Calls for Papers: Special Issue on Intelligent Image and Video Processing and Applications: The Role of Uncertainty

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International Journal of Intelligent Systems Technologies and Applications (IJISTA)

Call For papers:
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Special Issue on: *Intelligent Image and Video Processing and Applications: The Role of Uncertainty*

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Scope:
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Image and video processing are focused on the problem of semantic segmentation and on related applications. The difference between now and before is that now emphasis is on the combination of raw processing techniques with intelligent expert systems towards the solution of the considered problems. As we move closer towards the combination and integration of the two distinct fields, it is becoming apparent that some issues related to their different nature will have to be tackled.

Specifically, expert systems and intelligent applications in general typically assume that some information about the world is available; this information, be it complete or not, is assumed to be known with precision and certainty. Based on this information, and utilising the available knowledge, an expert system will then provide a decision or an assessment of a situation. Image and video processing techniques, on the other hand, suffer from low quality of the raw media, noise, occlusions,

poor matching of observed objects to theoretical models due to unexpected deformations and random errors, all of which lead to uncertain, imprecise and possibly incorrect results. Obviously, expert systems are not designed to operate with the output of image and video processing modules as input, and image and video processing modules are not designed to provide input to expert systems.

This special issue seeks to explore developments in both the field of expert systems and the field of image and video processing that help bridge the gap between the two and make their combination possible, meaningful and robust. In this framework, we would like to invite contributions that not only fit the aims of IJISTA, but also address the issue of uncertainty in the output of image and video processing or in the input of expert systems. Papers can be the presentation of theoretical fi