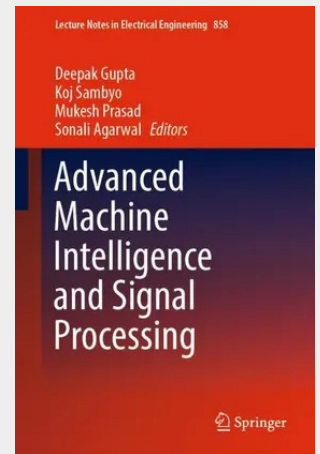


Advanced Machine Intelligence and Signal Processing

This book covers the latest advancements in the areas of machine learning, computer vision, pattern recognition, computational learning theory, big data analytics, network intelligence, signal processing, and their applications in real world. The topics covered in machine learning involve feature extraction, variants of support vector machine (SVM), extreme learning machine (ELM), artificial neural network (ANN), and other areas in machine learning. The mathematical analysis of computer vision and pattern recognition involves the use of geometric techniques, scene understanding and modeling from video, 3D object recognition, localization and tracking, medical image analysis, and so on. Computational learning theory involves different kinds of learning like incremental, online, reinforcement, manifold, multitask, semi-supervised, etc. Further, it covers the real-time challenges involved while processing big data analytics and stream processing with the integration of smart data computing services and interconnectivity. Additionally, it covers the recent developments to network intelligence for analyzing the network information and thereby adapting the algorithms dynamically to improve the efficiency. In the last, it includes the progress in signal processing to process the normal and abnormal categories of real-world signals, for instance signals generated from IoT devices, smart systems, speech, videos, etc., and involves biomedical signal processing: electrocardiogram (ECG), electroencephalogram (EEG), magnetoencephalography (MEG), and electromyogram (EMG).

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