

## Research Profile

**Name** : Dr.K.Ruba Soundar  
**Designation** : Professor  
**Department** : Computer Science and Engineering  
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### Education:

Qualification	University	Year	Specialization
A.M.I.E.,	The Institution of Engineers (India)	2000	CSE
M.E.,	Anna University, Chennai	2004	CSE
Ph.D.,	Anna University, Chennai	2010	CSE

### Publications:

#### Journals (along with impact factor if any):

1. K. Muneeswaran, L. Ganesan, S. Arumugam, **K. Ruba Soundar**, "Texture classification with combined rotation and scale invariant wavelet features. Pattern Recognition, Elsevier, Vol.38, No.10, pp.1495-1506, 2005. (Impact Factor 2.632)
2. **K. Ruba Soundar** and J.Malini, "Facial Image Extraction Through Color Mapping Techniques", The International Journal of Technology, Knowledge, Society, Vol.2, No.1, pp.163-174, 2005.
3. **K. Ruba Soundar**, J.Gul Sahira Banu and P.Regan, "A Dual Factor Biometric Authentication System Using GPCA and IFB", The International Journal of Technology, Knowledge, Society, Vol.2, No.4, pp.83-90, 2005.
4. **K. Ruba Soundar** and N.Kavitha, "Extraction of Foreground Entities Through Adaptive Background Framework", The International Journal of Technology, Knowledge, Society, Vol.2, No.4, pp.27-34, 2005.
5. K. Muneeswaran, L. Ganesan, S. Arumugam, **K. Ruba Soundar**, "Texture image segmentation using combined features from spatial and spectral distribution", Pattern Recognition Letters, Elsevier Vol.27, No.7, pp.755-764, 2006. (Impact Factor 1.266)

6. **K. Ruba Soundar** and K. Murugesan, "Preserving Global and Local Features for Robust Face Recognition under Various Noisy Environments", International Journal of Image Processing (IJIP), Vol.3, No.6, pp.328-340, December, 2009.
7. **K. Ruba Soundar** and K. Murugesan, "Preserving Global and Local Features - A Combined Approach for Recognizing Face Images", International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), Vol. 24, No.1, pp.39-53, February, 2010. (Impact Factor 0.624)
8. **K. Ruba Soundar** and K. Murugesan, "Identification of Untrained Facial Image in Combined Global and Local Preserving Feature Space", International Journal of Biometrics and Bioinformatics (IJBB), Vol.4, No.1, pp.53-64, March, 2010.
9. **K. Ruba Soundar** and K. Murugesan, "Preserving Global and Local Information - A Combined Approach for Recognizing Face Images", IET journal of Computer Vision (IET-CV), Vol.4, No.3, pp.173-182, September, 2010. (Impact Factor 0.636)
10. **K. Ruba Soundar** and K. Murugesan, "Correlation based Face Matching in Combined Global and Local Preserving Feature Space", International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), Vol.4, No.8, pp.1281-1294, December, 2010. (Impact Factor 0.624)
11. **K. Ruba Soundar** and K. Murugesan, "An Adaptive Face Recognition in Combined Global and Local Preserving Feature Space", International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), Vol.5, No.1, pp.99-115, January 2011. (Impact Factor 0.624)
12. **K.Ruba Soundar** and K.Lekshmi, "Speech Synthesizer for Tamil using Neural Networks", International Journal Of Computing, Vol.1, No.4, pp.801-806, 2011.
13. R.Vedha Priya Vadhana and **K.Ruba Soundar**, "Effective Motion Tracking of Moving Persons / Objects using MCMC Sampling Method", International Journal of Research in Engineering & Advanced Technology, Vol.1, No.5, Oct-Nov, 2013.
14. L.R. Priya and **K.Ruba Soundar**, "Sum-rate Maximization of Two Way Relay Networks using Cooperative Protocols", International Journal of Research in Engineering & Advanced Technology, Vol.1, No.5, Oct-Nov, 2013.
15. C.K. Ramar and **K.Ruba Soundar**, "A Survey on Data Aggregation Techniques in Wireless Sensor Networks", International Journal of Research in Engineering & Advanced Technology, Vol.1, No.5, Oct-Nov, 2013.
16. S.Muthukumar and **K.Ruba Soundar**, "Efficiently Measuring Denial of Service Attacks Using Appropriate Metrics" International Journal of Emerging Technology & Research, Vol.1, No.1, Nov-Dec 2013.

