

**Dr.A.MeenaKowshalya,**  
**Associate Professor,**  
**Department of Computer Science and Engineering,**  
**Government College of Technology,**  
**Coimbatore-641031**

Email: [meenakowsalya@gct.ac.in](mailto:meenakowsalya@gct.ac.in)

Mobile: 9585502131

<https://orcid.org/0000-0002-4475-862>

<https://www.scopus.com/authid/detail.uri?authorId=57193347708>

<https://dblp.org/pid/203/7013.html>

<https://www.webofscience.com/wos/author/record/AAH-7173-2020>

<https://scholar.google.com/citations?user=-5ix7KMAAAAJ&hl>

[https://www.cloudskillsboost.google/public\\_profiles/1a73bf2a-0777-45a9-be22-4451be25469e](https://www.cloudskillsboost.google/public_profiles/1a73bf2a-0777-45a9-be22-4451be25469e)



### **Sponsored Research:**

1. Principal Investigator - Machine Learning Based accurate Focal Cortical Dysplasia – AICTE RPS - 3 years – 2022 to 2025
2. Scientist Mentor - Deep Learning based Automatic Image Captioning systems – WOS A – DST - 3 years – 2022 to 2025
3. Co Principal Investigator - Design and Implementation of Sustainable Micro Grid for Coimbatore city – CMRG – 3 years – 2024 to 2027

### **Awards:**

1. National Winner of the National Convention of 2nd AICTE-ECI-ISTE Vishwakarma Awards 2018
2. Regional Winner of the National Convention of 2nd AICTE-ECI-ISTE Vishwakarma Awards 2019
3. Finalist SIH Software Edition 2020
4. Awarded Exceptional contribution as Primary evaluator in Toycathon 2021 by Ministry of Education, Innovation Cell, Government of India.

### **Invited Talks:**

1. Invited talk on “Block Chain Technology for Power Systems”, Five days Faculty Development Programme on “Emerging Trends in Power Industry 4.0” organized by Faculty Development Training Center and GCT, Cbe on 15.12.2025 .

2. Invited Talk on ‘Big Data and Machine Learning’, Science and Engineering Research Board (SERB) Sponsored Five Days Workshop on Advanced Data Engineering and Business Analytics and its Applications on Oct 10, 2023 at Nehru Institute of Engineering and Technology, Coimbatore- 13
3. Guest Lecture on “Seminar on Interdisciplinary Projects among Students”, on 24.11.2022 at civil Seminar Hall, organized by IQAC, GCT, Coimbatore.
4. Guest Lecture on “Exceptional Artificial Intelligence (XAI)” in the Five Day online FDP on “Artificial Intelligence and Deep Learning” on 17.09.2021 organized by Faculty Training Center in association with Department of ECE, GCT Coimbatore,
5. Guest Lecture on “Industrial Internet of Things” in the AICTE- ISTE sponsored INDUCTION / REFRESHER PROGRAMME (online mode) on "Digital Manufacturing" on 14.12.2021 organized by PSNA College of Engineering and Technology.
6. Invited Lecture on “Design, Develop online courses through MOODLE”, Jointly hosted by SPIU TN, GCT, PSG and CIT. Batch 1 – May 29-30 2020
7. Invited Lecture on “Design, Develop online courses through MOODLE”, Jointly hosted by SPIU TN, GCT, PSG and CIT. Batch 2 : May 15-16 2020
8. Invited talk on title “Image Captioning” in Two Weeks FDP in Research Challenges in Signal and Image Processing jointly organized by Faculty Training Centre & Dept of ECE, GCT, Coimbatore on 20.02.2020 .
9. Invited talk on title “Collaborative Filtering” in Two Weeks FDP in Machine Learning jointly organized by Faculty Training Centre & Dept of ECE, GCT, Coimbatore on 05.03.2020
10. Invited talk on title “Customized Machine Learning using Tensor Flow” in Two Weeks FDP in Big Data Computing jointly organized by Faculty Training Centre & Dept of IT, GCT, Coimbatore on 12.12.2019
11. Invited Lecture on One Day Workshop on “Small World In Motion” at Sri Ramakrishna Engineering College, Coimbatore on 20.03.2018
12. Invited Lecture on “Emergence of Artificial Intelligence” at Department of CSE, Sri Eshwar College of Engineering and Technology, Coimbatore, May 2018
13. Invited Lecture on “The Social side of IoT” in One Week Faculty Development Programme on Emerging Trends in Pervasive and Mobile Computing, Department of CSE, Government College of Technology, Coimbatore, Feb 2017
14. Invited Lecture on “Context Aware Human Activity Recognition” in One Week Faculty Development Programme on Building Context Aware Applications in IoT, Department of CSE, Government College of Technology, Coimbatore, Feb 2017
15. Invited Lecture on “Classical Encryption” in One Week Faculty Development Programme on

