

Dr. Chandra Mouli P.V.S.S.R.

Associate Professor & Head
Department of Computer Science
Central University of Tamil Nadu, Thiruvavur, Tamil Nadu, India
E-mail: chandramouli@cutn.ac.in
Ph: +91 9865605025



Academic Identity

- **CUTN Employee ID:** 19035T
- **Vidwan ID:** 66870 <https://cutn.irins.org/profile/66870>
- **ORCID:** 0000-0001-7909-9733 <https://orcid.org/0000-0001-7909-9733>
- **Web of Science:** L-1127-2019 <https://www.webofscience.com/wos/author/record/L-1127-2019>
- **SCOPUS:** 54897090100 <https://www.scopus.com/authid/detail.uri?authorId=54897090100>
- **Google Scholar ID:** 5dO-HP4AAAAJ <https://scholar.google.co.in/citations?user=5dO-HP4AAAAJ>
- **h-index:** 7 (Web of Science); 14 (Google Scholar)

Work Experience

- **Central University of Tamil Nadu, Thiruvavur, Dept. of Computer Science**
Associate Professor
– December 18, 2019 to Present
- **National Institute of Technology, Jamshedpur, Dept. of Computer Applications**
Assistant Professor (Grade-I)
– June 27, 2018 to December 16, 2019
- **V.I.T. University, Vellore, School of Computer Science and Engineering**
Professor
– September 1, 2011 to June 22, 2018
- **V.I.T. University, Vellore, School of Computer Science and Engineering**
Associate Professor
– May 4, 2009 to August 31, 2011
- **National Institute of Technology, Trichy, Dept. of Computer Applications**
Research Fellow / Research Assistant
– November 7, 2004 to April 30, 2009
- **Bannari Amman Institute of Technology, Sathyamangalam, Dept. of Computer Applications**
Lecturer
– December 19, 2001 to November 6, 2004
- **e-Solutions.com Ltd, Bangalore**
Software Engineer
– November 13, 2000 to November 30, 2001
- **Bhavan's New Science College, Hyderabad, Dept. of Computer Science**
Lecturer
– June 1, 2000 to November 11, 2000

Education

- **National Institute of Technology** Trichy, TN, INDIA
Ph.D. 2004 - 2009
 - Thesis: Studies on Image Segmentation Using Some Concepts in Graph Theory And Other Approaches
 - Supervisor: Dr. T.N.Janakiraman, Professor, N.I.T. Trichy
- **Osmania University** Aurora's P.G. College, Hyderabad, AP, INDIA
M.C.A. 1997 - 2000
 - Master's Thesis: Automation of AC Coach Management System for South Central Railway Division
 - First Class with Distinction (81%)
- **S. V. University** V.R. College, Nellore, AP, INDIA
B.Sc. (Mathematics-Physics-Chemistry) 1993 - 1996
 - First Class (66%)
- **Board of Higher Education** V.R. College, Nellore, AP, INDIA
Intermediate 1991 - 1993
 - First Class (64%)
- **Board of Secondary Education** Viswabharathi English Medium High School, Nellore, AP, INDIA
SSC 1989-90
 - First Class (74%)

Sponsored Research

- **Generic Classification and Recognition of Defence related Targets**
 - Sponsored by **DRDO, New Delhi**
 - Principal Investigator
 - Duration: Three years (2011-14)
 - Amount: 9.81 Lakhs
 - No.ERIP/ER/1103978M/01/1347
 - Status: Completed
- **Neural Networks Applications to Object Classification Problem**
 - Sponsored by **DRDO, New Delhi**
 - Co-Investigator
 - Duration: Two years (2002-04)
 - Amount: 12 Lakhs
 - No. ERIP/ER0204242/M/01
 - Status: Completed
- **Graph based Classification of Geometric Shaped Objects**
 - Sponsored by **DRDO, New Delhi**
 - Research Fellow
 - Duration: Three years (2006-09)
 - Amount: 10 Lakhs

- No. ERIP/ER/0504305/M/01/880
- Status: Completed

Books Authored

- **Title: Computer Graphics**
 - Authors: Dr. B.K. Tripathy and Dr. Chandra Mouli P.V.S.S.R.
 - Ane Books Pvt. Ltd.
 - ISBN: 9789385462047
 - Year: 2016

Patents Granted

- Patent No: 423834
- Application No: 201741018167
- Invention: Grading System for Extraction of Oil from Palm Fruits
- Date of Grant: March 2, 2023

Publications Summary

- SCI / SCIE / ESCI / Scopus Indexed Journal Publications: **25**
- Book Chapters: **11**
- International Conferences: **25**

Journal Publications

25. S. Prasanth Vaidya and **Chandra Mouli, P.V.S.S.R.** Robust Digital Color Image Watermarking based on Compressive Sensing and DWT. *Multimedia Tools and Applications*, Springer. May 2023. <https://doi.org/10.1007/s11042-023-15349-2> **IF = 3.6 SCIE, SCOPUS**
24. Rajkumar Soundrapandiyam, Suresh Chandra Satapathy, **Chandra Mouli, P.V.S.S.R.** and Nguyen Gia Nhu. A comprehensive survey on image enhancement techniques with special emphasis on infrared images. *Multimedia Tools and Applications*, Springer. Vol. 81, pp. 9045–9077. March 2022. Electronic ISSN: 2191-4281 <https://doi.org/10.1007/s11042-021-11250-y> **IF = 3.6 SCIE, SCOPUS**
23. Srinivasa Perumal R. and **Chandra Mouli P.V.S.S.R.** Face Analysis Using Row and Correlation Based Local Directional Pattern, *ELCVIA Electronic Letters on Computer Vision and Image Analysis*, Vol. 19, No. 3, pp. 55–70, December, 2020. Online ISSN: 1577-5097 <https://doi.org/10.5565/rev/elcvia.1254> **SCOPUS**
22. D. Kalaivani and **Chandra Mouli P.V.S.S.R.** Link survivability rate-based clustering for QoS maximisation in VANET, *International Journal of Grid and Utility Computing*, Inderscience. Vol. 11, No. 4, pp. 457–467, June 2020. Print ISSN: 1741-847X Online ISSN: 1741-8488 <https://doi.org/10.1504/IJGUC.2020.108451> **ESCI, SCOPUS**

