

## WORKSHOP ON MICROFABRICATION

**Lisbon 14-15 May 2014**

INESC-Microsystems and Nanotechnologies (INESC-MN)

<i>Wednesday 14<sup>th</sup></i>	<i>Thursday 15<sup>th</sup></i>
<b>Arrival - Registration</b>	<b>Clean Room Session B1</b>
<b>Session I: General</b>	
<b>Session II: Magnetic based devices</b>	
<b>13:00-14:00 Buffet Lunch</b>	<b>13:15-14:15 Buffet Lunch</b>
<b>Session III:– Optical based devices</b>	<b>Session IV<sub>b</sub>: Applications</b>
<b>Session IV<sub>a</sub>: Applications</b>	
<b>Clean Room Session A1/A2</b>	

**Workshop  
Dinner**

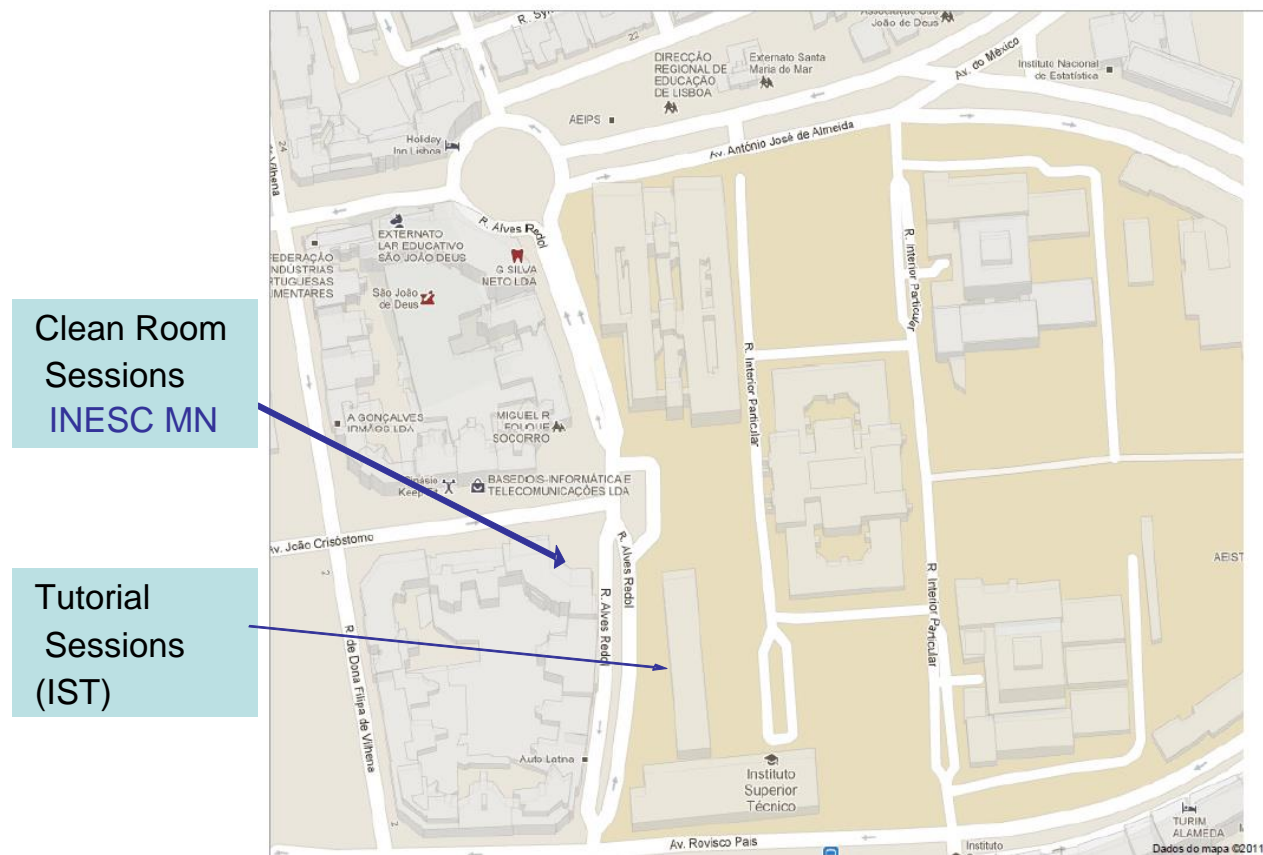
Lectures will be done at the Anfiteatro do Complexo (IST)

Starting time is 9:30, ending at 18:30h on Wednesday 14<sup>th</sup> and 16:30 on Thursday 15<sup>th</sup>.

Posters will be available at INESC-MN, near the laboratories, from 13:00on Wednesday 14<sup>th</sup> to 14:15h on Thursday 15<sup>th</sup>.

Clean Room Sessions will be done at INESC-MN building.

