

Augmenting intelligence and neural networks – part one

The synergy between augmenting intelligence and neural networks provides a great impact on our daily lives. Augmenting intelligence and neural networks act as a powerful weapon in artificial intelligence and it helps to mimic the human's behavior to resolve the critical issue like decision making and problem-solving techniques. The artificial intelligence has undergone many recent developments and transformations in machine learning, deep learning, artificial networks, automation, robotics, expert systems and natural language processing. This special issue addressed the issues in the augmenting networks and implemented a new technique based on the recent advances in artificial neural networks.

The first paper titled "Cosmetic applied based face recognition for biometric passport" focuses on face recognition to improve the biometric authentication for an e-passport, and it also introduces facial permanent mark detection from the makeup or cosmetic-applied faces, twins and similar faces. To develop an efficient and accurate routing protocol for MANET that consumes less energy, with an increased network lifetime, authors of the second paper introduced "A generic algorithmic protocol approaches to improve network life time and energy efficient using combined genetic algorithm with simulated annealing in MANET". Next paper titled "A wireless IoT system towards gait detection technique using FSR sensor and wearable IoT devices" and this paper used the Gait analysis for identifying a physically challenged person even in crowded areas. The fourth paper "Implementing and analyzing FAR and FRR for face and voice recognition (Multimodal) using KNN classifier" produces better results in a noisy environment with better accuracy and this proposed model incorporates a multimodal biometric system, which plays a major role in improving the accuracy and reducing FAR and FRR performance metrics. Next paper titled "Experimental analysis of Medicare data using hierarchical grouping mechanism" proposes a Hierarchical Grouping with an experimental model to handle the complex data and analysis of the categorical data which consist of heterogeneously typed columns.

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About the guest editors

Dr P. Karrupusamy working as Professor and Head in Department of Electrical and Electronics Engineering at Surya Engineering College, Erode. In 2017, he had completed doctorate in Anna University, Chennai and in 2007, he had completed his post graduate Power Electronics and Drives in Government College of Technology, Coimbatore, India. He has more than ten years of teaching experience. He has published more than 40 papers in national and international journals and conferences. He has acted as conference chair in IEEE international conferences and Guest editor in reputed journals. His research area includes modeling of PV arrays, adaptive neuro-fuzzy model for grid connected photovoltaic system with multilevel inverter.



Dr Joy Chen is currently full Professor of Department of Electrical Engineering Dayeh University at Changhua Taiwan. Prior to joining the Dayeh University, he worked at the Control Data Company (Taiwan) as a technical manager since September 1985 to September 1996. His research interests include wireless communications, spread spectrum technical, OFDM systems and wireless sensor networks. He has published a large number of SCI journal papers in the issues addressed physical layer for wireless communication systems. Moreover, he also majors in developing some applications of the Internet of Thing (IOT) techniques and Dr Joy I.-Z. Chen owned some patents authorized by the Taiwan Intellectual Property Office (TIPO).

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