21. Gaurang S Patkar, GSGN Anjaneyulu and **Chandra Mouli P.V.S.S.R.** Execution of UML-based oil palm fruit harvester algorithm: novel approach, *International Journal of Computer Aided Engineering and Technology*, Inderscience. Vol. 12, No. 1, pp. 113–129, December, 2019. Print ISSN: 1757-2657 Online ISSN: 1757-2665, Inderscience, <https://doi.org/10.1504/IJCAET.2020.103842> **SCOPUS**
20. Vaidya, S.P., **Chandra Mouli P.V.S.S.R.** and Santosh, K.C. Imperceptible watermark for a game-theoretic watermarking system, *International Journal of Machine Learning & Cybernetics*, Springer. Vol. 10, pp. 1323–1339, June 2019. Electronic ISSN: 1868-808X <https://doi.org/10.1007/s13042-018-0813-x> **IF=5.6 SCIE, SCOPUS**
19. Gaurang S Patkar, GSGN Anjaneyulu and **Chandra Mouli P.V.S.S.R.** POFGRUST: An Expert Intelligent System for mechanized palm oil evaluating framework, *International Journal of Intelligent Engineering Informatics*, Inderscience. Vol. 7, No. 1, pp. 89–106, January, 2019. Print ISSN: 1758-8715 Online ISSN: 1758-8723, Inderscience, <https://doi.org/10.1504/IJIEI.2019.097554> **ESCI**
18. Gaurang S Patkar, GSGN Anjaneyulu and **Chandra Mouli P.V.S.S.R.** Challenging Issues in Automated Oil Palm Fruit Grading, *IAES International Journal of Artificial Intelligence*, IAES Institute of Advanced Engineering and Science. Vol. 7, No. 3, pp. 111–118, September, 2018. Print ISSN: 2089-4872 Online ISSN: 2252-8938. <http://doi.org/10.11591/ijai.v7.i3.pp111-118> **SCOPUS**
17. Soundrapandiyani, R. and **Chandra Mouli, P.V.S.S.R.** An Approach to Adaptive Pedestrian Detection and Classification in Infrared Images Based on Human Visual Mechanism and Support Vector Machine. *Arabian Journal for Science and Engineering*, Springer. Vol 43, pp. 3951–3963, August, 2018. Electronic ISSN: 2191-4281 <https://doi.org/10.1007/s13369-017-2642-8> **IF = 2.9 SCIE, SCOPUS**
16. Srinivasa Perumal R. and **Chandra Mouli P.V.S.S.R.** Robustness of DR-LDP over PCANet for face analysis *International Journal of Multimedia Information Retrieval*, Springer. Vol. 7, pp. 129–138, June, 2018. Print ISSN: 2192-6611 Online ISSN: 2192-662X. <https://doi.org/10.1007/s13735-017-0144-9> **IF=5.6 SCIE, Scopus**
15. S Perumal Ramalingam and **Chandra Mouli, P.V.S.S.R.** Modified dimensionality reduced local directional pattern for facial analysis *Journal of Ambient Intelligence and Humanized Computing*, Springer. Vol. 9, pp. 725–737, June, 2018. Electronic ISSN: 1868-5145 <https://doi.org/10.1007/s12652-017-0473-9> **IF = 7.104 SCIE, SCOPUS**
14. Prasanth Vaidya and **Chandra Mouli, P.V.S.S.R.** Adaptive, robust and blind digital watermarking using Bhattacharyya distance and bit manipulation *Multimed Tools and Applications*, Springer. Vol. 77, pp. 5609–5635, March, 2018. Electronic ISSN: 1573-7721 <https://doi.org/10.1007/s11042-017-4476-5> **IF = 3.6 SCIE, SCOPUS**
13. R. Srinivasa Perumal and **Chandra Mouli P.V.S.S.R.**, Dimensionality Reduced Local Directional Number Pattern (DR-LDNP) for Face Recognition, *Journal of Ambient Intelligence and Humanized Computing*, Springer. Vol. 9, No. 1, pp. 95–103, February, 2018. ISSN: 1868-5145 <https://doi.org/10.1007/s12652-016-0408-x> **IF = 7.104 SCIE, SCOPUS**
12. Prasanth Vaidya and **Chandra Mouli, P.V.S.S.R.** A robust semi-blind watermarking for color images based on multiple decompositions, *Multimedia Tools and Applications*, Springer. Vol. 76, No. 24, pp. 25623–25656, December, 2017. Electronic ISSN: 1573-7721 <https://doi.org/10.1007/s11042-017-4355-0> **IF = 3.6 SCIE, SCOPUS**
11. Rajkumar Soundrapandiyani and **Chandra Mouli P.V.S.S.R.** Robust pedestrian detection in infrared images using rotation and scale invariant-based structure element descriptor, *International Journal of Signal and Imaging Systems Engineering*, Inderscience. Vol. 10, No. 3, pp. 157–167, August, 2017. Print ISSN: 1748-0698 Online ISSN: 1748-0701 <https://doi.org/10.1504/IJSISE.2017.086039> **ESCI, SCOPUS**
10. Rajkumar Soundrapandiyani and **Chandra Mouli P.V.S.S.R.** Adaptive pedestrian detection in infrared images using fuzzy enhancement and top-hat transform, *International Journal of Computational Vision and Robotics*, Inderscience. Vol. 10, No. 1–2, pp. 49–67, January, 2017. Print ISSN: 1752-9131 Online ISSN: 1752-914X <https://doi.org/10.1504/IJCVR.2017.081237> **SCOPUS**

