

Sethu Institute of Technology
An Autonomous Institution
Pulloor, Kariapatti - 626 115, Virudhunagar



Department of Computer Science and Engineering

NAME	Dr. B. LALITHA			
UNIQUE ID	FD2069			
DESIGNATION	Professor & Head			
QUALIFICATION	B.E., M.E., Ph.D.,			
EMAIL ID	hodcse@sethu.ac.in			
ALTERNATE EMAIL ID	lalli.j@yahoo.com			
EXPERIENCE	INDUSTRY	TEACHING	TOTAL	
	Nil	19 Years 1 Month	19 Years 1 Month	
DATE OF JOINING THE INSTITUTION	10.06.2019			
RESEARCH FOCUS	Image Processing			
SUBJECT COMPETENCY	Theory of Computation Cryptography and Network Security Big data Analytics			
NO OF JOURNAL PUBLICATION (INTERNATIONAL/NATIONAL)	8 International			
NO OF CONFERENCE ATTENDED (INTERNATIONAL/NATIONAL)	34 International 14 National			
NO OF BOOKS / Book Chapter PUBLISHED	2			
NO OF PATENTS PUBLISHED	2			
Awards Received	5			

Tel: 04566304600
Web: www.sethu.ac.in

Email: sit@sethu.ac.in

Academic Credentials :

Level	Degree	Specialization	University	Year of Completion
UG	B.E	Computer Science and Engineering	Manonmaniam Sundranar University, Thirunelveli	2002
PG	M.E	Computer Science and Engineering	Anna University , Chennai	2012
Ph.D	Ph.D	Information and Communication Engineering	Anna University, Chennai	2023

Details of Journal Publication:

1. **B. Lalitha**, “Density Based Clustering of Meaningless Distance in High Dimensional Data”, International journal of Embedded and Software Computing,ISSN:2250-1371, vol.-2014, Issue – OCTOBER.
2. **B. Lalitha**, “Detecting Anomaly Based on Intelligent Machine Learning In Online Social Networking”, International journal of Embedded and Software Computing,ISSN:2250-1371, vol.-2014, Issue – OCTOBER.
3. **B. Lalitha**, “ Graph Cut Models for Simultaneous Tracking and Recognition using the Neural Network Classifier”, International Journal on Applications in Information and Communication. ISSN: 2394-6237(Online) , , Volume 2, Issue 2, February 2016 (Impact Factor : 0.424)
4. **B. Lalitha**, Presented a paper entitled “Review based on Image Understanding Approaches” at the IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2019) held at SVS College of Engineering, Coimbatore during 20-22 February, 2019. (Scopus)
5. **B Lalitha** , V Gomathi “Image Captioning Using Detectors and Swarm Based Learning Approach for Word Embedding Vectors” Computer Systems Science

and Engineering, Volume 44, Number 1, pp 173-189, 2022. Impact Factor 4.397 (SCI)

6. Dr. B. Lalitha , “ Effective manner of Healthcare Management System for HEPATTIS Virus Using PCA-BFF Optimization Algorithm with Clinical data “, Paper published in the 2024 International Conference on Integration of Emerging Technologies for the Digital World, ICIETDW 2024, ISBN: 979-833154117-0, DOI:10.1109/ICIETDW61607.2024.10939372.(Scopus)
7. Dr. B. Lalitha, “ Adaptive Dimensional Search Based Improvised Ensemble Method for Cognitive Radio In Software-Defined Networks “, Paper published in the ICTACT Journal on Communication Technology, June 2025, Volume: 16, Issue: 02, Issn: 2229-6948(Online), June 2025. DOI: 10.21917/Ijct.2025.0527. (UGC Journal)
8. Dr. B. Lalitha, “Optimization and **Metaheuristics** – Mathematical Approaches in AI, Machine Learning, and Deep Learning”. Publication Date: 05/12/ 2025. Ref: <https://doi.org/10.1002/9781394307302.ch11>. (Scopus – Book Chapter)

Comment [A1]:

International

1. **B. Lalitha**, Presented a paper entitled “Superior Quality of Feature Subset Selection Using Fast Clustering” at the International Conference on Electrical, Electronics and Robotics (ICEER) held at Chennai on 20th October, 2013.
2. **B. Lalitha**, Presented a paper entitled “Evaluation Pattern Queries for Streaming XML data using Lineage Encoding” at the International Conference on Electrical, Electronics and Robotics (ICEER) held at Chennai on 20th October, 2013.
3. **B. Lalitha**, Presented a paper entitled “A Well-Organized Wireless XML Streaming Supporting Twing Pattern Queries Using Lineage Encoding” at the International Conference on trends in Engineering(ICMACE’14) held at Tamizhan College of Engineering & technology, Chenbagaramanputhooor on 19th and 20th February, 2014.
4. **B. Lalitha**, Presented a paper entitled “Density Based Clustering for Driving Directions Using VE Approach” at the International Conference on Engineering, Management and Applied Sciences (ICEMAS 2015) held at MNSK College of Engineering, Pudukottai on 9th and 10th April, 2015.
5. **B. Lalitha**, Presented a paper entitled “Detecting Anomaly Based on Image Page Categorization in Online Social Networking” at the International Conference on Engineering, Management and Applied Sciences (ICEMAS 2015) held at MNSK College of Engineering, Pudukottai on 9th and 10th April, 2015.
6. **B. Lalitha**, Presented a paper entitled “Graph Cut Models for Simultaneous Tracking and Recognition using the Neural Network Classifier” at the International Conference on Recent Computing and Communication

Technologies (ICRCCT'16) held at St. Michel College of Engineering & Technology, held on 19th March 2016.

7. **B. Lalitha**, Presented a paper entitled "Review based on Image Understanding Approaches" at the IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2019) held at SVS College of Engineering, Coimbatore during 20-22 February, 2019.
8. **B. Lalitha**, K. Haritha, P. Chandralekha, P. Divyabharathi Presented a paper entitled "Plant Disease Recognition In Plant Village Dataset Using Deep Learning Approach" at the 5th International Conference on Recent Innovations in Information and Computing Technologies held at Sethu Institute of Technology, Kariapatti on 22.07.2022 to 23.07.2022.
9. **B. Lalitha**, Kaviya R. Keshava Priya, R. Prudeepa Presented a paper entitled "Weed Identification Using Deep Learning and Image Processing in Vegetable Plantation" at the 5th International Conference on Recent Innovations in Information and Computing Technologies held at Sethu Institute of Technology, Kariapatti on 22.07.2022 to 23.07.2022.
10. **B. Lalitha**, E. Surya, S. Madhusangeetha presented a paper entitled "A Monitoring System for the Detection and Prevention of Animals and Humans using IoT" in the International Conference On Environmental Development Using Computer Science -2024 (Icecs 2024 - Hybrid Mode) Organized By AAA College Of Engineering And Technology, Sivakasi on 11&12 January, 2024.
11. M.Geethanjali, K.PeerMohamed, M.G.Santhoshraja, S. Priyadharshini, S. Radhakrishnan, **B. Lalitha** Presented a paper entitled "Monitoring the Street Lights for Fault: A Smart Centralized way" presented in the International Conference on Environmental Development using Computer Science-2024(ICECS'24) organized by AAA College of Engineering and Technology, Sivakasi on 11th and 12th January 2024.
12. **Dr. B. Lalitha**, Mahima S, Joanna Reshmi N, Pavithira S presented a paper entitled "Guardian Ring: Smart Alarm in Accident Zones" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
13. **Dr. B. Lalitha**, Harihara Sudhan V, Immanuvel R, Harish Babu S presented a paper entitled "Traffic Incident Prediction Using Deep Learning" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
14. **Dr. B. Lalitha**, Aswath Ramana K. S. S, Jeykishan S, Jefferson S presented a paper entitled "Fire Sense: Harnessing Artificial Intelligence for Real-Time Forest Fire Detection and Alert System" in the International Conference on Recent

- Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
15. Raja Kumar.V, YuvarajKannan .R, NanthaKumar.B , VengateshWaran.S **Dr.Lalitha B**, Nivetha N presented a paper entitled" Andriod Based Smart Blindstick Using Ultrasound Sensor" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
 16. Rima Shre B. K, Preethi Mariyammal B, **Dr.Lalitha B**, Nivetha N K, Abirami R presented a paper entitled" Automatic Detection Of Protein Deficiency In Mulberry Leaves (Module-1)" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
 17. LafiraFathin A, Vidhyalakshmi R, **Dr.Lalitha B**, Nivetha N K presented a paper entitled" 24-7 Android Health Care Project" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
 18. Naveen M, Kishore Kumar A, Nikil Shrawan Kumar P, **Dr.Lalitha B**, Nivetha N K, Preethi C presented a paper entitled" Smart Bus Stop" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
 19. T Kanishka, G Kanniga Devi, J Paulin Priscilla ,**Dr.Lalitha B**, Nivetha N K presented a paper entitled" Well Sensetech" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
 20. Marimuthu C, Manikannan S, Mathanagopal N, **Dr.B.Lalitha**, N.K.NNivetha, R.Abiramipresented a paper entitled" Environmental Monitoring And Human Well Being" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
 21. RaudraSkanthesh P,RakeshPandi P,Hariram M,**Dr.Lalitha B**,Nivetha N K presented a paper entitled" Smart Occupancy Monitoring System" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
 22. Dhanushri C, Rajalakshmi V, Padmavathi T, **Dr.Lalitha B**, Nivetha N K, Abirami R presented a paper entitled" Web Application On Pneumonia Detection Using Deep Learning" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.