## Conferences:

### International :

1. **K. Ruba Soundar** and K.Muneeswaran, "Frequency Domain Representation of Orthogonal Wavelet Packets for Face Recognition", International Conference on Resource Utilization & Information Security, Jan.2006.
2. **K. Ruba Soundar** and K. Murugesan, "Face Recognition using Combined Global and Local Preserving Features", IEEE International Conference on Emerging Trends in Computing (ICETiC-2009), January 2009.
3. **K.Ruba Soundar** and T. Anitha Devi, "An Efficient Model for Network Intrusion Detection System based on Computational Intelligence", First International Conference on Computational Intelligence & its Applications. (ICCIA2012), March 2012.
4. **K.Ruba Soundar** and M.Dhivya, "Building Grid Based Application for the Management of Medical Image Data Using Alchemi". IJCA Proceedings on International Conference in Recent trends in Computational Methods, Communication and Controls (ICON3C 2012), Published by Foundation of Computer Science, New York, USA, April 2012.
5. **K.Ruba Soundar, et.al.**, "HBR - An Advancement in 3D Password Human Body Recognition", International Conference on Computing and Control Engineering (IC<sup>3</sup>2012), April 2012.
6. **K.Ruba Soundar** and T. Anitha Devi, "An Efficient Model for Network Intrusion Detection System based on an Evolutionary Computational Intelligence Approach". IJCA Proceedings on International Conference in Recent trends in Computational Methods, Communication and Controls (ICON3C 2012) Published by Foundation of Computer Science, New York, USA, April 2012.
7. **K.Ruba Soundar** and P.Jenita, "Secure Authentication using Fingerprint and Finger Vein Biometrics", International Conference on Innovative Trends in Computing and Technology held at Rajaas College of Engineering on March 7 & 8<sup>th</sup> 2013.
8. **K.Ruba Soundar** and V.Vaishnavi, "Steganalysis of Medical Images by SVM", International Conference on Innovative Trends in Computing and Technology held at Rajaas College of Engineering on March 7 & 8<sup>th</sup> 2013.
9. **K.Ruba Soundar** and P.Jenita, "Identification of Genuine Users using Finger Image Biometric Authentication", International Conference on Recent Advancements in Engineering and Technology held at SSM College of Engineering on April 9<sup>th</sup> 2013.

10. S.Muthukumar and **K.Ruba Soundar**, “Measuring Denial of service Attacks using Effective Metrics in Wireless Networks” International Conference on Electrical, Electronics & Robotics (ICEER) held at Institute of Research and Journals, Chennai on October 29<sup>th</sup> 2013.
11. S.Muthukumar and **K.Ruba Soundar**, “Avoid Packet Replication attack based on Intrusion Detection and Defense Mechanism over MANET using SWARM Intelligence” International Conference on Electrical, Electronics & Robotics (ICEER) held at Institute of Research and Journals, Chennai on October 29<sup>th</sup> 2013.

**National :**

Sl. No	Paper Title	Name of Journal / Conference	Level	Year / Vol
1.	Integrity Arrangement of Medical Images using SVM Classifier	National Conference held at PSN College of Engineering and Tech.	National Conference	April 8, 2013
2.	Multimodal Biometric Authentication Techniques on Finger Images	National Conference held at PSN College of Engineering and Tech.	National Conference	April 8, 2013
3.	RPVCIC: Reduce Phishing by Visual Cryptography using Image Captcha Method	National Conference held at Muthayammal College of Engineering	National Conference	April 5 & 6, 2013
4.	Preventing Selective Jamming attacks using Packet Hiding Scheme based on cryptography puzzle in wireless networks	National Conference held at University College of Engineering Villupuram	National Conference	April 5, 2013
5.	Integrity Identification of Medical Images using SVM Classifier	National Conference held at Mohamed Sathak Engineering College	National Conference	April 3, 2013
6.	Secure Authentication of Finger Images using Biometric Techniques	National Conference held at Mohamed Sathak Engineering College	National Conference	April 3, 2013
7.	Detection of Modified Medical Images by SVM Classifier	National Conference held at PSRR Engineering College	National Conference	March 15, 2013
8.	Finger Image Authentication using Multimodal Technique	National Conference held at PSRR Engineering College	National Conference	March 15, 2013
9.	Preventing Selective Jamming attacks using Packet Hiding Methods	National Conference held at Palakkad Institute of Science and Technology	National Conference	March 12, 2013
10.	An Efficient Model for Network Intrusion Detection System based on Computational Intelligence	National Conference held at Government College of Technology, Coimbatore	National Conference	March 12, 2012

