

**BIO-DATA**  
**PRINCIPAL INVESTIGATOR (PI)**

**Dr.K.MADHESWARI B.E(CSE),M.E(S.E),PhD**  
**Associate Professor,**  
**Department of computer Science and Engineering,**  
**SSN College of Engineering,**  
**Chennai, India.**  
**E-mail:** madhesmansa@gmail.com  
**Mobile:** +91 8056567319.



**PROFESSIONAL SUMMARY**

**Dr. K.Madheswari, Associate Professor** in the Department of Computer Science and Engineering has 7 years of teaching experience. She received her PhD in the area of Computer Science ( Image Fusion) from Anna University, Chennai. She received her Bachelor's degree in Computer Science and Engineering (First Class with Distinction) from Hindusthan College of Engineering and Technology, Coimbatore. M.E. Software Engineering (First class with Distinction) from Anna University. She has done SCJA (Sun certified Java Associate) certification in Java.

Her area of interest is on image processing, Optimization techniques, Software Engineering, Software Testing and Wireless Networks. She is a member of professional bodies such as ACM, IEEE, Indian Society for Technical Education (ISTE).

She has reviewed research articles for IEEE Geo science and Remote Sensing Letters journal with impact factor 2.228. She also reviewed research articles for Springer Journal "Pattern Analysis and Applications" with Impact Factor 1.104 and "Wireless Personal communication" journal with Impact Factor 0.701 and Multimedia Tools and Applications.

**External Funded Project**

**Title of the Project:**

Development of fusion algorithms for remotely sensed satellite images in cartographic applications

**Sponsoring Agency: ISRO**

**Duration & Sanctioned Year:** 2 years & 02.07.2019

**Sanctioned Amount (in Lakhs):** 14.29

**Journals:**

1. Madheswari Kanmani, Venkateswaran Narasimhan, "**An optimal weighted averaging fusion strategy for remotely sensed images**", Multidimensional Systems and Signal Processing, 30, 4, 1911-1935, **Springer US (Thomson reuters)**
2. Madheswari Kanmani, Venkateswaran Narasimhan, "**Optimal fusion aided face recognition from visible and thermal face images**", Multimedia Tools and Applications, 79, 25, 17859-17883, Springer US (Thomson reuters)
3. Madheswari and N.Venkateswaran, "**An image contrast enhancement algorithm for grayscale images using particle swarm optimization**", **Multimedia Tools and Applications**, (springer, IF=1.53, Thomson reuters), Jan 2018.
4. Madheswari and N.Venkateswaran, "**Swarm Intelligent based Contrast Enhancement Algorithm with Improved Visual Perception for Color Images**", **Multimedia Tools and Applications**, (springer, IF=1.331, Thomson reuters), June 2017.
5. Madheswari and N.Venkateswaran, "**An optimal weighted averaging fusion strategy for thermal and visible images using dual tree discrete wavelet transform and self tuning particle swarm optimization**", Multimedia Tools and Applications, (springer, IF=1.331, Thomson reuters). PP: 1-22. October-2016.
6. K Madheswari and N Venkateswaran ,"**Swarm intelligence based optimisation in thermal image fusion using dual tree discrete wavelet transform**" in Quantitative Infrared Thermography Journal ( Thomson Reuters, IF:1.200), Taylor and Francis, First Online, pp: 1-20, september 16, 2016.
7. Madheswari . K , N.Venkateswaran, N. Ganeshkumar, "**Entropy optimized contrast enhancement for gray scale images**", International journal of Applied Engineering Research (**Scopus Indexed**) ,Volume 10, Number 55, ISSN 0973-4562, pp. 1590-1595

