

Editorial

We are pleased to release the first issue of this volume of **Progress in Machines and Systems** with the following research.

In the opening paper, “**Fusion Mean Shift–SIFT Tracking Framework with Quaternion-Based Skeletal Modelling for Robust Sports Motion Trajectory Capture**,” the author advocated a framework for capturing game movement trajectories using the mean shift algorithm to address limitations of conventional tracking methods in dynamic training environments. She constructed a skeletal representation consisting of 16 joints and 51 degrees of freedom to model human motion during Games training. Experimental validation showed improved detection accuracy, reduced false alarm rates, and superior clustering efficiency compared with conventional estimation-based tracking approaches.

In the paper “**A Rough Set-Based Parallel Verification Algorithm for Ensuring Data Integrity in Cloud-Based Accounting Information Systems**,” the author introduces a cloud-based algorithm that combines rough set theory with data mining techniques to verify the integrity of accounting data. The proposed method creates a secure and reliable cloud storage framework that enables efficient data verification through parallel processing. By integrating rough set-based attribute reduction and feature selection mechanisms, the algorithm enhances computational efficiency without compromising high accuracy in detecting data corruption or inconsistencies.

In the last paper, “**A Deep Learning Framework for Radar Signal Processing with a Multi-Target Analysis**,” the authors proposed a convolutional neural network for multi-target vital-sign detection. The GoogLeNet architecture is employed to predict the number of moving targets across different environments, achieving improved accuracy. The results validated that biological radar analysis using CNNs significantly boosts the monitoring of vital signs in multiple targets while offering reliable real-time health-assessment capabilities.

We hope that these papers are interesting to read and work further.

Editors