



EM Graduate course

Mechanics in micro-systems

April 10th -11th, 2018

**Faculty of Mechanical, Maritime and Materials Engineering
Department of Precision and Microsystems Engineering
Delft University of Technology**

General

Microsystems play a large part in modern equipment and are used as sensors, actuators, displays, etc. The mechanical aspects of these micro and nanometer sized structures play an important part in their functioning. Due to scaling effects the behavior of microsystems can be quite different from more traditional systems and other physical phenomenon can dominate behavior. In this course we will look at the mechanics at the very small scale, the physical phenomena and how they can be used.

The following topics are included:

- Size and scaling effects
- Microsystem fabrication and the influences on the mechanics.
- Reliability of microsystems.
- Mechanics of micro/nano plates.
- AFM and other instrumentation.

Local organization

The course is organized by the Precision and Microsystems Engineering group of the Delft University of Technology

Lecturers

- Hans Goosen
- Merlijn Sprengen
- Banafsheh Sadjadi
- Murali Ghatkesar

Lecture notes

Lecture notes will be distributed during the course.

Fee/Registration

The course is free for registered members of the graduate school Engineering Mechanics and for the research members of the contributing research groups. The course fee for non EM members is € 100 for students and € 400 for other participants. They will receive an invoice after accepted registration. Participants need to register by completing the online registration form before March 28th, 2018. The form that can be found at <http://www.em.tue.nl/events/index.php/2/2018>.

Members of the Graduate School Engineering Mechanics receive priority in case of over-subscription.

Further information

For more information on the contents of the course, contact:

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Further information about the educational programme and other activities of the Graduate School on Engineering Mechanics can be found at: www.em.tue.nl.