Faculty of Information Technology Engineering

PERSONAL DETAILS

Name :	Dr. A.R.REVATHI
Designation :	Associate Professor
Educational Qualification :	B.E, M.Tech, M.B.A, Ph.D, M.I.S.T.E, M.C.S.I.,
Experience:	20 Years
Area of Specialization :	Image/Video Processing, IOT, Mining, ML
Date of Joining :	*08/06/2012*
Email ID :	revathiar.it@valliammai.co.in, vec_it@valliammai.co.in, hod.ai-ds@valliammai.co.in
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EDUCATIONAL DETAILS

S.No	Degree	Branch/Specialization	Institution / University	Year
1	*B.E.*	*ECE*	Bharathidasan University	2000
2	*M.Tech.*	*CSE*	SASTRA University	2002
3	*M.B.A*	*SYSTEM*	Madurai Kamaraj University	2008
4	*Ph.D.*	*I&C*	Anna University – MIT Campus	2017

PROFESSIONAL SOCIETY MEMBERSHIPS

1. INDIAN SOCIETY OF TECHNICAL EDUCATION : LIFE MEMBER
2. COMPUTER SOCIETY OF INDIA   : LIFE MEMBER
3. IEEE   : MEMBER
4. ACM   : MEMBER
5. IETE   : LIFE MEMBER

PUBLICATION DETAILS

PATENT

1. A patent had filed in the title of "LOCOMOTIVE DETECTION OF IDOLS" in the year of 2018.
2. A patent had filed in the title of "AI BASED CONTROL ADAPTIVE AUTOMATION SYSTEM" in the year of 2020.
3. A patent had filed in the title of "A SYSTEM OF COMPUTER VISION AND MACHINE LEARNING FOR OPTICAL CHARACTER RECOGNITION" in the year 2021.

INTERNATIONAL JOURNALS

4. A. R. Revathi and Dhananjay Kumar, "REDUCING RUN-TIME FOR MOVING OBJECT DETECTION IN BACKGROUND BUFFERING APPROACH", ICTACT JOURNAL ON IMAGE AND VIDEO PROCESSING, MAY 2014, VOLUME: 04, ISSUE: 04 (ISSN: 0976-9102).

5. A. R. Revathi and Dhananjay Kumar, "A PROFICIENT METHOD FOR TRAFFIC MONITORING SYSTEM", International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE), Volume 2, Issue 4, April 2014(online: ISSN 2320-9801).

6. K. Sindhu, A. R. Revathi, Merlin Pauliesther "A SURVEY OF MOVING OBJECT TRACKING IN VIDEO FRAME SEQUENCES ", International Journal of Advanced Computational Engineering and Networking, Volume 2, Issue 8, Aug 2014(online: ISSN 2320-2106).

7. A. R. Revathi, M. Ramya, R. Priyanka, "A NOVEL BASED APPROACH FOR FACE RECOGNITION" , INTERNATIONAL JOURNAL OF innovative Research in computer and Communication Engineering, VOLUME 3, ISSUE 4, APRIL 2015(ONLINE: ISSN 2320-9801, PRINT: ISSN 2320-9798). Impact factor 5.618.

8. A. R. Revathi, R. Giridharan, V. Gokul Kumar, B. Naveen Kumar and M. Harishankar , "AN COMPARATIVE MEASUREMENT EVALUATION OF MULTI OBJECT VIDEO TRACKING", INTERNATIONAL JOURNAL OF ADVANCED COMPUTER TECHNOLOGY, VOLUME 4, ISSUE 2, APRIL 2015 (ONLINE: ISSN 2319-7900). Impact factor 0.264.

9. A. R. Revathi, S. Gokulnath, B. Krishnan, N. Dhamotharan and S. Giridharan "AN INTELLIGENT SENSING FOLLOWER CART", INTERNATIONAL JOURNAL OF innovative Research in computer and Communication Engineering, Vol. 4, Issue 4, April 2016, ISSN(Online): 2320-9801, ISSN (Print) : 2320-9798.

10. A. R. Revathi and Dhananjay Kumar, "AN EFFICIENT SYSTEM FOR ANOMALY DETECTION USING DEEP LEARNING CLASSIFIER" , INTERNATIONAL JOURNAL OF Signal, Image and Video Processing (Springer), Volume 11, Issue 2, pp 291–299, February 2017 (Impact Factor 0.872).- Scopus

11. A. R. Revathi and P. Allwin, "HELPLINE ON EMERGENCIES FOR PUBLIC SECURITY", International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 6, Issue 3, March 2017, ISSN: 2278 – 1323.