<b>Sl. No</b>	<b>Paper Title</b>	<b>Name of Journal / Conference</b>	<b>Level</b>	<b>Year / Vol</b>
11.	An effective Filtering mechanism for UDP Flood attacks using Agent Based Technology in Distributed DoS attacks	National Conference held at Francis Xavier Engineering College	National Conference	March 10, 2012
12.	IP Tracebacking by Entropy variation in DDoS attacks	National Conference held at Francis Xavier Engineering College	National Conference	March 10, 2012
13.	Building Grid Based Application for Management of Medical Image Data	National Conference held at Maria College of Engg. and Technology	National Conference	Feb. 16, 2012
14.	Optimizing Rule extraction Process for Network Intrusion Detection System using Computational Intelligence	National Conference held at Maria College of Engg. and Technology,	National Conference	Feb. 16, 2012
15.	Building Grid Based Application for Management of Medical Image Data	National Conference held at Kongu Engineering College, Erode	National Conference	Feb. 10, 2012
16.	An Efficient Model for Network Intrusion Detection System based on Computational Intelligence	National Conference held at Kongu Engineering College, Erode	National Conference	Feb. 10, 2012
17.	Multicast Traffic Management using Dynamic Greedy Wavelength Assignment Techniques	National Conference on Advanced Image Processing & Networking	National Conference	March 4 & 5, 2011
18.	WDM Network Performance Enhancement using Convertible Wavelength Assignment Techniques	National Conference on Advanced Image Processing and Networking	National Conference	March 4 & 5, 2011
19.	Managing Multicast Traffic using Dynamic Greedy Wavelength Assignment Techniques	National Conference on Convergence of IT Research	National Conference	March 16, 2011
20.	Reduction of Blocking Probability in wavelength Routed Optical Networks	National Conference on Recent tech. in Signal Processing & Comm.	National Conference	March 17 & 18, 2011
21.	Managing Multicast Traffic using Dynamic Wavelength Assignment Techniques	National Conference on Emerging Trends in IT	National Conference	Feb. 19, 2011
22.	Performance Enhancement in Wavelength Routed Optical Networks using Wavelength Conversion	National Conference on Convergence of IT Research	National Conference	March 24, 2011

<b>Sl. No</b>	<b>Paper Title</b>	<b>Name of Journal / Conference</b>	<b>Level</b>	<b>Year / Vol</b>
23.	Locality Preserving Projections for Face Image Identification	NACCA'06 held at National Engg. College	National Conference	Feb.24,2006
24.	Facial Image Extraction Through Color Mapping Techniques	NACCA'06 held at National Engg. College	National Conference	Feb.24,2006
25.	Building an Adaptive Framework for Extracting Foreground Entities Using Bayesian Classifiers	NACCA'06 held at National Engg. College	National Conference	Feb.24,2006
26.	A Novel Neighborhood Method for Preserving Local Information in Face Recognition	Bannariamman Institute of Tech., Erode	National Conference	Feb.24 & 25, 2006
27.	Building an Adaptive Framework for Extracting Foreground Entities Using Bayesian Classifiers	Bannariamman Institute of Tech., Erode	National Conference	Feb.24 & 25, 2006
28.	A Framework for Fingerprint Recognition using Singular Point Analysis	Bannariamman Institute of Tech., Erode	National Conference	Feb.24 & 25, 2006
29.	Face Recognition using Locality Preserving Projections	NSIS held at Malangiri Catholic College, Parasala	National Conference	Jan.13,2006
30.	Skin Region Extraction through Color Mapping Techniques	NSIS held at Malangiri Catholic College, Parasala	National Conference	Jan.13,2006
31.	Biometric Authentication System using Invariant Filter Bank	NSIS held at Malangiri Catholic College, Parasala	National Conference	Jan.13,2006
32.	Extraction of Foreground Entities Through Adaptive Background Framework	NSIS held at Malangiri Catholic College, Parasala	National Conference	Jan.13,2006
33.	Dual Stage Spatial Vector Quantization for Compact Image Representation	NSIS held at Malangiri Catholic College, Parasala	National Conference	Jan.13,2006
34.	Gabor based PCA for Face Recognition	PSG College of Tech., Coimbatore	National Conference	Dec.15 & 16, 2005
35.	Compact Image Representation using Single Stage Spatial Vector Quantization	PSG College of Tech., Coimbatore	National Conference	Dec.15 & 16, 2005
36.	Face Recognition using GPCA	Erode Sengunthar College of Engineering. Erode	National Conference	Sep.08 & 09, 2005
37.	Compact Image Representation using Single Stage Spatial Vector Quantization	Erode Sengunthar College of Engineering. Erode	National Conference	Sep.08 & 09, 2005

