stack method optical and surface properties of Fe doped ZrO₂", Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020132-1–020132-5; <https://doi.org/10.1063/5.0162705>. (Scopus/WOS).
181. Pranav Kumar Prabhakar, Joseph Manuel, **S. Kaliappan**, Pravin P. Patil, T. Mothilal, H. Mohammed Ali (2023), "Mechanical and wear properties of 7075 Al reinforced with graphite particulate metal matrix

- composites: Preparation and evaluation”, Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020239-1–020239-7; <https://doi.org/10.1063/5.0167686>. (Scopus/WOS).
182. Jatoth Heeraman, Laxmi A. Bewoor, Anand Bewoor, **S. Kaliappan**, Pravin P. Patil, S. Socrates (2023), “Applications of firefly algorithm in hydrology”, Proceedings of the International Conference on Materials for Emerging Technologies , AIP Conf. Proc. 2800, 020137-1–020137-7; <https://doi.org/10.1063/5.0163090>. (Scopus/WOS).
 183. Jatoth Heeraman, Sumit Kumar, **S. Kaliappan**, Pravin P. Patil, Dheerendra Vikram Singh (2023), “Paddy residue potential as energy resources - A critical review”, Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020145-1–020145-7; <https://doi.org/10.1063/5.0163092>. (Scopus/WOS).
 184. K. Bewoor, Nitin Patil, **S. Kaliappan**, Pravin P. Patil, Raja Raju, P. Ramanathan, V. A. Kulkarni (2023), “Sustainability assessment of tungsten inert gas welding process using grey relational analysis”, Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020232-1–020232-14; <https://doi.org/10.1063/5.0163918>. (Scopus/WOS).
 185. Chetan Pawar, Shreeprakash Balekumeri, Nitin Motgi, Pravin P. Patil, **Kaliappan Seeniappan**, Joseph Manuel (2023), “A comprehensive look at the aluminum oxide nano-additive effects on engine performance and emissions”, Proceedings of the International Conference on Materials for Emerging Technologies , AIP Conf. Proc. 2800, 020155-1–020155-7; <https://doi.org/10.1063/5.0163475>. (Scopus/WOS).
 186. **Kaliappan Seeniappa**, Baskara Sethupathy Subbaiah, V. Balaji, Pravin P. Patil, Manish Gupta, S. Socrates (2023), “Magnetic characteristics of electroplated NiAl/CuO₂ composite wires as a function of magnetic field”, Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020236-1–020236-5; <https://doi.org/10.1063/5.0167920>. (Scopus/WOS).
 187. **Kaliappan Seeniappan**, Mothilal Thulasiraman, Manish Gupta, Pravin P. Patil, Nageswari Devana, Raj Kamal M. Dhavamani (2023), “Experimental analysis of Al-SiC-TiB₂ hybrid metal matrix composite” , Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020238-1–020238-6; <https://doi.org/10.1063/5.0162706>. (Scopus/WOS).
 188. **Kaliappan Seeniappan**, Rajkamal M. Dhavamani, Baskara Sethupathy Subbaiah, Pravin P. Patil, Ramanathan Pichappan, Pranav Kumar Prabhakar (2023), “Material characterization and testing using linear polarization optical coherence tomography”, Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020131-1–020131-7; <https://doi.org/10.1063/5.0162703>. (Scopus/WOS).
 189. Kadirvel Arumugam, Mohammed Ali Haleem, **Kaliappan Seeniappan**, Pravin P. Patil, V. Balaji, Pranav Kumar Prabhakar (2023) , “Ni addition results in the formation of a bulk metallic glass matrix composite based on ductile Cu” Proceedings of the International Conference on Materials for Emerging Technologies, AIP Conf. Proc. 2800, 020133-1–020133-5; <https://doi.org/10.1063/5.0162704>. (Scopus/WOS).
 190. SK. Fakruddin Babavali, N.S.M.P. Latha Devi, **Seeniappan Kaliappan**, Neha Garg, V. Nagalakshmi, N.R. Rajagopalan (2023), “Thermal management of PV panel through the circulation of a nano-MgO/water-based nanofluid”, Materials Today: Proceedings, 2023, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2023.09.001>. (<https://www.sciencedirect.com/science/article/pii/S2214785323046606>) (Scopus). **Cite Score: 2.3**
 191. Patlola Madhusudhan, N.S.M.P. Latha Devi, **Dr. Seeniappan Kaliappan**, Dinesh Chandra Pandey, J. Sai Chandra, C.A. Jyothirmayee (2023), “Improving the productivity of the solar-based evaporative still (SBES) using the nano-coated absorber”, Materials Today: Proceedings, 2023, ISSN 2214-

7853,<https://doi.org/10.1016/j.matpr.2023.09.014>.

(<https://www.sciencedirect.com/science/article/pii/S2214785323046734>) (Scopus). **Cite Score: 2.3**

192. G.A. Sivasankar, C. Balakrishna Moorthy, **Seeniappan Kaliappan**, Ravishankar Sathyamurthy, T. Sathish, R. Saravanan, Ümit Ağbulut (2023), "Sustainable nano-added biofuel production from borassus flabellifer oil for conventional internal combustion engines", *Energy*, Volume 282, 2023, 128381, ISSN 0360-5442, <https://doi.org/10.1016/j.energy.2023.128381>. (<https://www.sciencedirect.com/science/article/pii/S0360544223017759>). (WOS/SCIE/Anna University Annexure). Impact factor : 9 Q1 Journal
193. Prabhushankar, N., Balaji, N. & **Kaliappan, S.** (2023) , Effect of sisal/kevlar inter-ply stacking and silane-treatment on mechanical, wear, fracture toughness, drop load impact, and hydrophobicity behavior of cellulose toughened polyester composite. *Biomass Conv. Bioref.* (2023). <https://doi.org/10.1007/s13399-023-04416-1>. (WOS/SCIE/Anna University Annexure-1). Impact factor : 4.050 Q2 Journal
194. S. Kaliappan, T. Mothilal, L. Natrayan, P. Pravin, Tewedaj Tariku Olkeba (2023), "Mechanical Characterization of Friction-Stir-Welded Aluminum AA7010 Alloy with TiC Nanofiber", *Advances in Materials Science and Engineering*, vol. 2023, Article ID 1466963, 7 pages, 2023. <https://doi.org/10.1155/2023/1466963>. (**Scopus/Anna University Annexure-1**). **Impact Factor:2.098 Q2 Journal**
195. L. Natrayan, Raviteja Surakasi, Pravin P. Patil, S. Kaliappan, V. Selvam, P. Murugan (2023), "Optimizing Numerous Influencing Parameters of Nano-SiO₂/Banana Fiber-Reinforced Hybrid Composites using Taguchi and ANN Approach", *Journal of Nanomaterials*, vol. 2023, Article ID 3317584, 14 pages, 2023. <https://doi.org/10.1155/2023/3317584>. (**Science Citation Index Expanded/Scopus/WoS /Anna University Annexure-1**). **Impact Factor:3.791 Q2 Journal**
196. M. P. Natarajan, K. Rameshkumar, D. Vijayakumar, Pravin P. Patil, **S. Kaliappan**, T. Thirumalai (2023); Carburization effect on mechanical properties of EN-12 steel in different quenching medium at different quenching time intervals. *AIP Conference Proceedings* 12 May 2023; 2747 (1): 020020. <https://doi.org/10.1063/5.0132575>. (Scopus/WOS).
197. **S. Kaliappan**, S. Syath Abuthakeer, Piyush Gaur, Pravin P. Patil, G. Bhavani, M. Logesh (2023); A study on multi-walled carbon nanotube reinforced Al7075 nano composites by P/M route. *AIP Conference Proceedings* 12 May 2023; 2747 (1): 020019. <https://doi.org/10.1063/5.0132555>. (Scopus/WOS).
198. **S. Kaliappan**, Chandrashekhar K. Pati, M. Karthick, Pravin P. Patil, S. Socrates, V. Balaji (2023); Determinants of dielectric behaviour of MO₈⁺ substituted LiFe₅O₈. *AIP Conference Proceedings* 12 May 2023; 2747 (1): 020018. <https://doi.org/10.1063/5.0132567>. (Scopus/WOS).
199. S. Syath Abuthakeer, A. Alagu Sundara Pandian, M. P. Natarajan, Pravin P. Patil, **S. Kaliappan**, V. Balaji (2023); Factors influencing the gas porosity formation in A438 alloy wheels produced by gravity die casting. *AIP Conference Proceedings* 12 May 2023; 2747 (1): 030003. <https://doi.org/10.1063/5.0132576>. (Scopus/WOS).
200. **S. Kaliappan**, Chandrashekhar K. Pati, M. D. Raj Kamal, Pravin P. Patil, M. S. Sureshkumar, V. Balaji (2023); A study on methylene blue photocatalytic activity in the presence of different shape lead (II) sulphide nanoparticles. *AIP Conference Proceedings* 12 May 2023; 2747 (1): 020017. <https://doi.org/10.1063/5.0132568>. (Scopus/WOS).
201. **S. Kaliappan**, K. Muralidharan, M. P. Natarajan, Pravin P. Patil, R. Karthick, S. Socrates (2023); A study on mechanical properties of heat treated Fe-Ag-Al alloys. *AIP Conference Proceedings* 12 May 2023; 2747 (1): 020016. <https://doi.org/10.1063/5.0132557>. (Scopus/WOS).

202. G. Mehershilpa, K. Muralidharan, **S. Kaliappan**, Pravin P. Patil, T. Sathish, D. Meganathan (2023); Mechanically constrained single-loop 6-bar chain from double 6R chain. *AIP Conference Proceedings* 12 May 2023; 2747 (1): 040004. <https://doi.org/10.1063/5.0132556>. (Scopus/WOS).
203. S. Kaliappan, T. Mothilal, P. Pravin, B. Raja Bharathi, E. S. Esakkiraj, "Evaluation of Mechanical Behaviour of Multiwalled Nanotubes Reinforcement Particles in Jute-Glass Fibres Hybrid Composites", *Advances in Materials Science and Engineering*, vol. 2023, Article ID 2219460, 7 pages, 2023. <https://doi.org/10.1155/2023/2219460>. (Scopus/Anna University Annexure-1). Impact Factor:2.098 Q2 Journal
204. L. Natrayan, **S. Kaliappan**, S. Chinnasamy Subramanian, Pravin P. Patil, S. D. Sekar, Y. Sesha Rao, Melkamu Beyene Bayu (2023), "Optimization of Activated Carbon Fiber Preparation from Hemp Fiber through Dipotassium Hydrogen Phosphate for Application of Thermal Storage System", *Adsorption Science & Technology*, vol. 2023, Article ID 7228408, 9 pages, 2023. <https://doi.org/10.1155/2023/7228408>. (Science Citation Index /Scopus) **Impact Factor: 4.373 Q2 Journal**
205. S. S. Kumar, M. Jyothirmmai, S. Kaliappan and V. Rathiv, "An Application of IoT in Programmed Tidal Energy Observation System," *2023 International Conference on Innovative Data Communication Technologies and Application (ICIDCA)*, Uttarakhand, India, 2023, pp. 868-872, doi: 10.1109/ICIDCA56705.2023.10100013. (Scopus). **Cite Score: 31.2**
206. J. Madhusudhanan, S. Kaliappan, Ravishankar sathyamurthy, R. Saravanan, T. Sathish, D. Prabu, M. Rajasimman, Abdullah A. Al-Kahtani, Elena-Niculina Dragoi (2023), "Influence of nanopores volumes in hydrogen absorption properties of B4C and WC carbide-derived carbon nanomaterials", *International Journal of Hydrogen Energy*, 2023, ISSN 0360-3199, <https://doi.org/10.1016/j.ijhydene.2023.03.318>. (SCI/Scopus). **Impact factor 7.139 Q1 Journal**
207. T. Suman, **S. Kaliappan**, L. Natrayan and D. C. Dobhal (2023), "IoT based Social Device Network with Cloud Computing Architecture," *2023 Second International Conference on Electronics and Renewable Systems (ICEARS)*, Tuticorin, India, 2023, pp. 502-505, doi: 10.1109/ICEARS56392.2023.10085574. (Scopus). **Cite Score: 31.2**
208. R. Josphineleela, **S. Kaliapp**, L. Natrayan and A. Garg (2023), "Big Data Security through Privacy – Preserving Data Mining (PPDM): A Decentralization Approach," *2023 Second International Conference on Electronics and Renewable Systems (ICEARS)*, Tuticorin, India, 2023, pp. 718-721, doi: 10.1109/ICEARS56392.2023.10085646. (Scopus). **Cite Score: 31.2**
209. R. Josphineleela, **S. Kaliappan**, N. L and U. M. Bhatt (2023) , "Intelligent Virtual Laboratory Development and Implementation using the RASA Framework," *2023 7th International Conference on Computing Methodologies and Communication (ICCMC)*, Erode, India, 2023, pp. 1172-1176, doi: 10.1109/ICCMC56507.2023.10083701. (Scopus). **Cite Score: 31.2**
210. L. L. P. Kumar, C. Ahalya, **S. Kaliappan** and A. P. H (2023), "Development of Healthcare Architecture based on Cloud Technology and IoT Applications," *2023 7th International Conference on Computing Methodologies and Communication (ICCMC)*, Erode, India, 2023, pp. 1385-1388, doi: 10.1109/ICCMC56507.2023.10084029. (Scopus). **Cite Score: 31.2**
211. L. Natrayan, V. R. Niveditha, S. Kaliappan, Pravin P. Patil, C. K. Arvinda Pandian, Y. Sesha Rao, P. Murugan (2023), "Optimization Process of Potassium Carbonate Activated Carbon through Jute-Based Core Materials by Using Artificial Neural Network with Response Surface Methodology", *Adsorption Science & Technology*, vol. 2023, Article ID 8674382, 14 pages, 2023. <https://doi.org/10.1155/2023/8674382>. (Science Citation Index /Scopus) **Impact Factor: 4.373 Q2 Journal**

