

## Member News....

John Liu (MC2) has been elected a Member of Royal Swedish Academy, IVA. The Royal Swedish Academy of Engineering Sciences, IVA. IVA has 842 Swedish and 260 foreign members.

Ephraim Suhir has been elected as a Foreign Full Member (Academician) of the Academy of Engineering (Technological) Sciences of Ukraine.

## Chapter News....

### *Hu&Ro Joint CPMT Chapter Hosted Nanotechnology for Electronics EuroTraining awareness course 16, 17 & 19 Nov 2009, in Bucharest, Romania*

The IEEE-CPMT Hungary & Romania Joint Chapter hosted, organized and technically sponsored a EuroTraining awareness course on **Nanotechnology for Electronics**. Engineers and scientists were invited from companies, SMEs, universities and institutes to upgrade their knowledge and learn about the important topics of nanoscience from highly qualified experts.

The course focused on the most important trends of nanotechnologies according to the recommendations of **ENIAC's Roadmap of Nanoelectronics** (Figure 1). ENIAC is the industry driven European Technology Platform of Nanoelectronics, acknowledged and sponsored by the European Commission as well. It proved to be very useful that an industry survey was also carried out to define the course content for the special requirements of the New Member States (NMS) of the European Union.

The course was held in Bucharest, Romania: the first day tutorials on 16th of November, 2009, at the Politehnica University of Bucharest; and the second day technical lectures and demonstrations in two repeated cycles 17 & 19 November, 2009, at IMT-Bucharest, the National Institute for Research and Development in Microtechnologies.

The course was announced on a website dedicated to the "Nanotechnology for Electronics" course at [www.ett.bme.hu/ET\\_NE2/](http://www.ett.bme.hu/ET_NE2/), and on the EuroTraining portal ([www.eurotraining.net](http://www.eurotraining.net)).

The **course program** and the **lecturers** were as follows:

First day tutorials:

**Introduction, theory, basic approaches and applications:**

**Prof. Göran Wendin**, Department of Microtechnology and Nano-science, Chalmers University of Technology, Sweden (Figure 2);

**Processing techniques & tools, applications in biosensing & optics:**  
**Dr. Harry Heinzelmann**, Nanotechnology & Life Sciences, CSEM Centre Suisse d'Electronique et de Microtechnique SA, Switzerland.

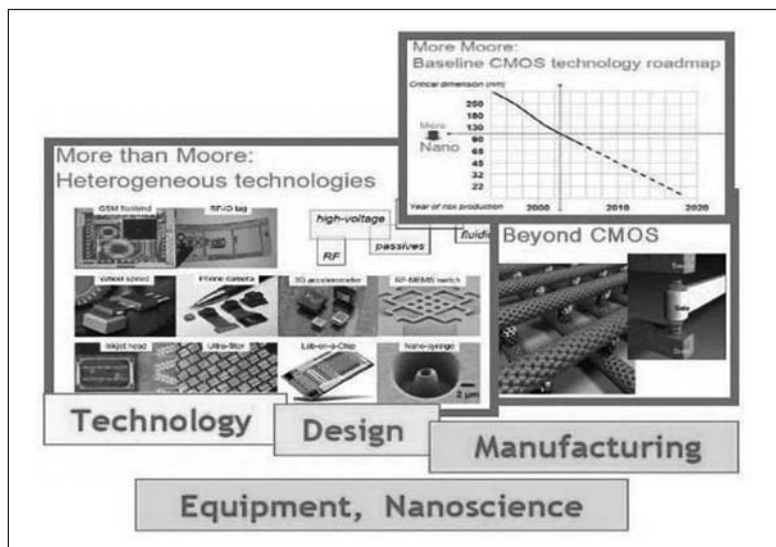


Fig. 1 Topics of the course were defined according to the ENIAC's Nanoelectronics Roadmap



Fig. 2 Prof. Göran Wendin during his lecture at the "Nanotechnology for Electronics" course in Bucharest.



Fig. 3..Prof. Dan Dascalu (CEO of IMT-Bucharest, in front on the left) and the first group of the participants are listening the talk of dr. Dirk Brüggemann about electron and ion beam nanoengineering and later Dr. Mircea Dragoman presents his talk about Carbon Nanoelectronics



Fig. 4 Scientists from IMT-Bucharest showed practical examples of nanofabrication, imaging and measuring technologies available in the institute.

Second day technical lectures and laboratory demonstration:

#### **Electron & ion beam lithography, nanoengineering:**

**Mr. Dirk Brüggemann**, Raith GmbH, Germany (Figure 3 in the middle)

#### **Carbon Nanoelectronics:**

**Dr. Mircea Dragoman**, IMT-Bucharest (Figure 3 on the left).

**Laboratory visits to IMT-MINAFAB centre**, demonstrations of the operation of nanotechnology equipment (Figure 4):

**Dr. Mircea Dragoman and other researchers**, IMT-Bucharest,

Altogether there were 69 registered participants on the course, including the lecturers and the organizers, who were also active

participants in all scientific parts of the event. Most of the participants were members of the Hu&Ro Joint Chapter and came from all around Romania, from Bucharest; Cluj-Napoca, Timisoara, Iasi, Pitesti and also from Budapest, Hungary. There were a few industrial participants coming from the Romanian subsidiary of Honeywell and Infineon.

In order to increase the recognition of the course, on the request of the participants, a Certificate was issued and awarded to all participants, who attended both days of the course. The Certificate was signed by the standard lecturers as well as the representatives of the host institute and the organizer of the EuroTraining Project.

Most of the **audience was young people** – students or PhD students – who were very open for the new principles, although had not gained too much knowledge about the specific topics of the course during their previous study. These young people considered as potential trainers / teachers / professors of nanoelectronics, therefore the courses were real **trainings for future trainers**.

The **course content**, including the strategy to provide an awareness course – with more focus on nanotechnology and treating nanoelectronics on the application level – **met the expectations of the audience**. A great fortune and success we had to find the two **excellent tutors** – Prof. Göran Wendin from Chalmers University and Dr. Harry Heinzelmann from CSEM – who had high level knowledge, extensive experience and proper enthusiasm to form and develop their course material to a homogeneous short course.

It proved to be very successful to organize **laboratory visits to local institutes**. By this latter activity the doors of nanotechnology research laboratories were opened for a large number of visitors, which is definitely an important aim and successful tool to disseminate the information and increase the public awareness of nanotechnology and nanoelectronics.