## Local Map



**Day 1 – 14<sup>th</sup> May 2014**

Session I: General on Microfabrication

**Lecture I.1 (9:30-10:30)**- Susana Cardoso (INESC-MN) – Microfabrication methods and thin film optimization

***Coffee Break (10:30-10:45)***-

Session II: Magnetic based devices

**Lecture II.1 (10:45-12:15)**- Paulo Freitas (INESC-MN/INL) – Magnetic sensors in biomedical applications

**Lecture II.2 (12:15-12:45)**- Maria Lopez (INESC-MN) – Magnetic separation and microfluidics

***Lunch (12:45-14:00)***

Session III: Optical based devices

**Lecture III.1 (14:00-14:10)**- Markus Schubert (USTUTT) - Amorphous silicon based photodetectors – general design and function (M. Schubert, 10 min)

**Lecture III.2 (14:10-15:00)**- Markus Schubert and Marcel Berner (USTUTT) - Thin film Si photodetectors - deposition techniques and issues

**Lecture III.3 (15:00-15:15)**- Markus Schubert (USTUTT) - Laser processes for microfabrication

**Lecture III.4 (15:15-16:00)**- Markus Schubert (USTUTT) Characterization and performance of a-Si based photodetector arrays (M. Schubert and M. Berner, 45 min)

***Coffee Break (16:00-16:15)***

Session IV: Applications

**Lecture IV.1 (16:15-16:45)**- Graça Minas (Universidade do Minho) – Optical detection systems for biomedical applications

**Lecture IV.2 (16:45-17:15)**– Francesco Baldini (IFAC-CNR) - Application of optical devices for POCT

Clean Room Session

**Clean Room Session (17:30-18:45)** – *At INESC-MN building*

***Day 2 – 15<sup>th</sup> May 2014***

Clean Room Session

**Clean Room Session (9:30-13:00) – At INESC-MN building**

***Lunch (13:00-14:15)***

Session IV: Applications

**Lecture IV.3 (14:15-14:45)**- João Gaspar (INL) – Micro-electrodes array for biomedical applications

**Lecture IV.4 (14:45-15:15)** – Markus Schubert (USTUTT) – Application for optical sensors

**Lecture IV.5 (15:15-15:45)** – João Pedro Conde (INESC-MN) – Thin-film silicon MEMS and NEMS

**Lecture IV.6 (15:45-16:15)** – Filipe Cardoso (INESC-MN/Magnomics)- "Magnetoresistive sensors for point-of-care diagnostics"

Clean room sessions (available during the 2 days)

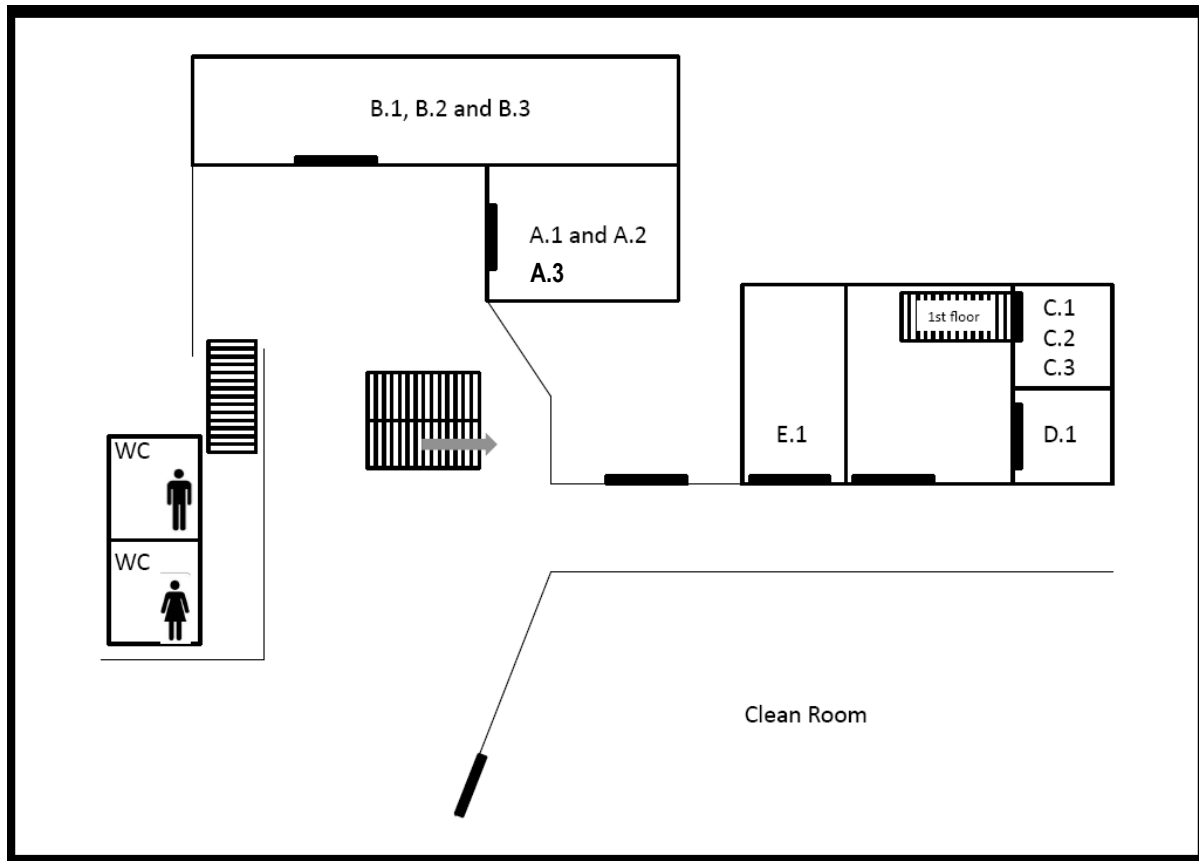
**A1** – Optical based devices demonstrations (João Pedro Conde)

**A2**- Magnetic based device demonstrations

**B1** – Microfabrication techniques: wet bench, RIE , Deposition, Ion Milling,  
Lithography, Electroplating

## Clean room sessions

(level -2, INESC-MN building)



## Workshop Dinner

Place: Cervejaria Portugália

Time: 20:00