212. L. Natrayan, Yenda Srinivasa Rao, Gayatri Vaidya, Sumanta Bhattacharya, S. Kaliappan, Pravin P. Patil, Prabhu Paramasivam (2023) , "Biosynthesis of Iron Oxide Nanoparticles Using Leaf Extract of *Ruellia tuberosa*: Mechanical and Dynamic Mechanical Behaviour Kevlar-Based Hybrid Epoxy Composites", *Bioinorganic Chemistry and Applications*, vol. 2023, Article ID 1731931, 10 pages, 2023. <https://doi.org/10.1155/2023/1731931>. **(Science Citation Index Expanded/Scopus/WoS). Impact Factor:4.724 Q1 Journal**
213. Palaniswamy, V., **Seeniappan, K. .**, Rajasekaran, T. ., & Lakshmaiya, N. . (2023). ENHANCING MRR AND ACCURACY WITH MAGNETIZED GRAPHITE TOOL IN ELECTROCHEMICAL MICROMACHINING OF COPPER: Original scientific paper. *Chemical Industry & Chemical Engineering Quarterly*, 29(3), 201–208. <https://doi.org/10.2298/CICEQ220731027P> **(SCIE, Anna University Journal List and SCOP2US) Impact factor 0.925 Q3 Journal**
214. S. Kaliappan, Laxmi Biban, D. Prasad, Amir Shaikh, P. Ragupathy, H. Mohammed Ali, Dielectric and conductance of biochar-based PVA flexible nanocomposite film, *Materials Today: Proceedings*, 2023, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2023.02.445>.
(<https://www.sciencedirect.com/science/article/pii/S221478532301009X>) (Scopus). **Cite Score: 2.3**
215. S. Kaliappan, V. Balaji, N. Mohan Raj, Gori Yatika, L. Natrayan, D Shyam, Friction stir welding of nylon 6–6 thick plates using biochar colloidal nanoparticle, *Materials Today: Proceedings*, 2023, ISSN 2214-7853,
<https://doi.org/10.1016/j.matpr.2023.03.007>.(<https://www.sciencedirect.com/science/article/pii/S2214785323010489>) (Scopus). **Cite Score: 2.3**
216. Sivakumar, V., **Kaliappan, S.**, Natrayan, L. *et al.* (2023) , Effects of Silane-Treated High-Content Cellulose Okra Fibre and Tamarind Kernel Powder on Mechanical, Thermal Stability and Water Absorption Behaviour of Epoxy Composites. *Silicon* (2023). <https://doi.org/10.1007/s12633-023-02370-1>. **(SCIE/Anna University Annexure-1/SCOPUS). Impact Factor:2.941 Q2 Journal**
217. L. Natrayan, A. Bhaskar, Pravin P. Patil, S. Kaliappan, M. Dineshkumar, E. S. Esakkiraj (2023), "Optimization of Filler Content and Size on Mechanical Performance of Graphene/Hemp/Epoxy-Based Hybrid Composites using Taguchi with ANN Technique", *Journal of Nanomaterials*, vol. 2023, Article ID 8235077, 15 pages, 2023. <https://doi.org/10.1155/2023/8235077>. (Science Citation Index Expanded/Scopus/WoS). **Impact Factor:3.791 Q2 Journal**
218. V. Balaji, **S. Kaliappan** , Kumutha R , Sudhir Joshi (2023) “Impact of Solar Absorption on Crystal Transfer Coefficients in Upward Thermal Expansion in Single and Double-Glazing Horizontal Collectors”, *Ion Exchange And Adsorption*, Vol. 23, Issue-01, 2023 pp.180-189. (UGC/SCOPUS).**Impact factor : 0.1, Q4 Journal.**
219. V. Balaji, **S. Kaliappan** , S. Socrates , Anuj Raturi (2023) “Experimental Analysis on Coupled Heat Exchange and Windage Effect in Walked Labyrinth Gaskets”, *Ion Exchange And Adsorption*, Vol. 23, Issue-01, 2023 pp.170-179. (UGC/SCOPUS).**Impact factor : 0.1, Q4 Journal.**
220. N. Balaji, S. Kaliappan, M. D. Raj Kamal, Anuj Raturi, “Natural Circulation Heat Fluid Flow Transfer And Adsorption Properties in Square Cavities”, *ION EXCHANGE AND ADSORPTION*, Vol. 23, Issue-01, 2023 pp.160-169. (UGC/SCOPUS). **Impact factor : 0.1, Q4 Journal.**
221. V. Balaji, **S. Kaliappan** , Kumutha R , Anuj Raturi (2023) ,“ Investigate the Flames Elevation, Heat Distribution and Adsorption Behaviour of Floating Windows Spillage Plume Under Compartments Explosion”, *ION EXCHANGE AND ADSORPTION*, Vol. 23, Issue-01, 2023 pp.150-159. (UGC/SCOPUS).**Impact factor : 0.1, Q4 Journal.**
222. V. Paranthaman, **S. Kaliappan** , M. D. Raj Kamal , Sudhir Joshi (2023) ,“ Investigate the Adsorption Behaviour of Dry Palm Oil Plantation Stem Debris to Controlled and Exposed Environment Cleaning by

- Air Movement.”, ION EXCHANGE AND ADSORPTION, Vol. 23, Issue-01, 2023 pp.140-149. (UGC/SCOPUS).**Impact factor : 0.1, Q4 Journal.**
223. V. Paranthaman , **S. Kaliappan** , S. Socrates , Anuj Raturi (2023) ,“ An Investigation on Adsorption Properties of Gas Trapping Mechanism in Closed-End Microchannels”, ION EXCHANGE AND ADSORPTION, Vol. 23, Issue-01, 2023 pp.130-139. (UGC/SCOPUS).**Impact factor : 0.1, Q4 Journal.**
224. **S. Kaliappan**, R. Velumayil, L. Natrayan, P. Pravin(2023), ”Mechanical, DMA, and fatigue behavior of Vitis vinifera stalk cellulose Bambusa vulgaris fiber epoxy composites”, Polymer Composites, 1. <https://doi.org/10.1002/pc.27228>. (SCI/Scopus/Anna University Annexure-1). **Impact Factor:2.098 Q2 Journal**
225. R. Vezhavendhan , **S. Kaliappan** , S.Socrates , Ruchika Tondon(2023) ,“Investigate the Adsorption Properties and Natural Convection of Three-Dimensional Horizontal Parallel Plates From the Stable to an Unsteady State”, ION EXCHANGE AND ADSORPTION, Vol. 23, Issue-01, 2023 pp.10-17. (UGC/SCOPUS).**Impact factor : 0.1, Q4 Journal.**
226. R. Vezhavendhan , S. Jagan Raj , **S.Kaliappan** , Sudhir Joshi(2023) ,“Adsorption and Thermal Properties of a Porous Channel With Slanted Facade Swells Under Spinning And Bullpen Circumstances”, ION EXCHANGE AND ADSORPTION, Vol. 23, Issue-01, 2023 pp.18-26. (UGC/SCOPUS).**Impact factor : 0.1, Q4 Journal.**
227. S. Kaliappan , S. Chezhian Babu , M.D.Rajkamal , Sudhir Joshi(2023), “Experimental Investigation of Laminar-Turbulent Transition in Variable Adsorption Viscosity in Longitudinal Warmed Pipe”, ION EXCHANGE AND ADSORPTION, Vol. 23, Issue-01, 2023 pp.27-34. (UGC/SCOPUS).**Impact factor : 0.1, Q4 Journal.**
228. **S. Kaliappan** , V. Subha , S. Socrates ,Ruchika Tondon(2023),“Water Adsorption Kinetics on Loose Granules of SWS-11 in Isobaric Phases of Adsorbent Heating Systems”, ION EXCHANGE AND ADSORPTION, Vol. 23, Issue-01, 2023 pp.01-09. (UGC/SCOPUS). **Impact factor : 0.1, Q4 Journal.**
229. Balaji, N, Gurupranes, S. V., Balaguru, S, Jayaraman, P, Natrayan, L,Subbiah Ram, **Kaliappan.S** (2023),“Mechanical, wear, and drop load impact behavior of Cissus quadrangularis fiber–reinforced moringa gum powder–toughened polyester composite”, Biomass Conversion and Biorefinery, 2190-6823, <https://doi.org/10.1007/s13399-023-04491-4>. (WOS/SCIE/Anna University Annexure-1).**Impact factor : 4.050 Q2 Journal**
230. **Kaliappan, S.**, Natrayan, L., Kumar, P.V.A. *et al.* (2023), “Mechanical, fatigue, and hydrophobic properties of silane-treated green pea fiber and egg fruit seed powder epoxy composite”, Biomass Conv. Bioref. . <https://doi.org/10.1007/s13399-023-04534-w>. (WOS/SCIE/Anna University Annexure-1). **Impact factor: 4.050 Q2 Journal**
231. Muralidaran, V.M., Natrayan, L., **Kaliappan, S. et al.** Grape stalk cellulose toughened plain weaved bamboo fiber-reinforced epoxy composite: load bearing and time-dependent behavior. *Biomass Conversion and Biorefinery* (2023). <https://doi.org/10.1007/s13399-022-03702-8>. (WOS/SCIE/Anna University Annexure-1). **Impact factor : 4.050 Q2 Journal**
232. Saravanan, K., **Kaliappan, S.**, Natrayan, L. *et al.* Effect of cassava tuber nanocellulose and satin weaved bamboo fiber addition on mechanical, wear, hydrophobic, and thermal behavior of unsaturated polyester resin composites. *Biomass Conv. Bioref.* (2023). <https://doi.org/10.1007/s13399-023-04495-0>. (WOS/SCIE/Anna University Annexure-1).**Impact factor : 4.050 Q2 Journal.**
233. L Natrayan, Raviteja Surakasi, **S. Kaliappan**, Pravin P. Patil, A. Saravanan, R. Siranjeevi (2023), Explore the elimination of toxic dye using Bio-Synthesized cerium oxide nanoparticles derived from Morinda citrifolia leaf extracts, Surfaces and Interfaces, Volume 41,2023,103151,ISSN 2468 0230, <https://doi.org/10.1016/j.surfin.2023.103151>.(<https://www.sciencedirect.com/science/article/pii/S2468023023005217>) (Scopus Indexed Journal).**Impact factor : 6.2 Q1 Journal**

234. Velmurugan, G.Natrayan, L.Chohan, Jasgurpreet Singh, Vasanthi, P. Angalaeswari, S.Pravin, P. **Kaliappan**, S. Arunkumar, D (2023), Investigation of mechanical and dynamic mechanical analysis of bamboo/olive tree leaves powder-based hybrid composites under cryogenic conditions, *Biomass Conversion and Biorefinery*, 2023/07/11,2190-6823, <https://doi.org/10.1007/s13399-023-04591-1>, 10.1007/s13399-023-04591-1. (WOS/SCIE/Anna University Annexure-1).**Impact factor : 4.050 Q2 Journal**

AY-2022

235. Balaji, N., Natrayan, L., **Kaliappan**, S. *et al.* Annealed peanut shell biochar as potential reinforcement for aloe vera fiber-epoxy biocomposite: mechanical, thermal conductivity, and dielectric properties. *Biomass Conv. Bioref.* **14**, 4155–4163 (2024). <https://doi.org/10.1007/s13399-022-02650-7>. (WOS/SCIE/Anna University Annexure-1).**Impact factor : 4.050 Q2 Journal**

236. Chirag Vibhakar, R. S. Sabeenian, **S. Kaliappan** , Pandurang Y. Patil, Pravin P. Patil, P. Madhu , C. Sowmya Dhanalakshmi and Habtewolde Ababu Birhanu (2022), “Production and Optimization of Energy Rich Biofuel through Co-Pyrolysis by Utilizing Mixed Agricultural Residues and Mixed Waste Plastics”, *Hindawi Advances in Materials Science and Engineering*, Volume 2022, Article ID 8175552, 9 pages. <https://doi.org/10.1155/2022/8175552>. (WOS/SCIE/Anna University Annexure-1). **Impact Factor:2.098. Q2 Journal**

237. N. Pragadish, **S. Kaliappan**, M. Subramanian, L. Natrayan, K. Satish Prakash, Ram Subbiah, T. Ch. Anil Kumar (2022), “Optimization of cardanol oil dielectric-activated EDM process parameters in machining of silicon steel”, *Biomass Conversion and Biorefinery* (2022). <https://doi.org/10.1007/s13399-021-02268-1>. (WOS/SCIE/Anna University Annexure-1).**Impact factor : 4.050 Q2 Journal**

238. Balaji V., **Kaliappan S.**, Madhuvanesan D.M., Ezhumalai D.S., Boopathi S., Patil PravinP., Saiprakash Mani (2022), "Combustion analysis of biodiesel-powered propeller engine for least environmental concerns in aviation industry", *Aircraft Engineering and Aerospace Technology*, Vol. ahead-of-print No. ahead-of print. <https://doi.org/10.1108/AEAT-11-2021-0344>. (WOS/SCIE/Scopus/Anna University Annexure-1). **Impact factor : 1.54 Q3 Journal**

239. Ram Subbiah, Arivumangai.A, **S. Kaliappan**, Balaji V, Yuvaraj G, Pravin P. Patil (2022), “Effect of nanosilica on mechanical, thermal, fatigue, and antimicrobial properties of cardanol oil/sisal fiber reinforced epoxy composite”, *Polymer Composites*, 2022, Volume43, Issue11,November 2022 ,Pages 7940-7951. DOI: 10.1002/pc.26930. (SCI/WOS/SCIE/Scopus/Anna University Annexure-1). Impact factor :3.531 Q2 Journal

240. S. Senthil Kumar ,T. CH Anil Kumar, Mohan Chokkalingam, **S. Kaliappan**, S. Boopathi, Chidurala Srinivas and Pravin P. Patil (2022), “Mechanical, fracture toughness, and fatigue behavior of spinifex littoreus fiber on echinoidea-spike toughened epoxy composite”, *Polymer Composites*, 2022, 1. <https://doi.org/10.1002/pc.26543>. (SCI/WOS/SCIE/Scopus/Anna University Annexure-1). **Impact factor :3.531 Q2 Journal**