8. K Madheswari and N Venkateswaran **“Particle Swarm Optimization aided WeightedAveraging Fusion Strategy for CT and MRI Medical Images“**, International journal of biomedical engineering and technology (**Scopus indexed**)
9. Sharmadha Senthil Nathan, ShivaniKanmani, Shruthi Kumar, Ms.Madheswari Kanmani, AP/CSE, published a paper titled , **“Survey on Digital Age-Smarter Cradle System for Enhanced Parenting”** in International Journal of Applied Engineering Research ISSN 0973-4562 Volume 13, Number 10 (2018) pp. 8187-8193(**Scopus indexed**)
10. Sharmadha Senthil Nathan, shivaniKanmani, Shruthi kumar, Ms. Madheswari Kanmani, AP/CSE published a paper titled, **“Optimized Multi Scale Image Fusion Technique Using Discrete Wavelet Transform and Particle Swarm Optimization for Colour Multi Focus Images”** in International Journal of Applied Engineering Research ISSN 0973-4562 Volume 13, Number 10 (2018) pp. 8179-8186(**Scopus indexed**)
11. Sakthi umamaheswari, Parimala Suresh Congovi, **Ms.Madheswari Kanmani**, AP/CSE, published a paper titled **“Medicine Information Mobile Application Using Tablet Image Anaysis Using Android Studio”** in International Journal of Applied Engineering Research ISSN 0973-4562 Volume 13, Number 10 (2018) pp. 8407-8412(**Scopus indexed**)
12. X. Blessy Theresa and K.Madheswari, AP/CSE published a paper titled **“Thermal and Visible Video Fusion Using Curvelet Transform”** in International Journal of Applied Engineering Research ISSN 0973-4562 Volume 13, Number 11 (2018) pp. 8831-8836(**Scopus indexed**)
13. Parameswaran T., Palanisamy C. and Madheswari K.,**“Topology Management based energy Balancing Model for IPS in MANET using MEC Clustering Algorithm”**, International Journal of Computer Applications, Vo.,48(15), June 2012. ISSN: 0975-887

### **Conferences**

14. Parameswaran T., Palanisamy C. and Madheswari K.,**“Energy Balancing Model for Intrusion Detection Systems in MANET using Secure Leader Election Model “**, ICCSP 2011, SSM college of Engineering,

15. Madheswari K, Parameswaran T “Energy Balancing Model for Intrusion Detection Systems in MANET“, ncvit2012, KSR Engineering College.
16. Madheswari K., Venkateswaran N. and Ganeshkumar N., “Entropy Optimized Contrast Enhancement for Gray Scale Images”, Proceedings of international conference on advances in applied engineering and technology-2015, May-14-16,2015.
17. Madheswari K and Venkateswaran N, “Swarm Intelligence based Optimization in Thermal Image Fusion using Dual Tree Discrete Wavelet Transform”, The First QIRT-ASIA conference on Quantitative InfraRed Thermography, July 6-10, MamallaPuram.
18. K Madheswari and N Venkateswaran , “Fusion of Visible and Thermal images using Curvelet Transform and Brain Storm Optimization“, IEEE TENCON 2016, Singapore 2016.
19. Mervin, K.Madheswari, ” SLM : Secure Leader Model For Intrusion Detection In Mobile Ad-Hoc Network“, International Conference on innovative trends in computing and technology, March 7 and 8, 2013 at Rajaas Engineering college, Vadakkankulam.
20. Vinoth Kumar, K. Madheswari, ” DLA: Dynamic Learning Algorithm For Anomaly Detection In Mobile Ad Hoc Networks (MANET)” International Conference on innovative trends in computing and technology, March 7 and 8, 2013 at Rajaas Engineering college, Vadakkankulam.
21. VenmalDevi and K. Madheswari, “Colorization of gray scale image using Locally Weighted regression,” International Conference on Mathematical Computer Engineering (ICMCE-2015), VIT chennai.
22. Bhavna Bharath and Madheswari Kanmani, “Swarm Intelligence Based Fusion for Thermal and Visible Images”, International Conference on Computation of Power, Energy, Information and Communication (ICCPEIC), IEEE explore, March 22 and 23rd. Adhiparasakthi Engineering College, Melmaruvathur.
23. Avanthikaa Ravichandran, Ashwini Raja and Madheswari Kanmani, ” Entropy Optimized Image Fusion Using Particle Swarm Technology and Discrete Wavelet Transform“, International Conference on Computation of Power,

Energy, Information and Communication (ICCPEIC), IEEE explore, March 22 and 23rd. Adhiparasakthi Engineering College, Melmaruvathur

#### REVIEWER

She is a reviewer of Thomson Reuters (SCI & Web of Science) indexed Journals

- IEEE Geo science and Remote Sensing Letters journal with impact factor 2.228.
- Springer Journal "Pattern Analysis and Applications" with Impact Factor 1.104
- "Wireless Personal communication" journal (Springer) with Impact Factor 0.701
- Multimedia Tools and Applications (Springer)
- Measurement and Control (SAGE publications)
- IEEE Transactions on Industrial Informatics

#### RESEARCH CITATIONS

Google Citation indices

Citations	60	60 [since 2016]
h-index	5	5
i10-index	4	4

Her list of publications and citations can be accessed

at <https://scholar.google.co.in/citations?user=gsDqsxkAAAAJ&hl=en>

#### PROFESSIONAL EXPERIENCE

<b>1. July 2012 to Right now</b>	: Working as Associate professor in <b>SSN College of Engineering</b> , Chennai. India
<b>2. June 2009 to Sep 2010</b>	: Worked as Lecturer in Sasurie College of Engineering, Vijamangalam, Tirupur.
<b>Achievements</b>	: Secured <b>100 percent</b> Results in Mobile Computing Secured <b>98 percent</b> Results in C# and .NET Framework
<b>Papers Handled</b>	: Mobile Computing, C# and .NET Framework, Data Structures, Internet and Java

