

# **J.UCS**

## **Journal of Universal Computer Science**

### **Call-for-papers for the Special Issue on Advances in Document Engineering**

**J.UCS** - The Journal of Universal Computer Science - is a high-quality open access electronic publication that deals with all aspects of computer science. J.UCS has been appearing monthly since 1995 and is thus one of the oldest electronic journals with uninterrupted publication since its foundation. J.UCS also appears in an annual printed archive edition. The publication volume comprises more than 1100 peer-reviewed articles. J.UCS is published by the Verlag der Technischen Universität Graz, Austria, in cooperation with Know-Center, Graz, Austria, and IICM, Graz University of Technology, Austria, and is supported by Campus 02. J.UCS is happy to announce a special issue in Advances of Document Engineering.

**Document Engineering** is a branch of computer science that investigates systems for documents in any form and in all media. Document engineering is concerned with principles, tools and processes that improve our ability to create, manage, store, compact, access and maintain documents. The fields of document recognition and retrieval have grown rapidly in recent years. This development has been fueled by the emergence of new application areas such as the World Wide Web (WWW), digital libraries, and video- and camera-based OCR. The use of OCR is spreading from high-volume, niche domains to more general tasks, including the processing of noisy "real-world" documents, photocopies, and faxes.

These are the main areas of concern in Document Engineering:

- Algorithms and systems for machine-printed and handwritten character and word recognition, especially for degraded documents (e.g., faxes);
- Character and word segmentation techniques;
- Identification and analysis of tables or equations;
- Page segmentation, including hierarchical decomposition of documents into text regions, colored/textured background, halftones, line-art, etc;
- Logical structure analysis, linguistic representation of structure and syntax-directed recognition of logical structure;
- Raster-to-vector conversion of line-art, maps, and technical drawings;
- Filtering and enhancement techniques for document images;
- Document image compression;
- Document degradation models;
- Video and camera based OCR;
- Applications of document recognition to the WWW and digital libraries;
- Techniques to support spoken language access to document text (audio browsing of document databases);
- Multilingual character recognition;
- Other topics relating to document analysis and character recognition;
- Impact of recognition accuracy on retrieval effectiveness;
- Recovery and use of logical structure for retrieval;
- Relevance feedback techniques for document retrieval;
- Cross-language and multi-lingual retrieval;
- Categorization and summarization of text documents and imaged documents;
- Keyword spotting in document images;
- Approximate string matching algorithms for OCR text;
- Non-textual retrieval methods;
- Image and multimedia search;
- Interfaces for retrieval;
- Benchmarking and evaluation issues;
- Other topics relating to the retrieval of documents and document images.

### **Paper Submission**

Authors are invited to submit original and unpublished papers in all areas of document engineering. All submissions should be made electronically to the guest editor, Rafael Lins via e-mail: [rld@ufpe.br](mailto:rld@ufpe.br).

## Important Dates:

**April 8, 2010:** Paper submissions.

**June 15, 2010:** Author notification.

**July 30, 2010:** Revised version due.

**August 30, 2010:** Final notification.

**September 30, 2010:** Camera Ready Copy.

## Board of Reviewers:

All submissions to this special issue will be refereed by three of experts in the different fields of Document Engineering listed below:

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