INTERNATIONAL

INVITED SESSION SUMMARY

Title of Session:
Processing visual data in intelligent systems: methods and applications

Name, Title and Affiliation of Chairs:
- Francesco Bianconi, Senior Lecturer, *Università degli Studi di Perugia*, Italy
- Elena González, Senior Lecturer, *Universidade de Vigo*, Spain
- Manuel Ángel Aguilar, Senior Lecturer, *Universidad de Almería*, Spain

Details of Session (including aim and scope):

This session covers any area related to processing and understanding visual data in intelligent system, and includes – among others – vision science, image processing, computer vision, computer graphics, remote sensing and machine learning. The session welcomes both theoretical and practical original contributions in these fields, as well as new datasets for comparative performance evaluations. Submission of state-of-the art reviews of existing methods and comparative evaluations is also encouraged.

Topics of interest include – although not limited to:

- METHODS
    - Bag-of-features models and their extensions;
    - Colour and texture models;
    - Computational vision models and perceptual-based processing;
    - Convolutional neural networks and deep learning;
    - Image/video processing and understanding;
    - Image perception models;
    - Morphological analysis;
    - Object-based Image Analysis (OBIA).

- APPLICATIONS
    - Biometric identification & forensics;
    - Classification of materials and scenes;
    - Content-based Image retrieval;
    - Industrial inspection (e.g.: surface grading, surface inspection, etc.);
    - Food recognition;
    - Medical image analysis;
    - Monitoring and surveillance;
    - Natural image statistics;
    - Remote sensing;
    - Satellite imagery analysis.

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Website URL of Call for Papers (if any):

Email & Contact Details:
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Manuel Ángel Aguilar: maguilar@ual.es

Francesco Bianconi received the M.Eng. from the University of Perugia (Italy) and the Ph.D. in Computer-aided Design from a consortium of Italian universities. He has been visiting researcher at the University of Vigo (Spain), the University of East Anglia (United Kingdom) and Queen Mary, University of London (United Kingdom). Currently, he is a Senior Lecturer in the Department of Engineering at the University of Perugia where he conducts research into computer vision, image processing and pattern recognition with special focus on texture and colour analysis. He is IEEE Senior Member. Further information and complete CV available at http://dismac.dii.unipg.it/bianco

Elena González received the M.Eng. in Industrial Engineering from the University of Santiago de Compostela (Spain) and the Ph.D. in Industrial Engineering from the University of Vigo (Spain). She has been Visiting Professor at the University of Perugia (Italy). She is currently a Senior Lecturer in Technical Drawing and Computer-aided Engineering within the Department of Engineering Design at the University of Vigo. Her research interests cover colour technology and pattern recognition with special emphasis on industrial applications. Further information and complete CV available at http://elena.webs.uvigo.es/

Manuel A. Aguilar received the Ph.D. from the University of Córdoba (Spain) in 2001. He is currently a Senior Lecturer in the Department of Engineering at University of Almería (Spain). His teaching activity includes Technical Drawing, Computer-aided Design, Geomatics and Photogrammetry. He has been Visiting Professor at the University of Perugia (Italy). He participated as principal investigator in various research projects focussed on the use of satellite imagery (IKONOS, QuickBird, GeoEye-1 and WorldView-2) for land use identification, generation of digital elevation models, coastline surveillance and monitoring, and greenhouse detection. He currently conducts research on digital elevation models, aerial laser scanning and photogrammetry on which topics he authored more than 50 scholarly papers. Further information and complete CV available at: http://www.ual.es/~maguilar.