Profile

Dr.T.P.Rani

Dr. T P Rani

Mobile :9444425698

Email : rani.it@sairam.edu.in,

ranitp.2010@gmail.com

DESIGNATION	:	Professor
DEPARTMENT	:	Information Technology
College	:	Sri Sai Ram Engineering College
QUALIFICATION	:	M.E, Ph.D
AREA OF SPECIALIZATION:		Computer Science- Wireless Sensor Networks & Network Security
EXPERIENCE	:	Teaching (Total Years of Experience) : **24**

- Working as Professor in Sri Sai Ram Engineering College, Chennai from April 2022 till date.
- Worked as Associate Professor in Sri Sai Ram Engineering College, Chennai from Aug 2014 to April 2022.
- Worked as Assistant Professor in Sri Sai Ram Engineering College, Chennai from May 2006 to Aug 2014.
- Worked as Lecturer in Panimalar Engineering College, Chennai from Dec 2003 till May 2006.
- Worked as Lecturer in Sree Sastha Institute of Science and Technology from May 2003 to Dec2003.
- Worked as Lecturer in Muthayammal Engineering College, Rasipuram, near Salem from April 2002 till April 2003.

Education:

- **Ph.D. in Computer Science and Engineering (Specialization area is Security Issues in Wireless Sensor Network) 12-11-18, Anna University, Chennai. Thesis Title is Trust aware replica detection using Unique Identity and Localization in Wireless Sensor Networks.**
- **M.E. in Computer Science and Engineering, 2003-2005, Sathyabama University, Chennai, Tamil Nadu.**
- **B.E Computer Science and Engineering, Mahindra Engineering College, Salem, Madras University.1997-2001.**

Citation:

1. **Google Scholar** : https://scholar.google.com/citations?hl=en&user=MlkX0AUAAAAJ
2. **WOS Researcher ID** : https://www.webofscience.com/wos/author/record/AAX-8726-2020
3. **Scopus URL** : https://www.scopus.com/authid/detail.uri?authorId=55940979900
4. **Orchid** : https://orcid.org/0000-0002-2986-9901

PROFESSIONAL BODY MEMBERSHIP:

- Life Member ISTE: LM63703
- IEEE (Senior Member) : 98102479
- Universal Association of Computer and Electronics Engineers: AM101000583407
- Institute for Engineering Research and Publication(IFERP): PM2490525
- Quarterly Franklin Membership: #YC21152

PATENTS PUBLISHED:

1. Application No: 202541034132 Status: Published, Title: SMART IOT BASED WATER MONITORING SYSTEM
2. Application No: 6386304 Status: Granted 05/09/2024, Title: A Medical Computer Device for Patient Health Monitoring
3. Application No: 6306012 Status: Granted 14/11/2023, Title: Smart Social Distance Alerting Device
4. Application No: 202441076807 Status: Published 25/10/2024, Title: Gesture Based Control Method for Online Meeting Forums and Smart Equipment

Grants Received:

1. **Staff Development Program** on **Mobile Networks**, held on 19.01.09 to 30.01.09 and **sponsored by AICTE (Rs 2,80,000/-)**

2. **TEDP** Technology based Entrepreneurship Program on "Computer Hardware Maintenance and Networking", funded **Rs.3,00,000** by **Entrepreneurship Institute of India EDII, Gujarat** held on 11/9/16-21/10/16.

3. **ISTE sponsored STTP on Machine Learning for Data Analysis inIndustry 4.0** conducted on 8-2-2021 - 13-2-2021.

4. **ATAL AICTE sponsored Faculty Development Program** on Cyber Security in Cloud Computing Technologies, fund of **Rs 3,50,000** held in Oct 2023.

Grants Applied:

1. BIRAC Biotechnology Industry Research Assistance Council - Empowering Youth for Undertaking Value Added Innovative Translational Research (EYUVA) technical and business mentoring, exposure to bioincubation model, orientation to entrepreneurial culture. Budget applied: Rs 4,00,000

MOU SIGNED:

Supported the Department in signing an MoU with **HERE AND HOW AI**, strengthening industry–academia collaboration.

TECHNICAL COMMITTEE MEMBER and REVIEWER (International Journals (SCI and Scopus) and Conference (Scopus))

- Editor in BOHR International Journal of Smart Computing and Information Technology ISSN: 2583-2026. Doi:10.54646/BIJSCIT
  https://journals.bohrpub.com/index.php/bijscit/about/editorialTeam
- Technical Program Committee Member and Reviewer in 2025 4th International Conference on Computer Engineering, Technologies and Applications during September 24-26, 2025 in Istanbul, Turkey . https://www.ceta.net/com.html

