

# SETHU INSTITUTE OF TECHNOLOGY

# (An Autonomous Institution Accredited with 'A++' Grade by NAAC) Pulloor, Kariapatti –Taluk. Virudhunagar Dist-626115.



Department of CSE (Cyber Security)									
Name	NAGALAKSHMI K								
Date of Birth	04.01.1980								
Unique ID	1-7324731089								
Educational Qualifications	BE(CSE)., ME(CSE)., Ph.D.,								
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	Industry	Teachin	g	Others	Total				
Experience	-	Engg: 17yr 9 m Polytechnio 5yr 2m	);	-	22 year 11 months				
Date of Joining the Institution									
Area of Specialization	Image Processing								
Courses taught	Image Processing, Network Security, Data mining & Data warehousing ,Computer Graphics ,Operating System, Internet Programming								
Research Focus	Data Mining, Image Processing, Robotics/IOT, Network Security, Cyber Security								
Subject Competency	Image Processing, Network Security, Data mining & Data warehousing ,Computer Graphics ,Operating System, Internet Programming, Programming in C and Python								
No. of papers published	National Journals International Journals					s Conferences			
	1			19		42			
PG Specialization	Computer Science and Engineering								
Ph.D. Specialization	Information and Communication Engineering								
Projects Carried out	4								
Patents (Filed & Granted)	Published- 4								
No. of Books published with details (Name of the book, Publisher with ISBN, year of publication, etc.)	BOOK CHAPTER-2 Books Published-1 (ISBN No: 9789360108397, 2025)								

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#### Academic Credentials

Level	Degree	Specialization	University	Year of Completion
UG	B.E	CSE	Madras University, Chennai	2001
PG	M.E	CSE	Anna University of Technology, Tirunelveli	2011
Ph.D.	Ph.D	ICE	Anna University, Chennai	2023

## **Details of Journal Publication:**

#### **International**

- K.Nagalakshmi, "Guava Leaf Prediction Using Machine Learning", International Research Journal of Modernization In Engineering Technologyand Science (IRJMETS), Vol 7, Issue 3, March 25
- K.Nagalakshmi, Dr.S.Suriya, "An Improved Detection and Diagnosis Methods for Breast Tumor Detection System Using IEMD Transform –based CNN Architecture", Softcomputing and Data Mining(SCDM), vol2, No5, Dec 2024.
- 3. K.Nagalakshmi, Dr.S.Suriya," Performance Analysis of Breast Cancer Detection MethodUsing ANFIS Classification Approach ,Computer System Science and Engineering,ISSN: 0267-6192, Vol 44, no 1, pp 501-510,2022-Annexure-I,SCI, IF-4.397
- K.Nagalakshmi, Myers-Briggs Type Indicator based Personality Prediction for TwitterUsers Using Machine Learning Algorithms, International Journal of humanities ,Lawand Social Science ,Kanpur Philisophers,UGC CARE Approved, ISSN 2348-8301,VolX,Issue I(J):2023
- Generic Object Detection Using Deep Learning, AIP Conference proceeding,31 March2022.( https://doi.org/10.1063/5.0078487)- Scopus ),Vol 2444,Issue 1- Scopus Indexed
- K. Nagalakshmi "Effective Implementation of Padlet ICT Tool for EngineeringEducation", International Journal of Innovative Technology and Exploring Engineering(IJITEE) ISSN: 2278-3075, Volume-8 Issue-8 June, 2019, Scopus Indexed Journal
- 7. K.Nagalakshmi"Survey on Canser Dectection Techniques" International Journal of Page: 2 of 9

