Name: Dr.T.P.Rani	Photo
Designation:	AP/I
Qualification : Area of Specialization :	Ph.D CSE
Experience:	Teaching: 19 Yrs. UG: - 19
Dapertence.	PG:- 4
	Industry: Nil
No. of workshop /	31
<b>Conferences / FDP attended:</b>	
Publication:	Journal N. d. 1 2
	National : 2 International : 14
	Conference
	National: 6
	International : - 16
Research Guidance : -	-
Membership:	Life Member ISTE: LM63703
	Universal Association of Computer and Electronics Engineers: AM101000583407
	Institute for Engineering Research and Publication(IFERP): PM2490525
	Quarterly Franklin Membership: #YC21152
Achievements:	• Awarded as the Best professor for Securing 100%
	Results in Anna University Examination.
	• Worked as ISO Coordinator in the Department from 2012-
	2014
	• Project titled "Automated Billing system using Li-Fi
	(Light Fidelity) Technology" was awarded Best Project in
	Project exhibition 2016 in Sri Sai Ram Engineering
	College.
	• Project titled "Integration of SMS & email using speech
	reorganization in android for the visually challenged
	person" was awarded Best Project in Project exhibition

2017 in Sri Sai Ram Engineering College.

- Serving currently as NBA Coordinator in Sri Sairam Engineering College
- Delivered Criteria Lectures regarding NBA for faculties in National level NBA programs.
- Achieved Best Research paper award in SEEE (Society for Engineering Education Enrichment) Awards 2020

### **PATENTS PUBLISHED:**

• Application No: 201941045056

Title:NECK-CARE - EARLY WARNING SYSTEM TO PREVENT NECK PAIN

• Application No: 201841002060

Title:TRUST AWARE REPLICA DETECTION USING LOCALIZATION AND UNIQUE IDENTITY IN WIRELESS SENSOR NETWORKS

#### AREA OF INTEREST:

Wireless Networks and Network Security

# **EDUCATION:**

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

#### **FACULTY INTERACTION**

- Reviewer in Turkish Journal of Electrical Engineering & Computer Sciences March 2021
- Reviewer in KSII Transactions on Internet and Information Systems Jan 2020
- Reviewer in ISAIC 2021 on International Symposium on Automation Information and Computing Beijing China
- Technical Program Committee Member in 2021 7th International Conference on Computer Technology Applications (ICCTA 2021) Vienna, Austria July 2021 Vienna, Austria March 2021

- Reviewer of Book entitled: "Cloud-based Policy-Based Network Management: A Safe and Efficient PBNM Method of Domain Management", Bentham Science Publishers
- Delivered Webinar in IEEE Series on "Introduction to AWS" on 17-4-2020
- NBA Lecture on Criteria 8 in Workshop "NBA Accreditation Process" in Marga Darshan Scheme on 21-2 2020
- 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

# **PUBLICATIONS**

### **BOOK CHAPTER:**

- 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
- 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)**

- 1. 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. (Web of Science)
- 2. 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. (Scopus Indexed)
- 3. Sharmila, Sai Kavya Sri, Ashmika, Rani T P, Surveillance of driver, Journal of Critical Reviews, vol. 7, no. 14, pp. 904-906, July 2020. (Scopus Indexed)
- 4. 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. (Scopus Indexed)
- 5. 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 objects, International Journal of Advance Research, Ideas and Innovations in Technology, pp. 136-138, Vol 6, Issue 1, Jan 2020. (Web of Science)

- 6. 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 Gujarath Research Society, vol.21, no. 17, pp. 2255-2258, 2019. (UGC Journal)
- 7. Rani. T. P, Shalini. G, Sivapriya P, Jayashri. P, "neck-carean early warning system to prevent neck pain", International Journal of Engineering & Technology, vol.7, no. 2, pp. 591-596, 2018.(Scopus Indexed)
- 8. T.P.Rani, C.Jayakumar, "Unique identity and localization based replica node detection in hierarchical Wireless sensor networks", Computers and Electrical Engineering, Elsevier, https://doi.org/10.1016/j.compeleceng.2017.08.010, Aug 2017.(SCI)
- 9. 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. https://link.springer.com/chapter/10.1007/978-981-10-5427-3\_22(SCI)
- 10. 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.
- 11. 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.
- 12. 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.
- 13. T.P.Rani, C.Jaya Kumar, "Establishment Of Secure Communication In Wireless Sensor Networks" in IJIST International Journal of Information Sciences and techniques 2012
- 14. 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 Indexed)

# **National:**

- T.P.Rani, C.Jaya Kumar, "Survey on security attacks in WSN", SSEC Tech Journal 2012.
- T.P.Rani, "Performance monitoring using p-http in tcp services" in Ssec Tech Journal-2007

### **Conference Publications:**

### **National:**

- 1. 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.
- 2. 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
- 3. 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
- 4. 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.
- 5. Prabhu.D, Rani.T.P, "Secure Group Communication In Wireless Sensor Network Using Lu Matrix", National Conference, S.A Engineering College, 28-01-12.
- 6. 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:**

- 7. 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
- 8. 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.
- 9. 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
- 10. T.P.Rani, C.Jayakumar, G.Divya "Trust aware Wireless Sensor Networks", IEEE International Conference on Computing and communications Technologies ICCCT'15, 26<sup>th</sup> and 27<sup>th</sup> Jan 2015.
- 11. 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.
- 12. 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.

- 13. 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, 10<sup>th</sup> April 2016, pp. 92-96
- 14. Rani, Preethi, Srimathi, Aashifa, "Integration of SMS and Email using Speech Recognition in Android for the Visually Challenged Person" in Proc. Of International Conference on Science and Innovative Engineering, 2017 Chennai, 2<sup>nd</sup> April 2017.
- 15. Swati, Rani, "Clustered Security for Smart Networks", in Proc. Of IEEE International Conference on Computing and Communications Technologies (ICCCT'17), 2017, Chennai, 23<sup>rd</sup> and 24<sup>rh</sup> February 2017. .( **Scopus Indexed**)
- 16. 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, 11<sup>th</sup> and 12<sup>th</sup> November 2016.
- 17. 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, 5<sup>th</sup> to 7<sup>th</sup> Jan 2017
- 18. 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.
- 19. 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. (Scopus Indexed)
- 20. 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
- 21. 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.
- 22. 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, (Scopus Indexed)

# 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 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 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, 23<sup>rd</sup> and 24<sup>th</sup> 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 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 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.
- 30. Attended Virtual Atal FDP in "Artificial Intelligence", at Dr APJ Abdul Kalam Technical University, Lucknow, on 29-8-2020 to 2-9-2020.
- 31. Attended Five days Virtual STTP at SSN College of Engineering on Cyber Security Tools from 30-3-2021 to 3-4-2021