23. Santhosh TK, Narendramallikaarjun. J, Marnadu M , **Dr.Lalitha B**, Nivetha N K, Abirami R presented a paper entitled” Smart Traffic Signal For Ambulance” in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT’24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
24. Monisa.K ,PonIshwarya.S, **Dr.Lalitha B**, Nivetha N K, Preethi C presented a paper entitled” Smart Pruningfor Healthy Mulberry Yield(Module-2)” in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT’24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
25. Javaghar S, Mohamed Ibrahim S, **Dr.B.Lalitha** presented a paper entitled” Accident Avoiding System With AI” in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT’24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
26. **Mrs.B.Lalitha**, Mrs.N.K.Nivetha, J.KavishKumar, M.IrfaanAhmed, P.K.KarthikKumar, J.PrinceAnbuChelvan presented a paper entitled” Design & Development Off Lood Detection Using IOT” in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT’24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
27. Saran K, Manikandabalaji R, Ranil S, Harish Balaji K, **Dr B.Lalitha** presented a paper entitled” Smart Baby Caring System” in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT’24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
28. Vignesh S, Kishorekumar S, Paranthaman M, **Dr.B.Lalitha**, Ms.N.K.NNivetha presented a paper entitled” Health Monitoring System” in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT’24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
29. R.V.Varshini, S.Mahalakshmi , A.Nagajothi,**Dr.B.Lalitha**, Nivetha N K presented a paper entitled” Innovative E-Commerce Platform For Drug Ordering And Health Support” in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT’24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
30. **Dr.B.Lalitha**, Ms.R.MuthuPraveena, Ms.N.P.Vishwa Sri, R.Abirami presented a paper entitled” Emergency Blood Donation Alert System” in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT’24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
31. Mohamed Afrith M, Mohamed Abdul Sattar K, Mani Murugan C, **Dr.B.Lalitha**, Ms.N.K.Nivetha presented a paper entitled” Automatic Engine Locking System Through Alcohol Detection In Arduino Using IOT” in the

International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.

32. Rabooni Sherin T, Judith Hephzibah K ,**Dr.B.Lalitha**,R.Abirami presented a paper entitled" Attendance System Using Machine Learning" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
33. **Dr.Lalitha.B**,Ms.Nikitha.K.R,Ms.Padmapriya.S presented a paper entitled" Service Hub : E-Commerece Solution" in the International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
34. **Dr. B. Lalitha** presented a paper entitled "Effective manner of Healthcare Management System for HEPATTIS Virus Using PCA-BFF Optimization Algorithm with Clinical data" in the International Conference on Integregation of Emerging Technologies for the Digital World 2024(ICIETDW '24) conducted on 13th and 14th September 2024 at R.M.D. Engineering College, Kavaraipeitai – 601 206.

National

1. B. Lalitha, Presented a paper entitled "Secured Quantum – Key Distribution Protocol" at the National Conference on Computer Communications and Security (NCCCS'10) held at Mohamed Sathak Engineering College, Kilakarai on 30th & 31st March 2010.
2. B. Lalitha,Presented a paper entitled "Improving the Identification of Data Leakage Using Guilt Model Analysis" at the National Conference on Engineering Approach for Sustainable Development – STEPMAcc'11 held at Anna University of Technology Tiruchirappalli, Tiruchirappalli on 27th September 2011.
3. B. Lalitha,Presented a paper entitled "Improving the Identification of Data Leakage Using Guilt Model Analysis" at the National Conference on Recent Trends in Information & Intelligent held at SSK College of Engineering & Technology, Coimbatore on 24th October 2011.
4. B. Lalitha,Presented a paper entitled "Improving the Identification of Data Leakage Using Guilt Model Analysis" at the National Conference on Future Computing (NCFC -2012) held at Pondicherry University, Karaikal Campus on 30th March 2012.
5. **B. Lalitha**,Presented a paper entitled "Outsourcing the Association Rule Mining within the Corporate Privacy Preserving Framework" at the National Conference on Emerging Trends in Computer Communication and