9. Srinivasa Perumal R. and **Chandra Mouli, P.V.S.S.R.** Dimensionality reduced local directional pattern (DR-LDP) for face recognition, *Expert Systems with Applications*, Elsevier. Vol. 63, pp. 66–73, November, 2016. ISSN: 0957-4174 <https://doi.org/10.1016/j.eswa.2016.06.031> **IF=8.5 SCIE, SCOPUS**
8. Rajkumar Soundrapandiyan and **Chandra Mouli, P.V.S.S.R.** A novel and robust rotation and scale invariant structuring elements based descriptor for pedestrian classification in infrared images, *Infrared Physics & Technology*, Elsevier. Vol. 78, pp. 13–23, September, 2016. ISSN: 1350-4495 <https://doi.org/10.1016/j.infrared.2016.06.031> **IF=3.3 SCI, SCOPUS**
7. Srinivasa Perumal R. and **Chandra Mouli P.V.S.S.R.** Two-level dimensionality reduced local directional pattern for face recognition, *International Journal of Biometrics*, Inderscience. Vol. 8, No. 1, pp. 52–64, June, 2016. ISSN online: 1755-831X ISSN print: 1755-8301 <https://doi.org/10.1504/IJBM.2016.077150> **IF=0.7 ESCI, SCOPUS**
6. **Chandra Mouli P.V.S.S.R.** Two Phase Adaptive Visible and Invisible Watermarking of Digital Images in Hadamard Domain, *International Journal of Imaging and Robotics™*, Ceser. Vol. 15, No. 2, pp. 104–118, January 2015. ISSN 2231-525X <http://www.ceser.in/ceserp/index.php/iji/article/view/3481>
5. Chiranjilal Chowdhary and **Chandra Mouli P.V.S.S.R.** Image Registration with New System of Ensemble of Images of Multi-Sensor Registration, *World Applied Sciences Journal*, IDOSI Publications. Vol. 26, No. 1, pp. 45–50, November 2013. ISSN 2231-525X <http://10.5829/idosi.wasj.2013.26.01.283>
4. N. R. Mathivanan and **Chandra Mouli P.V.S.S.R.** Modeling the low-velocity impact characteristics of woven glass epoxy composite laminates using artificial neural networks, *Journal of the Mechanical Behavior of Metals*, De Gruyter. Vol. 21, No. 3–4, pp. 69–80, November, 2012. Online ISSN: 2191-0243 <https://doi.org/10.1515/jmbm-2011-0026> **ESCI**
3. V. Santhi, **Chandra Mouli P.V.S.S.R.** and Arunkumar Thangavelu. Speckle Reduction of SAR Images using Adaptive Sigmoid Thresholding and Analysis of various Filtering Techniques, *International Journal of Computer Applications*. Vol. 46, No. 2, pp. 1–8, May, 2012.
2. R. Srinivasa Perumal, **Chandra Mouli P.V.S.S.R.** Pupil Segmentation from IRIS Images using Modified Peak Detection Algorithm, *International Journal of Computer Applications*. Vol. 31, No. 7, pp. 51–56, October, 2011.
1. T.N. Janakiraman and **Chandra Mouli P.V.S.S.R.** Image Segmentation using Euler Graphs, *International Journal of Computers, Communications & Control*. Vol. 5, No.3, pp. 314–324, September, 2010. Online ISSN: 1841-9844. <http://dx.doi.org/10.15837/ijccc.2010.3.2484> **IF=2.093 SCIE, SCOPUS**

Book Chapters

11. Gaurav Yadav, Dilip Kumar Yadav, **Chandra Mouli P.V.S.S.R.** Fusion-based backlit image enhancement and analysis of results using contrast measure and SSIM. *In: Digital Image Enhancement and Reconstruction*, Hybrid Computational Intelligence for Pattern Analysis, Academic Press – An imprint of Elsevier. pp. 235–251, February, 2023. <https://doi.org/10.1016/B978-0-32-398370-9.00017-2>
10. Gaurav Yadav, Dilip Kumar Yadav, **Chandra Mouli P.V.S.S.R.** Statistical measures for Palmprint image enhancement. *In: Machine Learning for Biometrics: Concepts, Algorithms, and Applications*, Cognitive Data Science in Sustainable Computing, Academic Press – An imprint of Elsevier. pp. 65–85, January, 2022. <https://doi.org/10.1016/B978-0-323-85209-8.00010-9>
9. Purti G.K., Yadav D.K., **Chandra Mouli P.V.S.S.R.** Secure and Robust Blind Watermarking of Digital Images Using Logistic Map. *In: Advances in Distributed Computing and Machine Learning pp. 403–410*, Lecture Notes in Networks and Systems, Springer, Singapore. Vol 127, pp. 403–410, June 2020. https://doi.org/10.1007/978-981-15-4218-3_39