- Technical Program Committee Member and Reviewer in 11th International Conference on Computer Technology Applications (ICCTA 2025),Vienna, Austria May 2025, http://www.iccta.net/committee.html
- Reviewer in Wiley, Modelling and Simulation in Engineering ISSN: 1687-5591
- Reviewer in Wiley, International Journal of Communication Systems, E ISSN 1099-1131
- Reviewer in Springer, Peer to Peer Networking and Applications E ISSN 1936-6450
- Reviewer in Springer, Computing, E ISSN 1436-5057
- Reviewer in Springer International Journal of Wireless Information Networks E ISSN 1572-8129
- Reviewer in Springer, Wireless Personal Communications,E ISSN : 1572-834X
- Reviewer in IEEE Transactions on Systems, Man, and Cybernetics: Systems
- Reviewer in IEEE Transactions on Consumer Electronics
- Reviewer in IEEE Access
- Reviewer in Electrica, earlier Istanbul University Journal of Electrical and Electronics Engineering ISSN: 1303-0914
- Reviewer in KSII Transactions on Internet and Information Systems   ISSN: 1976-7277 Jan 2020
- Reviewer in Turkish Journal of Electrical Engineering & Computer Sciences March 2020

DOCTORAL COMMITTEE MEMBER

DC member for a Ph.D. candidate in the Faculty of Information and Communication Engineering, Anna University, Chennai. (Research Center at Madras Institute of Technology MIT, Chennai)

DC member for a Ph.D. candidate in the Faculty of Information and Communication Engineering, Anna University, Chennai. (Research Center at Panimalar Engineering College, Chennai)

DC member for a Ph.D. candidate in the Faculty of Information and Communication Engineering, Anna University, Chennai. (Research Center at Sri Sairam Engineering College, Chennai)

- **KEYNOTE SPEAKER**
- Delivered Webinar in IEEE Series on "Introduction to AWS" on 17-4-2020.
- Delivered NBA Lecture on Criteria 8 in Workshop "NBA Accreditation Process" in Marga Darshan Scheme on 21-2 2020 at Sri Sairam Engineering College.
- Delivered NBA Lecture on Criteria 5 in Workshop "NBA Accreditation Process" in Marga Darshan Scheme on 9-4-2021 at New Prince Sri Bhavani College of Engineering.
- Delivered Lecture on "Image Classification and Object Detection in Deep Learning" on 10.11.22 at Panimalar Engineering College, Chennai, Tamil Nadu.

Workshop/Conferences/FDP/SDP/SEMINAR Organized: (FUNDED BY AICTE, ISTE etc)

1. Coordinator for the **Staff Development Program** on **Mobile Networks**, held on 19.01.09 to 30.01.09 and **sponsored by AICTE (Rs 2,80,000/-)**

2. Coordinator for a **National Conference** on Recent trends in Computing and Technology 2016 on 29-4-16 sponsored by **ISTE** in association with **ICT Academy of Tamilnadu (ICTACT)**

3. Coordinator of National cyber defence resource centre **(NCDRC)**

4. Coordinator for **TEDP** Technology based Entrepreneurship Program on "Computer Hardware Maintenance and Networking", funded Rs.3,00,000 by **Entrepreneurship Institute of India EDII, Gujarat** held on 11/9/16-21/10/16.

5. **Coordinator for ATAL AICTE sponsored Faculty Development Program** on Cyber Security in Cloud Computing Technologies in Oct 2023.

Programs Organized

6. Coordinator - ISTE sponsored workshop for students on "Routing protocols in Wireless Networks" on 22-10-2020 and 23-10-2020.

7. Reviewer and Session chair for 4 th IEEE International Conference on Computing and Communication Technologies (ICCCT21) organized by Department of Information Technology, Sri Sai Ram Engineering College on 16th and 17th Dec., 2021.

8. Coordinator for Five Days ISTE sponsored STTP on Machine Learning for Data Analysis inIndustry 4.0 conducted on 8-2-2021 - 13-2-2021

9. Coordinator for Five Days Industry (Mind Tree) Technically sponsored FDP on No Code and Low Code Machine Learning Techniques conducted on 19-12-2022 - 23-12-2022

10. Coordinator for Five Days AWS Course for students on "AWS Cloud Solutions Architect Associate" in association with ICT Academy, conducted on 6-3-23 to 11-3-23

11. Coordinator for a Students Seminar on Web Hacking 101 Uncovering Vulnerabilities in Web Application , on 6-4-23.

12. Coordinator for Workshop for students on "Exploring Web and Network Vulnerabilities", on 27-10-25

Programs Chaired or Committee member (Conference)

13. Session Chair for International Conference on Information Systems and Computing (**ICISC- 2013**), Sri Sai Ram Engineering College on 4th Jan 2013.

14. Session Chair and Organising member for International Conference on Computing and Communication Technologies (**ICCCT- 2019**), Sri Sai Ram Engineering College on 21 & 22 Feb 2019.

15. Session chair and Steering committee member for International Conference on Computing, Communication and Control **i4c 2020** on 28 and 29 Feb 2020.

16. Acted as reviewer in IEEE International Conference on Computing and Communication Technologies **ICCCT' 2015, ICCCT' 2017 and ICCCT 2019.**

17. Reviewer in ISAIC 2021 on International Symposium on Automation Information and Computing Beijing China

18. Reviewer in IEEE International Conference on Communication, Computer, and Information Technology (IC3IT-2025), Mysuru Royal Institute of Technology, Mandya, 2025.

