

As the program encompasses practical workshops on real machine tools and laboratory equipment, the maximum number of participants is limited to 24.

Registration fee:

400 euros including material, all lunches during the course and a farewell diner.

Help with accommodation will be provided, contact us for more details.

A limited number of scholarships are available to students from institutions which are partners of the 4M Association (<http://www.4m-association.org/>)

Registration deadline May 11th 2014

All information is posted on the summerschool website:

<http://www.conferencemanager.dk/mppsummerschool2014>

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Kindly sponsoring the course:

4M Association



EU FP7 project
Hi-Micro



**Micro Mechanical Systems Design
and Manufacturing**

**PhD Summerschool website:
<http://microsummerschool.net>**



**Micro mechanical
systems design and
manufacturing**

**PhD Summer School
16th - 27th of June 2014**

at the
Technical University of
Denmark

Department of Mechanical
Engineering



Example of lecture topics:

Tooling technologies

- * Micro cutting,
- * Micro EDM,
- * Electrochemical deposition processes...

Replication techniques adapted to micro scale

- * Micro injection moulding,
- * Micro metal forming...

Additive manufacturing technologies

Micro products functionalities

- * Microfluidic devices,
- * Micro products overview,
- * Micro optical devices

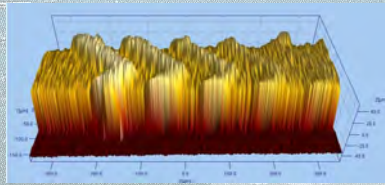
Methodology of design

- * Life cycle assessment,
- * Toolbox for design...

Metrology

Micro Handling and assembly

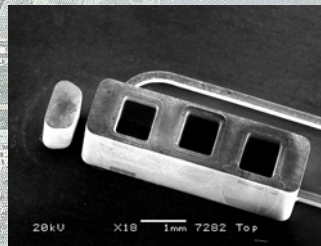
- * Laser welding,
- * Joining...



This course is situated in the context of **emerging technologies**. Micromechanical components play an increasing role



in micro systems. The use of **metals, polymers and ceramics** for miniature components requires product development methods as well as manufacturing technologies. Product dimension will range from micrometre to millimetre. The attendees will get insights on the **complete product development** from requirements and technology possibilities to manufacturing and testing, in an industrial perspective. Indeed it is now well known that micro/nanotechnology is not only a matter of downscaling applications and methods.



Micro mechanical systems design and manufacturing

And for the fun... some possible outdoors activities!

Picnic in the woods or at the beach,
Tivoli and museums,
Copenhagen nightlife,
...

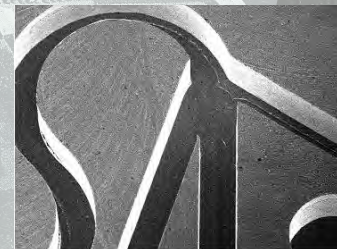
After the course the attendees will:

- * Have an understanding of **applied product development methodologies adapted to micro technology** in general and to micro mechanical products in particular

- * Be able to choose and apply the **most relevant process chains** given the requirement of micro mechanical systems

- * Have an understanding of **supporting technologies** such as metrology, handling and assembly in a micro technology context

- * Gain understanding of the **complete product development, with** focus on integration of technologies and collaboration.



The 2012 Group