**Roles/ Responsibilities:**

1. NIRF Nodal Officer
2. SPOC – GCT Media Cell
3. Incharge of College Website Maintenance
4. Institute Innovation Council Ambassdor, GCT
5. SPOC IQAC
6. Department NBA Coordinator
7. Programme Coordinator – B.E CSE
8. Department Timetable Incharge

**SCI / WoS / Scopus Publication List (last 5 years):**

1. Suguna Devi, R., Suchitra, G., Meena Kowshalya, A. (2026). Underwater image-based crab detection using hybrid RetinaNet and YOLOv8. *Traitement du Signal*, Vol. 43, No. 1, pp. 335-350. <https://doi.org/10.18280/ts.430123>
2. M Anita A Meena Kowshalya, K Johny Elma, A Muthuram, “Epileptical Seizure Classification from Electroencephalography Signals and 2-D Images: A Comprehensive Approach”, *Advances in Artificial Intelligence and Machine Learning in Big Data Processing*: 2026
3. Meena Kowshalya, Suchitra, Rajesh Kumar Dhanaraj, Dragan Pamucar, “ A vision explainability method for image captioning using transformer decoder attention maps”, *MethodsX*, Volume15, 2025, 103744, <https://doi.org/10.1016/j.mex.2025.103744>.
4. Apsara, S., Suchitra, G. & Kowshalya, A.M. Efficient image authentication using Walsh-Hadamard Transform in encrypted domain. *Signal, Image and Video Processing*, Springer. 19, 858 (2025). <https://doi.org/10.1007/s11760-025-04442-8>
5. Rexciya, M. J., Kowshalya, A. M., Muthuchelvam, M., & Madhumathi, R. (2025). Enhanced Trust Propagation Mechanism for Trust Management in the Social Internet of Things. *IETE Journal of Research*, 1–17. <https://doi.org/10.1080/03772063.2025.2504096>
6. Sathya S, Madhumathi. R, Manjula. D and Meene Kowshalya. A, "Performance Evaluation of Blob Detection Techniques Using Image Processing," *2024 4th International Conference on Sustainable Expert Systems (ICSES)*, Kaski, Nepal, 2024, pp. 1101-1106, doi: 10.1109/ICSES63445.2024.10763362.
7. Anita, M., and A. Meena Kowshalya. "Automatic epileptic seizure detection using MSA-DCNN and LSTM techniques with EEG signals." *Expert Systems with Applications* 238 (2024): 121727.
8. BS Revathi, AM Kowshalya, “enhanced seizure detection and classification of eeg using hybrid decomposition method (HDM) and machine learning classifiers”, *Signal, Image and Video Processing*, Springer., 2023.