19. Reviewer in International Conference on Recent Trends in Advanced computing, VIT , Chennai , 14-11-25.

20. Reviewer & Session chair for the IEEE International conference on Computing and Communication Technologies (ICCCT15, ICCCT17 & ICCCT19) organized by Department of Information Technology, Sri Sai Ram Engineering, College, Chennai 7.

21. Reviewer for the International conference on Recent trends in Computational Engineering and Technologies (ICTRCET-2018), organized by Department of Computer Science and Engineering, RajaRajeswari College of Engineering, Bangalore.

SIGNIFICANT WORKS AND ACHIEVEMENTS (Certificates and awards received)

- Received Best Mentor certificate from NPTEL for mentoring students for the Course Joy of Computing using Python in Jun- Dec 2025.

- Received Jury Member certificate , InnovaTN 25 State level ATL Innovation challenge, held on 8-11-25 at Sri Sairam Engineering College.

- Received Mentor certificate from NPTEL for Mentoring DBMS course (2025)

- Currently serving as NBA Coordinator & ISO Coordinator of the Department of IT.

- Currently serving in NBA Team, has headed Criterion 3 (Program Outcome) and Criterion 5(Faculty Information and Contribution)

- Currently serving as head in EOMS (Educational Organisation Management System) C5 (Faculty Information and Contribution)

- Currently in Question Paper Validation Committee Team

- Performed as NBA Audit Member at Sri Sairam College of Engineering, Bangalore on 4-7-23

- NBA Coordinator till 2022 and headed the Department NBA Visit successfully.

- Achieved NPTEL Star Topper in Database Management System in 2024

- Achieved NPTEL Star award as NPTEL DOMAIN SCHOLAR :SYSTEMS AND NPTEL ENTHUSIAST in MAY 2023

- Achieved NPTEL Star award as NPTEL BELIEVER AND DISCIPLINE STAR in Dec 2022

- Achieved Mentor and Most Consistent Mentor award from ATAL Tinkerprenuer AICTE in 2022

- Achieved Appreciation award for Mentoring Project "Smart Home Security and Anti Theft System" in Project expo Solveathon 1.0 on 20th and 21 st April 2022.

- Achieved Best Research paper award in SEEE (Society for Engineering Education Enrichment) Awards 2020

- Served as NBA Coordinator for the Department of IT from 2020 till 2022
- Conducted Intra Department Academic Audit in Sri Sairam Engineering.
- Worked as ISO Coordinator in the Department from 2012-2014
- Delivered Criteria Lectures regarding NBA for faculties in National level NBA programs at Prince Sri Bhavani Engineering College through AICTE Margadarshan Program

- Served as Technical Committee Member, Reviewer in SCI and Scopus Journals & Conferences, Mentor, Jury member, Evaluator for events, Question Paper setter for other Universities, Judge and Session chair in International Conference, NBA facilitator & NBA evaluation Committee Member in Other Universities.

PUBLICATIONS

BOOKS:

- Mr.Vineeth Singh, Mr. Surendra Kumar Choudary, Dr.T.P.Rani, Dr.S.Diwakaran, "Fundamentals of Computer Networks", 2023, Scientific International Publishing House, ISBN: 978-93-5757-238-5, 2022.
- Dr A Shobanadevi, Dr.Vadlamani M Subramanyam, Dr A Packialatha, Dr T P Rani, "Digital Forensics", 2025, Alpha International Publication, ISBN 978-93-5762-512-8

BOOK CHAPTER:

1. Kalaichelvi, Akila,Rani, Sowmiya and Divya, "Big Data in Multi- Decision Making System of the Aerospace Industry", Chapter 3, pp 69-110, Book Name: A Closer Look at Big Data Analytics, Computer Science Technology and Applications, Nova Publishers, 2021 (Scopus)
2. Rani, Kalaichelvi, Susila Sakthy, "Outlier Detection for WSN based on Dempster Shafer theory", Chapter 17,pp 114-128, Book name: Recent trends in Engineering and Technology, 2021.
3. Susila Sakthy, Aruna Jasmine, Rani, Nithya, "Green internet of things - A study", Chapter 16, pp 106-113, Book name: Recent trends in Engineering and Technology, 2021.

Journal Publications:

Inter National: (Web of Science and Scopus)

SCI

4. Rani, Ayyadurai, Pavithra, Cypto Jayakumar, "A secure authentication and optimization based device-to-device communication for 5G enabled IoT applications of smart cities", Wireless Networks, Springer, https://doi.org/10.1007/s11276-025-03930-6 (SCI)
5. **Rani, T.P., Srinadh, V., Mano Paul, P., Ananth, J.P., CH selection and compressive sensing-based data aggregation in WSN using hybrid Golden circle-inspired optimization, International Journal of Communication Systems, Wiley,** https://doi.org/10.1002/dac.5574. 2023 (SCI)

6. T.P.Rani, C.Jayakumar, "Unique identity and localization based replica node detection in hierarchical Wireless sensor networks", Computers and Electrical Engineering, **Elsevier Vol 64, Pages 148-162 ,**https://doi.org/10.1016/j.compeleceng.2017.08.010 , Aug 2017. (SCI)