241. Venkatesan Govindarajan , R. Sivakumar, Pravin P. Patil, **S. Kaliappan**, T. Ch Anil Kumar , M. Kannan and B. Ramesh (2022), “Effect of Tungsten Carbide Addition on the Microstructure and Mechanical Behavior of Titanium Matrix Developed by Powder Metallurgy Route”, *Hindawi Advances in Materials Science and Engineering* Volume 2022, Article ID 2266951, 7 pages <https://doi.org/10.1155/2022/2266951>. (WOS/SCIE/Anna University Annexure-1). **Impact Factor:2.098 Q2 Journal**

242. L. Natrayan, S. Angalaeswari, **S. Kaliappan**, C. Naga Dheeraj Kumar Reddy, V. Sivaprakash , Pravin P. Patil, P. Murugan (2022), "Reduction of Noise in Single-Walled Carbon Nanotubes (SWCNTs) Using Gas Adsorption Technique", *Adsorption Science & Technology* vol. 2022, Article ID 3244702,

- 10 pages, 2022. <https://doi.org/10.1155/2022/3244702>. (SCI/Scopus/Anna University Annexure-1). **Impact Factor: 4.373. Q2 Journal**
243. K. Raja Karthikeyan, K. Tamilmannan, S. Socrates, **S. Kaliappan**, Pravin P. Patil, N. Ramasamy, V. Jayaseelan (2022), "Experimental investigation on the coconut fiber reinforced hybrid gear composites ", Materials Today: Proceedings , 2022,ISSN 2214-7853.<https://doi.org/10.1016/j.matpr.2022.04.540>.<https://www.sciencedirect.com/science/article/pii/S2214785322027043>. (Scopus). **Cite Score: 2.3**
244. A.Balajikrishnabharathi, Vijayananth Suyamburajan, **S.Kaliappan**, Pravin P Patil, D. Jayabalakrishnan, M. Sathya Prakash, T. Sivabalan (2022), "Study of mechanical properties on Nano metal matrix Composites: Duralcan process", Materials Today: Proceedings,2022,ISSN-2214-7853,<https://doi.org/10.1016/j.matpr.2022.04.569>.
<https://www.sciencedirect.com/science/article/pii/S221478532202702X>. **Cite Score:2.3** (Scopus).
245. R. Arravind, S. Kaliappan, Suyamburajan Vijayananth, Pravin P. Patil, M. Sathya Prakash, N. Ramasamy (2022), "An investigation on mechanical properties of AA336/Al2O3 composites by Duralcan process ", Materials Today: Proceedings,2022,ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2022.04.617>.
(<https://www.sciencedirect.com/science/article/pii/S2214785322027808>). (Scopus). **Cite Score:2.3**
246. Yarrapragada K. S. S. Rao, C. Sowmya Dhanalakshmi, Dinesh Kumar Vairavel, Raviteja Surakasi, S. Kaliappan, Pravin P. Patil, S. Socrates, J. Isaac Joshua Ramesh Lalvani (2022) , "Investigation on Forestry Wood Wastes: Pyrolysis and Thermal Characteristics of Ficus religiosa for Energy Recovery System", Advances in Materials Science and Engineering, vol. 2022, Article ID 3314606, 9 pages, 2022. <https://doi.org/10.1155/2022/3314606>. (SCI/Scopus/Anna University Annexure-1). **Impact Factor:2.098 Q2 Journal**
247. P. Madhu, M. Sasireka, Ravi Samikannu, K. Vinoth, A. Udhaya Kumar, Pravin P. Patil, **S. Kaliappan**, Atkilt Mulu Gebrekidan (2022), "Production and Characterization of Maximum Liquid Oil Products through Individual and Copyrolysis of Pressed Neem Oil Cake and Waste Thermocol Mixture ", Advances in Polymer Technology , vol. 2022, Article ID 5258130 11 pages ,2022. <https://doi.org/10.1155/2022/5258130>. (SCIE/ScopusIndexed/WOS/Anna University Annexure-1). **Impact Factor:2.502 Q2 Journal**
248. Kathir, K. Haribabu, Aditya Kumar, S. Kaliappan, Pravin P. Patil, C.Sowmya Dhanalakshmi, P. Madhu, Habtewolde Ababu Birhanu (2022), "Utilization of Tea Industrial Waste for Low-Grade Energy Recovery: Optimization of Liquid Oil Production and Its Characterization", Advances in Materials Science and Engineering, vol. 2022, Article ID 7852046, 9 pages, 2022. <https://doi.org/10.1155/2022/7852046>. (WOS/SCIE/Anna University Annexure-1). **Impact Factor: 2.098 Q2 Journal**
249. Solomon Jenoris Muthiya, L. Natrayan, **S. Kaliappan**, Pravin P. Patil, B. E. Naveena, Joshuva Arockia Dhanraj, Mohankumar Subramaniam, Prabhu Paramasivam (2022), "Experimental Investigation to Utilize Adsorption and Absorption Technique to Reduce CO2 Emissions in Diesel Engine Exhaust Using Amine Solutions ", Adsorption Science & Technology, vol. 2022, Article ID 9621423 , 11 pages, 2022. <https://doi.org/10.1155/2022/9621423> .(SCI/Scopus Indexed/Anna University Annexure-1). **Impact Factor: 4.373 Q2 Journal**
250. P. Madhu, L. Vidhya, S. Vinodha, Shiny Wilson, S. Sekar, Pravin P. Patil, **S. Kaliappan**, S. Prabhakar (2022), "Co-pyrolysis of Hardwood Combined with Industrial Pressed Oil Cake and Agricultural Residues for Enhanced Bio-Oil Production", Journal of Chemistry, vol. 2022, Article ID 9884766, 12 pages, 2022. <https://doi.org/10.1155/2022/9884766>. (SCI/Scopus Indexed/WOS/Anna University Annexure-1). **Impact Factor:3.241 Q2 Journal**

251. C. Sowmya Dhanalakshmi, N. Ahalya, P. Vidhyalakshmi, C. Krishnaraj, N. Selvam, Pravin P. Patil, **S. Kaliappan**, S. Prabhakar (2022), "Individual and Catalytic Co-Pyrolysis of Agricultural Outcomes and Polymeric Materials over Nano-HZSM-5 Zeolite: Synergistic Effects and Yield Analysis for Heating Applications", Journal of Nanomaterials, vol. 2022, Article ID 3743299, 11 pages, 2022. <https://doi.org/10.1155/2022/3743299>. (SCIE/Scopus Indexed/WOS/Anna University Annexure-1). **Impact Factor:3.791 Q2 Journal**
252. Natrayan, Piyush Gaur, Anjibabu Merneedi, **S. Kaliappan**, Pravin P. Patil, V. Sivaprakash, Muse Degefe Chewaka (2022), "Investigation of Tribological Behaviour on DLC Coatings for AA5051 using DC Sputtering", Adsorption Science & Technology, vol. 2022, Article ID 4574218, 9 pages, 2022. <https://doi.org/10.1155/2022/4574218>. (SCI/Scopus Indexed/Anna University Annexure-1). **Impact Factor: 4.373 Q2 Journal**
253. Manjunathan Karthick, M. Meikandan, **S. Kaliappan**, M. Karthick, S. Sekar, Pravin P. Patil, S. Raja, L. Natrayan, Prabhu Paramasivam (2022), "Experimental Investigation on Mechanical Properties of Glass Fiber Hybridized Natural Fiber Reinforced Penta-Layered Hybrid Polymer Composite", International Journal of Chemical Engineering, vol. 2022, Article ID 1864446, 9 pages, 2022. <https://doi.org/10.1155/2022/1864446>. (Science Citation Index Expanded/Scopus/WoS) **Impact Factor:2.729 Q2 Journal**
254. G. Gokilakrishnan, R. Sathishkumar, N. S. Sivakumar, **S. Kaliappan**, S. Sekar, Pravin P. Patil, Ram Subbiah, K. P. Yuvaraj, Feleke Worku Tadesse (2022), "Wear Behavior and FESEM Analysis of LM 25 Alloy MMHCs Reinforced with Fe₃O₄ and Gr by Utilizing Taguchi's Technique", Journal of Nanomaterials, vol. 2022, Article ID 3203057, 10 pages, 2022. <https://doi.org/10.1155/2022/3203057>. (Science Citation Index Expanded/Scopus/WoS). **Impact Factor:3.791 Q2 Journal**
255. L. Natrayan, **S. Kaliappan**, Baskara S. Sethupathy, S. Sekar, Pravin P. Patil, G. Velmurugan, Tewedaj Tariku Olkeba (2022), "Effect of Mechanical Properties on Fibre Addition of Flax and Graphene-Based Bionanocomposites", International Journal of Chemical Engineering, vol. 2022, Article ID 5086365, 8 pages, 2022. <https://doi.org/10.1155/2022/5086365>. (Science Citation Index Expanded/Scopus/WoS) **Impact Factor:2.729 Q2 Journal**
256. Naresh Kumar, L. Natrayan, G. Kasirajan, S. Kaliappan, M. D. Raj Kamal, Pravin P. Patil, Muse Degefe Chewaka (2022), "Development of Novel Bio-mulberry-Reinforced Polyacrylonitrile (PAN) Fibre Organic Brake Friction Composite Materials", Bioinorganic Chemistry and Applications, vol. 2022, Article ID 6426763, 11 pages, 2022. <https://doi.org/10.1155/2022/6426763>. (Science Citation Index Expanded/Scopus/WoS). **Impact Factor:4.724 Q1 Journal**
257. C. Sowmya Dhanalakshmi, **S. Kaliappan**, H. Mohammed Ali, S. Sekar, Melvin Victor Depoures, Pravin P. Patil, Baskara Sethupathy Subbaiah, S. Socrates, Habtewolde Ababu Birhanu (2022), "Flash Pyrolysis Experiment on Albizia odoratissima Biomass under Different Operating Conditions: A Comparative Study on Bio-Oil, Biochar, and Noncondensable Gas Products", Journal of Chemistry, vol. 2022, Article ID 9084029, 9 pages, 2022. <https://doi.org/10.1155/2022/9084029>. (Science Citation Index Expanded/Scopus/WoS) **Impact Factor:3.241. Q2 Journal**
258. V. Siva Shankar, G. Velmurugan, **S. Kaliappan**, S. Baskara Sethupathy, S. Sekar, Pravin P. Patil, G. Anitha, Geremew Geidare Kailo (2022), "Optimization of CO₂ Concentration on Mortality of Various Stages of Callosobruchus maculatus and Development of Controlled Atmosphere Storage Structure for Black Gram Grains", Adsorption Science & Technology, vol. 2022, Article ID 3381510, 12 pages, 2022. <https://doi.org/10.1155/2022/3381510>. (Science Citation Index /Scopus) **Impact Factor: 4.373 Q2 Journal**
259. P. Shalini Priya Dharsini, N. Ahalya, **S. Kaliappan**, S. Sekar, Pravin P. Patil, Varasala Pragna, Gurusamy Pathinettampadian, J. Isaac Joshua Ramesh Lalvani, and Kibrom Menasbo (2022), "Performance and

Environmental Effects of CeO₂/ZrO₂ Nanocomposite in Triple Blend Methyl Ester of Pumpkin and Neem Seed Oil Dosed with Diesel on IC Engine” , Hindawi, Journal of Nanomaterials , Volume 2022, Article ID 5736453, 9 pages , <https://doi.org/10.1155/2022/5736453>. (Science Citation Index Expanded/Scopus/WoS).

Impact Factor:3.791 Q2 Journal

260. K. Raju , M. Balakrishnan , D. V. S. S. V. Prasad, V. Nagalakshmi, Pravin P. Patil, **S. Kaliappan**, B. Arulmurugan , K. Radhakrishnan, B. Velusamy, Prabhu Paramasivam and A. El-Denglawey (2022), “ Optimization of WEDM Process Parameters in Al2024-Li-Si₃N₄ MMC”, Hindawi, Journal of Nanomaterials , Volume 2022, Article ID 2903385, 12 pages. <https://doi.org/10.1155/2022/2903385>. (Science Citation Index Expanded/Scopus/WoS). **Impact Factor:3.791 Q2 Journal**
261. Raja Subramani, **S. Kaliappan**, S. Sekar, Pravin P. Patil, R. Usha, Narapareddi Manasa, E. S. Esakkiraj (2022) , "Polymer Filament Process Parameter Optimization with Mechanical Test and Morphology Analysis", Advances in Materials Science and Engineering, vol. 2022, Article ID 8259804, 8 pages, 2022. <https://doi.org/10.1155/2022/8259804>. (SCI/Scopus/Anna University Annexure-1). **Impact Factor:2.098 Q2 Journal**
262. L. Natrayan, P. V. Arul Kumar, Joshuva Arockia Dhanraj, **S. Kaliappan**, N. S. Sivakumar, Pravin P. Patil, S. Sekar, Prabhu Paramasivam (2022) , "Synthesis and Analysis of Impregnation on Activated Carbon in Multiwalled Carbon Nanotube for Cu Adsorption from Wastewater", Bioinorganic Chemistry and Applications, vol. 2022, Article ID 7470263, 8 pages, 2022. <https://doi.org/10.1155/2022/7470263>. (Science Citation Index Expanded/Scopus/WoS). **Impact Factor:4.724 Q1 Journal**
263. L. Natrayan, P. V. Arul Kumar, **S. Kaliappan**, S. Sekar, Pravin P. Patil, R. Jayashri, E. S. Esakki Raj (2022), "Analysis of Incorporation of Ion-Bombarded Nickel Ions with Silicon Nanocrystals for Microphotonic Devices ", Journal of Nanomaterials, vol. 2022, Article ID 5438084, 7 pages, 2022. <https://doi.org/10.1155/2022/5438084> (Science Citation Index Expanded/Scopus/WoS). **Impact Factor:3.791 Q2 Journal**
264. **S. Kaliappan**, A. Shanmugam, Pradeep Johnson, M. Karthick, S. Sekar, Pravin P. Patil, M. K. S. Sai, K. P. Yuvaraj, Venkatesan Govindaraajan (2022), "Impact of AlN-SiC Nanoparticle Reinforcement on the Mechanical Behavior of Al 6061-Based Hybrid Composite Developed by the Stir Casting Route", Advances in Materials Science and Engineering, vol. 2022, Article ID 1399618, 8 pages, 2022. <https://doi.org/10.1155/2022/1399618>. (SCI/Scopus/Anna University Annexure-1). **Impact Factor:2.098 Q2 Journal**
265. K Tamil Mannan, V. Sivaprakash, S. Raja, Pravin P Patil, **S. Kaliappan**, S. Socrates (2022),” Effect of Roselle and biochar reinforced natural fiber composites for construction applications in cryogenic environment”,Materials Today: Proceedings,2022,ISSN 2214-7853,<https://doi.org/10.1016/j.matpr.2022.09.003>.(<https://www.sciencedirect.com/science/article/pii/S2214785322057959>) (Scopus). **Cite Score: 2.3**
266. K. Tamil Mannan, V. Sivaprakash, S. Raja, Mohanraj Kulandasamy, Pravin P Patil, **S. Kaliappan** (2022), “Significance of Si₃N₄/Lime powder addition on the mechanical properties of natural calotropis gigantea composites” ,Materials Today: Proceedings,2022, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2022.09.002>. (<https://www.sciencedirect.com/science/article/pii/S2214785322057947>) (Scopus). **Cite Score: 2.3**
267. Naresh Kumar, **S. Kaliappan**, S. Socrates, L. Natrayan, Praveen Bhai Patel, Pravin P. Patil, S. Sekar, Wubishet Degife Mammo (2022), "Investigation of Mechanical and Thermal Properties on Novel Wheat Straw and PAN Fibre Hybrid Green Composites", International Journal of Chemical Engineering, vol. 2022, Article ID 3598397, 8 pages, 2022. <https://doi.org/10.1155/2022/3598397>. (Science Citation Index Expanded/Scopus/WoS) **Impact Factor:2.729 Q2 Journal**