9. M Anita, AM Kowshalya, B Maheswari, A Muthuram, "An Extensive Review of Machine Learning Techniques for EEG Signal Processing" International Conference on Automation, Computing and Renewable Systems , 2022
10. BS Revathi, AM Kowshalya, "A review on image captioning system from artificial intelligence, machine learning and deep learning techniques", I-Manager's Journal on Image Processing 9 (3), 2022
11. Shanthini S., Meenakowshalya A,," Deep Learning Based Skin Lesion Classification", Journal of Information and Computational Science, 12(7), pp:377 – 391, 2022.
12. Madhumathi, R., A. MeenaKowshalya, and R. Shruthi. "Assessment of Sentiment Analysis Using Information Gain Based Feature Selection Approach." *COMPUTER SYSTEMS SCIENCE AND ENGINEERING* 43, no. 2 (2022): 849-860.
13. Ramasamy, M., MeenaKowshalya, A. Information Gain Based Feature Selection for Improved Textual Sentiment Analysis. *Wireless PersCommun* (2022). <https://doi.org/10.1007/s11277-022-09597-y>
14. MeenaKowshalya A NivethaM,," Multicriteria based Recommender system for Enhancing Customer Centric Business", Journal of Computer Science Engineering and Software Testing, 7(2), 2021
15. Meenakowshalya A Asha. J,," Fake News Detection Using Unsupervised and Deep Learning Algorithms", Journal of Computer Science Engineering and Software Testing, 7(2),pp28-37, 2021.
16. Nivetha, M., and A. MEENA KOWSHALYA. "Customer Segmentation for Enhancing Customer Centric Business." *E-Commerce for Future & Trends* 8, no. 1 (2021): 17-31.
17. John, Asha, and A. Meenakowshalya. "Fake News Detection Using N-Gram Analysis and Machine Learning Algorithms." *Journal of Mobile Computing, Communications & Mobile Networks* 8, no. 1 (2021): 33-43.
18. Lincy, M., and A. MeenaKowshalya. "Early Detection of Type-2 Diabetes Using Federated Learning." *International Journal of Scientific Research in Science, Engineering and Technology*, 7(6),257-267, 2020.
19. Muthuchelvam, M., and A. MeenaKowshalya. "Modelling Networks as Neighborly Irregular Graphs." *Wireless Personal Communications* 115, no. 1 (2020): 391-400.
20. Dr. A.MeenaKowshalya R Suvarna, "Credit Card Fraud Detection Using Federated Learning Techniques",*International Journal of Scientific Research in Science Engineering and Technology*, 7(3), 356-367.
21. Kowshalya, A. Meena, M. Lincy, and R. Suvarna. "Review of Feature Selection Methods and Semi Supervised Feature Selection Algorithms for Classification." *International Journal of Software Computing and Testing* 6, no. 1 (2020): 39-51.
22. Kowshalya, A. Meena, M. Lincy, and R. Suvarna. "Context Aware Physical Activity Recognition Using Social Objects." *International Journal of Computer Science & Programming languages* 6, no. 1 (2020): 41-50.
23. Suvarna, A.MeenaKowshalya. Credit card fraud detection using deep learning techniques. *Journal of Web Engineering & Technology*. 2020; 7 (1): 30–47.
24. M. Lincy, A. MeenaKowshalya. Leveraging Feature Selection Algorithms for Early Detection of Type-2 Diabetes. *Journal of Computer Technology & Applications*. 2020; 11(1): 13–20p.
25. Kowshalya, A. Meena, and Xiao-ZhiGao. "Efficient service search among Social Internet of Things through construction of communities." *Cyber-Physical Systems* (2019): 1-16.
26. Kowshalya, A. Meena, R. Madhumathi, and N. Gopika. "Correlation Based Feature Selection Algorithms for Varying Datasets of Different Dimensionality." *Wireless Personal Communications* (2019): 1-17

27. N. Gopika, A. Meenakowshalya, Correlation Based Feature Selection Algorithm for Macmhine Learning", 3rd International Conference on Communication and Electronics Systems (ICCES), 2018.
28. Kowshalya, A. Meena, and M. L. Valarmathi. "Dynamic trust management for secure communications in social internet of things (SIoT)." *Sādhanā* 43.9 (2018): 136.
29. Kowshalya, A. Meena, and M. L. Valarmathi. "Evaluating Twitter Data to Discover User's Perception About Social Internet of Things." *Wireless Personal Communications*, 2018, 1-11.
30. Kowshalya, A. Meena, and M. L. Valarmathi. "Trust Management in the Social Internet of Things." *Wireless Personal Communications* 96, no. 2 (2017): 2681-2691.
31. Kowshalya, A. Meena, and M. L. Valarmathi. "Trust management for reliable decision making among social objects in the Social Internet of Things." *IET Networks* 6, no. 4 (2017): 75-80.
32. A.MeenaKowshalya and M.L. Valaramathi, "The Road Map From Wireless Sensor Networks to Internet of Things to the Social Internet of Things", *European Journal of Applied Sciences*, 9, no.2, pp:170-177, 2017.
33. Kowshalya, Meena A., and M. L. Valarmathi. "Think smart, think social! The road map from smarter objects to social objects in social internet of things: A survey." *Journal of Applied Engineering Science* 15, no. 2 (2017): 149-154.