



# ANNOUNCEMENT AND CALL FOR PAPERS

## NATO Advanced Workshop

### “Functional Nanomaterials and Devices for Electronics, Sensors, Energy Harvesting”

**13-16 April, 2015, Lviv, Ukraine**



#### Conference Objectives

The main purpose of the workshop is dissemination and exchange of knowledge accumulated in EC countries and Eastern Europe countries in the field of technologies and employment of functional nanomaterials and devices which could be integrated into CMOS platform. Particular focus will be on promising materials, structures and devices for low power consumption and energy harvesting, as well as on nanosensors (pressure, temperature, biological), optoelectronic devices and micro/nano-electro-mechanical systems.

#### The topics to be covered include:

- New functional nanomaterials and nanoscaled devices for low /zero power and RF application
- New functional materials and nanoscaled devices for energy harvesting
- Nanowire sensors, biosensors and MEMS/NEMS
- Semiconductor-on-Insulator material technology for nanoelectronics, sensors and memory
- Graphene and carbon nanomaterials and devices
- High-k dielectrics for nanoelectronics and memory
- Nanoscale CMOS and beyond CMOS devices and circuits
- Diagnostic techniques for nanostructure materials and devices

#### Keynote speakers

Dr. V. Bondarenko (UIR, Belarus), Prof. Costin Anghel (Institut Supérieur d'Electronique de Paris, France), Prof. D. Flandre (UCL, Belgium), Dr. Spyros Gallis (SUNY Polytechnic Inst., USA), Dr. E. Gnani (Univ. Bologna, Italy), Dr. H.Guerin (Swiss Federal Institute of Technology, Switzerland) Prof. S. Hall (Univ. of Liverpool, UK), Prof. M. Lemme (University of Siegen, Germany), Prof. S. Mantl (HZ Julich, Germany), Prof. W. Milne (Cambridge University, UK), Dr. J.F. Nadin (LETI, France), Prof. N.Orlovskaya (The University of Central Florid, USA), Prof. H.Przewlocki (IET, Warsaw, Poland), Prof. J.P. Raskin (UCL, LLN, Belgium), Prof. M. Strikha (ISP NANU, Kyiv, Ukraine), Dr. W. Skorupa (HZ, Dresden-Rossendorf, Germany), Dr. V. Sverdlov (TUW, Austria), Prof. Ch. Tichert (Institute of Physics, Montanuniversitaet Leoben, Austria), Dr. A. Vandooren (IMEC, Belgium), Prof. C. Wickleder (University of Siegen, Germany)

#### Organized by

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#### Sponsors and Organizers

- NATO Science for Peace and Security Programme
- National Academy of Sciences of Ukraine
- Scientific Council on the problem "Physics of semiconductors and semiconductor devices", Department of Physics and Astronomy, NAS of Ukraine
- Lashkaryov Institute of Semiconductor Physics, NAS of Ukraine, Kyiv, Ukraine

#### International Organizing Committee

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**V. Kilchytska** (UCL, Belgium)

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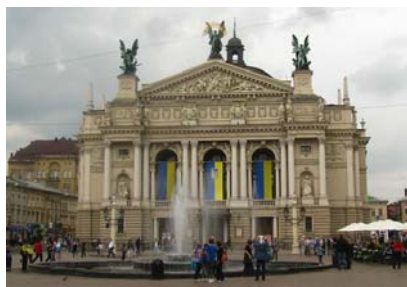
## Key dates

Deadline for Abstracts	<b>1 March 2015</b>
Notification to Authors	<b>10 March 2015</b>
Issue of Preliminary Programme	<b>15 March 2015</b>
Deadline hotel reservations	<b>15 March 2015</b>
Workshop opens	<b>13 April 2015</b>

## Paper submission

Prospective authors should prepare 2-page summary of their work, including illustrations, suitable for reproduction in the Workshop Proceedings and submit the electronic version of your abstract for review to organizers ([yurigom@lab15.kiev.ua](mailto:yurigom@lab15.kiev.ua)) by **March 1, 2015**. Instructions for abstract preparation see on the next page. Full papers of presented reports (8-12 pages) will be published in Springer book “Functional Nanomaterials and Devices”

## Venue



Formerly capital of the historical region of Galicia, Lviv is now regarded as one of the main cultural centres of today's Ukraine. The historic city centre is on the UNESCO World Heritage List. Lviv celebrated its 750th anniversary with a *son et lumière* in the city centre in September 2006.

The city is known as a centre of art, literature, music and theatre. Lviv's historic churches, buildings and relics date from the 13th century. Its architecture reflects various European styles and periods.

**Stefan Banach** (March 30, 1892 – August 31, 1945) was a Polish mathematician. He is generally considered to have been one of the 20th century's most important and influential mathematicians. Banach was one of the founders of modern functional analysis and one of the original members of the Lviv School of Mathematics. In 1920 year he became a professor at the Lwów (Lviv) Polytechnic, In 1939 year Banach became a member of the Academy of Sciences of Ukraine and was the dean of the Department of Mathematics of Physics of Lviv University.

**Julius Edgar Lilienfeld** (April 18, 1882 – August 28, 1963) was an Austro-Hungarian physicist & Electronic Engineer (as reported by Wikipedia). He was born in Lemberg Austria-Hungary (now called Lviv in Ukraine) and moved to the United States in the early 1920s. He studied in secondary school in Lviv and in 1898 moved in Berlin for high education. Lilienfeld is credited with the first patents on the field-effect transistor (1925), which was analog of the SOI MOSFET.



## Accommodation

The Workshop venue is the Hotel complex “Grand Resort” which is located in picturesque woodlands about 15 km of Lviv city centre. The lecture theatre, meeting rooms, restaurant and “en-suite” accommodation plus a bar/coffee shop are all located in adjacent buildings within the complex.

<http://grand-rezort.com.ua>



## Registration

In order to attend the workshop all the participants need to register by sending contact information to the Local Org. Committee, including:

- Name of the corresponding author
- Email address
- Institution
- Preferred conference topic
- Preferred form of presentation (oral or poster)

E-mail for correspondence: [yurigom@lab15.kiev.ua](mailto:yurigom@lab15.kiev.ua)