12. A. R. Revathi, Dhananjay Kumar, " HYBRIDIZATION OF FEED FORWARD NEURAL NETWORK AND SELF ADAPTIVE PSO WITH DIVERSE OF FEATURES FOR

ANOMALY DETECTION", International Journal of Biomedical Engineering, Inder Science, Volume 26, Issue 2, 2018 - SCI

13. Deepthi, A. R. Revathi, Vasanthi, "A SURVEY ON IMAGE AND VIDEO ANALYTICS" , International Journal of Research and Analytical Reviews, Volume 6, Issue 1, 2019.

14. S. R. Preethi, M. Murugan, A. R. Revathi, " DESIGN, IMPLEMENTATION AND POWER ANALYSIS OF PERVASIVE ADAPTTIVE RESOURCEFUL SMART LIGHTING AND ALTERING DEVICES IN DEVELOPING COUNTRIES SUPPORTING INCANDESCENT AND LED LIGHT BULBS", International Journal of Sensors, Volume 19, April 2019.

15. Dr. A. R. Revathi, R. Bhuvaneswaran, K. Mohamed Arshath, U. Hari Prakash, M. Loga Aravinth, "OVERVIEW OF DATABASE EVOLUTION AND ELEVATION", IJARIIE, Volume no 6, Issue no 2, Pg.No 422-428, March 2020,, ISSN(O)-2395-4396

16. Dr. A. R. Revathi1, S. Shunmuga Raman2, S. Vengadesh2, K. Vignesh2, G. Vignesh Kanna, "A SURVEY ON SENSOR CLASSIFICATION AND THEIR APPLICATIONS", IJARIIE, Volume no 6, Issue no 2, Pg.No 467-474, March 2020, ISSN(O)-2395-4396

17. J.Tracy Tina Angelina, Bathula Murali Krishna, A.R.Revathi, S.R.Preethi, "A Review on the detection of Skull by Forensic analysis", India journal of Forensic Medicine & Toxicology, Vol.15/ Year : 2021, ISSN : 0973-9122 –Scopus

18. J. V. Anchitaalagammai, Rajesh Verma , M. Kavitha , A. R. Revathi , S. R. Preethi and Kiranmai Bellam," Fuzzy Based Reliable Load Balanced Routing Approach for Ad hoc Sensor Networks", International journal of Computer Systems Science & Engineering, Vol.41/ Year: 2022, ISSN: 0267-6192- SCI

NATIONAL JOURNAL

1. Dr.A. R. Revathi, G.Amurth and A.Maragatham, "MULTISENSOR AMBULATORY CARE MANAGEMENT USING INFOBAHN ", CSI Journal of Computing, Volume 3, Issue 3, Oct 2017.

ARTICLES

1. A Cover story titled "Grid Computing" was published in CSI Communication, Volume no: 39, Issue no: 8, November 2015, ISSN 0970-647X.

2. A Cover story titled "Sensors for Internet of Everything" was published in CSI Communication, Volume no: 42, Issue no: 1, April 2018, ISSN 0970-647X.

3. A Cover story titled "Digital Revolution in Speech and Language Processing for Efficient Communication and Sustaining Knowledge Diversity" was published in CSI Communication, Volume no: 42, Issue no: 5 & 6, August - September 2018, ISSN 0970-647X.

4. A Cover story titled "Emotional Intelligence" was published in CSI Communication, Volume no: 43, Issue no: 3, June 2019, ISSN 0970-647X.

5. A Cover story titled "Digital Learning" was published in CSI Communication, Volume no: 43, Issue no: 4, July 2019, ISSN 0970-647X.

6. A Cover story titled "Block Chain-Overview" was published in CSI Communication, Volume no: 43, Issue no: 5, August 2019, ISSN 0970-647X.

7. A Cover story titled "Cloud Computing" was published in CSI Communication, Volume no: 43, Issue no: 6, September 2019, ISSN 0970-647X.

