

Feature Extraction & Selection Techniques for Pattern Recognition

Pattern Recognition is one of key areas in modern computational techniques. Though the legacy of pattern recognition is highly classical, it continues to play important roles. Feature extraction and selection techniques are the most important operations for developing a successful pattern recognition system. This session will cover the basics of these two operations with suitable illustrations. In addition to the basics, a brief outline of various classification techniques and evaluation methods will also be discussed. In principle, this discussion focuses on feature extraction & selection, classifiers and evaluation methods for digital images. However, all these concepts can also be applied for various other data and signals. Pattern recognition techniques in spatial, frequency and spatial-frequency domain will be addressed. This session will mostly cover the theoretical aspects of these concepts with suitable illustrations. A few of our latest research results will also be briefly presented as case studies. This talk will be useful for young researchers and graduate students who started working in the field of machine vision.