SCOPUS

7. Sakthy, S.S., Rani, T.P., Kalaichelvi, P., Akshaya, H., Akshaya, R.S. (2024). Change Detection and Budget Estimation of Catastrophic Events Based on Image Processing. In: R., A.U., *et al.* Deep Sciences for Computing and Communications. IconDeepCom 2023. Communications in Computer and Information Science, vol 2177. Springer, Cham. https://doi.org/10.1007/978-3-031-68908-6_35 (Scopus)

8. Rani, T.P., Sakthy, S.S., Kalaichelvi, P., Lavanya, M., Karthiga, G. (2024). Assisting Paralyzed Patients with Iot Based Mobile Application Using Hand Gestures. In: R., A.U., *et al.* Deep Sciences for Computing and Communications. IconDeepCom 2023. Communications in Computer and Information Science, vol 2176. Springer, Cham. https://doi.org/10.1007/978-3-031-68905-5_27 (Scopus)

9. Rani T.P, Suganthi K., Data Security in the Internet of Things, ICT with Intelligent Applications. Smart Innovation, Systems and Technologies, vol 248. pp 593–601, Springer, Singapore, 2022 https://doi.org/10.1007/978-981-16-4177-0_58 (Scopus)

10. T.P.Rani, C.Jayakumar, "Trust based Energy Efficient Clustering Protocol in Wireless sensor networks for Military applications", Communications in Computer and Information Science (CCIS), **Springer,** vol. 721, pp. 201-209, July 2017 . (Scopus) https://link.springer.com/chapter/10.1007/978-981-10-5427-3_22

11. Rani, Arun, Viswanathan, Schedule It: A System for Seminar Hall Booking, Advances in Intelligent Systems and Computing, Springer, Vol. 1415, pp.355-365, March 2022, https://doi.org/10.1007/978-981-16-7330-6_27   (Google Scholar) (Scopus)

12. Rani, Muthuvairavan, Arun kumar, Thermal Camera-Based COVID-19 Detection Advances in Intelligent Systems and Computing, Springer, Vol. 1415, pp. 395-402, doi: https://doi.org/10.1007/978-981-16-7330-6_30 (Google Scholar) (Scopus)

13. T P Rani , J Aruna Jasmine , M.Janani , M.Bhuvaneshwari, B.Kavya, "VerticalAgriculture Monitoring System In Iot", Ilkogretim Online - Elementary Education Online, UGC Journal, Vol.20, No.1, pp. 5220-5230, 2021, doi: 10.17051/ilkonline.2021.01.558 (Google Scholar)

14. T.P.Rani ,J.Aruna Jasmine, S.Susila Sakthy, "Trust Based Localization Technique", Ilkogretim Online - Elementary Education Online, UGC Journal, Vol. 19, No.4, pp. 6638-6657, 2020, doi: 10.17051/ilkonline.2020.04.765068 (Google Scholar)

15. M.Harini priya R. Veda priya and T.P.Rani, "Shopping Sight for Glimpse Dearth", International Journal of Future Generation Communication and Networking, Vol. 13, No. 3, (2020), pp. 4003–4007, 2020. (Google Scholar)

16. Rani T P, Pavithra Lakshmi S. P. , Mankalaswetha N"The Third Eye- A wearable device for the visually impaired-guides the blind to pick the objects", Journal of Critical Reviews, vol. 7, no. 14, pp. 1072-1079, July 2020. (Google Scholar)

17. Sharmila, Sai Kavya Sri, Ashmika, Rani T P, Surveillance of driver, Journal of Critical Reviews, vol. 7, no. 14, pp. 904-906, July 2020. (Google Scholar)

18. T.P. Rani, A. Bharathi, K. Suvathy and A. Priyanka, Eyeball Movement based Cursor and Keyboard Control for Physically Challenged, International Journal of Psychosocial Rehabilitation, Vol. 24, No. 5, pp. 305-312, March 2020. (Google Scholar)

19. Soma Prathibha, Pavithra Lakshmi S. P. , Mankalaswetha N, Vanmathi V., Rani T P, Vision via Vibration-A wearable device for the visually impaired – Guides the blind to pick the object, International Journal of Advance Research, Ideas and Innovations in Technology, ts, pp. 136-138, Vol 6, Issue 1, Jan 2020. (Google Scholar)

20. Ms.J.Aruna Jasmine, Ms.S.Susila Sakthy, Ms.T.P.Rani, Mr.Jer Lang Hong, "Smart Bus Ticket System using QR code in android application", Journal of Gujarat Research Society, vol.21, no. 17, pp. 2255-2258, 2019. (UGC Journal) (Google Scholar)

21. Rani. T. P, Shalini. G , Sivapriya P , Jayashri. P, " Neck-care an early warning system to prevent neck pain", International Journal of Engineering & Technology, vol.7, no. 2, pp. 591-596, 2018. (Google Scholar)

22. T.P.Rani, C.Jayakumar and T.H.Dhivya Radhai, **"Towards Malicious Node Detection Methods In Wireless Sensor Network",** International Journal of Emerging Technology in Computer Science and Electronics (IJETCSE), vol. 22, no. 2, pp. 201-214, May 2016. (Google Scholar)

