Editorial

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Biographical notes: Wahiba Ben Abdessalem Karâa is an Assistant Professor at Department of Computer Science at Taif University and attached to High Institute of Management of Tunis in Tunisia. She has obtained her Master degree from Paris III, New Sorbonne, France, and PhD in Computer Science from Paris 7 Jussieu, France. Her research interest includes: natural language processing, information retrieval, text mining and image mining. She is a member of program committee of several international conferences. She is a member of the editorial board of the several international journals. She is the Editor-in-Chief of '*International Journal of Image Mining* (*IJIMI*)' published by Inderscience.

A vast amount of images data such as medical images, satellite images, … is produced every second. Image mining systems that can extract significant information from image data are increasingly claimed.

For example, mining satellite imagery has potential uses including: debris field detection; building damage detection, disaster assessments… Spatial image mining and geographic knowledge discovery has emerged since spatial images are collected using modern data collection techniques, such as global positioning systems (GPS).

The medical imagery is increasingly acquired and stored digitally. Image mining in medicine can help to uncover new relationships between data, such as relation between disease and treatment and reveal new information that identify diseases, determine diagnoses, or suggest certain treatments.

Image mining represents the bound of image processing technology and data mining to help specialists in understanding and analysing complex images. This field takes advantages of computer evolution and the progress of diverse disciplines such as artificial intelligence, machine learning, image processing, etc.

The objectives of *IJIM* are to establish an effective communication channel between researchers, developers and professionals from both academia and the industry so that they can report the latest scientific and theoretical advances on image mining and their applications.

It also aims to reveal useful information to specialists and can extract implicit knowledge, uncover new relationships and the like which are not explicitly expressed in images. This information can be used to make prognosis and then anticipate human or

system behaviours. Evolutions in this field will help to intensify interdisciplinary discovery.

International Journal of Image Mining (*IJIM*) is a peer reviewed journal devoted to important topics in image mining. *IJIM* publishes high-quality original papers, review articles and technical reports, and conference papers if they are substantially extended. In the first issue of *IJIM*, papers are selected after several rounds of meticulous review process.

For the inaugural issue of *IJIM*, I am thankful to all the regional editors and the reviewers who supported the journal with their valuable recommendations.

This inaugural issue of *IJIM* consists of seven papers. The first paper, entitled: 'An object centric image retrieval framework using multi-agent model for retrieving non-redundant web images', deals with a framework for web images retrieval using multi-agent model. The framework is based on joint querying, filtering, merging and similarity calculation scheme. The proposed framework efficiently incorporates an image analysis algorithm into the text-based image search engines without degrading their response time.

The second paper: 'Lattice vector quantisation for indexing and retrieval of medical images using texture features based on 2-D Wold decomposition', proposes a new indexing structure based on lattice vector quantisation (LVQ) suitable for elongated feature vectors of image database. The texture feature vectors based on 2D-Wold decomposition are indexed based on norm, leader and permutation index. The proposed indexing structure is simple and efficient. Simple Euclidean distance measure is used to rank the retrieved images.

The third paper, 'Image mining framework and techniques: a review', presents a detailed view on the existing research works in the area of image mining and also summarised the different techniques used in. this review paper will help in selecting an appropriate image mining technique among all the available techniques.

The fourth paper, 'Principal component analysis in medical image processing: a study' suggests the application of principal component analysis (PCA) in the field of medical image processing and describes some steps for its implementation. In this paper, it was observed that PCA can be used for image fusion, image registration, image segmentation, image compression or removal of redundant information, noise removal and feature extraction.

In the fifth paper, 'Video segmentation using minimum ratio similarity measurement', a new algorithm is proposed to detect the shot boundary through using the minimum ratio similarity measurement between the characteristic features of two consecutive frames. Diverse parameters are calculated for each frame that creates a feature vector of size 40. For simulating the proposed algorithm a standard data sets of ground truth are used.

The sixth paper entitled: 'Natural language processing-based e-news recommender system using information extraction and domain clustering' a methodology proposes a model to increase the coverage of search and accuracy of clustering by the use of WordNet synsets in addition to the keyword-based feature vectors. A performance enhancement has been observed compared by the plain keywords-based model.

The ninth paper entitled: 'Automatic cattle muzzle print classification system using multiclass support vector machine', presents muzzle identification system that uses printed muzzle images as input to box-counting algorithm to extract feature of each image and then uses MSVM for matching and classification of each muzzle. First images

are collected from ten animals. Then histogram equalisation and mathematical morphology are used, in order to enhance the image contrast and remove image noise.

I am very grateful particularly to Nilanjan Dey, from Bengal College of Engineering and Technology, India, the Managing Editor, for all his hard work to promote this journal. I'm greatly indebted to the reputed Inderscience Publishers for their belief in our ability and who provide us the opportunity to edit an international journal. On behalf of all the editorial board members, I am thankful to all researchers in the field of image mining who accepted our invitation to submit their scholarly work. I would like to thank the readers and the image mining community for their interest in *IJIM*.