8. Prasanth Vaidya S. and **Chandra Mouli P.V.S.S.R.** A Robust and Blind Watermarking for Color Videos Using Redundant Wavelet Domain and SVD. In: *Smart Computing Paradigms: New Progresses and Challenges. Advances in Intelligent Systems and Computing*, Springer, Singapore. Vol 766, pp. 11–17, December 2019. Print ISBN: 978-981-13-9682-3 Online ISBN: 978-981-13-9683-0. Springer, Singapore. https://doi.org/10.1007/978-981-13-9683-0_2
7. R. Srinivasa Perumal and **Chandra Mouli, P.V.S.S.R.**, A Comparative Analysis of Local Pattern Descriptors for Face Recognition. *Knowledge Computing and its Applications*, Springer, Singapore. pp. 129–154, April, 2018. Print ISBN: 978-981-10-8257-3 Online ISBN: 978-981-10-8258-0 https://doi.org/10.1007/978-981-10-8258-0_7
6. S.Karthik, R. Srinivasa Perumal and **Chandra Mouli, P.V.S.S.R.**, Breast Cancer Classification Using Deep Neural Networks. *Knowledge Computing and its Applications*, Springer, Singapore. pp. 227–241, February, 2018. Print ISBN: 978-981-10-6679-5 Online ISBN: 978-981-10-6680-1 https://doi.org/10.1007/978-981-10-6680-1_12
5. S. Rajkumar and **Chandra Mouli, P.V.S.S.R.**, Perceptual Visualization Enhancement of Infrared Images using Fuzzy Sets. *Transactions on Computational Science XXV*, Springer, Berlin, Heidelberg. pp. 3–19, April, 2015. Print ISBN: 978-3-662-47073-2 Online ISBN: 978-3-662-47074-9 https://doi.org/10.1007/978-3-662-47074-9_1
4. S. Rajkumar and **Chandra Mouli, P.V.S.S.R.**, Target Detection in Infrared Images using block-based approach. *Informatics and Communication Technologies for Societal Development*, Springer, New Delhi. pp. 9–16, July 2014. Print ISBN: 978-81-322-1915-6 Online ISBN: 978-81-322-1916-3 https://doi.org/10.1007/978-81-322-1916-3_2
3. B.K. Tripathy and **Chandra Mouli P.V.S.S.R.**, Graph Based Segmentation of Digital Images, *Handbook of Research on Computational Intelligence for Engineering, Science and Business*, IGI Global. pp. 182–199, 2013. <https://doi.org/10.4018/978-1-4666-2518-1.ch007>
2. S. Arun Bharathi, S. Logesh and **Chandra Mouli P.V.S.S.R.**, Enhancement of Infrared Images using Triangular Fuzzy Membership Function and Truncated Interval Thresholding, *Global Trends in Information Systems and Software Applications*, pp. 665–673, 2012. https://doi.org/10.1007/978-3-642-29216-3_72
1. **Chandra Mouli P.V.S.S.R.** and T.N. Janakiraman, Color Image Segmentation Using Minimum Spanning Tree and Cycles, *Computational Intelligence and Information Technology*, Springer, Berlin, Heidelberg. pp. 569–575, November, 2011. Print ISBN: 978-3-642-25733-9 Online ISBN: 978-3-642-25734-6 https://doi.org/10.1007/978-3-642-25734-6_98

International Conferences

25. Gaurav Yadav, D.K. Yadav, **Chandra Mouli P.V.S.S.R.** Enhancement of Region of Interest from a Single Backlit Image with Multiple Features. In: *Singh S.K., Roy P., Raman B., Nagabhusan P. (eds) Computer Vision and Image Processing. CVIP 2020. Communications in Computer and Information Science*, Springer, Singapore. Vol 1377, pp.467–476, March 2021. Print ISBN: 978-981-16-1091-2 Online ISBN: 978-981-16-1092-9 https://doi.org/10.1007/978-981-16-1092-9_39
24. Himanshu Naidu, S. Rajkumar, Santosh, KC and **Chandra Mouli, P.V.S.S.R.** A Fast and Efficient Convolutional Neural Network for Fruit Recognition and Classification, *International Conference on Recent Trends in Image Processing and Pattern Recognition*, Springer, Singapore. pp. 148–157, February 2021. Print ISBN: 978-981-16-0506-2 Online ISBN: 978-981-16-0507-9 https://doi.org/10.1007/978-981-16-0507-9_13
23. Srinivasa Perumal R., Priya G.G.L., **Chandra Mouli, P.V.S.S.R.** Face Spoofing Detection Using Dimensionality Reduced Local Directional Pattern and Deep Belief Networks. In: *Tripathi M., Upadhyaya S. (eds) Conference Proceedings of ICDLAIR2019. ICDLAIR 2019. Lecture Notes in Networks and Systems*, Springer. vol 175, pp. 330–338, February 2021. https://doi.org/10.1007/978-3-030-67187-7_34