23. T.P.Rani, C.Jaya Kumar, "Performance Evaluation of Routing Protocols for Anomaly Detection", International Journal for Research in Applied Science and Engineering Technology, IJRASET, vol. 2, no. 5, pp. 281-288, May 2014. (Google Scholar)

24. Nivedita Sai, T.P.Rani, "Location based detection of replication and collusion attacks", IJCAT International journal of computer applications technology and research), vol.2, no.6, pp.714 - 716, 2013. (Google Scholar)

25. T.P.Rani, C.Jaya Kumar, "Establishment Of Secure Communication In Wireless Sensor Networks" in IJIST International Journal of Information Sciences and techniques 2012 https://airccse.org/journal/cseij/papers/2212cseij04.pdf (Google Scholar)(Scopus)

26. T.P.Rani, C.Jaya Kumar, "Survey on Key Pre-distribution for security in Wireless Sensor Networks", Springerlink as Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, 2012, Volume 84, Part 1, 248-252, DOI:10.1007/978-3-642-27299-8_26 . (Scopus)

National:

27. T.P.Rani, C.Jaya Kumar, "Survey on security attacks in WSN",SSEC Tech Journal 2012.

28. T.P.Rani, "Performance monitoring using p-http in tcp services" in Ssec Tech Journal-2007

Conference Publications:

National:

29. R.Akshaya, R.Kausalya, R.Shwetha, T.P.Rani, C.Jayakumar, "E-Comrade an assistive mechanism for Autism" , National Conference, R.M.K Engineering College April '11. This paper received the "Best Paper award" among the presented papers in the conference.

30. T.P.Rani, C.Jayakumar, "Secure Key Predistribution in Wireless Sensor Networks Using Randomized Dispersive Routes ", National Conference, Sri Sai Ram Institute of Technology, April'11

31. S.Dhanalakshmi, Sneha Pallav, T.P.Rani, C.Jayakumar, "Biometric Authentication in Voting system using GSM" , National Conference, Sri Sai Ram Institute of Technology, Dec'11

32. J.G.Annapurrani, S.Saranya, T.Meena, T.P.Rani, "Cloud based Contacts Backup and retrieval", National Conference on Advanced Computing and Communication Technologies, pp.33-36, December 2011.

33. Prabhu.D, Rani.T.P, "Secure Group Communication In Wireless Sensor Network Using Lu Matrix",National Conference, S.A Engineering College, 28-01-12.

34. S.Aiswarya, K.Elavarasi, S.Saranya, Rani.T.P, "Blind Vision Advanced Voice Based Currency and Object Recognition for the Visually Impaired People with Fake Detection", in Proc. Of National Conference on Science and Innovative Engineering, 2013.

International:

35. T.P.Rani, C.Jaya Kumar, "Survey on Key Pre-distribution for security in Wireless Sensor Networks", International Conference on Parallel, Distributed Computing technologies and Applications (PDCTA-2011), Tirunelveli,Archived in Springerlink as Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, 2012, Volume 84, Part 1, 248-252, DOI:10.1007/978-3-642-27299-8_26

36. Arunmozhi Kalanchiyam, Rani.T.P, "Outlier Detection in Wireless sensor networks", in Proc. Of the International Conference on Advanced Computing, Machines and Embedded Technology, ICACT', 2013.

37. Niveditha Sai, T.P.Rani "Detection of replication and collusion attacks using j-pdf", ICAET ' 14 (International conference in advances in engineering and technology) , EGS Pillay Engineering College, Nagapattinam, 2014

38. T.P.Rani, C.Jayakumar, G.Divya "Trust aware Wireless Sensor Networks", IEEE International Conference on Computing and communications Technologies ICCCT'15, 26th and 27th Jan 2015.doi: 10.1109/ICCCT2.2015.7292741.

39. T.P.Rani, C.Jayakumar and T.H.Dhivya Radhai, "Replication Detection Methods in Wireless Sensor Network," in Proc. Of the International Conference on Emerging Trends in Engineering and Technology (ICETET'16) on 11-12 March, 2016.

40. T.P.Rani, C.Jayakumar and T.H.Dhivya Radhai, "Towards Malicious Node Detection Methods in Wireless Sensor Network," in Proc. Of the International Conference on Advances in Emerging Technology (ICAET'16) on 7 May, 2016.

41. Rani, Anees, GeethaPriya, Mahalakshmi, "Automated Billing system using Li-Fi (Light Fidelity) Technology, in Proc. of Fortieth International Conference on Communication and Computation, 2016, Chennai, 10th April 2016, pp. 92-96

42. Rani, Preethi,Srimathi, Aashifa, "Integration of SMS and Email using Speech Recognition in Android for the Visually Challenged Person" in Proc. International Conference on Science and Innovative Engineering, 2017 Chennai, 2nd April 2017.