268. L. Natrayan, **S. Kaliappan**, C. Naga Dheeraj Kumar Reddy, M. Karthick, N.S. Sivakumar, Pravin P Patil, S. Sekar, Subash Thanappan (2022), "Development and Characterization of Carbon-Based Adsorbents Derived from Agricultural Wastes and Their Effectiveness in Adsorption of Heavy Metals in Waste Water", *Bioinorganic Chemistry and Applications*, vol. 2022, Article ID 1659855, 9 pages, 2022. <https://doi.org/10.1155/2022/1659855>. (Science Citation Index Expanded/Scopus/WoS). **Impact Factor:4.724 Q1 Journal**
269. S. Krishnamohan, Harishchander Anandaram, V. Rathinam, **S. Kaliappan**, S. Sekar, Pravin P Patil, Asheesh Kumar, Venkatesan Govindaraajan (2022), "Optimization of Water Absorption and Mechanical and Thermal Behavior of Polylactic Acid/Chitosan/Titanium Carbide", *Advances in Materials Science and Engineering*, vol. 2022, Article ID 5176584, 8 pages, 2022. <https://doi.org/10.1155/2022/5176584>. (SCI/Scopus/Anna University Annexure-1). **Impact Factor:2.098 Q2 Journal**
270. R.Ramaswamy, **S.Kaliappan**, L.Natrayan, Patil.Pravin P.(2022), "Pear cactus fiber with onion sheath biocarbon nanosheet toughened epoxy composite: mechanical, thermal, and electrical properties", *Biomass Conversion and Biorefinery*, 2190-6823. <https://doi.org/10.1007/s13399-022-03335-x>. (WOS/SCIE/Anna University Annexure-1).**Impact factor : 4.050 Q2 Journal**
271. S. V. Gurupranes, L. Natrayan, **S. Kaliappan**, Praveen Bhai Patel, S. Sekar, P. Jayaraman, C. K. Arvinda Pandian, E. S. Esakkiraj (2022), "Investigation of Physicochemical Properties and Characterization of Leaf Stalk Fibres Extracted from the Caribbean Royal Palm Tree", *International Journal of Chemical Engineering*, vol. 2022, Article ID 7438411, 10 pages, 2022. <https://doi.org/10.1155/2022/7438411>. (Science Citation Index Expanded/Scopus/WoS) **Impact Factor:2.729 Q2 Journal**
272. Naresh Kumar, Piyush Gaur, **S. Kaliappan**, L. Natrayan, S. Socrates, Pravin P. Patil, Subash Thanappan (2022), "Processing and Characterization of Novel Bio-Waste Hybrid Brick Composites for Pollution Control", *Bioinorganic Chemistry and Applications*, vol. 2022, Article ID 3127135, 8 pages, 2022. <https://doi.org/10.1155/2022/3127135>. (Science Citation Index Expanded/Scopus/WoS). **Impact Factor:4.724 Q1 Journal**
273. Natrayan Lakshmaiya , **Seeniappan Kaliappan** , Pravin P. Patil , Velmurugan Ganesan , Joshua Arockia Dhanraj , Chattariya Sirisamphanwong , Tanakorn Wongwuttanasatian , Shahariar Chowdhury , Sittiporn Channumsin , Manun Channumsin and Kuaanan Techato (2022), "Influence of Oil Palm Nano Filler on Interlaminar Shear and Dynamic Mechanical Properties of Flax/Epoxy-Based Hybrid Nanocomposites under Cryogenic Condition", *Coatings* 2022, 12, 1675. <https://doi.org/10.3390/coatings12111675>. (Scopus/WoS). **Impact Factor: 3.263 Q2 Journal**
274. Kaliappan, S., Arunadevi, B., Sateesh, N. et al. Effect of Amino Silane Grafted Cellulose and Kenaf Fibers in Mechanical, Impact Toughness and Drilling Characteristics of Epoxy Resin Composite. *Silicon* (2022). <https://doi.org/10.1007/s12633-022-02245-x>. (SCIE/Anna University Annexure-1/SCOPUS). **Impact Factor:2.941 Q2 Journal**
275. **S. Kaliappan**, Natrayan L, Pravin P, S. Socrates. (2022). Enhancement of a superheated turbine generator blade's cooling effect. *Computer Integrated Manufacturing Systems*, 28(12), 1626–1636. Retrieved from <http://cims-journal.com/index.php/CN/article/view/564>. (UGC Care/SCOPUS). **Impact Factor:0.35 Q2 Journal**
276. **S. Kaliappan**, Natrayan L, Pravin P, M. D. Raj Kamal. (2022). An experimental investigation of Interfacial contaminants in product portfolio IC engine oil pipelines using a theoretical foundation. *Computer Integrated Manufacturing Systems*, 28(12), 1616–1625. Retrieved from <http://cims-journal.com/index.php/CN/article/view/563>. (UGC Care/SCOPUS). **Impact Factor:0.35 Q2 Journal**
277. **S.Kaliappan**, S.Lakshmana Kumar, K.Thiruselvam, Arul Kulandaivel. (2022). Influence of different thermal conductivity on the mobility of airborne particulates in IC engine parallel plate convection

- circulation. *Computer Integrated Manufacturing Systems*, 28(12), 1637–1647. Retrieved from <http://cims-journal.com/index.php/CN/article/view/565>. (UGC Care/SCOPUS). Impact Factor:0.35 Q2 Journal
278. **S. Kaliappan** , S. Chezhan Babu , M.D.Rajkamal , Ruchika Tondon(2022),” Experimental Investigations of Vertical Channel Annular With Continuously Dynamic Magnetic Field, Mixed Convection and Warming Impacts”, *ION EXCHANGE AND ADSORPTION*, Vol. 22, Issue-01, 2022,pp.503-510 (UGC/SCOPUS).Impact factor : 0.1, Q4 Journal.

AY-2021

279. Balaji Venkatesan, **Kaliappan Seeniappan**, Ezhumalai Shanmugam, Socrates Subramanian and Jayaseelan Veerasundaram (2021), “Characterization and effect of the use of safflower methyl ester and diesel blends in the compression ignition engine”, *Oil & Gas Science and Technology*, 76, 29 (2021) <https://doi.org/10.2516/ogst/2021011>. (Annexure-1 & WOS). **Q2 Journal**
280. Jayahari Lade, Kalluri Nagachary, Kuldeep K. Saxena, **Kaliappan seeniappan** & Ravindra Singh Rana (2021), “Mechanical Characterisation and Study of Nickel Based super alloy 718 at Subzero Temperatures”, *Advances in Materials and Processing Technologies* (Taylor and Francis) , 20th July 21, 2021(online), <https://doi.org/10.1080/2374068X.2021.1945315>. (SCOPUS, ESCI). **Q2 Journal**
281. R. Suryanarayanan, V. G. Sridhar, L. Natrayan, **S. Kaliappan**, Anjibabu Merneedi, T. Sathish, Alazar Yeshitla (2021), "Improvement on Mechanical Properties of Submerged Friction Stir Joining of Dissimilar Tailor Welded Aluminum Blanks", *Advances in Materials Science and Engineering*, vol. 2021, Article ID 3355692, 6 pages, 2021. <https://doi.org/10.1155/2021/3355692>. (SCIE/WOS/SCOPUS). **Impact Factor:2.098 Q2 Journal.**
282. Elakkiyadasan R, Manoj Kumar P, Subramanian M , Balaji N, Karthick M & **Kaliappan S** (2021), “ Optimization of Shell and Tube Condenser for Low Temperature Thermal Desalination Plant”, *E3S Web of Conferences* 309, 01011, 10 pages, 2021. <https://doi.org/10.1051/e3sconf/202130901011>. (SCOPUS, WOS).
283. K. K. Arun, M. Bala Theja, L. Girisha, N. Arun Vignesh, N. S. Sivakumar, Ram Subbiah & **S. Kaliappan (2021)**, “Time Dependent Behaviour of Amino Silane-treated Aramid Fibre and Waste Latex Rubber Powder Toughened Epoxy Composite”, *Silicon*, 19th October, 2021. <https://doi.org/10.1007/s12633-021-01456-y> (SCIE/Anna University Annexure-1/SCOPUS). **Impact Factor:2.941 Q2 Journal**
284. L. Natrayan, S. Balaji, G. Bharathiraja, **S. Kaliappan** ,Dhinakaran Veeman and Wubishet Degife Mammo (2021),“Experimental Investigation on Mechanical Properties of TiAlN Thin Films Deposited by RF Magnetron Sputtering”, *Hindawi, Journal of Nanomaterials*, Volume 2021, Article ID 5943486, 7 pages, <https://doi.org/10.1155/2021/5943486>. (WOS/SCIE/Anna University Annexure-1). **Impact Factor:3.791 Q2 Journal**
285. Anjibabu Merneedi ,L. Natrayan ,**S. Kaliappan** ,Dhinakaran Veeman,S. Angalaeswari ,Chidurala Srinivas and Prabhu Paramasivam (2021), “Experimental Investigation on Mechanical Properties of Carbon Nanotube-Reinforced Epoxy Composites for Automobile Application”, *Hindawi Journal of Nanomaterials* Volume 2021, Article ID 4937059, 7 pages <https://doi.org/10.1155/2021/4937059>. (WOS/SCIE/Anna University Annexure-1). **Impact Factor:3.791 Q2 Journal**
286. **Kaliappan Seeniappan**, Balaji Venkatesan, Nithyanandan Navaneetha Krishnan, Thanigavel murugan Kandhasamy, Shanmugam Arunachalam, Raghuram Kandregula Seeta, Melvin Victor Depoures (2021) ,“A comparative assessment of performance and emission characteristics of a DI diesel engine fuelled with ternary blends of two higher alcohols with lemongrass oil biodiesel and diesel fuel”, *Energy & Environment*, 1–26, DOI: 10.1177/0958305X211051323. (WOS/SCIE/Anna University Annexure-1). **Impact Factor:3.154 Q2 Journal**
287. L. Natrayan, Anjibabu Merneedi, Dhinakaran Veeman, **S. Kaliappan**, P. Satyanarayana Raju, Ram Subbiah, S. Venkatesh Kumar (2021), "Evaluating the Mechanical and Tribological Properties of DLC

Nanocoated Aluminium 5051 Using RF Sputtering", Journal of Nanomaterials, vol. 2021, Article ID 8428822, 7 pages, 2021. <https://doi.org/10.1155/2021/8428822>. (WOS/SCIE/Anna University Annexure-1). **Impact Factor:3.791 Q2 Journal**

288. L. Natrayan, Anjibabu Merneedi, G. Bharathiraja, **S. Kaliappan**, Dhinakaran Veeman and P. Murugan (2021), "Processing and Characterization of Carbon Nano fibre Composites for Automotive Applications", Journal of Nanomaterials, Volume 2021, Article ID 7323885, 7 pages, <https://doi.org/10.1155/2021/7323885>. (WOS/SCIE/Anna University Annexure-1). **Impact Factor:3.791 Q2 Journal**

AY-2020

289. **S. Kaliappan**, S. Mohanamurugan and P. K. Nagarajan (2020) , "Numerical Investigation of Sinusoidal and Trapezoidal Piston Profiles for an IC Engine" , Journal of Applied Fluid Mechanics, Vol. 13, No. 1, pp. 287-298, 2020. ISSN 1735-3572, EISSN 1735-3645. DOI: 10.29252/jafm.13.01.29881 (**Annexure 1/Scopus**). **Q2 Journal**
290. P.Ramanathan, R.Rajavel, A.R.Sivaram, **S.Kaliappan** (2020) , "Investigation of emission control in CI Engine using Aqua Silencer" , Test Engineering and Management , Vol.83,March - April 2020 ,pp. 15588 – 15597, ISSN: 0193-4120 (**Scopus**).
291. G. Ragothaman, T. Mothilal, M.D. Rajkamal, **S. Kaliappan** and S. Mathavan (2020), "Performance and Emission Characteristics of Diesel Blended with Sweet Lime Peel Oil and Corn Oil", Proceedings of International Conference on Recent Trends in Mechanical and Materials Engineering AIP Conf. Proc. 2283, 020036-1–020036-10; <https://doi.org/10.1063/5.0024898>. (**Scopus/WOS**).