22. G.G. Lakshmi Priya, Mrinal Jain, R Srinivasa Perumal, and **Chandra Mouli P.V.S.S.R.** Human Action Recognition in Unconstrained Videos Using Deep Learning Techniques, *In: Intelligent Computing and Communication. ICICC 2019*, pp. 737–744. *Advances in Intelligent Systems and Computing*, Springer, Singapore. Online ISBN 978-981-15-1084-7. Vol. 1034, 2019. <https://doi.org/10.1007/978-981-15-1084-7.72>
21. G.G. Lakshmi Priya, Mrinal Jain, Santosh K.C., and **Chandra Mouli P.V.S.S.R.** Temporal Super-Pixel Based Convolutional Neural Network (TS-CNN) for Human Activity Recognition in Unconstrained Videos, *Recent Trends in Image Processing and Pattern Recognition. RTIP2R 2018*. pp. 255–264. *Communications in Computer and Information Science*, Vol 1035. Springer, Singapore. https://doi.org/10.1007/978-981-13-9181-1_23
20. R Srinivasa Perumal, K.C. Santosh and **Chandra Mouli P.V.S.S.R.** Learning Deep Feature Representation for Face Spoofing. *In: Recent Trends in Image Processing and Pattern Recognition. RTIP2R 2018*. pp. 178–185 *Communications in Computer and Information Science*, Vol 1035. Springer, Singapore. https://doi.org/10.1007/978-981-13-9181-1_16
19. Rajkumar Soundrapandian, K.C. Santosh and **Chandra Mouli P.V.S.S.R.** Infrared Image Pedestrian Detection Techniques with Quantitative Analysis, *Recent Trends in Image Processing and Pattern Recognition. RTIP2R 2018*. pp. 406–415 *Communications in Computer and Information Science*, vol 1037. Springer, Singapore. https://doi.org/10.1007/978-981-13-9187-3_37
18. S. Perumal R. and **Chandra Mouli P.V.S.S.R.** Analysis of dimensionality reduced local directional pattern on different scales, *International Conference on Soft Computing and its Engineering Applications (icSoftComp)*, pp. 1-6, 2017. <https://doi.org/10.1109/ICSOFTCOMP.2017.8280095>
17. S. Perumal R. and **Chandra Mouli P.V.S.S.R.** Component based Face Recognition using Hybrid Approach, *Sixth International Conference on Computational Intelligence and Information Security*, pp. 200-208, 2017.
16. Rajkumar Soundrapandian and **Chandra Mouli P.V.S.S.R.** Adaptive Pedestrian Detection in Infrared Images Using Background Subtraction and Local Thresholding, *Procedia Computer Science*, Vol. 58, pp. 706–713, August 2015. <https://doi.org/10.1016/j.procs.2015.08.091>
15. S. Prasanth Vaidya and **Chandra Mouli P.V.S.S.R.** Adaptive Digital Watermarking for Copyright Protection of Digital Images in Wavelet Domain, *Procedia Computer Science*, Vol. 58, pp. 233–240, August 2015. <https://doi.org/10.1016/j.procs.2015.08.063>
14. Gaurang S Patkar, GSGN Anjaneyulu and **Chandra Mouli P.V.S.S.R.** Palm fruit harvester algorithm for elaeis guineensis oil palm fruit grading using UML, *2015 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC)*, 2015, Inderscience. pp. 1–6, December 2015. Print ISSN: 1757-2657 Online ISSN: 1757-2665, Inderscience, <https://doi.org/10.1109/ICCIC.2015.7435700>
13. Rajkumar Soundrapandian and **Chandra Mouli P.V.S.S.R.** Pedestrian detection in infrared images using local thresholding, *2015 2nd International Conference on Electronics and Communication Systems (ICECS), IEEE. February 2015.*, pp. 259–263, August 2015. <https://doi.org/10.1109/ECS.2015.7124904>
12. Nandita Bothra and **Chandra Mouli P.V.S.S.R.** An Adaptive Pedestrian Detection in Infrared Images based on Saliency Map, *Proceedings of IMCIP 2014*, pp. 259–263, August 2015. <https://doi.org/10.1109/ECS.2015.7124904>
11. Rajkumar Soundrapandian and **Chandra Mouli P.V.S.S.R.** Infrared and Visible Image Fusion Using Entropy and Neuro-Fuzzy Concepts, *In: Satapathy S., Avadhani P., Udgata S., Lakshminarayana S. (eds) ICT and Critical Infrastructure: Proceedings of the 48th Annual Convention of Computer Society of India- Vol I. Advances in Intelligent Systems and Computing*, Springer Cham. Vol 248, pp. 93–100, December 2013. Print ISBN: 978-3-319-03106-4 Online ISBN: 978-3-319-03107-1 https://doi.org/10.1007/978-3-319-03107-1_11

10. C. L. Chowdhary and **Chandra Mouli P.V.S.S.R.** Design and implementation of secure, platform-free, and network-based remote controlling and monitoring system, *International Conference on Pattern Recognition, Informatics and Medical Engineering (PRIME-2012)*, IEEE, pp. 195–198, 2012. <https://doi.org/10.1109/ICPRIME.2012.6208342>
9. C Prakash, S Rajkumar and **Chandra Mouli P.V.S.S.R.** Medical image fusion based on redundancy DWT and Mamdani type min-sum mean-of-max techniques with quantitative analysis, *International Conference on Recent Advances in Computing and Software Systems*, IEEE, pp. 54–59, 2012. <https://doi.org/10.1109/RACSS.2012.6212697>
8. S. Logesh, S. A. Bharathi and **Chandra Mouli P.V.S.S.R.** An efficient and robust face detection method using neuro-fuzzy approach, *International Conference on Image Information Processing*, IEEE, pp. 1–5, November 2011. doi: 10.1109/ICIIP.2011.6108976. <https://doi.org/10.1109/ICIIP.2011.6108976>
7. R. Srinivasa Perumal and **Chandra Mouli P.V.S.S.R.** An efficient color image segmentation algorithm using hybrid approaches, *Seventh Indian Conference on Computer Vision, Graphics and Image Processing*, ACM, pp. 435–439, 2010. <https://doi.org/10.1145/1924559.1924617>
6. T.N. Janakiraman and **Chandra Mouli P.V.S.S.R.** Graph based Feature Extraction for Object Classification, *Advances in Computer Vision and Information Technology*, IEEE, pp. 609–614, 2009.
5. T.N. Janakiraman and **Chandra Mouli P.V.S.S.R.** Color Image Edge Detection using Pseudo Complement and Matrix Operations, *Proceedings of World Academy of Science, Engineering and Technology*, Vol. 32, pp. 465–469, 2008.
4. J. Janet Lourds Rani, T.N. Janakiraman, and **Chandra Mouli P.V.S.S.R.** Power Control and Reliable Clustering for Heterogeneous Wireless Ad-Hoc Networks using Graph Domination, *International Conference on Sensors and Related Networks (SENNET'09)*, pp. 558–562, 2009. VIT University, Vellore, India.
3. T.N. Janakiraman, and **Chandra Mouli P.V.S.S.R.** Dominant Pixel Identification from Gray-level Image using various Matrix Rotation Operations – An Application to Edge Detection, *International Conference on Signal Processing, Communications and Networking*, IEEE, pp. 510–513, 2008.
2. T.N. Janakiraman and **Chandra Mouli P.V.S.S.R.** Image segmentation based on minimal spanning tree and cycles, *International Conference on Computational Intelligence and Multimedia Applications*, IEEE, Vol. 3, pp. 215–219, 2007.
1. T.N. Janakiraman and **Chandra Mouli P.V.S.S.R.** A Robust Pre-processing Step for Efficient Edge Detection, *Advances in Computer Vision and Information Technology*, IEEE, pp. 860–866, 2007.