**3. June 2008 to May2009** : Work as Software Engineer in Crafts automation  
Coimbatore.

**Area** : Java, Software Testing, Mobile Ad-hoc networks

#### EDUCATIONAL SUMMARY

##### **PhD / Information and Communication Engineering**

University/ Board : Anna University, Chennai.  
Title of Thesis : Investigation and Analysis of Optimization Algorithms for  
Multi-Sensor Image Fusion  
Year of Passing : July-2018

##### **M.E / Software Engineering**

Institution : Anna University of Technology, Coimbatore.  
University/ Board : Anna University, Coimbatore.  
C.G.P.A : 9.53 (First class with Distinction)  
Year of Passing : July-2012

##### **B.E / Computer Science and Engineering**

Institution : Hindusthan College of Engineering and Tech.Coimbatore.  
University/Board : Anna University, Chennai.  
Percentage/Year of Passing : 76(First class with Distinction) / May – 2009.

##### **Higher Secondary Examination**

Institution : Govt Hr.Sec School, Tirupur  
University/Board : State Board.  
Percentage/Year of Passing : 91.5 / April – 2005.

##### **SSLC Examination**

Institution : Govt Hr.Sec School, Tirupur  
University/Board : State Board.  
Percentage/Year of Passing : 89.6 / April – 2003.

#### INSTITUTION LEVEL EVENT ORGANIZED

- Involved as Assistant Nodal Officer for organizing the national level event SMART INDIA HACKATHON-2017 & Nodal Officer for organizing the national level event SMART INDIA HACKATHON-2018.

#### WORKSHOP ORGANIZED

- Two day Workshop on Machine Learning in Intelligent Image Processing organized by Department of Computer Science and Engineering, SSN College of Engineering, Kalavakkam on September 30 and October 1, 2016.
- Two day Workshop on Model checking organized by Department of Computer Science and Engineering, SSN College of Engineering, Kalavakkam on September 18-19, 2015.

#### WORKSHOP ATTENDED

1. **Three day Workshop** on Engineering Optimization: Theory and practice of by Indian Institute of Technology, Madras on December 22-24, 2013.
2. **Two day Workshop** on Fundamental Analysis & Processing of Image and Video with Computing Techniques: by department of information technology at SSN College of Engineering on September 20-21, 2013.
3. **Two day Workshop** on Software architecture for manager by SSN College of Engineering on December 7-8, 2012.

#### FDTP ATTENDED

1. In Anna University sponsored **seven days** Faculty Development Training Program on EC6802-Wireless Networks organized by Vellalar College of Engineering and Technology, Erode from 5 th & 9th to 14 th December 2016.
2. **One day** Faculty Development Training Program on software testing by CTS Chennai on August 17, 2012.
3. **Two days** Faculty Development Training Program on Essentials of .NET by ICT Academy on April 5-6, 2010.
4. **Five days** Faculty Development Training Program on IT2402- Mobile communications by Sasurie College of Engineering on November 9-13, 2009.

#### GUEST LECTURE INVITED

1. Ms. K. Madheswari delivered a talk on Color Models in Anna University Sponsored Seven days Faculty Development Program on IT 6005: Digital Image Processing, organized by ECE Dept,SSNCE.
2. Ms. K. Madheswari delivered a talk on Image Enhancement Techniques using MATLAB in Anna University Sponsored Seven days Faculty Development Program on IT 6005: Digital Image Processing, organized by ECE Dept,SSNCE.

#### STUDENTS INTERNAL FUNDED PROJECTS

S.no	Student Name	Title	Sanctioned amount
1	Sakthi Uma Maheswari(III year) Soundarya Venkatesh(III Year) Sowmiya Subramaniyan(III Year) Swathi Nagarajan (III Year)	Smart traffic signal	Rs, 15000

2	S. Sharmadha (III Year) K. Shivani (III Year) K. Shruthi (III Year)	Digital age -Smarter cradle system for enhanced parenting	Rs, 15000
3	A.Dhanalakshmi (II Year) V. Desika (IIYear) Deeviti Navya Sree(II Year) Amirthalakshmi (II Year)	Smart fire detection system using Electronic nose	Rs, 12000

#### DECLARATION

I do hereby declare that the particulars of information and facts stated herein above are true, correct and complete to the best of my knowledge and belief.

Place: Kalavakkam

Date:

Signature

Dr.K.MADHESWARI