
Editorial

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Biographical notes: Kandarpa Kumar Sarma is currently with the Department of Electronics and Communication Technology, Gauhati University. He obtained his MTech and PhD degrees from the Indian Institute of Technology Guwahati, India. His areas of interest include MIMO systems, mobile communication, soft computation, antenna design and speech processing. He is a senior member of IEEE (USA) and Fellow of IETE (India). He serves as the Editor-in-Chief of the *International Journal of Intelligent Systems Design and Computing*.

Of late, intelligent systems have become part of computer vision and related techniques. It has enabled the design of self-sustaining mechanisms as part of computer vision and related systems which have contributed significantly to the growth of such frameworks and have improved performances. These issues have been highlighted by the contributions to the special issue titled 'Intelligent applications in computer vision and related areas' which falls within the theme of the *International Journal of Computational Vision and Robotics*.

A work by Bhowmick et al. discusses a computer vision-based technique for gait identification. Agrawal et al. highlight a redundancy removal approach for isolated gesture in Indian sign language and demonstrates its application for recognition using multi-class support vector machine. A work on obstacle avoidance for mobile robot navigation in unknown environment by Jamdagni and Patra shows innovative applications of emerging computer vision techniques. A new image denoising method based on the statistical modelling of dyadic rearranged lapped transform (LT) is presented by Nath et al. Goel and Prasad propose two new indexing techniques namely inverse suffix array (ISA) and Burrows-Wheeler transformation (BWT) to improve the performance of record matching process. Bellala and Souami discuss two steps of colour image segmentation. The first consists in colour image quantisation by genetic algorithm-based clustering method. And the second consists in connected component labelling (CCL) of quantised image. Dutta et al. address the problem of ownership of digital watermark by inserting a biometric-based watermark in the digital host signal. The biometric-based digital watermark is made secure using an encryption technique using Arnold Catmap before embedding. Kakoty and Hazarika present the development of an electromyogram controlled extreme upper limb prosthetic hand prototype following a biomimetic approach. The biomimetic approach is followed to harmonise both physical and functional aspects of the human hand.

In aerially captured video, low resolution and small object size makes tracking difficult. Selvakumar and Jerome propose a least squares estimation-based linear model for improved performance in such cases. For application with satellite images, Bennour and Tighiouart introduce a new approach for automated image registration without the

need of sensors parameters and control points. Certain image fusion methods based on dual-tree complex wavelet transform (DT-CWT) has been presented by Muduli and Pati.

The response received to the issue was considerable. As per the mandatory regulation of Interscience journals all submissions were passed through multiple mandatory peer reviews to ensure publication of quality work. This resulted in the selection of the papers included in this issue. The works included in this special issue shall be important additions to the literature already available in the area of computer vision. The undersigned is thankful to the Editor-in-Chief, *IJICT* Prof. Srikanta Patnaik and all officials of Interscience coordinating the effort. The team work was flawless and establishes the efficiency of Interscience as a leading publisher of academic and scientific works.