8. A Cover story titled "A Cyber Security a Complete view " was published in CSI Communication, Volume no :43, Issue no :8, November 2019, ISSN 0970-647X

9. A Cover story titled " Bioinformatics" was published in CSI Communication, Volume no :43, Issue no :9, December 2019, ISSN 0970-647X

10. A Cover story titled " Computer Assisted Education" was published in CSI Communication, Volume no :43, Issue no :10, January 2020, ISSN 0970-647X

11. A Cover story titled " Big Data: A Technical Approach" " was published in CSI Communication, Volume no: 43, Issue no: 12, March 2020, ISSN 0970-647X.

12. A cover story titled "Quantum Computing: The Universal Computer" was published in CSI Communications, Volume no: 44, Issue no: 03, June 2020. ISSN 0970-647X.

13. An article under Technical Trends titled "Virtual Reality in the World" was published in CSI Communications, Volume no: 44, Issue no: 04, July 2020. ISSN 0970-647X.

14. A cover story titled "Open Source Software: Freedom to use" was published in CSI Communications, Volume no: 44, Issue no: 05, August 2020. ISSN 0970-647X.

15. A cover story titled "Hurried Look of Digital Twin" was published in CSI Communications, Volume no: 44, Issue no: 06, September 2020. ISSN 0970-647X.

16. A cover story titled "A complete conspectus of Robotics and Automation" in CSI Communications, Volume no: 44, Issue no: 07, October 2020. ISSN 0970-647X.

17. An article titled "Deep Learning: A Neural Network of Human Being" was published in CSI Communications, Volume no: 44, Issue no: 08, November 2020. ISSN 0970-647X.

18. A cover story titled "The Future of Universal: Industry 4.0" was published in CSI Communications, Volume no: 44, Issue no: 09, December 2020. ISSN 0970-647X.

INTERNATIONAL CONFERENCES

1. A. R. Revathi and Dhananjay Kumar, "A REVIEW OF HUMAN ACTIVITY RECOGNITION AND BEHAVIOR UNDERSTANDING IN VIDEO SURVEILLANCE", International conference of Advanced Computer Science & Information Technology (ACSIT-2012).

2. A. R. Revathi and Dhananjay Kumar "A SURVEY OF ACTIVITY RECOGNITION AND

UNDERSTANDING THE BEHAVIOUR IN VIDEO SURVEILLANCE", Cornell University Digital Library and available online at http://arxiv.org/abs/1207.6774.

3. K. Sindhu, A. R. Revathi, Merlin Pauliesther, "A SURVEY OF MOVING OBJECT TRACKING IN VIDEO FRAME SEQUENCES" , International Academic Conference on Electrical, Electrical Engineering (IACEECE) held at Chennai on 9th February 2014. (ACEECNI 251-239).

4. A. R. Revathi, "AN EFFICIENT APPROACH OF VEHICLE DETECTION FOR TRAFFIC MONITORING SYSTEM", National Conference on Recent Trends in Computational Intelligence (NCRTCI 2014) , 22nd March, Department of CA and IT, Valliammai Engineering College, Chennai. (ISBN No: 978-81-926837-6-8).

5. A. R. Revathi, Dhananjay Kumar "A REVIEW OF HUMAN ACTIVITY RECOGNITION (HAR) IN FRAME SEQUENCE" , International Conference on Advance Computer Science and Information Technology (ICACSIT) ,Chennai , 4th May 2014. (CACSITCHEN 2704-214).

6. A. R. Revathi, "AN INTELLIGENT ROBOTIC HOME SECURITY SYSTEM" , ICIOTAS-2016 , AITS-Tirupati on 18th March 2016.

7. S.R.Preethi, Dr.M.Murugan, Dr. A.R.Revathi, " REVIEW OF INTELLECTUAL VIDEO SURVEILLANCE THROUGH INTERNET OF THINGS", International conference Artificial Intelligence, Smart Grid and Smart city Applications (AISGSC 2019) , Jan 2019.

8. Ms.K.Arthi, Dr.B. Chidhambara Rajan, Dr.A.R.Revathi, "A Study on IoT and CoT based wearable Healthcare", ICACCT 2021, May 2021.

NATIONAL CONFERENCES

1. Presented a Paper titled "**EFFECTIVE PRIVACY PROTECTION IN RFID SEARCH PROTOCOL**" at a National Conference on "Recent Trends in information Technology & communication" held at Velammal Engineering College, Chennai.