AY-2019

292. D. Balamurali , G. Sree Krishna , C. siva Kumar , S. Manigandan , R. Pradeep Kumar, **S. Kaliappan** (2019), "Combo Fixture for Axial Profile Fan Lever", Engineering Reports, Volume 2-Issue 1, 28/2/2019, PP.35-39.

AY-2018

293. **S.Kaliappan**, J.Lokesh, P.Mahaneesh, M.Siva (2018), "Mechanical Design and Analysis of AGV for Cost Reduction of Material Handling in Automobile Industries", INTERNATIONAL RESEARCH JOURNAL OF AUTOMOTIVE TECHNOLOGY (IRJAT) Volume 01-Issue 1, January 2018, PP.1- 7.
294. P.Krishna Teja, G. Moorthy, **S.Kaliappan** (2018), "Finite Element Analysis of Propeller Shaft For Automotive and Naval Application", INTERNATIONAL RESEARCH JOURNAL OF AUTOMOTIVE TECHNOLOGY (IRJAT) Volume 01-Issue 1, January 2018, PP.8-12.
295. T.Mothilal, M.D.Raj Kamal, **S.Kaliappan**, G.Jagadeesh Babu, S.Socrates (2018), "Experimental and Numerical Analysis of Wind Turbine", INTERNATIONAL RESEARCH JOURNAL OF AUTOMOTIVE TECHNOLOGY (IRJAT) Volume 01-Issue 2, March 2018, PP.1- 8.
296. **S.Kaliappan**, Dr.S.Mohanamurugan, Dr. P.K.Nagarajan, M.D.Raj Kamal, (2018) "Analysis of An Innovative Connecting Rod by Using Finite Element Method", TAGA JOURNAL OF GRAPHIC TECHNOLOGY, Vol. 14 -2018, PP-1147-1152.
297. **S.KALIAPPAN**, G R Vignesh, N R Vigneshwaran, R Giritharan, Dr.T.Mothilal, M.D.Rajkamal (2018), "Static Analysis of Connecting Rod in a Single Cylinder Diesel Engine", International Journal of Pure and Applied Mathematics (IJPAM) , Volume 119 No. 12 2018, 14037-14043.
298. **KALIAPPAN.S**, R.ARAVIND, T.DEEPAN, D.RANJITH KUMAR, R.THIRUMALAIVASAN, Dr.T.MOTHILAL, M.D.RAJKAMAL (2018), "Error Proof Analysis of Center Pillar Inner Assembly by Using Pneumatic System", International Journal of Pure and Applied Mathematics (IJPAM) , Volume 119 No. 12 2018, 13933-13937.

299. **Kaliappan S**, Revanth Raam AP , Charan B, Asswin S , Mohammed Ibrahim SM , Dr.T.Mothilal , M.D.Rajkamal (2018) , “Modal and Kinematic Analysis of A Connecting Rod for Different Materials” , International Journal of Pure and Applied Mathematics (IJPAM) , Volume 119 No. 12 2018, 14599-14608.
300. Mr. M.D.Rajkamal , M. Mani Bharathi , Shams Hari Prasad M, Santhosh Sivan.M, Karthikeyan.S H.Bahruteen Ali Ahamadu, **S.KALIAPPAN** , Dr.T.Mothilal (2018) , “Thermal Analysis of Shell and Tube Heat Exchanger”, International Journal of Pure and Applied Mathematics (IJPAM) , Volume 119 No. 12 2018, 14299-14306.
301. Dr.T.Mothilal , A.K.Manikandan , B.Aravind , J.Jayakumar , S.Arokyaraj , **S.Kaliappan** , M.D.Rajkamal (2018) , “STRUCTURAL AND STATISTICAL ANALYSIS OF HORIZONTAL SPHERICAL END PRESSURE VESSEL”, International Journal of Pure and Applied Mathematics (IJPAM) , Volume 119 No. 12 2018, 13493-13501.
302. Dr T.Mothilal, P.Harish Krishna, G.Jagadeesh Babu, Ashwin Suresh, K.Baskar , **S.Kaliappan** , M.D.Rajkamal (2018) , “ CFD Analysis of Different Blades in Vertical Axis Wind Turbine ”, International Journal of Pure and Applied Mathematics (IJPAM) , Volume 119 No. 12 2018, 13545-13551.
303. H. Bahruteen Ali Ahamadu, M.D Raj kamal, **S. Kaliappan (2018)**, “Design and analysis of air cooled radiator”, International Research Journal of Automotive Technology (IRJAT) Volume 01-Issue 4, 30th July 2018, PP.1-5.
304. D.Balamurali, ,K.Sivakumar, **S.Kaliappan**, S.Prabhukumar, L.Saikumar, S.A.Vijaimhadhava, S.Ashokkumar (2018) , “Design and Analysis of Composite Leaf Spring”, International Research Journal of Automotive Technology (IRJAT) Volume 01-Issue 4, 30th July 2018, PP.16- 20.

AY-2017

305. M D Raj Kamal, **S.Kaliappan**, S.Socrates, G.Jagadeesh Babu ((2017) “CFD Analysis of Single Cylinder IC Engine Inlet Swirl Valve”, International Journal of Latest Engineering Research and Applications (IJLERA) ISSN: 2455-7137, Volume – 02, Issue – 08, August – 2017, PP – 34-46.
306. Dr T. Mothilal, **S. Kaliappan**, M. D. Raj Kamal, Vasanthe Roy (2017), “Design of Turbocharger in Petrol Engine with Intercooler and Discharger Chamber”, International Journal of Latest Engineering and Management Research (IJLEMR) ISSN: 2455-4847 Volume 02 - Issue 12, December 2017, PP. 81-

AY-2016

307. **S. KALIAPPAN** , M. D. RAJKAMAL , V. G. GANESAN and P. MANIKANDAN (2016) , “EXPERIMENTAL INVESTIGATION ON SINGLE BASIN AND DOUBLE BASIN SOLAR DESALINATION”, International Journal of Chemical Sciences (IJCS) , Volume –14, Issue – 02, May– 2016, PP – 1121-1132 (**Scopus**).
308. **S. KALIAPPAN**, M. D. RAJKAMAL and D. BALAMURALI (2016) , “NUMERICAL ANALYSIS OF CENTRIFUGAL PUMP IMPELLER FOR PERFORMANCE IMPROVEMENT ” , International Journal of Chemical Sciences (IJCS) , Volume –14, Issue – 02, May– 2016, PP – 1148-1156 (**Scopus**).

AY-2015

309. **S.Kaliappan** R.Hari Nirmal, G.Parthasaarathy, D.Vijayakumar (2015) “ANALYSING THE LOSSES AFFECTING THE BOLIER EFFICIENCY”, International Journal of Applied Engineering Research (IJAR), Vol. 10 No.33, PP- 25873- 25879.
310. **S.Kaliappan**, M.D.Raj Kamal, Dr.S.Mohanamurugan, Dr. P.K.Nagarajan (2015) “Design of Innovative Conneting Rod of a Single Cylinder Diesel Engine-Review”, International Journal of Applied Engineering Research (IJAR), Vol. 10 No.33, PP-26063-26070.
311. Arun T.A , **Kaliappan S** (2015) “ PERFORMANCE TEST OF BIO-DIESEL USING JATROPHA AND PALM OIL ON A SINGLE CYLINDER DIESEL ENGINE WITH DOE “ , International Journal of Applied Engineering Research (IJAR), Vol. 10 No.33, PP- 25907- 25914.

312. M.Chandru, M.Durairaj, S.Saravanakumar, **S.Kaliappan** (2015) “INTERNAL FLOW ANALYSIS OF SUBMERSIBLE PUMP IMPELLER USING CFD”, International Journal of Applied Engineering Research (IJAR), Vol. 10 No.33, PP- 25937- 25944.
313. Kumaragurubaran.J Raj Kamal M.D **Kaliappan S** (2015) “INVESTIGATION OF JET NOISE REDUCTION USING FAN FLOW DEFLECTORS ON CFD “, International Journal of Applied Engineering Research (IJAR), Vol. 10 No.33, PP- 26003- 26010.
314. Sivaram.S **Kaliappan.S** Raj Kamal M.D Suresh kumar R. BalamaniKanda Suthan K (2015) “ Performance Analysis of Gasifier on CFD “,International Journal of Applied Engineering Research (IJAR), Vol. 10 No.33, PP- 25880- 25889.
315. Raj Kamal M.D Socrates.S **Kaliappan S** (2015) “Aerodynamic Effects on Formula One Car Using CFD” , International Journal of Applied Engineering Research (IJAR) Vol. 10 No.33,, PP.28164-28172.

BOOK CHAPTERS:

Sl.No	Name of Faculty	2022	2023	2024	2026	Total
1	Dr.S.Kaliappan	2	3	15	1	21

2026

1. Ali Ahamadu, H.B., Arun, K., Arivazhagan, S., Sendhil Kumar, N., Kaliappan, S. and Rajkamal, M.D. (2026). A Differentiation of Energy Storage Methods. In Machine Learning for Sustainable Energy Solutions (eds Z. Said and P. Sharma). <https://doi.org/10.1002/9781394267439.ch13>

2024

1. Design and Optimization of Wearable, Implantable, and Edible Antennas

K. Kavitha, Thennarasan Sabapathy, V. Rajeshkumar

Projected Release Date: May, 2024 Copyright: © 2024 Pages: 300

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2. Chapter 15,Synchronous Reconfiguration in Implantable Distributed Generation on Optimal Power Arrangement , Mohammed Ali H., A. Krishnakumari, S. Selvakanmani, **S. Kaliappan**
3. Chapter 18, Analyzing Renewable Power Integration in Edible Devices on Variable Rate Pumped Storage, **Kaliappan Seeniappan**, A. Krishnakumari, M. Shanmugapriya, M. Muthukannan
4. Chapter 20, Lightning Impact Current Variables in Wearable and Implantable Devices on Different Evaluation Methods, Natrayan L., M. Saravanan, V. Paranthaman, **S. Kaliappan**

2. Metaheuristic and Machine Learning Optimization Strategies for Complex Systems

Thanigaivelan R, Suchithra M, Kaliappan S, Mothilal T

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5. S., K., M. R., D., S., S. K., Shahid, M., Hemachandu, P., & **Kaliappan, S.** (2024). Experimental Investigation and Comparative Analysis of an Efficient Machine Learning Algorithm for Distribution System Reconfiguration. In T. R., S. M., K. S., & T. Mothilal (Eds.), Metaheuristic and Machine Learning Optimization Strategies for Complex Systems (pp. 1-18). IGI Global. <https://doi.org/10.4018/979-8-3693-7842-7.ch001>. (**Scopus**)
6. **Seeniappan, Kaliappan.** "Meta-Heuristic Optimization for Enhanced Sensor-Based Health Monitoring in Cloud Computing Environments." Metaheuristic and Machine Learning Optimization Strategies for Complex Systems, edited by Thanigaivelan R., et al., IGI Global, 2024, pp. 239-256. <https://doi.org/10.4018/979-8-3693-7842-7.ch013>. (**Scopus**)

7. I., M., Nagalakshmi, T., Vanya sree, G., **Seeniappan, K.**, Arvinda Pandian, C. K., & Govinda Rao, S. (2024). Optimizing Optical Fiber Path in Wavelength Division Multiplexing Networks Using Particle Swarm Optimization. In T. R., S. M., K. S., & T. Mothilal (Eds.), *Metaheuristic and Machine Learning Optimization Strategies for Complex Systems* (pp. 323-340). IGI Global. <https://doi.org/10.4018/979-8-3693-7842-7.ch016>. **(Scopus)**
8. Kaliappan, S. (2024). Performance Evaluation of Simulation-Driven Metaheuristic Algorithms: Efficiency and Effectiveness Measures in the Search for Quality Solutions. In T. R., S. M., K. S., & T. Mothilal (Eds.), *Metaheuristic and Machine Learning Optimization Strategies for Complex Systems* (pp. 341-358). IGI Global. <https://doi.org/10.4018/979-8-3693-7842-7.ch017>. **(Scopus)**
- 3. Metaheuristics Algorithm and Optimization of Engineering and Complex Systems**
 Thanigaivelan R., Suchithra M., Kaliappan S., Mothilal T.
 Release Date: July, 2024 Copyright: © 2024 Pages: 423
 DOI: 10.4018/979-8-3693-3314-3
 ISBN13: 9798369333143 ISBN13 Softcover: 9798369350027 EISBN13: 9798369333150
9. M. K., R. S., Prasad, D. V., Banda, H., A., M. I., M., S., & **Kaliappan, S.** (2024). A Novel Approach for Optimizing Wire Electric Discharge Machining of Mg-Cu-RE-Zr Alloy Using Machine Learning Algorithm. In T. R., S. M., K. S., & M. T. (Eds.), *Metaheuristics Algorithm and Optimization of Engineering and Complex Systems* (pp. 43-64). IGI Global. <https://doi.org/10.4018/979-8-3693-3314-3.ch003>
- 4. AI Approaches to Smart and Sustainable Power Systems**
 L. Ashok Kumar, S. Angalaeswari, K. Mohana Sundaram, Ramesh C. Bansal, Arunkumar Patil
 Indexed In: SCOPUS
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10. **Kaliappan, S.**, Ragunthar, T., Ali, M., & Murugeswari, B. (2024). Implementation of Virtual High Speed Data Transfer in Satellite Communication Systems Using PLC and Cloud Computing. In L. Ashok Kumar, S. Angalaeswari, K. Mohana Sundaram, R. Bansal, & A. Patil (Eds.), *AI Approaches to Smart and Sustainable Power Systems* (pp. 274-286). IGI Global. <https://doi.org/10.4018/979-8-3693-1586-6.ch014>. **(Scopus)**
11. Ragunthar, T., **Kaliappan, S.**, & Ali, H. M. (2024). Detection of Feedback Control Through Optimization in the Cyber Physical System Through Big Data Analysis and Fuzzy Logic System. In L. Ashok Kumar, S. Angalaeswari, K. Mohana Sundaram, R. Bansal, & A. Patil (Eds.), *AI Approaches to Smart and Sustainable Power Systems* (pp. 299-313). IGI Global. <https://doi.org/10.4018/979-8-3693-1586-6.ch016>. **(Scopus)**
12. Angalaeswari, S., and **Kaliappan Seeniappan** (2024). "Optimizing Power Usage in Wearable and Edible Devices for Railroad Operations Study on Renewable Power Integration and Storage." *AI Approaches to Smart and Sustainable Power Systems*, edited by L. Ashok Kumar, et al., IGI Global, 2024, pp. 371-381. <https://doi.org/10.4018/979-8-3693-1586-6.ch019>. **(Scopus)**
13. **Kaliappan, S.**, Muthukannan, M., Krishnakumari, A., & Socrates, S. (2024). Impact of Electronic Power Aging on Implantable Antennas: Insights Into Leakage and Current Characteristics of HV Armature Winding. In L. Ashok Kumar, S. Angalaeswari, K. Mohana Sundaram, R. Bansal, & A. Patil (Eds.), *AI Approaches to Smart and Sustainable Power Systems* (pp. 382-391). IGI Global. <https://doi.org/10.4018/979-8-3693-1586-6.ch020>. **(Scopus)**
- 5. Intelligent Solutions for Sustainable Power Grids**
 L. Ashok Kumar, S. Angalaeswari, K. Mohana Sundaram, Ramesh C. Bansal, Arunkumar Patil