- LatestTechnolgy in Engineering(IJLTEMAS" Volume 7 Issue 10, October 2018, ISSN:2278-2540,Indexed in Google Scholar.
- 8. K.Nagalakshmi, Vinitha, Yamuna, "An Efficient Irrigation system for Agriculture" International Journal of Engineering and Computer Science" Volume 7 Issue 4 April 2018, ISSN:2319-7242, Indexed in Google Scholar.
- 9. K.Nagalakshmi, S.J.Subhashini, "Survey on Leaf Disease Detection by Using K- means Algorithm", International Journal of Latest Technology in Engineering, Management & Engineering, Management Will, Issue IV, April 2018
  | ISSN 2278-2540, Indexed in Google Scholar.
- 10. K.Nagalakshmi, S.J.Subhashini,G.Balakrishnan, Identifying unauthorized users using ENS-ORAand DOA in Ship,IJCRCST, Volume3, Issue 3,March2017.ISSN:2395-5325, Indexed in Google Scholar
- 11. K.Nagalakshmi, S.J.Subhashini, Profitable Resource Allocation Using Map Reduce With Cura Techniques, International Journal of Contemporary Research in Computer Scienceand Technology (IJCRCST), Volume3, Issue 1 (January'2017)ISSN: 2395-5325, Indexed in Google Scholar
- 12. K.Nagalakshmi,R.Aghila,G.Balakrishnan, Smart Recycling Garbage ManagementSystem, IJSART Volume 2 Issue 12 –DECEMBER 2016,(feb'17-Volume 2 Issue 2-E-journal).ISSN 2395-1052, Indexed in Google Scholar
- 13. K.Nagalakshmi, S.J.Subhashini, Rincy Efficient Mobile Data Gathering in WSN based on Hora algorithm, International Journal of Scientific Engineering and Applied Science(IJSEAS) Volume-2, Issue-6, June 2016. ISSN: 2395-3470, Indexed in Google Scholar
- 14. K.Nagalakshmi, Swathi, Privacy Preserving Policy to Detect the Packet Audited by usingHLA in Wireless Sensor Networks, International Journal of Scientific Engineering and Applied Science (IJSEAS) - Volume-2, Issue-5, May 2016.ISSN: 2395-3470, Indexed in Google Scholar
- 15. K.Nagalakshmi, S.J.Subhashini, Enduring and Securing Network Node's Life using PLGP, International Journal of Scientific Engineering and Applied Science (IJSEAS) Volume-1, Issue-2, May 2015. ISSN: 2395-3470, Indexed in Google Scholar.

- 16. R.Aghila, K.Nagalakshmi, A Formal Analysis and some properties of Kerberos inNetwork, Asian Journal for computer science and Technology (AJCST), vol:1No:1,Feb 2012,pageNo: 06-09.ISSN: 2249-5126, Scopus.
- 17. K.Nagalakshmi, R.Chitra ,A Tool for Educating Rural Women in Tamilnadu regardingUrban Amenities using Minimum Description Length Principle, International Journal ofComputing Technology, Vol 1& Description 123 to 127, March 2011. ISSN: 0976-5956. Indexed in Google Scholar.
- 18. K.Nagalakshmi,R.Chitra TOLMS: A Tool for On-Learning Management System throughTamil Language for Rural Mass Using RBAC, International Journal of ComputingTechnology, Vol 1& Damp; No 2, Page No 44 to 49, March 2011, ISSN: 0976-5956. Indexed in Google Scholar.
- 19. K.Nagalakshmi, Dr.Sherin Banu, An Interactive Tool for Online Education system through Tamil Language for rural mass using RBAC, Sethu Journal of Science and Technology, Vol 5, Page No. 10 to 15, December 2010, ISSN:0976-0717. Indexed in Google Scholar.

### **National Journals**

1. Published a Journal in the title "An Interactive Tool for Online Education system through Tamil Language for rural mass using RBAC", Sethu Journal of Science and Technology, Vol 5, Page No. 10 to 15, December 2010, ISSN:0976-0717.

## **Details of Conference attended:**

- 1. Presented a paper in the title, "Gene Analysis using Grid Environments" in the IEEE International Conference on Advanced Communication Control and Computing Technologies: ISBN No.978-1-4673-2047-4, Page No.463 to 466, August 2012, Syed Ammal Engineering College, Ramanathapuram.
- 2. Presented a paper in the title,"A Comparison of Fault Tolerance Mechanism in Grid" in the IEEE Sponsored International Conference on Computing, Communication and Application:Page No. 10 to 13, February 2012, PSNA College of Engineering and Technology, Dindigul.
- 3. Presented a paper in the title" Online Learning System through Tamil Language for Rural Mass Using Role Based Access Control" in the International Conference on Intelligent Science and Technology:Page No.1 to 6, March 2011, Sun College of Engineering and Technology, Nagercoil.
- 4. Presented a paper in the title, "Recovery Mutual Scheduling: A Flexible Approach for