2. Presented a Paper at a Technical Conference on "**CURRENT ACADEMIC RESEARCH IN COMMUNICATION AND NETWORKS** (CARCN-2010)" held at Sathyabama University, Chennai.

3. Presented a Paper titled **"SERVERLESS AND INSTANTANEOUS RESTRICTED RESPONDING SECURE RFID AUTHENTICATION" AT A NATIONAL CONFERENCE ON "ADVANCED COMPUTING TECHNOLOGY**" held at Velammal Institute of technology, Chennai.

4. A paper **" A PROFICIENT OBJECT SEGMENTATION AND TRACKING METHOD IN VIDEO SEQUENCE"** presented in National Conference on Recent Trends in Computational Intelligence (NCRTCI 2014) held on 22nd March was organised by Department of CA and IT, at Valliammai Engineering College, Chennai. (ISBN No: 978-

81-926837-6-8)

BOOK CHAPTER PUBLICATIONS

1. **"EXPLORATION OF COUGH RECOGNITION TECHNOLOGIES GROUNDED ON SENSORS AND ARTIFICIAL INTELLIGENCE"**, In Internet of Medical Things for Smart Healthcare (pp. 193-214). Springer, Singapore (2020).

2. Published a book chapter titled '**REVIEW OF INTELLECTUAL VIDEO SURVEILLANCE THROUGH INTERNET OF THINGS'** in the 'Cognitive Approach in Cloud Computing and Internet of Things Technologies for Surveillance Tracking System', March 2020, (pp. 141-155). Chapter 10, Science Direct, Academic Press, ISBN : 978-0-12-816385-6; https://doi.org/10.1016/C2018-0-00368-0

3. Published book chapter titled "**CONVERGENCE OF AI, ML AND DL FOR ENABLING SMART INTELLIGENCE: ARTIFICIAL INTELLIGENCE, MACHINE LEARNING, DEEP LEARNING, INTERNET OF THINGS**" (Chapter No. 11) in "**Challenges and opportunities for the convergence of IoT, Big Data and Cloud**", November 2020 in IGI Global Publishers.

4. Published book chapter titled "**PERSPECTIVES OF MACHINE LEARNING AND DEEP LEARNING IN INTERNET OF THINGS AND CLOUD: ARTIFICIAL INTELLIGENCE BASED INTERNET OF THINGS**" (Chapter No. 15) in "**Challenges and opportunities for the convergence of IoT, Big Data and Cloud**", November 2020 in IGI Global Publishers.

BOOKS PUBLICATIONS

1. Published a Book of "**INFORMATION TECHNOLOGY ESSENTIALS**" in 2018 [Sri Krishna Hitech Publisher; ISBN: 978-93-86590-44-2].

2. Published a Book of "**DIGITAL PRINCIPLE AND SYSTEM DESIGN**" in 2019 [Sri Krishna Hitech Publisher; ISBN: 978-93-86590-89-3].

RESEARCH AND DEVELOPMENT DETAILS	
1. No. of Research Projects Completed	: 02
2. No of National Conferences/ Programme coordinated	: 07
3. No. of Training Conducted	: 01

OTHER DETAILS

GUEST LECTURE

1. Guest Lecture(s) has delivered during the FACULTY DEVELOPMENT PROGRAM ON "DIGITAL IMAGE PROCESSING" conducted by MIT, Anna University during 04th December – 10th December, 2012.

2. Guest Lecture (s) has delivered during the FACULTY DEVELOPMENT PROGRAM ON "INFORMATION THEORY AND CODING" conducted by MIT, Anna University during 12th June – 18th June, 2013.

3. Guest Lecture (s) has delivered during the FACULTY DEVELOPMENT PROGRAM ON "Digital Image Processing" conducted by MIT, Anna University during 9th December – 14th December, 2013.

4. Guest Lecture has delivered on "IMAGE PROCESSING AND VIDEO ANALYTICS" in Karpaga Vinayaga College of Engineering Technology during 09-02-2015.

5. Guest Lecture(s) has delivered during two days Workshop on "DIGITAL IMAGE PROCESSING" conducted by MIT, Anna University during 20/6/15 & 21/6/15.

6. Guest Lecture has delivered during two days Workshop on "Artificial Neural Networks and Fuzzy Logic using Matlab" conducted by MIT, Anna University during 29/1/16 & 31/1/16.