43. Swati, Rani, "Clustered Security for Smart Networks", in Proc. Of IEEE International Conference on Computing and Communications Technologies (ICCCT'17), 2017, Chennai, 23rd and 24th February 2017

44. Rani, Jayakumar, "Trust based Energy Efficient Clustering Protocol in Wireless Sensor Networks for Military Applications", in Proc. Of Springer International Conference on Advances in Computing

and Data sciences, Krishna Engineering College, Gazhiabad, Uttar Pradesh, 11th and 12th November 2016.

45. Rani, Jayakumar, "Enhanced Data Transfer Security in the Internet of Things", in Proc. Of Springer International Conference on IoT, Data Science and Security, PSG College of Technology, Coimbatore, 5th to 7th Jan 2017

46. T.P.Rani, A.Bharathi, K.Suvathy, A.Priyanka, Eyeball movement based cursor and keyboard control for physically challenged , in Proc. of 6th international conference on contemporary engineering and technology, Prince Shri Venkateshwara Padmavathy Engineering College, 10th to 11th March 2018.

47. Rani T.P, S.M.Aishvarya, D.Charu, Haripriya S, Charging Commotion Cure, IEEE International conference on Computing and Communications Technologies (ICCCT'19), 2019, Chennai, 23rd & 24th Feb 2019 .

48. Rani T.P, S.M.Aishvarya, D.Charu, Haripriya S,VR Based Flood Relief System, IEEE international conference on Computing and Communications Technologies (ICCCT'19), 2019, Chennai, 23rd & 24th Feb 2019

49. M.Harini priya,R. Veda priya, Dr.T.P.Rani, Shopping Sight for Glimpse Dearth, Proceedings of the International Conference on Contemporary Engineering and Technology 2020, 14th and 15th March 2020, Prince Sri Venkateshwara Padmavathy Engineering College, Chennai. ISBN 978-93-81288-22-1.

50. Kaviya V, Vedhashree D, Rani T P,"A novel Covid prevention method using Deep learning", 2020 IEEE 2nd International Conference on Power, Energy, Control and Transmission Systems, Sri Sairam Engineering College, Chennai,

51. Rani, T.P., Sree. M, S.K., Sharmila, P., Smart surveillance of driver using machine learning 3rd IEEE International Conference on Signal Processing and Communication, ICPSC 2021, Karunya Institute of Technology and Sciences, pp. 85–88,2021

52. Arun, Rani, Aruna Jasmine Project Educate A skill based e-learning for rural areas , 2021 IEEE 4th International Conference on Computing and Communications Technologies (ICCCT), Sri Sairam Engineering College, Chennai, doi: 10.1109/ICCCT53315.2021.9711825.

53. Jasmine, J.A., Srinivasan, S., Godson, M., Rani, T.P., Sakthy, S.S., Share Market Prediction Using Long Short Term Memory and Artificial Neural Network , 2021 IEEE4th International Conference on Computing and Communications Technologies (ICCCT), Sri Sairam Engineering College, doi: 10.1109/ICCCT53315.2021.9711849.

54. Rani, T.P., Koushik Shrivatsav, B., Prasanth, T.G., A Voice and Spiral Drawing Dataset for Parkinson's Disease Detection and Mobile Application,, in Proc. of—--, doi: 10.1109/IC3IOT53935.2022.9767968.

55. T P Rani, Susila Sakthy P Kalaichelvi M Priyadharshan T Vignesh, Home Security And Anti-Theft System, in Proc. of IEEE International Conference on Computational Science and Technology, Oct 2022

56. Susila Sakthy.S ,Rani.T.P ,P.Kalaichelvi ,Badrinaath R,Sugavanesh M , Predicting Parkinson's Disease Progression Using Machine Learning Ensemble Methods, in Proc. of IEEE International Conference on Computational Science and Technology, Oct 2022.

57. S.Padmasri , Niranjana.S , T.P.Rani , P.Kalaichelvi , Susila Sakthy, Monitoring And Training Kit For Autism Spectrum Disorder Patients Using Artificial Intelligence , in Proc. of IEEE International Conference on Computational Science and Technology, 2022.

58. S..Susilasakthy P.Kalaichelvi T.P.Rani P.Niveditha D.Pooja, An Adaptable Smart And Iot-Based Solution To Assist Handicapped and Elderly Persons With Kitchen-Related Tasks, in Proc. of IEEE International Conference on Computational Science and Technology, Oct 2022.

59. S.Susila Sakthy T.P.Rani P.Kalaichelvi Abinaya.K Sharmila.B, An Automation Tool For Fair Price Shops In The Tamil Nadu Public Distribution System, in Proc. of IEEE International Conference on Computational Science and Technology, Oct 2022.

60. P.Kalaichelvi T.P.Rani, S.Susila Sakthy, S Chidambara Raja, P Charan Reddy , Improving Drone Technology Performance in Crop Fertilization, in Proc. of IEEE International Conference on Networking Communications ICNWC 2023.

61. Rani T.P, Sakthy S.S, Kalaichelvi P, Prasanth S, Venkatesh S, Fake App Detection Using Sentiment Analysis, 2023 Intelligent Computing and Control for Engineering and Business Systems, ICCEBS 2023, 2023.

62. Rani T.P, Sakthy S.S, Kalaichelvi P, Vignesh T, Priyadharshan M, Visual Information Translator Using Smart Glasses for Blind, 2023 Intelligent Computing and Control for Engineering and Business Systems, ICCEBS 2023, 2023.

