



INFORMATIK 2007 – Informatik trifft Logistik

37. Jahrestagung der Gesellschaft für Informatik e.V. (GI) | 24. – 28.09.2007 | Universität Bremen

Workshop (half-day)

Image Fusion

Call for Papers

Subject

Fusing information contained in multiple images plays an increasingly important role for quality inspection in industrial processes as well as in situation assessment for autonomous systems and assistance systems. The aim of image fusion in general is to use images as redundant or complementary sources to extract information from them with higher accuracy or reliability. Among others, the perhaps most interesting scenario is to use complementary image information obtained by varying one or several imaging parameters, such as the camera spectral response, polarization filters, dynamic range or aperture setting.

However, the challenges of image fusion are still numerous: for an inspection task, specific imaging constellations yielding the desired information must be found. Furthermore, fusion techniques are required to produce a result that offers the desired accuracy and reliability. In addition, the algorithms must meet the requirements of affordable calculation time in real-time systems.

Focus

This workshop focuses on industrial applications of image fusion. The objective is to give an impression of the large potential of this rapidly developing field for the inspection of product quality and process monitoring. The scope of the workshop covers the following areas:

- Physical measurement principles for image series
- Multivariate image series
- Algorithms for the efficient evaluation of image series
- Optical surface characterization and inspection
- Image-based state monitoring for production and process engineering

Participants

This workshop is intended for researchers and developers of visual inspection systems who are concerned with the physical setup or with techniques and algorithms of image fusion for inspection systems.

Contributions

Prospective authors are encouraged to submit a full draft paper of at most 5 pages (preferably pdf-file) to heizmann@iitb.fraunhofer.de. All submitted papers are subject to a careful reviewing process by the program committee. Accepted contributions will be published in the GI-edition *Lecture Notes in Informatics*. The papers have to comply with the authors' style guide <http://www.gi-ev.de/service/publikationen/lni/>. At least one author is expected to register for the GI Annual Meeting and to present the paper. See also <http://www.informatik2007.de>.

Deadlines

Submission of contributions	29.04.07
Notification of acceptance	28.05.07
Submission of the final version	01.07.07

Organization

Dr.-Ing. Michael Heizmann, Fraunhofer-Institut für Informations- und Datenverarbeitung IITB, D-76131 Karlsruhe, heizmann@iitb.fraunhofer.de

Program committee

Prof. Dr. Carlo Bach, Interstaatliche Hochschule für Technik (NTB), CH-9471 Buchs

Prof. Dr.-Ing. Jürgen Beyerer, Fraunhofer-Institut für Informations- und Datenverarbeitung IITB, D-76131 Karlsruhe

Prof. Dr.-Ing. Fernando Puente León, TU München, D-80290 München