

**Contact**

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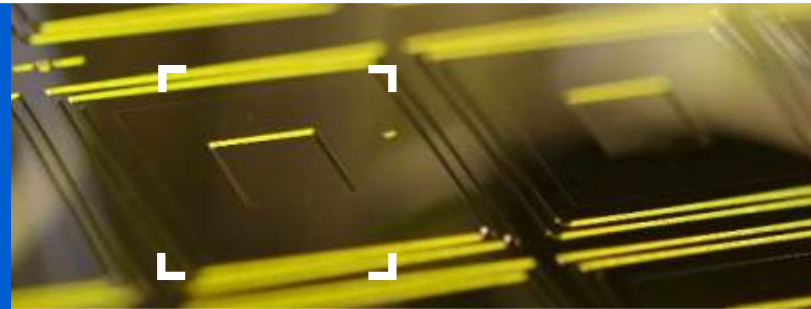
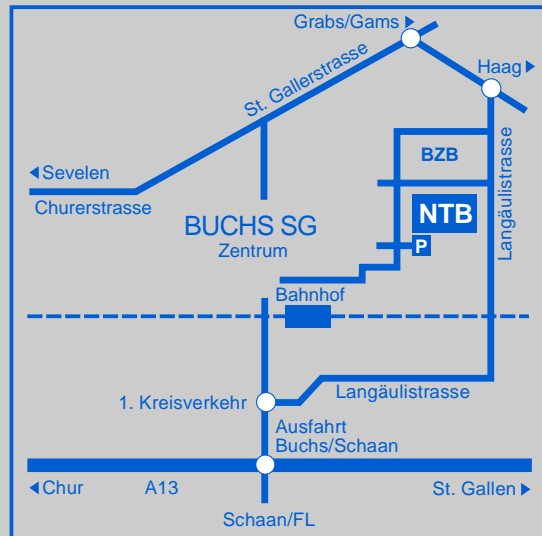
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Institute for Micro- and Nanotechnology  
**Hands-on MEMS Course**

... feeling at ease  
 working in the micro world



**Näher dran**  
**am System**  
**der Technik**  
**der Zukunft**

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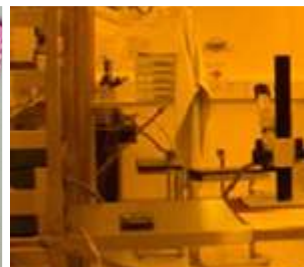
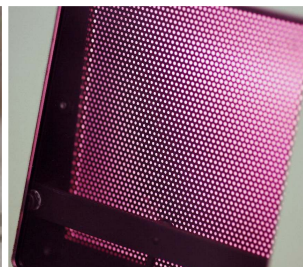
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June 2-6, 2008 • Buchs, SG

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## PROGRAM DETAILS

### Hands-on MEMS Course

Basics of wafer processing for the fabrication of microelectromechanical systems (MEMS) in a cleanroom environment

**June 2-6, 2008**

in the  
Institute for Micro- and Nanotechnology,  
of the NTB  
Buchs, SG, Switzerland

## COURSE OUTLINE

### Day 1: Classroom instruction

General introduction, safety instructions, project overview, wafer processing basics, mask design overview, process flow

### Day 2-4: Hands-on work in the cleanroom

Cleanroom working environment and procedures, wafer handling, wet cleaning, photolithography, isotropic wet etching, anisotropic etching of silicon, plasma processing, physical vapor deposition, anodic bonding

### Day 5: Hands-on work

Wafer dicing, packaging aspects, wrap-up

## WHAT IS A MEMS DEVICE

Typical examples of microelectromechanical systems (MEMS) are pressure sensors, printheads, micro mirrors, acceleration sensors and gyroscopes, as well as microfluidic or RF devices. Typical MEMS devices have a characteristic length of less than 1 mm but more than 1  $\mu\text{m}$ . They are fabricated using wafer-based batch-processing technologies pioneered in the integrated circuit industry.

## HOW YOU WILL BENEFIT

- Discover the world of micro-fabrication
- Learn the basic cleanroom procedures
- Understand how microelectro-mechanical systems (MEMS) are designed and fabricated
- Gain hands-on experience in the basic wafer processing techniques
- Be on the forefront of MEMS processing

## COURSE FEES

4½ day course including class room lectures, cleanroom use, consumables, handouts, lunch and refreshments: 5'600 CHF (excl. VAT).

The course is given in English or German, depending on the preference of the participants.

Cancellations must be received in writing (e-mail, fax, or mail) 10 or more business days prior to the course start date for a full refund. If canceled less than 10 business days prior to the course start date, no refund will be issued.

A minimum number of four participants is required for the course to take place.

## WHO WE ARE

The Institute for Micro- and Nanotechnology (MNT) is an institute of the University of Applied Sciences (NTB) in Buchs, Switzerland. A highly skilled team of more than 20 scientists and engineers is ready to support you.

The institute is actively engaged in research and development in a number of disciplines of micro- and nanotechnology. We design and fabricate microsystems, develop customized microfluidic devices, find new solutions for our partners in the field of photonics, and work on novel applications in the area of life sciences.

In order to meet the diverse challenges in our research and development activities, we have dedicated people working in process development and process integration, packaging, test and characterization, failure analysis and analytics as well as simulation and modeling.

**Come and work with us in a modern cleanroom facility!**

## WHO SHOULD ATTEND

- Engineers and scientists from industrial and academic institutions with a need to obtain a sound hands-on introduction into the day-to-day work of a micro-fabrication facility
- Technical managers with an interest in familiarizing themselves with the working environment of a cleanroom facility and in understanding the equipment and process options available to the MEMS engineer