63. T.P.Rani, Sakthy S, Kalaichelvi P, Niranjana S, Padmasri S, Solar Sentry, 2024 International Conference on Communication, Computing and Internet of Things, 2024 Proceedings, 2024.

64. Susila Sakthy S, Rani T.P, SharmilaB, Abinaya K, Machine Learning Based Sign Language Recognition Translation Methods, 2024 International Conference on Communication, Computing and Internet of Things, IC3IoT 2024 - Proceedings, 2024.

65. Susila sakthy S, Devi B.R, Rani T.P, Niveditha P, Pooja D, Enhancing Accessibility and Inclusivity For People With Disabilities Using Hand Gesture Recognition, Proceedings of the 2024 10th International Conference on Communication and Signal Processing, ICCSP 2024, 2024, pp. 231–235.

66. M. K. J, V. M, T. P. Rani and S. S. S, "Comprehensive Career Placement Predictor: An Analytical Tool for Optimizing Job Placement Outcomes," 2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2024, pp. 1-6, doi: 10.1109/ICPECTS62210.2024.10780012.

67. T. P. Rani, S. Susila Sakthy, K. S. Saravanabharathi and R. Yeshwanth, "Piracy Estimation and Detection in Movies and OTT Series using Similarity Functions and Deep Learning Techniques," 2024 International Conference on Emerging Research in Computational Science (ICERCS), Coimbatore, India, 2024, pp. 1-6, doi: 10.1109/ICERCS63125.2024.10894838.

68. S. S. Sakthy, T. P. Rani, Dhoorika and A. TR, "A Novel Real Time Sleep Apnea Detection," 2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Chennai, India, 2024, pp. 1-6, doi: 10.1109/ICPECTS62210.2024.10780217.

69. T. P. Rani, S. S. S, T. P and R. Rathika, "Smart IoT-Based Water Quality Monitoring: Real-Time Assessment and Predictive Analytics with Advanced Sensors," 2024 International Conference on Integration of Emerging Technologies for the Digital World (ICIETDW), Chennai, India, 2024, pp. 1-6, doi: 10.1109/ICIETDW61607.2024.10939389.

70. Rani. T. P, S. S. S, G. V and V. K, "Shopkeeper's Help - Advanced Inventory Management and Predictive Sales System in Retail Operations," 2024 International Conference on Integration of Emerging Technologies for the Digital World (ICIETDW), Chennai, India, 2024, pp. 1-6, doi: 10.1109/ICIETDW61607.2024.10939640.

71. . T P Rani, S. Sakthy S, E. S and V. R, "Machine Learning Technique for Forest Tree Enumeration Using Aerial Images," 2025 International Conference on Computing and Communication Technologies (ICCCT), Chennai, India, 2025, pp. 1-6, doi: 10.1109/ICCCT63501.2025.11020183.

72. S. Susila Sakthy. T P Rani, "Augmented Reality for Children on Autism Spectrum," 2025 International Conference on Computing and Communication Technologies (ICCCT), Chennai, India, 2025, pp. 1-6, doi: 10.1109/ICCCT63501.2025.11019675.

SEMINARS AND WORKSHOPS ATTENDED:

1. Workshop on Accreditation at Panimalar Engineering College, Chennai during 29-07-05 to 31-07-05.

2. Seminar on "Teaching Network and Data Security in Engineering Curricula" at Anna University, Chennai on 21-07-06.

3. FDP in "Embedded Systems" at Velammal Engineering College during 04-12-06 to 16-12-06.

4. Seminar in "NCCICT" at Sri Sai Ram Engineering College during 09-03-07 to 10-03-07.

5. Workshop on "Network Processors" at Anna University during 30-05-07 & 31-05-07.

6. FDP on Balance of Emotional Intelligence in the Working Environment for Teaching Faculty at Sri Sai Ram Engineering College during 06-12-07 to 12-12-07.

7. Workshop in "E-Learning in Education" at NITTTR on 19-12-08

8. Staff development Program in "Mobile Networks" at Sri Sai Ram Engineering College in Jan'09.

9. Seminar in "NCCICT" at Sri Sai Ram Engineering College in Dec '09.

10. Staff Development Program on "Recent Trends in Computing" at Sri Sai Ram Engineering College in May'10.

11. Seminar on " Digital Standards" at MIT in April'10

12. Ministry of Communication & Information Technology(MOCIT) Sponsored National Level Seminar on Research Methodologies in Next Generation Wireless Network using OPNET, Sri Sairam Engineering College, Chennai – 19th – 21st August 2010.