14. Selvakanmani, S., **Kaliappan, S.**, Muthukannan, M., & Mohammed. (2024). Recognition of Cyber Physical Systems Through Network Security for Wireless Sensor Networks: Using Artificial Intelligence in Cyber Physical Systems. In L. Ashok Kumar, S. Angalaeswari, K. Mohana Sundaram, R. Bansal, & A. Patil (Eds.), *Intelligent Solutions for Sustainable Power Grids* (pp. 272-286). IGI Global. <https://doi.org/10.4018/979-8-3693-3735-6.ch009>.
15. Jayalakshmi, M., Malarselvi, G., Ali, M., & **Kaliappan, S.** (2024). Development of Communication Networks in Industrial Sectors to Enhance Privacy and Security in the Cyber Physical System Through Internet of Things. In L. Ashok Kumar, S. Angalaeswari, K. Mohana Sundaram, R. Bansal, & A. Patil (Eds.), *Intelligent Solutions for Sustainable Power Grids* (pp. 310-323). IGI Global. <https://doi.org/10.4018/979-8-3693-3735-6.ch014>.
16. Angalaeswari, S. & **Seeniappan, K.** (2024). Estimating Parameters for Implantable Hydroelectric Asynchronous Generators Field Simulations and Modified Standard Measurements Approach. In L. Ashok Kumar, S. Angalaeswari, K. Mohana Sundaram, R. Bansal, & A. Patil (Eds.), *Intelligent Solutions for Sustainable Power Grids* (pp. 220-230). IGI Global. <https://doi.org/10.4018/979-8-3693-3735-6.ch017>.

6. Cyber-Physical Systems and Supporting Technologies for Industrial Automation **Thanigaivelan R., S. Kaliappan, C. Jegadheesan**

17. **Kaliappan, S.** & Maranan, R. (2023). Design and Implementation of Production Lines Through Cyber Physical Systems in the Manufacturing Sector in Industry 4.0 Using Machine Learning. In T. R., S. Kaliappan, & C. Jegadheesan (Eds.), *Cyber-Physical Systems and Supporting Technologies for Industrial Automation* (pp. 164-177). IGI Global. <https://doi.org/10.4018/978-1-6684-9267-3.ch009>.
18. **Kaliappan, S.** & Maranan, R. (2023). Implementation of Cyber Physical Systems in Smart Cities Through Augmented Reality Networks in the Mobility Decade. In T. R., S. Kaliappan, & C. Jegadheesan (Eds.), *Cyber-Physical Systems and Supporting Technologies for Industrial Automation* (pp. 215-228). IGI Global. <https://doi.org/10.4018/978-1-6684-9267-3.ch013>.
19. **Seeniappan, K.**, Akram, C. M., Soundararajan, S., & Natrayan, L. (2023). Modelling and Development of Energy Systems Through Cyber Physical Systems With Optimising Interconnected With Control and Sensing Parameters. In T. R., S. Kaliappan, & C. Jegadheesan (Eds.), *Cyber-Physical Systems and Supporting Technologies for Industrial Automation* (pp. 280-295). IGI Global. <https://doi.org/10.4018/978-1-6684-9267-3.ch016>.

1. Handbook of Research on Aspects and Applications of Incompressible and Compressible Aerodynamics

Sathish K. Kumar, Naren Shankar Radhakrishnan

20. S., K., M. D., R. K., V., B., S., S., & Kondratiev, A. (2022). Introduction to Two-Dimensional Inviscid Incompressible Flow. In S. Kumar & N. Radhakrishnan (Eds.), *Handbook of Research on Aspects and Applications of Incompressible and Compressible Aerodynamics* (pp. 56-73). IGI Global. <https://doi.org/10.4018/978-1-6684-4230-2.ch003>.
21. S., K., M. D., R. K., D., J. M., V., B., & P., M. (2022). Viscous Flow and Its Effect. In S. Kumar & N. Radhakrishnan (Eds.), *Handbook of Research on Aspects and Applications of Incompressible and Compressible Aerodynamics* (pp. 129-141). IGI Global. <https://doi.org/10.4018/978-1-6684-4230-2.ch006>.

➤ **PATENT & BOOKS:**

PATENT				BOOK	
National		International			
Utility	Design	Published /Applied	Grant	Applied	Published
Applied / Published	Applied / Grant				
1/24	2/2	-	15	0	29

➤ **PATENT:**

NATIONAL (UTILITY-PUBLICATION):

1. A patent is **Published** in the title of “**CNC Coded Two Axis writing machine**” the Patent Office Journal No. 24/2020 Dated 12/06/2020 with IPR APPLICATION NUMBER of 202041022088 A.
2. A patent is **Applied** in the title of “**A SYSTEM FOR CLEANING TOILETS**” **Dated** 13/04/2020 with IPR APPLICATION NUMBER of 202041015888.
3. A patent is **Published** in the title of “**Hand Operated Water Pumping Machine**” **Dated** 19/02/2021 with IPR APPLICATION NUMBER of 202041039149 A.
4. A patent is **Published** in the title of “**A NOVEL METHOD - INTEGRATION OF INTERNAL COMBUSTION ENGINE WITH IOT DEVICE**” **Dated** 9/07/2021 with IPR APPLICATION NUMBER of 202141028823 A.
5. A patent is **Published** in the title of “**IoT based Automated Toll gate Tax Collection System using Cloud Database**” the Patent Office Journal No. 50/2021 Dated 10-12-2021 with IPR APPLICATION NUMBER of 202141054902 A.
6. A patent is **Published** in the title of “**A research on planning and accident prevention system for surface- vehicles for improving safety and efficiency**” **Dated** 4-2-2022 with IPR APPLICATION NUMBER of 202141058236 A
7. A patent is **Published** in the title of “**Implementation of advanced CAD CAE tools in engineering education A modern approach to industrial design**” **Dated** 11-3-2022 with IPR APPLICATION NUMBER of 202221002690 A
8. A patent is **Published** in the title of “**IoT, Artificial Intelligent and YOLOv3 based Infrared Anomaly Detection for Power Equipment**” **Dated** 25-2-2022 with IPR APPLICATION NUMBER of 202241007572 A.
9. A patent is **Published** in the title “**A Milk Boiling Vessel With A Milk Storage Container**” **Dated** 08-07-2022 with IPR APPLICATION NUMBER of 202211035107.
10. A patent is **Published** in the title “**MOBILE PHONE DEPOSIT MACHINE USING IOT & ARTIFICIAL INTELLIGENCE SYSTEM**” **Dated** 30-09-2022 with IPR APPLICATION NUMBER of 202241054856.
11. A patent is **published** in the title “**DEVELOPMENT OF BAMBOO FIBER WITH GRAPE STALK CELLULOSE FIBER COMPOSITE MATERIAL USING SMART MANUFACTURING PROCESS FOR HEALTHCARE APPLICATIONS**” **Dated** 14-03-2023 with IPR APPLICATION NUMBER of 202341017224.
12. A patent is **published** in the title “**Mechatronics X-Y Gantry based System for Customized FRP Sheet Manufacturing**” **Dated** 17-11-2023 with IPR APPLICATION NUMBER of 202341075881.
13. A patent is **published** in the title “**Precision Extendable Robotic Arm employing Hydraulics and LVDT Sensor**” **Dated** 24-11-2023 with IPR APPLICATION NUMBER of 202341075879.
14. A patent is **published** in the title “**AI based Semi-automatic Window Washing System for Government Buses**” **Dated** 24-11-2023 with IPR APPLICATION NUMBER of 202341075880.

15. A patent is **published** in the title “ **Auxtomated Robotic System for Efficient Dismantling and Separation of End-of-Life Solar Panels**” Dated 19-07-2024 with IPR APPLICATION NUMBER of **202441053095**.
16. A patent is **published** in the title “ **Development of AI-powered Sorting System for Accurate Material Classification in End-of-Life Solar Panel Recycling**” Dated 19-07-2024 with IPR APPLICATION NUMBER of **202441052620**.
17. A patent is **published** in the title “**AI based Hydraulic Robotic Vehicle System for Sapling Plantation**” Dated 26-07-2024 with IPR APPLICATION NUMBER of **202441054146**.
18. A patent is **Published** in the title “**Ultrasonic Sensor based Depth Specific Self-threading Robotic System for Wall Drilling** ” Dated 26-07-2024 with IPR APPLICATION NUMBER of **202441054148**.
19. A patent is **Published** in the title “**AI based Hydraulics Powered Underwater Plants Uprooting Robotic System**” Dated 26-07-2024 with IPR APPLICATION NUMBER of **202441054151**.
20. A patent is **Published** in the title “**AI based Micro-robotic Hydraulic System for Printing Conductive Ink**” Dated 26-07-2024 with IPR APPLICATION NUMBER of **202441054152**.
21. A patent is **Published** in the title “**Quantifying the Triple Bottom Line of Sustainable Buildings in Tamil Nadu**” Dated 13/12/2024 with IPR APPLICATION NUMBER of **202441097635**.
22. A patent is **Published** in the title “**Method for AI-Powered Predictive Maintenance in Smart Manufacturing Systems**” Dated 30-05-2025 with IPR APPLICATION NUMBER of 202541041995.
23. A patent is **Published** in the title “**Thermoelectric Waste Heat Recovery System for Automotive Engines with Nanostructured Materials**” Dated 11-07-2025 with IPR APPLICATION NUMBER of 202541061160.
24. A patent is **Applied** in the title “**Boron Carbide-Reinforced Morphing Wind Turbine Blade**” Dated 06-04-2026 with IPR APPLICATION NUMBER of 202641043329.
25. A patent is **Applied** in the title “**Morphing Blade Technology for Wind Turbine Blades**” Dated 06-04-2026 with IPR APPLICATION NUMBER of 202641043300.

NATIONAL (DESIGN GRANT):

1. **A Design Patent granted** Motorized Lead Screw System for Robotic Hole Drilling Dated 05-12-2025 with IPR APPLICATION NUMBER of 399211-001.
2. **A Design Patent is granted** in Specialized Bed with Robotic Clamping for Medical Procedures Dated 04-1-2024 with IPR APPLICATION NUMBER of 399213-001.
3. **A Design Patent is granted** in Ornamental Design for a Wearable Device for Monitoring and Improving Sleep Quality Dated 30-4-2025 with IPR APPLICATION NUMBER of 457186-001.

INTERNATIONAL:

1. A patent is **granted** in the title of “**An approach to heterogeneous multi design based floor planning aware with thermal power delivery**”, with 8 years from 22 August 2020 dated 22/08/2020 with APPLICATION NUMBER of 2020101942.
2. A patent is **granted** in the title of “**Design of a collapsible and portable lactation module for mothers**”, with 8 years from 28 August 2020, dated 28/08/2020 with APPLICATION NUMBER of 2020102046.
3. A patent is **granted** in the title of “**DESIGN AND DEVELOPMENT OF A SMART SUITE FOR ASSISTING THE PREGNANT WOMEN**”, with 8 years from 9 September 2020 dated 09/09/2020 with APPLICATION NUMBER of 2020102194.
4. A patent is **granted** in the title of “**Continuous energy supply to house hold appliances through uninterrupted power meter**”, with 8 years from 20 September 2020 dated 20/09/2020 with APPLICATION NUMBER of 2020102346.