- Fault Recovery Mechanism in the Grid Environments" in the International Conference on Sensors and Related Networks: Page No.1 to 4, January 2012, VIT University, Vellore.
- 5. Presented a paper in the title," An Interactive Tool for Educating Rural Women Regarding Urban Amenities" in the National Level Conference on Recent Trends in Computing and Technologies:Page No.166 to 169, March 2011, N.P.R College of Engineering and Technology, Natham.
- 6. Presented a paper in the title, "On-Line Learning System through Tamil Language for Rural Mass using RBAC" in the National Conference on Information and Network Management: Page No.5, March 2011, Thagarajar College of Engineering, Madurai.
- 7. Presented a paper in the title," An Interactive Tool for On-Line Education System through Tamil Language for Rural Mass using RBAC" in the National Conference on Emerging Trends and Application in Computer Science:Page No.94 to 96, February 2011, Ponjesly College of Engineering, Nagercoil.
- 8. Presented a paper in the title, "Adaptive E-Learning through Tamil Language for Rural Mass Using RBAC", National Conference on Emerging Trends in Computing & Network Technologies, Page No.254 to 259, April 2011, KLN college of Information Technology, Sivagangai.
- 9. Presented a paper in the title," A Formal Analysis of Kerberos in Network Security in the 2 days National Conference a Sethu Institute of Technology on 20th & 21st Feb 2012 Pg.No:13.
- 10. Presented a paper in the title, "Fault Recovery Mechanism using RMS in Grid Environments in the 2 days National Conference a Sethu Institute of Technology on 20th & 21st Feb 2012, Pg.No:13.
- 11. Presented a paper in the title," Amalgamate Committee Machines Methods on Drug Design for Biometric Samples" in the International Conference on ICDASDC'14:December 2014, KLN college of Information Technology, Sivagangai.
- 12. Presented a paper in the title," Mobile Data Gathering in Wireless Sensor Networks with Dual Data Uploading based on minimizing energy Consumption" in the International Conference on ICDASDC'15:November 2015, KLN college of Information Technology, Sivagangai.
- 13. Presented a paper in the title, "Privacy Preserving Policy to Detect by using HLA in Wireless Sensor Networks" in the International Conference on ICDASDC'15:November 2015, KLN college of Information Technology, Sivagangai.

- 14. Presented a paper in the title," Detection of Malicious Attack in Mobile Cloud with Energy Proficient "in an ISRO Sponsored Indian Conference on Data Analytics, Big Data, Data Mining and Data Science (ICD4'16) on 27th & 28th October 2016, KLN college of Information Technology, Sivagangai.
- 15. Presented a paper in the title, "A Spatial inverted index searching for Nearest Neighbor Using Keywords" in the International Conference on ICDASDC'16:December 2016, KLN college of Information Technology, Sivagangai.
- 16. Presented a paper in the title, "Mobile Application For Blood Bank With Supported Notification System "in the National Conference on RTEIT'17 , KLN college of Information Technology, Sivagangai.
- 17. Presented a paper in the title," Framework To Identify Jammer Attack In Wireless Sensor And Actuator Networks in the International Conference on ICDASDC'17, KLN college of Information Technology, Sivagangai.
- 18. Presented a paper in the title," Pervasive Computing Environment by Using RBAC" in the International Conference on ICDASDC'17, KLN college of Information Technology, Sivagangai.
- 19. Presented a paper in the title, "Butane volumetric tracking" in the International Conference on ICDASDC'17, KLN college of Information Technology, Sivagangai.
- 20. Presented a paper in the title," Comparision of SVM and RVM Classifier performance in Analysing the cancer data" in the International Conference on IC3DIET-18, University College of Engineering, Panruti from 28.02.18 to 1.03.18.
- 21. Presented a paper in the title,"An Efficient Cloud partitioning a load balancing model for the public Cloud" in the International Conference on IC3DIET-18

  "University College of Engineering, Panruti from 28.02.18 to 1.03.18.
- 22. Presented a paper in the title," Automated Brain Tumor Segmentation Based On Tamora Texture Feature Using SVM Classifier" in the International Online Conference on Connection. Computation & Communication (ICCCT- 2020), Sethu Institute of Technology from 23.07. 20 to 24.07.20.
- 23. Presented a paper in the title," Automatic Detection of Blood Vessel in Retinal Images Using Neural Network" in the International Online Conference on Connection. Computation & Communication (ICCCT- 2020), Sethu Institute of Technology from 23.07. 20 to 24.07.20.
- 24. Presented a paper in the title," IDENTIFICATION OF HIDDEN FEATURES FOR