Invited Lectures

26. *Applications of Machine Learning in Cyber Security*, NIT Kurukshetra, July 17, 2023.
25. *Encoder-decoder architecture and applications in transfer learning*, NIT Warangal, July 10, 2023.
24. *Auto encoders and applications in transfer learning*, NIT Warangal, July 10, 2023.
23. *Auto Encoders and its Applications*, Indira Gandhi Delhi Technical University for Women, New Delhi. March 10, 2022.
22. *Overview of ML and DL*, Indira Gandhi Delhi Technical University for Women, New Delhi. February 08, 2022.
21. *Introduction to Deep Learning*, MVJ College of Engineering, Bengaluru. January 20, 2021.
20. *Machine Learning in Health Care*, NIT Puucherry, Puducherry. July 22, 2021.

- 19-18. *Hands-on session in Machine Learning (two sessions)*, Central University of Kerala. July 13, 2021.
17. *Machine Learning and its Applications in Health-care Systems*, Shrimad Rajachandra Institute of Management and Computer Applications, Bhilai, Gujarat. March 25, 2021.
16. *Applications of Semi-Supervised Learning*, NIT, Trichy. February 16, 2021.
15. *Semi-Supervised Learning*, NIT, Trichy. February 16, 2021.
14. *Recurrent Neural Networks*, Sri Krishna College of Engineering and Technology, Coimbatore. December 14, 2020.
13. *ANN and SVM*, Sri Krishna College of Engineering and Technology, Coimbatore. December 10, 2020.
12. *Research Directions in Deep Learning*, Sri Krishna College of Engineering and Technology, Coimbatore. November 09, 2020.
11. *Classification Algorithms and Supervised Learning*, Sri Krishna College of Engineering and Technology, Coimbatore. October 21, 2020.
10. *Ensemble Learning with Hands-on Demo*, NIT, Warangal. September 02, 2020.
9. *Classification Methods with Hands-on Demo*, NIT, Warangal. September 02, 2020.
8. *Ensemble Learning with Demo*, St. Joseph's Engineering College, Mangalore. March 06, 2020.
7. *Presented a tutorial jointly with Dr. Aditya Nigam and Dr. Ayush Sankaran on **The Journey from Shallow to Deep Learning*** in NVCPRIPIG-2017, IIT Mandi, December 16, 2019.
- 6-5. *L^AT_EX – Two Full Days*, Sri Sai Aditya Institute of Science and Technology, Surampalem. July 05-06, 2014.
- 4-3. *Learning Effective Document Writing using L^AT_EX – Two Full Days*, VR Siddhartha Engineering College, Vijayawada. January 24-25, 2014.
2. *Artificial Neural Networks*, Einstein College of Engineering, Tirunelveli. February 16, 2013.
1. *Basics of Image Processing, Medical Imaging and Research Developments in Brain Imaging*, Einstein College of Engineering, Tirunelveli. February 16, 2013.

Membership / Fellowship in Professional Bodies

1. Institution of Electrical and Electronics Engineers (**IEEE**) Member: #90871399
2. Computer Society of India (**CSI**): Life Member: #01211152
3. Indian Society of Technical Education (**ISTE**): Life Member: #LM33369
4. Indian Unit for Pattern Recognition and Artificial Intelligence (**IUPRAI**): Life Member: #L186

Administrative Roles and Responsibilities

- **CUTN, Thiruvarur**

- Head, Department of Computer Science (February 18, 2019 to present)
- Chairperson – Web Committee (June 8, 2022 to present)
- Member – Cyber Crime Cell (September 23, 2021 to present)
- Technical Committee Member – Sixth Convocation (June 17, 2021 to October 6, 2021)
- Technical Committee Member – Seventh Convocation (September 28, 2022 to March 12, 2023)

- **N.I.T. Jamshedpur**

- Chairman – Internet and IT related Services (February 26, 2019 to December 16, 2019)

- **V.I.T., Vellore**

- Chief Superintendent (Examinations)
 - * *May 1, 2014 to November 30, 2014*
 - * Duration: 0.6 Years
 - * Nature of Work: Smooth conduct of end semester examinations
- Division Chair
 - * Digital Media Computing Division
 - * School of Computing Science and Engineering (SCSE)
 - * *December 9, 2011 to February 28, 2014*
 - * Duration: 2.2 Years
 - * Nature of Work: Heading a division consisting of 17 faculty members
- School Research and Development Coordinator
 - * School of Computing Science and Engineering (SCSE)
 - * *November 14, 2011 to February 28, 2014*
 - * Duration: 2.3 Years
 - * Nature of Work: All research activities of the school

Teaching

- **CUTN, Thiruvarur**

- Even 2022-23: *Cryptography, Theory of Computation and Digital Image Processing with Lab*
- Odd 2022-23: *Data Structures & Algorithms and Advanced Java Programming*
- Even 2021-22: *Theory of Computation, Block Chain Technology, and Cyber Security (155 students)*
- Odd 2021-22: *Data Structures & Algorithms and Cryptography*
- Even 2020-21: *Theory of Computation and Statistics for Data Analytics*
- Odd 2020-21: *Data Structures & Algorithms and Cryptography*
- Even 2019-20: *Theory of Computation and Distributed Computing*

- **N.I.T. Jamshedpur**

- Autumn 2019-20: *Cryptography Foundations, Java Programming and Image Processing*

