

**4.2 Collaborative Research Center No. 379 :**  
**(Sonderforschungsbereich SFB Nr. 379)**  
**01. 01. 1995 – 31. 12. 2006**

**„Arrays of micromechanical sensors and actuators“**

The MEMS research field covers several provinces using different microtechnology methods for the fabrication.

The subject of the SFB deals with the well-defined part of the microsystems research:

“The realization of sensor and actuator arrays consisting of a number of single components”.

Thus, results concerning the behavior and new application fields of the devices would be expected. As a vision of the future it is aimed toward a system which combines the arrays with the electronics by microtechnology integration.

Within the focus of interest are the following topics:

- Micromechanical scanning devices (actuators fabricated in bulk and surface micromachining)
- Use of micromechanical basic components, e.g. for ultrasonic arrays and positioning systems, including the application of new materials
- Developing further a SCREAM-based Technology

The following institutions are working together

**Faculty of Electrical Engineering and Information Technology**

Chair Circuit Technology, Prof. Dr. Reinald Brumme

Chair Microsystems and Precision Engineering, Prof. Dr. Wolfram Dötzel

Chair Electronic Devices, Prof. Dr. Gunter Ebest

Group Material Science, Prof. Dr. Joachim Frühauf

Chair Microtechnology, Prof. Dr. Thomas Gessner

Chair Measurement and Sensor Technology, Prof. Dr. Wolfgang Manthey

Chair Circuit and System Design, Prof. Dr. Dietmar Müller

Chair Optoelectronics & Solid-State Electronics, Prof. Dr. Christian Radehaus

**Faculty of Natural Science**

Chair Semiconductor Physics, Prof. Dr. Dietrich R. T. Zahn

Chair Solid Surfaces Analysis, Prof. Dr. Michael Hietschold

**Faculty of Mechanical Engineering**

Chair Production Technology, Prof. Dr. Michael Dietzsch

Chair Printmedia Technology, Prof. Dr. Arved Huebler

**Fraunhofer Institute „Reliability and Microintegration“, Branchlab Chemnitz**

Head of the Institute: Prof. Dr. Bernd Michel

**Institut für Mechatronik e.V. Chemnitz, Prof. Dr. Peter Maißer**