- GLAUCOMA DIAGNOSIS USING CNN" in the International Online Conference on Connection. Computation & Communication (ICCCT- 2020) , Sethu Institute of Technology from 23.07. 20 to 24.07.20.
- 25. Presented a paper in the title," Analysis of Student Performance using Data Mining Techniques" in 8th National Conference on Emerging Computational Technologies, vSITCON 2020, Sethu Institute of Technology on 4.09.20.
- 26. Presented a paper in the title," A Framework to identity the hidden features for GLAUCOMA Diagonis using CNN algorithm" in 8th National Conference on Emerging Computational Technologies, vSITCON 2020, Sethu Institute of Technology on 4.09.20.
- 27. "IOT Based Coma Patient Health Monitoring System " 9th National Conference SITCON22, Sethu Institute of Technology, 27.04.22
- 28. Texture based skin Lesion Segmentation from Digital Image using AI & NN" 9th National Conference SITCON22,Sethu Institute of Technology,27.04.22
- 29. "Comparative Anaylsis on Brain Stroke Prediction using Machine Learning" Research Conclave, PSG College of Technology, 3.06.22 & 4.06.22
- 30." Analysis of Student Performance using Data Mining Techniques", 8th National Conference on Emerging Computational Technologies, vSITCON 2020, Sethu Institute of Technology, 04.09.2020
- 31. An Improved Detection and Diagnosis Methods for Breast Tumor Detection System using IEMD transform based CNN Architecture, INTERNATIONAL CONFERENCE ON ENVIRONMENTAL DEVELOPMENT USING COMPUTERSCIENCE (ICECS' 2024), AAA College of Engineering and Technology, 11.01.24 & 12.01 24
- 32." A Framework to identity the hidden features for GLAUCOMA Diagonis using CNN algorithm" 8th National Conference on Emerging Computational Technologies, vSITCON 2020, Sethu Institute of Technology, 04.09.2020
- 33."IOT Based Coma Patient Health Monitoring System "9th National Conference SITCON22,Sethu Institute of Technology,27.04.22
- 34. "Texture based skin Lesion Segmentation from Digital Image using AI & NN" 9th National Conference SITCON22, Sethu Institute of Technology, 27.04.22
- 35. "Comparative Anaylsis on Brain Stroke Prediction using Machine Learning" Research Conclave, PSG College of Technology, 3.06.22 & 4.06.22
- 36. A Texure based skin lesion segmentation from images with ANN & CNN, AAA COLLEGE OF ENGINEERING & Technology ICECS'24at 11-01-2024

- 37. Automatic Plant Leaf Disease Detection Using XG Boost, ISBNNo:978-93-6163-747-6-Sethu Institute of technology- RIICT'24at 05-04-2024
- 38. Brain Tumour Detection And Segmentation, ISBNNo:978-93-6163-747-6-Sethu Institute of technology- RIICT'24at 05-04-2024
- 39. HookUP for Auto Illumination using Photo electric effect for Pulse Modulation and Motion, ISBNNo:978-93-6163-747-6-Sethu Institute of technology- RIICT'24at 05-04-2024
- 40. 40. Artisan harbor: an AI based e-commerce app Which helps to sell and buy ancient products, ISBNNo:978-93-6163-747-6-Sethu Institute of technology- RIICT'24at 05-04-2024
- 41. Texture BasedSkin LesionSegmentationfromDigitalimages withVGG-19 andResnet-152v2, ISBNNo:978-93-6163-747-6-Sethu Institute of technology-RIICT'24at 05-04-2024
- 42. D.Dineshkumar, Dr.S.Siva Ranjani, Dr.K.Nagalakshmi, "A Texure Based Melanoma Detection and Classification Using Vgg-16and Densenet 121" International Conference on AI, Illinois, USA

# Details of Book Chapter and Books Published: Book Chapter

- Dr.S.Suriya, K,Nagalakshmi,S.Nivetha,Online Assessment System Using Natural Language Processing Techniques, Convergence of Deep Learning in cyber IoT System and Security, Wiley Scrivencer publishing LLC, Pg no 101-122,2022-Scopus
- K.Nagalakshmi, Dr.S. Suriya, Missing Values and Class Prediction based on Mutual Information and Supervised Similarity, Book Chapter-Artificial Intelligence, Smart Grid and Smart City Applications, Springer Nature, March 2020-Scopus

#### **BOOK PUBLISHED**

Published a Book in Digital Image Processing, Publisher: PiP on 28-06-2024,
 ISBN No: 9789360108397

## **Details of Patents Filed and Granted:**

 AI-POWERED REAL-TIME CYBERATTACK DETECTION IN IOT NETWORKS, Published Indian Patent, Application no 202441091452 A,Pub.Date: 06/12/2024

Page:8 of 9

- 2. Ms.K.Nagalakshmi, Method for Managing Life Cycle of a tokenized computing operation real asset in aBlockchain –based Ecosystem, Published Indian Patent 202341034141 and 18.08.2023.
- 3. Ms.K.Nagalakshmi, CHILDREARING SUPPORT SYSTEM AND INFANT SENSOR DEVICE USNG IOT, Published Indian Patent 202041055662 A and 22.01.2021.
- 4. Ms.K.Nagalakshmi, Efficient Wearable sensor device for predicting the heart rate using Machine Learning Approach, **Published Indian Patent** 202231043984 A and 1.08.2022.

# **Expert Lecture Delivered:**

1. Delivered a Guest lecture on 8 Days Online FDP on Generative AI at EGS Pillai Engineering College, Nagapattinam from 2.01.25 to 10.01.25

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