- Spring 2018-19: *Object Oriented Programming, Operating Systems and Cyber Security*
- Autumn 2018-19: *Cryptography Foundations and Java Programming*

- **V.I.T., Vellore**

- Fall 2017-18: *Theory of Computation & Compiler Design and Image Processing*
- Winter 2016-17: *Data Structures & Algorithms and Image Processing*
- Fall 2016-17: *Image and Vision Computing - Two batches*
- Winter 2015-16: *Data Structures & Algorithms and Operating Systems*
- Fall 2015-16: *Data Structures & Algorithms and Information Security*
- Winter 2014-15: *Pattern Recognition*
- Fall 2014-15: *Image and Vision Computing & Soft Computing*
- Winter 2013-14: *Data Warehousing and Data Mining*
- Fall 2013-14: *Image Processing*
- Winter 2012-13: *Image Processing*
- Fall 2012-13: *Advanced Algorithmic Analysis and Soft Computing*
- Winter 2011-12: *Knowledge Representation and Reasoning*
- Fall 2011-12: *Advanced Algorithmic Analysis and Data Structures & Algorithms Lab*
- Winter 2010-11: *Image Processing and Data Structures & Algorithms Lab*
- Fall 2010-11: *Computer Programming and Problem Solving (CPPS) with lab*
- Winter 2009-10: *Programming Fundamentals*
- Fall 2009-10: *Advanced Algorithmic Analysis and Soft Computing*

Ph.D. Guidance

- **V.I.T., Vellore**

3. R. Srinivasa Perumal
Investigations On Some Local Descriptors For Face Analysis
<https://shodhganga.inflibnet.ac.in/handle/10603/203629>
Status: Awarded in 2018
2. S. Prasanth Vaidya
Investigations on Adaptive Invisible Watermarking in Transform Domain
<https://shodhganga.inflibnet.ac.in/handle/10603/224356>
Status: Awarded in 2018
1. S. Rajkumar
Investigations on pedestrian Detection approaches in infrared images
<https://shodhganga.inflibnet.ac.in/handle/10603/205015>
Status: Awarded in 2017

P.G. Guidance: (M.Tech.)

- **N.I.T., Jamshedpur**

5. Grace Karuna Purti (2018PGCAIS04)
Secure and Robust Blind Watermarking of Digital Images using Logistic Map
Year of passing: 2020

- **V.I.T., Vellore**

4. B.V.V.S. Padmasripriya (15MCS0055)
Reducing Traffic in Smart Cities by using Shortest Path Algorithms
Year of passing: 2017
3. G. Lakshmi Soujanya (15MCS0032)
Energy Efficient Cluster Head Selection using ABC with DCA in WSN
Year of passing: 2017
2. Rohini M. (11MCS0066)
Object Recognition using Hybrid Feature Extraction Scheme
Year of passing: 2013
1. S. Lakshmi Devi (09MCS040)
Migrating the Rolling Element Bearing Analysis Tool from V.B. 6.0 to VB.Net 2008
Year of passing: 2011

P.G. Guidance: (M.Sc.)

- **CUTN, Thiruvarur**

15. S. Srilekha (P211319)
Classification and Recognition of Fresh and Rotten Fruits using Transfer Learning
Year of passing: 2023
14. K. Sangeetha (P211317)
Underwater Image Enhancement using Deep Learning
Year of passing: 2023
13. Nowdu Sai Kumar (P211314)
Hyper Spectral Image Classification using Deep Learning
Year of passing: 2023
12. Lankapalli Vijay Raju (P211309)
Skin Disease Detection using Deep Learning
Year of passing: 2023
11. Kavitha Thakur (P211307)
Phishing Detection Mechanism to identify Malicious URL's using Variational Auto Encoders
Year of passing: 2023
10. Kadari Venkatesh (P211305)
Low-light Image Enhancement using Deep Learning
Year of passing: 2023
9. Ankit Kumar (P211303)
SQL Injection Attack Detection using Machine Learning
Year of passing: 2023
8. Nicholas Puy (P201314)
Watermarking Neural Networks Model using Network Weights
Year of passing: 2022
7. Kaushik Chhetri (P201312)
Secure Image Protection using Zero Watermark
Year of passing: 2022
6. Andugula Shivalaleela (P201302)
Modified Lightnet: A Convolutional Neural Network for Backlit Images
Year of passing: 2022

5. K. Madhumitha (P191315)
Performance Improvement of CNN and VGG Networks for the Multi-class Classification of Covid Chest X-ray Images using Deep Learning
Year of passing: 2021
4. Kapilraj S. (P191312)
Fake News Detection using Machine Learning and Deep Learning
Year of passing: 2021
3. Kamil Khan (P191311)
Low Cost Online Examination with High Degree of Integrity
Year of passing: 2021
2. A. Ezhilarasi (P191309)
Binary Classification of Tweets in the Twitter using Machine Learning Algorithms
Year of passing: 2021

• **V.I.T., Vellore**

1. Bimalendu Ranajit (10MCS0006)
A New approach for fingerprint recognition using Earth Mover's Distance
Year of passing: 2012

U.G. Guidance: (B.Tech.)