5. A patent is **granted** in the title of “**A NOVEL METHOD TO DESIGN A DYNAMO ELECTRIC VEHICLE**”, dated 15/10/2020 with APPLICATION NUMBER of 2020102727.
6. A patent is **granted** in the title of “**A Novel Method to Determine Enhanced Strength of Recycled Concrete based on Micro Filler Technique**”, dated 17/10/2020 with APPLICATION NUMBER of 2020102828.
7. A patent is **granted** in the title of “**ELECTRIC VEHICLE CHARGE MANAGEMENT AND**
8. **MONITORING SYSTEM BASED ON IOT**”, dated 24/10/2020 with APPLICATION NUMBER of 2020102995.
9. A patent is **granted** in the title of “**AN NOVEL METHOD FOR A SMART CAR - ARTIFICIAL INTELLIGENCE BASED AUTONOMOUS STEERING CONTROL SYSTEM WITH VOICE ASSISTANCE**”, dated 01/11/2020 with APPLICATION NUMBER of 2020103161.
10. A patent is **granted** in the title of “**DESIGN FOR PARABOLIC SOLAR PANEL CONTROL SYSTEM WITH VIPER**”, dated 01/12/2020 with APPLICATION NUMBER of 2020103825.
11. A patent is **granted** in the title of “**REDUCTION OF HEAT FLUX AI WATER NANOFLUIDS USED TO COOL THE ELECTRONIC PANELS**”, dated 11/12/2020 with APPLICATION NUMBER of 2020104017.
12. A patent is **granted** in the title of “**Analyzing patient health information based on IoT sensor with AI for improving patient assistance in the future direction**”, dated 06/01/2021 with APPLICATION NUMBER of 2021100048.
13. A patent is **granted** in the title of “**IOT BASED SOLAR ENERGY DETECTION WITH CRESCENT DUNES**”, dated 12/01/2021 with APPLICATION NUMBER of 2021100172.
14. A patent is **granted** in the title of “**A METHOD FOR THE MANUFACTURE OF THE BIO DEGRADABLE BOTTLE FROM THE POLY LACTIC ACID RESIN THROUGH THE APPLICATION OF THE INJECTION BLOW MOULDING PROCESS**”, dated 23/02/2021 with APPLICATION NUMBER of 2021100989.
15. A patent is **granted** in the title of “**ELECTRIC HYBRID POWER SOURCE FOR VEHICLES USING WEIGHTLESS INTERNAL COMBUSTION**”, dated 02/05/2021 with APPLICATION NUMBER of 2021102319.
16. A patent is **granted** in the title of “**ARTIFICIAL INTELLIGENCE BASED ENGINE EMISSIONS WITH EBP ON PERFORMANCE ASSESSMENT**”, dated 08/07/2021 with APPLICATION NUMBER of 2021103986.

BOOK PUBLISHED – With ISBN Number:

1. Dr. S. Kaliappan Book title is **Internet of Things** with ISBN No 978-93-47046-91-9 Publisher RK Publication 18/03/2026 Author: Mr. Sameer Sonawane, Dr. B. Suresh Kumar, Mrs. K. Naga Rajeswari, S. Kaliappan.
2. Dr. S. Kaliappan Book title is **Machine Learning Techniques** with ISBN No 978-93-47046-63-6 Publisher RK Publication 18/03/2026 Author: Dr. S. PRAVEENA , Mrs. G. SANDHYA RANI, Mrs. K. NAGA RAJESWARI, S. KALIAPPAN
3. Dr. S. Kaliappan Book title is **Artificial Intelligence** with ISBN No 978-93-47046-82-7 Publisher RK Publication 18/03/2026 Author: Mrs. K. DURGA CHAITANYA ,Dr. B. SURESH KUMAR ,S. KALIAPPAN ,Mrs. K. PRASANTHI, Dr. RAMESH KUMAR
4. Dr. S. Kaliappan Book title is **Advanced Robotic Technology** with ISBN No 978-93-47046-86-5 Publisher RK Publication 18/03/2026 Author: S. KALIAPPAN, Y. ABOOBUCKER PARVEZ, Mr. N. RAJIV KUMAR, Dr. G. SUDHARSAN

5. Dr. S. Kaliappan Book title is **IOT & ROBOTICS** with ISBN No 978-93-7130-740-6 Publisher Charulata publications 01/11/2025 Author: Vinay Dwivedi, Dr. V. Bibin Christopher, Dr. K. Priya
6. Dr. S. Kaliappan Book title is **Engineering Materials and Metallurgy** with ISBN No 978-81-962574-5-3 Publisher JAYALAKSHMI PUBLICATIONS Author : Mr P Satyanarayana Raju Dr S Kaliappan Mr Rajarshi Chakraborty Dr SK Tanbir Islam 26/06/2025
7. Dr. S. Kaliappan Book title is **Fluid Mechanics and Machinery** with ISBN No 978-93-49773-41-7 Publisher RG INTERNATIONAL PUBLICATION Author : Dr. S. KALIAPPAN, Mrs. T. ROSELINE VELANKANNI, Mr. RAJARSHI CHAKRABORTY, Dr. SK TANBIR ISLAM 25/06/2025
8. Dr. S. Kaliappan Book title is **DYNAMICS OF MACHINES** with ISBN No 978-93-6260-912-0 Publisher Charulatha Publications Author: Dr. S. Kaliappan, M.D. Raj Kamal, Dr. C.K. Arvinda Pandian 03/05/2025
9. Dr. S. Kaliappan Book title is **Generative Artificial Intelligence** with ISBN No 978-93-48020-04-8 Publisher RK Publications Author : Dr. D. Sumathi, Dr. S. Kaliappan, Mr. K. Kishore Babu, Dr. B. Gayathri 11/11/2024.
10. Dr. S. Kaliappan Book title is **Fundamentals of Research Methodology** with ISBN No 978-93-48020-11-6 Publisher RK Publications Author : Dr. D. Sumathi, Dr. S. Kaliappan, Mr. K. Kishore Babu, Dr. B. Gayathri 11/11/2024.
11. Dr. S. Kaliappan Book title is **Hydraulics & Pneumatics** with ISBN No 978-93-90203-90-1 at Publisher JAYALAKSHMI PUBLICATIONS Author : Dr V Ramesh Dr Ram Subbiah Dr M Saravana Kumar Dr S Kaliappan 23/11/2023.
12. Dr. S. Kaliappan Book title is **Basic concepts of AI and Robotics** with ISBN No 978-93-90203-87-1 at Publisher JAYALAKSHMI PUBLICATIONS Author : Dr.S.Kaliappan Dr.M.Prasad Dr.G.Banu Mr.S.Gowdham Kumar 29/08/2023.
13. Dr. S. Kaliappan Book title is **Material Science and Engineering** with ISBN No 978-93-90203-30-7 at JAYALAKSHMI PUBLICATIONS Author : Dr. Anil Kumar Deepati, Dr.L.Girisha, Dr.M.Palpandi, Dr.S.Kaliappan 07/07/2023.
14. Dr. S. Kaliappan Book title is **Fluid Mechanics An Introduction** with ISBN No 978-93-90203-31-4 at JAYALAKSHMI PUBLICATIONS Author : Dr.S.Kaliappan, Dr.SCV Ramana Murthy Naidu, Dr.Prafulla Kumar Sahoo, Dr.M.Palpandi 07/07/2023.
15. Dr. S. Kaliappan Book title is **Python Programming** with ISBN No 978-93-91987-46-6 at Publisher JAYALAKSHMI PUBLICATIONS Author : Prof.Bharath Kumar Narukullapati, Dr.K.V.Praveen, Dr.Soundararajan. S, Dr.S.Kaliappan 05/08/2022.
16. Dr. S. Kaliappan Book title is **C programming and Data Structures** with ISBN No 978-93-95211-41-3 at Publisher The Charulatha Publications Author : Dr. P. Deivendran, Dr. S. Soundarajan, D. Dhinakaran, Dr. S. Kaliappan 23/09/2022
17. Dr. S. Kaliappan Book title is **Production and Operation Management System** with ISBN No 978-93-94002-10-4 at Publisher ARUMUGAM RANJITH Author : Dr. V. SENTHILKUMAR, Dr. VIJAY PATEL, Dr. S. KALIAPPAN, Mr. RAJA RAJU 17/01/2022.
18. Dr. S. Kaliappan Book title is **Robotics** with ISBN No 978-93-91987-83-1 at Publisher JAYALAKSHMI S Author : Prof.M.Mahalingam, Er.G.Meherhilpa, Dr.S.Kaliappan, Dr.Ram Subbiah 15/04/2022.
19. Dr. S. Kaliappan Book title is **Heat Power Engineering** with ISBN No 978-93-92992-70-4 at Publisher ARUMUGAM RANJITH Author : Dr. PRASHANT GEETE, Dr. MANISH JOSHI, Dr. S. KALIAPPAN, Mr. RAJA RAJU 23/11/2021.

20. Dr. S. Kaliappan Book title is **Industrial Engineering and Management** with ISBN No 978-93-92992-54-4 at Publisher ARUMUGAM RANJITH Author : Prof. SIVAKUMAR N S, Dr. S. KALIAPPAN, Dr. RAM SUBBIAH, Dr. CHIDURALA SRINIVAS 20/11/2021
21. Dr. S. Kaliappan Book title is **Total Quality Management** with ISBN No 978-93-92992-65-0 at Publisher ARUMUGAM RANJITH Author : Dr. M. ANURADHA, Dr. S. KALIAPPAN, Dr. RINKI MISHRA, Dr. SUNIL L. BANGARE 01/12/2021.
22. Dr. S. Kaliappan Book title is **GE6152 Engineering Graphics** with ISBN No 978-81-953771-8-3 at Publisher Sadiq Sait Author : Dr. S. Kaliappan 26/02/2021.
23. Dr. S. Kaliappan Book title is **GE6253 Engineering Mechanics** with ISBN No 978-81-953771-9-0 at Publisher Sadiq Sait Author : Dr. S. Kaliappan 01/03/2021.
24. Dr. S. Kaliappan Book title is **ME6301 Engineering Thermodynamics** with ISBN NO 978-81-953771-7-6 at Publisher Sadiq Sait Author : Dr. S. Kaliappan 03/03/2021.
25. Dr. S. Kaliappan Book title is **ME6502 Heat and Mass Transfer** with ISBN No 978-81-953771-4-5 at Publisher Sadiq Sait Author : Dr. S. Kaliappan 15/03/2021.
26. Dr. S.Kaliappan Book title is **Kinematics of Machinery** with ISBN No 978-93-90967-91-9 at Publisher Santhi Durairaj Author : M.D. Raj Kamal, Dr. S. Kaliappan 10/06/2021.
27. Dr. S. Kaliappan Book title is **Engineering Graphics** by Maruthi publications with ISBN No 978-93-93836-10-6 at Publisher M. Muthukumar Author : Dr. N.Saravanan, Dr. S.Dinesh Kumar, Dr. S.Kaliappan 05/02/2021.
28. Dr.S.Kaliappan Book title is **Manufacturing Technology –II** by Maruthi publications at 2020
29. S.Kaliappan Book title is **Engineering Practices Lab Manual** by Maruthi publications 2017

STTP		FDTP		CONFERENCE		WORKSHOP		TECHNICAL SYMPOSIUM	
Organized	Attended	Organized	Attended	Organized	Participated	Organized	Participated	Organized	Participated
1	3	5	6	2	4	4	3	5	

➤ **SHORT TERM TRAINING PROGRAMME (STTP) - ORGANIZED:**

1. Organized a six days **virtual SHORT TERM TRAINING PROGRAMME (STTP)** Sponsored by AICTE titled ‘**Assessment in Engineering Education- A Pedagogical Approach**’ at **Velammal Institute of Technology**, Chennai-601204, in **three slots**, **Slot-1** from 16.11.2020 to 21.11.2020, **Slot-2** from 14.12.2020 to 19.12.2020 & **Slot-3** from 04.01.2021 to 09.01.2021.

➤ **FACULTY DEVELOPMENT TRAINING PROGRAMME - ORGANIZED:**

1. Organized a seven days **Faculty Development Training Programme** approved by **Anna University** titled ‘**Engineering Thermodynamics**’ at **Velammal Institute of Technology**, Chennai-601204, from 17-06-2014 to 24-06-2014.
2. Organized a seven days **Faculty Development Training Programme** sponsored by **Anna University** titled ‘**Gas Dynamics and Jet Propulsion System**’ at **Velammal Institute of Technology**, Chennai-601204, from 01-12-2014 to 08-12-2014.
3. Organized a seven days **Faculty Development Training Programme** approved by **Anna University** titled ‘**Heat and Mass Transfer**’ at **Velammal Institute of Technology**, Chennai-601204, from 19-05-2017 to 29-05-2017.
4. Organized a seven days **Faculty Development Training Programme** approved by **Anna University** titled ‘**Power Plant Engineering**’ at **Velammal Institute of Technology**, Chennai-601204, from 21-05-2018 to 28-05-2018.
5. Organized a six days **Faculty Development Training Programme** approved by **Velammal Institute of**

Technology titled 'Engineering Mechanics' at Velammal Institute of Technology, Chennai-601204, from 05-12-2019 to 10-12-2019.

➤ **FACULTY DEVELOPMENT TRAINING PROGRAMME - ATTENDED:**

1. Attended a Faculty Development Programme at **College of Engineering, Gundy, Anna University** on **COMPUTATIONAL FLUID FLOW AND HEAT TRANSFER**, from 30-05-2005 to 04-06-2005.
2. Attended a Faculty Development Programme at **College of Engineering, Gundy, Anna University** on **GAS DYNAMICS AND JET PROPULSION**, from 07-06-2010 to 13-06-2010.
3. Attended a Faculty Development Programme at **Er. Perumal Manimekalai College of Engineering, Hosur**, sponsored by **Anna University of Technology Coimbatore** on **COMPUTATIONAL FLUID DYNAMICS**, from 30-11-2010 to 04-12-2010.
4. Attended a Faculty Development Programme at **Velammal Institute of Technology Chennai** Sponsored by **AICTE-ISTE** in **CAREER ADVANCEMENT BY TECHNICAL TEACHING SKILLS AMPLIFICATION**, from 07-05-2018 to 12-05-2018.
5. Attended a Faculty Development Programme at **R.M.K Engineering College** on **Finite Element Analysis**, from 03-12-2018 to 15-12-2018.
6. Attended a Faculty Development Programme at **Vel Tech High Tech Dr.Rangarajan Dr. Sakunthala Engineering College, Avadi** on **Advances in Computational Fluid Dynamics (CFD)**, from 18-06-2019 to 22-06-2019.
7. Attended the Six-day Faculty Development Programme (FDP) on "Next-Gen Educators: Harnessing the Power of Machine Learning", Organized by the Department of Information Technology, Jeppiaar Institute of Technology from 25.09.2024 to 01.10.2024.
8. Attended in the AICTE Recognized Faculty Development Programme on Artificial Intelligence and Optimisation Techniques using MATLAB Conducted by Electrical Engineering Department from 07/10/2024 to 11/10/2024 (One Week) at K. Ramakrishnan college of Engineering, Tiruchirappalli.
9. Attended in AICTE Training And Learning (ATAL) Academy Faculty Development Program on Engineering Solutions for Sustainable Future: Uniting Disciplines to Tackle Carbon Footprint Reduction at KCG COLLEGE OF TECHNOLOGY from 04/11/2024 to 09/11/2024.
10. Attended in AICTE Training And Learning (ATAL) Academy Faculty Development Program on AI in Hydrogen and Electric Powered Vehicles at B S Abdur Rahman Crescent Institute of Science and Technology from 09/12/2024 to 14/12/2024.
11. Attended in AICTE Training And Learning (ATAL) Academy Faculty Development Program on Future-Ready Manufacturing: The Synergy of AI and Smart Materials at SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES from 01/09/2025 to 06/09/2025.
12. Attended Six-Day Virtual Faculty Development Program on Innovations in Advanced Materials, Optimization and Sustainable Energy Systems at SRM Institute of Science and Technology, Ramapuram, Chennai from 15/12/2025 to 20/12/2025.
13. Attended Six Days Online Faculty Development Program on "Advanced Mechanical Engineering – Innovations & Industry Applications" organized by the Department of Mechanical Engineering, Aalim Muhammed Salegh College of Engineering, Chennai-600055, from 15th to 20th December 2025.
14. Attended Six Days Global Faculty Development Program (Online) on Innovative - Design, Analysis and Development (I-DAD) organized by School of Mechanical & Construction, Department of

Mechanical Engineering, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai, from **23rd – 28th February 2026**.