- Informatics (ETTCT 14) held at Tamilnadu College of Engineering, Coimbatore on 3rd & 4th March 2014.
6. **B. Lalitha**, Presented a paper entitled “Improving Security in Data Leakage Detection using KEN Algorithm” at the National Conference on Emerging Trends in Information and Communication Engineering held at Computer Society of India, Cape Institute of Technology, on 23rd March 2015.
 7. **B. Lalitha**, Presented a paper entitled “Attendance Management System using 3D Face Recognition” at the National Conference on Recent Trends in Information Technology (NCRTIT’15) held at Adhiparasakthi Engineering College, Melmaruvathur on 28th March 2015.
 8. **B. Lalitha**, Presented a paper entitled “Combine Hiding of Encrypted Data and Image Using Distributed Source Encoding” at the National Conference on Recent Trends in Electrical, Electronics Communication & Computing Technologies (NCRTE’CT-2k16) held at P. S.R. Rengasamy College of Engineering for Women, Sivakasi on 11th March 2016.
 9. **B. Lalitha**, Presented a paper entitled “Privacy Preserving Data Leakage Detection” at the National Conference on Information Security and Privacy (NCISP’16) held at Mohamed Sathak Engineering College, Kilakarai on 2nd April 2016.
 10. **B. Lalitha**, Presented a paper entitled “Leveraging BIG Data for Legal Data Acquisition and Administration” at the National Conference on Emerging Technologies in Computing Sciences (NCETCS’17) held at SNS College of Engineering, on 18th March 2017.
 11. **B. Lalitha**, A. Benita Charlotte & V. Darshini, S. Madhusangeetha Presented a paper entitled “AN OVERVIEW OF CLOUD COMPUTING FOR THE ADVANCEMENT OF THE E-LEARNING PLATFORMS” at the National Conference on HI-TECH TRENDS IN EMERGING COMPUTATIONAL TECHNOLOGIES held at Sethu Institute of Technology, Kariapatti on April 2022.
 12. **B. Lalitha**, M. Kamatchi, P. Mohamed Abdul Rahuman, S. Mohamed Thowfiq Raja, R. Sangareswaran Presented a paper entitled “Air Quality Monitoring System” at the 10th National Conference on SITCON held at Sethu Institute of Technology, Kariapatti on 13.04.2023.
 13. **B. Lalitha**, E. Kevin Fraser, K. Logesh, M. Promoth kumar Presented a paper entitled “RIVER WATER QUALITY MONITORING SYSTEM” at the 10th National Conference on SITCON held at Sethu Institute of Technology, Kariapatti on 13.04.2023.
 14. **B. Lalitha**, **E. Surya**, **D. Dinesh Kumar**, **S. Madhusangeetha** Presented a paper entitled “Guardian Ring: Smart Alarm for Accident Zones” at the National Conference on Emerging Trends in Information and Communication Technologies – ETICT 2K25 held at Sethu Institute of Technology, Kariapatti on 04.04.2025.

Details of Book Chapter Publication:

Title of the Book Chapter: "Optimization and **Metaheuristics** – Mathematical Approaches in AI, Machine Learning, and Deep Learning".
Publication Date: 05/12/ 2025. Ref: <https://doi.org/10.1002/9781394307302.ch11>

Comment [A2]:

Details of Book Publication: Big Data Analytics, By Prime International

Publication, ISBN Number: 978-93-6010-839-7

Details of Patent Publication: 2

- 1. Title of the Patent:** K Senthil Kumar, **Dr.B.Lalitha**, Ms.S.Selvi, Mr.Santhoshraja, "Intelgent Fabric Damage System For Autolooms Using Computer Vision And Machine Learning Algorithm". Ref: Indian Patent-Filed, 202341077049 on 22/12/2023.
- 2. Title of the Patent:** "Quantum and AI-based Machine Learning Framework for Robotic Intelligence". Publication Date: 07/02/ 2025. Ref No: 202541007135 A.

Awards:

1. Won the **Best Paper Award** for the paper entitled " Monitoring the Street Lights for Fault: A Smart Centralized way" presented in the International Conference on Environmental Development using Computer Science-2024(ICECS'24) organized by AAA College of Engineering and Technology, Sivakasi on 11th and 12th January 2024.
2. Received Certificate of **Appreciation** for serving as a **Reviewer** for 14th ICCCNT 2023 held at IIT Delhi during July 6-8, 2023.
3. Received Certificate of **Appreciation** for serving as a **Reviewer** for International Conference on Recent Innovations in Information and Computing Technologies(RIICT'24) conducted on 5th April 2024 at Sethu Institute of Technology, Kariapatti.
4. Received **Bright Beginning Award** from Sethu Institute of Technology, Kariapatti for the Academic Year 2023 -24.

5. Received Certificate of **Appreciation** for serving as a **Reviewer** for International Conference on Recent Advances in Information Technology for Sustainable Development (ICRAIS 2025) conducted on 3rd and 4th September 2025 at Manipal Institute of Technology, Manipal