Appendix A

List of Publications

A.1 Journal Papers

1. **Shashank Kumar Singh**, Amrita Chaturvedi: A reliable and efficient machine learning pipeline for American sign language gesture recognition using EMG sensors. In: Multimedia Tools and Applications, 82, 23833–23871 (Springer Nature) (2023) (Published) **(SCI/SCIE, IF: 3.00)**

2. **Shashank Kumar Singh**, Amrita Chaturvedi: Leveraging deep feature learning for wearable sensors based handwritten character recognition. In: Biomedical Signal Processing and Control (Elsevier), Vol. 80, Part 1, 104198, (2023) (Published) **(SCI/SCIE, IF: 4.9)**

3. **Shashank Kumar Singh**, Amrita Chaturvedi: "An efficient multi-modal sensors feature fusion approach for handwritten characters recognition using Shapley values and deep autoencoder." **Engineering Applications of Artificial Intelligence** 138 (2024): 109225. (Elsevier)(Published) **(SCI/SCIE, IF: 7.5)**

4. **Shashank Kumar Singh**, Amrita Chaturvedi: "A Cooperative game theory-based feature selection for efficient hand grasp classification using minimal

number of sEMG signals." **ACM Transactions on Computing for Healthcare** 6.1 (2025): 1-22. **(SCI/SCIE/ESCI)** (Published)

5. **Shashank Kumar Singh**, Amrita Chaturvedi, Ruhi Asitkumar Joshi, and Shruti Sharma: "Improving Electromyography Signals Based Handwritten Character Recognition through Sensor Fusion and Meta-Heuristic Optimization." In: **Computers and Electrical Engineering,**, 2024 (Elsevier)(Under Review) **(SCI/SCIE, IF: 4)**

A.2 Conference Papers

1. **Shashank Kumar Singh**, Amrita Chaturvedi, Alok Prakash: Applying Extreme Gradient Boosting for Surface EMG based Sign Language recognition. In: International Conference on Machine Learning and Big Data Analytics (ICMLBDA), Indian Institute of Technology, Patna, India, Lecture Notes in Networks and Systems, vol 256., SPRINGER AISC Series, pp 175 - 185. (March 2021) **(Published)**

2. **Shashank Kumar Singh**, Amrita Chaturvedi: Applying Machine Learning for American Sign Language Recognition: A brief survey. In: The 4th International Conference on Communication and Intelligent Systems (ICCIS 2022) (Springer), NIT Delhi, India, Lecture Notes in Networks and Systems (LNNS), Springer, Vol 689, pp 297-309. (December 2022) **(Published)**

3. **Shashank Kumar Singh**, Amrita Chaturvedi: "Leveraging Handwriting Dynamics, Explainable AI and Machine Learning for Alzheimer Prediction." International Conference on Computational Intelligence in Communications and Business Analytics. Cham: Springer Nature Switzerland, 2024.**(Published)**

4. **Shashank Kumar Singh**, Amrita Chaturvedi: "Machine Learning for Sensor-Based Handwritten Character Recognition: A Brief Survey." International

Conference on Distributed Computing and Intelligent Technology. Cham: Springer Nature Switzerland, 2024.**(Published)**

A.3 Patents

1. **Shashank Kumar Singh**, Amrita Chaturvedi, Title for the invention: ”Method and System for Handwritten Character Recognition Using Multi-Modal Sensor Fusion and Enhanced Salp Swarm Algorithm” (Indian Patent) **(Application No: 202411082614)**

2. **Shashank Kumar Singh**, Amrita Chaturvedi, Title of the invention: “Method for Efficient Hand Grasp Classification Using Minimal sEMG Sensors and Co-operative Game Theory” (Indian Patent) **(Application No: 202411097957)**

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