➤ **CONFERENCE/ WORKSHOP-ORGANIZED:**

1. Organized a one day workshop titled **‘The Automobile Workshop’** at **Velammal Institute of Technology**, Chennai-601204 on 10/02/2012.
2. Organized a one day workshop titled **‘Computational Fluid Dynamics’** at **Velammal Institute of Technology**, Chennai-601204 by **Airmak Aerospace Technologies, Chennai** on 13.08.2012.
3. Organized two days’ workshop titled **‘Material Outreach Program (MOP)’** on **‘Automotive Materials Science and Technologies’** at **Velammal Institute of Technology**, Chennai-601204 by **IIT Bombay – Padarth & EXPERTSHUB**, from 16-08-2013 to 17-08-2013.
4. Organized a one day workshop titled **‘Utkraanti 17’** in association with **IIT Madras** at **Velammal Institute of Technology**, Chennai-601204 by **Wingfotech** on 1-2nd September 2016.
5. Organized one day International Conference titled **‘International Conference on Automation and Computing Technologies (ICACT’18)’** at **Velammal Institute of Technology**, Chennai-601204 by **EEE , ECE & Mechanical Engineering Department**, on 17-03-2018.
6. Organized two days International Conference titled **‘International Conference on research Advancements & Challenges in engineering Sciences (ICRACE’20)’** , at **Velammal Institute of Technology**, Chennai-601204 jointly organized by the CSE, IT,ECE,EEE, H&S and Mechanical Engineering Department on 06th & 07th March 2020.

➤ **CONFERENCE/ WORKSHOP-PARTICIPATED:**

1. Presented a paper titled **‘Parametric studies on the impact of piston velocity profile on the performance of single cylinder diesel engine’** in National Conference on **‘Emerging Trends in Industrial Automation (ETIA-2010)’** ‘organized by the Department of Mechanical Engineering, **Velammal Engineering College**, Chennai-66 on 26-03-2010.
2. Presented a paper titled **‘Performance Analysis of a Single Cylinder Diesel Engine Using CFD ’** in ‘International Conference on Advances in Mechanical Engineering (ICAME-2015)’ ‘organized by Department of Mechanical Engineering, **University College of Engineering Villupuram (ANNA UNIVERSITY)**.
3. Presented a paper titled **‘Parametric Studies of the Performance of A Single Cylinder Diesel Engine-Review’** in Indo-Brazil Bilateral International Conference on Advanced Materials and Manufacturing - **ICAMM 2015** organized by the Department of Mechanical Engineering, **Cape Institute of Technology**, Levenjipuram – 627114 on March 27-28, 2015.
4. Presented a paper titled **‘Analysis of an Innovative Connecting Rod by Using Finite Element Method’** in ‘National Conference on Contemporary Research in Advanced Material Science ‘(CRAMS 2016) organized by Department of Mechanical Engineering, at **Karpaga Vinayaga College of Engineering & Technology**, Kanchipuram
5. Participated in **one day** workshop on **‘RESEARCH EXCELLENCE –RSE 2012’** organized by the Department of Mechanical and Aeronautical Engineering, **GKM College of Engineering & Technology**, Chennai-600063 on 11-05-2012.
6. Participated in **2 Weeks ‘ISTE Workshop on Computational Fluid Dynamics’** under the National Mission on Education (MHRD) through ICT conducted by **IIT Bombay** at **National Institute of Technology**, Tiruchirapalli-620 015, from 12-06-2012 to 22-06-2012.
7. Participated in **3 days** Short Term Course on **‘Applications of Finite Element Method in Academic and Industrial Research’** conducted by **Department of Mechanical Engineering , National Institute**

of Technology, Tiruchirapalli-620 015 under the sponsorship of **TEQIP Phase-II** , from 06-06-2013 to 08-06-2013.

➤ **TECHNICAL SYMPOSIUM -ORGANIZED:**

1. Organized one day National Level Technical Symposium - **AVIATOR-2K10** at **SAMS College of Engineering and Technology, Chennai.**
2. Organized one day National Level Technical Symposium – **EKALAIVA 2K13, 2K14, 2K15, 2K16 & 2K18** at **Velammal Institute of Technology, Chennai-601204.**

Key note speaker / Resource Person

2026

1. Acted as **Session Chair** at **Second International Conference on Innovations in Materials Science, Technology, Engineering, and Management for Sustainable Development (IMSTEM 2026)** *Jointly Organized by the Department of Science, St. Joseph's College of Engineering, OMR, Chennai, Tamilnadu, India & RSP Research Hub, Coimbatore, Tamil Nadu, India* **Conference Dates: 20/03/2026 & 21/03/2026.**
2. Delivered lecture on **Advanced Concepts in Thermal Radiation and Heat Transfer** at **Loyola Institute of Technology, Department of Mechanical Engineering, and the Association of Radiant Mechanical Students (ARMS)** on 02-03-2026.

2025

1. Acted as a Judge for **National Science Expo** hosted by **Rishs International School, Chennai** on **Saturday, December 13, 2025**
2. Acted as a judge for **Facturerz'25 (Paper Presentation)** at **CIPET-IPT, Guindy, Chennai** from 18-09-2025 to 19-09-2025.
3. Acted as **Session Chair** at **First International Conference on Research Communications in Engineering, Science and Management (ICRCESM)- 2025** Organized by: **M2E2C2 (Mechanical, Management, Electrical, Electronics, Civil and Computer Science Engineering Departments), Ramachandra College of Engineering (A), Eluru, Andhra Pradesh, India** Event Partner: **RSP Research Hub, Coimbatore, Tamil Nadu, India** **Conference Dates: 30/05/2025 & 31/05/2025.**
4. Acted as **Session Chair** at **International Conference on Advancement in Science, Engineering & Management (ICSEM)- 2025** Organized by the **Department of Computer Science, Vidya Vihar Institute of Technology, Purnea, Bihar, India.** Event Partner: **Global Conference Hub, Coimbatore, Tamil Nadu, India** **Conference Dates: 10/05/2025 & 11/05/2025.**
5. Acted as **Session Chair** at **International Conference on Advanced Data Analytics and Computing (ICADAC 2025)** *Jointly Organized by CRC Press – Taylor & Francis Group | IFERP | JIS Group Educational Initiatives* held from **28th February to 1st March 2025**
6. Acted as **Session Chair** at **International Conference on Innovations in Engineering, Management and Science ICIEMS - 2025** *Jointly Organized by Research & Development Cell & Department of CSE Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India & RSP Conference Hub, Coimbatore, Tamil Nadu, India* on **Conference Date: 31/01/2025 & 01/02/2025.**

2024

1. Acted as **Keynote Speaker** and **Session Chair** in **International Conference on Advancements in Engineering, Science & Management (ICAESM) 2024** *Jointly Organized by Department of Computer Science and Engineering, Radhakrishna Institute of Technology and Engineering, Bhubaneswar, Odisha, India & Global Conference Hub, Coimbatore, Tamil Nadu, India* on **30/08/2024 & 31/08/2024.**

2. Acted as a resource person in **GREATER KOLKATA COLLEGE OF ENGINEERING AND MANAGEMENT, BARUIPUR** , Five Days Online Faculty Development Program on **Innovation in Emerging Field** organized by IQAC Cell and IIC GKCEM in association with Department of EE & CSE, GKCEM & Wegrow on 17th July, 2024 in the topic of **Emerging Technology – Computational Fluid Dynamics**.

2023

1. Acted as Keynote Speaker and Session Chair at **AICTE-Sponsored International Conference on “RECENT ADVANCES & INNOVATIONS IN SCIENCE, TECHNOLOGY, ENGINEERING & MANAGEMENT”** , in Loyola Institute of technology, Palanchur , Chennai -600123, on **05.10.2023** .
2. Acted as Keynote Speaker at **2nd International Conference on recent trends in Management, Engineering and Technology (ICMET) Organized by** Vidya Vihar Institute of Technology, Bihar India & Global Conference Hub, Coimbatore, Tamil Nadu, India on the topic of **“Recent Trends in Mechanical Engineering”** on 22.12.2023 & 23.12.2023 Coimbatore.

➤ **FACULTY OUTSIDE PARTICIPATION:**

1. Delivered lecture in **Engineering Thermodynamics** in Faculty Development Training Programme at Velammal Institute of Technology on 18-06-2014.
2. Delivered lecture in **Gas Dynamics and Jet Propulsion System** in Faculty Development Training Programme at Velammal Institute of Technology on 05-12-2014.
3. Delivered lecture in **Heat and Mass Transfer** in Faculty Development Training Programme at Velammal Institute of Technology on 20-05-2017.
4. Delivered lecture in **Power Plant Engineering** in Faculty Development Training Programme at Velammal Institute of Technology on 25-05-2018.
5. Delivered **Guest lecture** in **Heat and Mass transfer** at **J.N.N Institute of Engineering** on 18-08-2018.
6. Attended CADDAspire event organized by CADD CENTER on 24th August 2018.
7. Delivered lecture in **Engineering Mechanics** in Faculty Development Training Programme at Velammal Institute of Technology on 10-12-2019.
8. **Delivered lecture on Emerging Technology Computational Fluid Dynamics on the occasion of Five Days Online Faculty Development Program organized by UC Cell and IIC-GKCEM in association with Department of EE & CSE, GKCEM WeGrow on 15th July to 19th July 2024.**
9. Delivered lecture on **Advanced Concepts in Thermal Radiation and Heat Transfer** at **Loyola Institute of Technology, Department of Mechanical Engineering, and the Association of Radiant Mechanical Students (ARMS)** on 02-03-2026.
10. Delivered lecture on **Advanced Concepts in Steam and Gas Turbine** at **Loyola Institute of Technology, Department of Mechanical Engineering, and the Association of Radiant Mechanical Students (ARMS)** on 23-03-2026.
11. Served as an **External Evaluator** for valuation of paper and practical Examinations at various Universities like **Anna , Dr.M.G.R University, Bharath University, Sathyabama University , St.Peter’s University & AMET University** etc.,
12. Served as a **Resource Person for Question Paper Setting** for the **Dr.M.G.R University, Bharath University & AMET University & Saveetha University** .
13. Acted as a **Chief Superintendent (CS), SQUAD** and **Anna University Representative (AUR)** for **University Theory Examination** conducted by **Anna University**, academic year 2014-15.
14. Served as a **Resource Person for Interview panel member** for selection of faculty at **AMET University**.

15. Acted as a **Judge** for **Paper presentation** of **Third National Level Technical Symposium** held at **GOJAN School of Business & Technology**, Chennai-52.
16. Acted as a **Judge** for **Paper presentation** of **National level technical symposium** held at **T.J.S. Engineering College**, Puthuvayal, Chennai.

➤ **PROFESSIONAL MEMBERSHIP:**

1. Life member in **Indian Society for Technical Education** (LM 42717).
2. Life member in **International Association of Engineers** (IAENG) (216948).
3. A fellow member in **Universal Association of Mechanical and Aeronautical Engineers (UAMAE)** of **INSTITUTE OF RESEARCH ENGINEERS AND DOCTORS (theIRED)** (SM10100060657) from 30/01/2019 to 30/01/2022.
4. Member in **Society of Automotive Engineers INDIA (SAEINDIA)** Membership No 7230410311.
5. Member in **IEEE** in Madras Section Id-99755610.

➤ **AWARD :**

1. He got **Research Excellence Award** for the year 2025 from Alpha International Publications.
2. He got **Best Academician Award** for the year 2023 from Scientific International Publishing House.
3. In **InSc awards-2021**, I was selected for “**Young Researcher Award**” for my research journal of title “**Numerical Investigation of Sinusoidal and Trapezoidal Piston Profiles for an IC Engine**” , Which is published in the **Journal of Applied Fluid Mechanics**.

➤ **PERSONAL DETAILS:**

Father's Name : Mr. P. Seeniappan (Late)
Date of Birth : 02 - 06 – 1975
Marital Status : Married
Permanent Address : Jakkammal patty, Kotha patty (PO), Theni Dist. - 625 512.
Driving License : 1326/97 – Two-Wheeler, 478/97 – Four-Wheeler
Languages Known : English, Tamil
Passport No : Z2308792 Exp. Date: 07-09-2024

Website/ URL, if any:

<https://scholar.google.com/citations?hl=en&user=iMRnKOkAAAAJ> [AAI-5212-2020](#)
<https://publons.com/researcher/3347884/dr-s-kaliappan/>
<https://www.researchgate.net/profile/Kaliappan-Seeniappan/publications>
<https://www.scopus.com/authid/detail.uri?authorId=57189892434>
<https://www.linkedin.com/in/dr-kaliappan-s-392ba079/>
<https://www.facebook.com/kaliappan2675>
<https://vidwan.inflibnet.ac.in/profile/268209>
<https://orcid.org/my-orcid?orcid=0000-0001-5203-0867>