Sl. No	Paper Title	Name of Journal / Conference	Level	Year / Vol
38.	Linear Dimension Reduction on Human Face Using PCA and LPP	Government College Engineering, Tirunelveli	National Conference	Apr.05,2006
39.	Biometric Authentication System using Invariant Filter Bank Method	Government College Engineering, Tirunelveli	National Conference	Apr.05,2006
40.	Neural Network based Face Identification using Orthogonal Wavelet Feature Set	Vivekanandha College of Engineering, Erode	National Conference	Sep.24, 2004
41.	Wide Sense Non-Blocking Wavelength Assignment Algorithm for Optical Multicast Networks	Erode Sengunthar Engineering College, Erode	National Conference	Sep.09,2004
42.	Face Recognition using Crude and Orthogonal Wavelets	Noorul Islam College of Engineering, Nagercoil	National Conference	Apr.04, 2004
43.	Invariant Texture Recognition using Crude and Orthogonal Wavelets	K.S.R. College of Engineering, Erode	National Conference	Feb.24, 2004

**Funded Projects (if any)**

Nil

**Ongoing:**

**Completed:**

**Awards/ Recognitions:**

**Reviewer in**

- International Journal of Pattern Recognition Letters, Elsevier Publications
- IET journal of Biometrics
- IET journal of Computer Vision
- Journal of Pattern Recognition Research
- Indian Journal of Scholarly Research
- International Conference on Recent Advances in Computing and Software Systems

**Visits to Foreign/other Institutions:** Nil

**Anna University supervisor Recognition Number: Anna University Chennai : 18.489.04**

**List of Research Scholars:**

<b>S.No.</b>	<b>Candidate Name</b>	<b>Affiliation of the candidate</b>	<b>University in which registered</b>	<b>Status of the research</b>	<b>Title/Area of Research</b>
1.	Mr.C.K.Ramar	Asso.Professor / ECE, PSREC	Anna University, Chennai	Course work completed	Sensor Networks
2.	Mr.S.Muthu kumar	Asso. Professor / CSE, Sowdambika College of Engg.,	Anna University, Chennai	Course work completed	Network Security
3.	Mrs.R.Vedha Priya Vadhana	Asso.Professor / ECE, FX College of Engg.	Anna University, Chennai	Course work completed	Video Image Processing
4.	Mrs.L.R.Priya	Asso.Professor / ECE, FX College of Engg.	Anna University, Chennai	Course work completed	Networks – Coding
5.	Mr.R.Kesavamoothy	Asst.Prof / IT, PSRR	Anna University, Chennai	Course work completed	Network Security
6.	Mr.L.Thanga Mariappan	Asst. Professor / IT, Sowdambika College of Engg.,	Anna University, Chennai	Course work Completed	Network Security
7.	Mr.V.Selvakumar	Asst.Professor / CSE, PSREC	Anna University, Chennai	Course Work Registered	Cloud Computing
8.	Mr.S.N.Manoharan	Asso.Professor / CSE, Einstein College of Engg.	Anna University, Chennai	Course Work Registered	Network Security
9.	Mrs.K.Lekshmi	Asst.Professor / CSE, SSN College of Engg.	Anna University, Chennai	Course Work Registered	Medical Image Processing