13. Seminar on "Mobile Computing" at R.M.K Engineering College in Feb'11

14. Workshop on "Next Generation Wireless Networks" at Sri Sai Ram Engineering College in Mar'11

15. Workshop on Simulation of Advanced Networks Using NS-2 at MIT on 02-12-11 & 03-12-11

16. Internal Quality Auditor Training Program on Quality Management System and Audit Training ISO 9001-2008 Creative Management Consultants, Chennai, 11th and 12th October 2011

17. Workshop on "The Art of Journal and Thesis Writing" at Sri Sai Ram Engineering College on 19-01-12

18. Workshop on "Opnet" at Sri Sai Ram Engineering College in 21-03-12

19. Workshop on "Network Security" at Anna University on 20-07-12

20. Workshop on "Hands on Session on Network Security" at Anna University on 27-07-12 & 28-07-12

21. Workshop on "Network Design- A Practical Approach" at Anna University on 03-10-13 &04-10-13

22. IET sponsored a two days Workshop on "Hands On Workshop on NS2" at KCG College of Technology on 21-10-13 & 22-10-13.

23. Attended a One day workshop on "How to write Research Papers for Refereed Journals". It was conducted by the Department of Electronics and Communication Engineering at Sri Sai Ram Institute of Technology, Chennai on 13-2-15.

24. Attended Tutorial Session on "Internet of Things" in the 2017 IEEE International Conference on Computing and Communications Technologies (ICCCT'17), 2017, Chennai, 23rd and 24th February 2017.

25. Attended Amazon workshop on "Amazon web service" conducted by ICTACT, Chennai from 21-11-17 to 24-11-17

26. Attended Amazon AWS educator meet 2019 - Chennai, organized by ICT Academy powered by AWS held on 07 February 2019 at Radisson Blu GRT, Chennai, India

27. Attended one day faculty development program FDP on Methodologies and practices for profitable research through patent and IPRon 4th jan 2019 conducted by Allinov Research and development Pvt. Ltd at Sri Sai Ram Engineering College.

28. Attended a one day FDP is organised on Outcome Based Education (OBE) for the teaching faculty on 5th April, 2019 organised by IQAC at Sri Sai Ram Engineering College.

29. Attended NPTEL FDP on Internet of Things in Jan - April 2019

30. Attended a Virtual Atal FDP in "Blended Learning and Flipped Classroom", at JIS College of Engineering/CSE Dept, Kolkata, on 24-8-2020 to 28-8-2020.

31. Attended a Virtual Atal FDP in "Artificial Intelligence", at Dr APJ Abdul Kalam Technical University, Lucknow, on 29-8-2020 to 2-9-2020.

32. Attended Five days Virtual STTP at SSN College of Engineering on Cyber Security Tools from 30-3-2021 to 3-4-2021

33. Attended five days FDP in Online Training Program for Mentors from 26th to 30th July 2021 organized by NITTT(National Initiative for Technical Teachers Training)

34. Completed the 5-day online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education(AICTE) from 2 August, 2021 to 6th Aug 2021.

35. Completed two days NAAC sponsored FDP on Revised Accreditation Framework for Quality enhancement in Higher Education Institutes from 14-7-2021 to 15-7-2021 organised by IQAC cell , Sri Sairam Engineering College

36. Attended five days Virtual Atal FDP in "Machine Learning Concepts in Python", at Government Polytechnic College, Gandhi nagar, Gujarat on 5-7-2021 to 0-7-2021.

37. Attended five days Virtual Atal FDP in "IOT and Cyber Security", at Institute of Engineering and Management, Lucknow on 21-6-2021 to 25-6-2021.

38. Attended NPTEL FDP on Computer Networks and Internet Protocol in Jan - April 2021

39. Attended NPTEL Continuing Education Program on Quantum Cryptography and Quantum Algorithms 17-11-2022 to 21-11-2022

40. Attended NPTEL FDP on Software Testing in Jan- Feb 2022

41. Attended NPTEL FDP on Cloud computing in Jan- Feb 2022

42. Attended NPTEL FDP on Python for Data Science in Jul - Aug 2022

43. Attended NPTEL FDP on Demystifying Networking in Jul - Aug 2022

44. Attended NPTEL FDP on Database Management System in Jul- Aug 2024

45. Attended ATAL Physical FDP on "Quantum for sustainable AI and BlockChain" at SSN College of Engineering in September 2024

46. Attended NPTEL FDP on Java Programming Jan- Feb 2025

47. Attended a National FDP on Cyber Security in Jun 2025

NPTEL - AICTE COURSE CERTIFICATIONS (2019-2025):

1. Compiler Design
2. Introduction to Database Systems
3. Operating System Fundamentals
4. Cryptography and Network Security
5. Demystifying Networking
6. Python for Data Science
7. Cloud computing
8. Software Testing
9. Computer Networks and Internet Protocol

10. Introduction to Internet of Things

11. Database Management System

12. Java Programming

13. Introduction to Database Systems

14. Programming in Modern C++

15. Programming, Data Structures and Algorithms using Python

Coursera Courses Completed

1. **Intermediate Relational Database and SQL**

2. **Testing and Debugging Python**

3. **Linear Regression with NumPy and Python**

4. **Images and Links in HTML**

5. **Introduction to Python**

6. **AWS Fundamentals: Addressing Security Risk**

7. **Support Vector Machines in Python, From Start to Finish**

8. **Video Basics with OpenCV and Python**

NITTTR AICTE 8 MODULE CERTIFICATIONS: Module 1 to Module 8 completed Register Number: 202111115294