

Publication Series of the Institute of Automation  
University of Bremen

Series 1-Nr.3

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## **Methods and Applications in Automation**

30th - 31st Colloquium of Automation,  
Salzhausen/Leer, Germany

Shaker Verlag  
Aachen 2010

**Bibliographic information published by the Deutsche Nationalbibliothek**

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

**Publication Series of the INSTITUTE OF AUTOMATION, UNIVERSITY OF BREMEN:**

- 1 Colloquium of Automation
- 2 Automation
- 3 Robotics
- 4 Control Theory
- 5 Image Processing
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- 7 Brain Computer Interface

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Printed in Germany.

ISBN 978-3-8322-9512-7

ISSN 1861-5457

Shaker Verlag GmbH • P.O. BOX 101818 • D-52018 Aachen

Phone: 0049/2407/9596-0 • Telefax: 0049/2407/9596-9

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This volume contains the proceedings of the 30<sup>th</sup> (jubilee) and 31<sup>st</sup> annual Colloquium of Automation. As in preceding years, the 30<sup>th</sup> Colloquium was held in Salzhausen, Germany. For the first time in the history of the Colloquium, the 31<sup>st</sup> Colloquium was held in Leer, Germany. Though location has been changed, the mission of the Colloquium of Automation continues unchanged, that is, to gather together researchers from the University of Bremen, engineers from local industry and international researchers and practitioners in automation and related fields.

The 15 contributions presented in this volume are a selection from 51 papers accepted for presentation at the Colloquium. The coverage of the contributions is very wide, addressing research, new developments, and experience related to:

- Control Theory
- Robotics
- Service Robotics
- Image Processing
- Virtual/Augmented Reality
- Brain Computer Interface