• **V.I.T., Vellore**

7. Marthand Pande (12BCE0500)
Year of passing: 2016
6. Subhangi Agarwala (12BCE0453)
Year of passing: 2016
5. Anant Gupta (12BCE0124) and Aditya Kumar (12BCE0502)
Year of passing: 2016
4. Anchal Garg (10BCE0178)
Year of passing: 2014
3. Nandita Bothra (10BCE0088)
Year of passing: 2014
2. Abinash Gohain (07BCE017)
Year of passing: 2011
1. S. Logesh (08BCE153) and S. Arun Bharathi (08BCE370)
Year of passing: 2012

Workshops / FDP's / Short-term Courses Organized

• **CUTN, Thiruvarur**

11. April 21, 2023: Cyber Awareness Session in conjunction with Digital Poster Design and Short Video Contest
10. November 2, 2022: Awareness Programme on Cyber Security and Cyber Crimes
9. December 13–17, 2021: A Five day FDP on Advance Data Science with Applications sponsored by AICTE under ATAL scheme
8. November 2–6, 2020: A Five day FDP on Artificial Intelligence for CBSE Teachers sponsored by AICTE under ATAL scheme

7. October 5–9, 2020: A Five day FDP on Data Science and its Applications sponsored by AICTE under ATAL scheme

- **V.I.T., Vellore**

6. November 28, 2016 to December 2, 2016. One week FDP on Advanced Digital Image Processing

5. November 16, 2016. A One day workshop on LaTeX for Researchers

4. July 18, 2016. Guest Lecture on Deep Learning

3. October 10, 2013 to October 12, 2013. Three Day Workshop on Digital Image Processing

2. July 26, 2013 to July 27, 2013. A Two day workshop on LaTeX for Researchers

1. July 27, 2012 to July 28, 2012. A Two day National Level Workshop on Image Classification and Retrieval

Collaborators

- Dr. K. C. Santosh

- Associate Professor and Chair, Department of Computer Science
- University of South Dakota

- Prof. Byoung-Kwan Cho

- Professor
- Department of Biosystems Machinery Engineering
- College of Agriculture and Life Science
- Chungnam National University, Daejeon, Republic of Korea

Ph.D. Thesis Evaluated

7. Evaluated the Ph.D. Thesis entitled “Design of Hybrid Feature Selection and Deep Ensemble Methods for Cardiovascular Disease Classification” submitted by Mr. V. Jothi Prakash to Anna University, Chennai under the supervision of Dr. N.K. Karthikeyan, Professor, Department of Information Technology, Coimbatore Institute of Technology (CIT), Coimbatore. **Date and Time of Viva-Voce Examination: 10.08.2023 10:30 AM (offline mode)**
6. Evaluated the Ph.D. Thesis entitled “Integrated Approaches for improving the performance of Imbalanced Data Classification” submitted by Ms. Suja Alex to Anna University, Chennai under the supervision of Dr. Jesu Vedha Nayahi, Dept. of Computer Science and Engineering, Anna University Regional Campus, Tirunelveli. **Date and Time of Viva-Voce Examination: 02.09.2022 11:00 AM (online mode)**
5. Evaluated the Ph.D. Thesis entitled “Cluster-based Machine Learning Techniques for Outlier Detection in Wireless Sensor Networks” submitted by Mr. Gujurothu Bhanu Chander submitted to Pondicherry University, Pondicherry under the supervision of Dr. G. Kumaravelan, Dept. of Computer Science, Pondicherry University, Karaikal Campus, Karaikal. **Date and Time of Viva-Voce Examination: 14.07.2022 11:00 AM (online mode)**
4. Evaluated the Ph.D. Thesis entitled “Analysis and Prediction of Rainfall in agriculture based on deep learning framework” submitted by Mr. S. Oswalt Manoj to Anna University, Chennai under the supervision of Dr. J.P. Ananth, Professor, Sri Krishna College of Engineering and Technology, Coimbatore. **Date and Time of Viva-Voce Examination: 06.09.2021 2:30 PM (online mode)**

3. Evaluated the Ph.D. Thesis entitled “Reliable Communication for Health Care Assistance using Fuzzy Based Wearable Sensor Devices” submitted by Mr. M.G. Sharavana Kumar to Anna University, Chennai under the supervision of Dr. V.R. Sarma Dhulipala Department of Physics, Anna University BIT Campus, Trichy. **Date and Time of Viva-Voce Examination: 20.07.2021 11:00 AM (online mode)**
2. Evaluated the Ph.D. Thesis entitled “Enhanced Content Based Image Retrieval through Optimized Classification Techniques from Secure Cloud Environment” submitted by Ms. L. Saranya to Annamalai University, Chidambaram under the supervision of Dr. P. Sudhakar, Department of Computer Science and Engineering, Annamalai University, Chidambaram. **Date and Time of Viva-Voce Examination: 13.10.2020 10:30 AM (online mode)**
1. Evaluated the Ph.D. Thesis entitled “Bearing only Target Tracking using Lagrange Difference method based Derived Heading” submitted by Mrs. B. Sindhu to VIT University, Vellore under the supervision of Dr. J. Valarmathi, School of Electronics Engineering, VIT University, Vellore. **Date and Time of Viva-Voce Examination: 21.09.2020 2:00 PM (online mode)**

Miscellaneous Information

- BOS Member for
 - Sri Manakula Vinayagar Engineering College Puducherry
 - Vignan Institute of Technology, Visakhapatnam
- MOOCS Courses Completed
 - Algorithms Design and Analysis part-1 offered by Stanford University, and
 - Fundamentals of Image and Video Processing offered by Northwestern University
- Participated in a Two-week ISTE STTP on Introduction to Design of Algorithms conducted by IIT Kharagpur from April 27, 2015 to May 30, 2015 and secured grade A

References

- Dr. T. N. Janakiraman (Research Supervisor)
Professor
Department of Mathematics
NIT, Trichy, Tamil Nadu.
E-mail: janaki@nitt.edu
- Dr. R.B.V. Subramanyam
Professor
Department of Computer Science and Engineering
NIT Warangal, Telengana.
E-mail: rbvs66@nitw.ac.in
- Dr. C. Chandra Sekhar
Professor
Department of Computer Science and Engineering
IIT Madras, Chennai, Tamil Nadu.
E-mail: cchandra@cse.iitm.ac.in
- Dr. S. R. Balasundaram
Professor
Department of Computer Applications
NIT, Trichy.
E-mail: blsundar@nitt.edu