7. Guest lecture has delivered during one day workshop on "Video Analytic" in SAMITHA at Anna University -MIT campus held on 12-03-16.

8. Guest Lecture has delivered during two days Seminar on "Internet of things the road of infinite opportunities" conducted by Department of ECE, Karpaga Vinayaga College of Engineering Technology during 08-04-16.

9. Guest Lecture has delivered during FDP on "Graphics and Multimedia" conducted by Department of IT, Valliammai Engineering College on 04-06-2015

10. Guest Lecture has delivered during two days FDP on "Web programming and its applications" conducted by Department of IT, Valliammai Engineering College during 22.06.2016 & 23.06.2016.

11. Guest Lecture has delivered during Two days National level workshop FDP on "Optimization methods and Artificial intelligence in Mechanical Engineering", conducted by Dept of Mechanical Engineering, Adhiparasakthi Engineering College, during 22-03-18 & 23-03-18.

12. Guest Speaker has delivered during AICTE sponsored six days online STTP on Medical Image Analysis, Conducted by department of Electronics and Communication engineering, V.S.B Engineering college during Phase 1 : 14/9/2020 to19/9/2020 ; phase 2: 5/10/2020 to 10/10/2020; Phase 3: 2/11/2020 to 7/11/2020

13. Guest Speaker has delivered during FDP on CS8082- Machine Learning Techniques Conducted by Sri Sai Ram Engineering College during 7th June 2021 to 11th June 2021.

ONLINE CERTIFICATION

Successfully completed and an awarded 'ELITE' the course of **"INTRODUCTION TO RESEARCH", "INTRODUCTION TO PSYCHOLOGY" & " GREAT EXPERIMENT IN**

PSYCHOLOGY", " INTRODUCTION TO IOT", "REAL TIME OPERATING SYSTEM" & " EFFECTIVE ENGINEERING TEACHING IN PRACTICE", "STRESS MANAGEMENT", "PYTHON FOR DATA SCIENCE" in NPTEL-online Certification which is conducted by IIT, Madras.

I. ADDITIONAL QUALIFICATION

Completed **DIPLOMA** in Student Psychology from **COIMBATORE PSYCHOLOGY FOUNDATION** in September 2013.

II. No of Workshop/Webinar/seminar Organized : 55

III. No .of STTP Organized : 04

IV. No of Certification : 08

V. No of FDP Participated : 24

VI. No of Workshop Participated : 45

VII. No of Seminar/Training Participated : 51

VIII. FUNDED PROJECT

1. Guided a project "**Palliative Care Surveillance Using IoT**", which has won a First prize in the contest conducted by the Tamil Nadu State Council for Science and Technology in 2017.
2. A project "**An intellectual based real time assistance smart class room monitoring system**", has selected by the Tamil Nadu State Council for Science and Technology in 2022.

X. AWARDS

1. Awarded **"Faculty with maximum publication"** in CSI communication during 2017-2019" from Computer Society of India
2. Shri P K Das Memorial **Best Faculty Award 2019** with cash prize Rs.10000/- from Nehru Group of Institutions
3. Awarded "**Best Faculty Award**" for the academic year 2009 – 2010 at Valliammai Engineering College.

XI. RECOGNITIONS

1. Recognitions as "**Research Supervisor**" under Anna university for guiding Ph.D/MS (Research) students from 2018.
2. "**Academic Council member**" under SRM Valliammai Engineering College for An Autonomous Institution from 2019.
3. "**Board of Study member**" under Department of Information Technology, SRM Valliammai Engineering College for Syllabus framing in Autonomous Institution from

2019.

4. As **session chair** in an international conference on smart automation in computer, electrical, Electronics and communication Engineering held on 10/4/2021 at SRM Valliammai Engineering College

5. **Reviewer member** for "IGI Global Journal "from November 2019.

6. Recognitions as "**Academic Council member**" under SRM Valliammai Engineering College for An Autonomous Institution from 2019.

7. Recognitions as "**Board of Study member**" under Department of Information Techology, SRM Valliammai Engineering College for Syllabus framing in Autonomous Institution from 2019.

8. **Editorial board member** for "Journal of advanced engineering research" from January 2018 (web-link : https://www.jaeronline.com/editorial_board/)

9. **Program chair** of "International Conference on Internet of Things and Applications for Smart City (ICIOTAS-16)" [http://iferp.in/aits/Committee.php]