2nd Polish-German Summer School "Nanotechnologies in Materials Sciences" Warsaw – Koszalin 30 July – 12 August 2007

Why NANOTECHNOLOGY?

Nanotechnology is a field of applied science and technology covering a broad range of topics. The main unifying theme is the control of matter on a scale smaller than 100 nanometers, as well as the fabrication of devices on this same length scale. It is a highly multidisciplinary field, covering disciplines such as colloidal science, device physics, and supramolecular chemistry. Much speculation exists over what new science and technology might result from these lines of research. Some view nanotechnology as a marketing term that describes pre-existing lines of research applied to the sub-micron size scale.

The first mention of some of the distinguishing concepts in nanotechnology was in "There's Plenty of Room at the Bottom," a talk given by physicist Richard Feynman at the American Physical Society, 1959. Feynman described a process by which the ability to manipulate individual atoms and molecules might be developed, using one set of precise tools to build and operate another proportionally smaller set, and so on down to the needed scale.

As nanotechnology is a very broad term, there are many disparate but sometimes overlapping subfields that could fall under its umbrella. The following avenues of research could be considered subfields of nanotechnology. Note that these categories are fairly nebulous and a single subfield may overlap many of them, especially as the field of nanotechnology continues to mature. Colloid science has given rise to many materials which may be useful in nanotechnology, such as carbon nanotubes and other fullerenes, and various nanoparticles and nanorods.

What is NANOTECHNOLOGY? You can find out during 2nd Polish-German Summer School organized by Warsaw University of Technology and Koszalin University of Technology.

About as

Warsaw University of Technology is a research-intense, doctoral-level academic institution focused on undergraduate and graduate programmes almost exclusively in engineering and applied sciences. With over thirty thousand students served by over two thousand professors and instructors, Warsaw University of Technology is the largest and the highest ranking engineering university in Poland.

Koszalin University of Technology is the only technical university in the region of Central Pomerania in Poland. It is located in a city of over 100.000 inhabitants in an area of beautiful landscapes near the Baltic Sea, about 12 kilometre from the coast with its clean sandy beaches. This region is part of "the green lungs" of Poland. The University provides academic and technical education and is a leader in research in the disciplines generally connected with the region's areas of development.

For whom?

Summer School 2007 is aimed at students of technical universities from Poland and Germany. It's an introduction to nanotechnologies – there are no minimum requirements regarding the academic year of study or course. It's only your involvement and passion that is demanded.

Summer School is reserved for 10 participants from Poland and 10 from Germany.

Dates

Polish–German Summer School 2007 will be held between 30 July and 12 August 2007. The first week (30 Jul - 5 Aug) will take place in Warsaw, the second (6 - 12 Aug) – in Koszalin.

Application

On our website <u>http://www.imnitp.tu.koszalin.pl</u> you can find an application / CV form. You are asked to provide a brief description of education affiliation, internships, achievements, languages and personal interests.

The application must be submitted by **June 30, 2007** to Koszalin University of Technology – **Institute of Mechatronics, Nanotechnology and Vacuum Technique,** 75-620 Koszalin.

Tutorials will be provided in English – therefore English at a minimum 'good' level is essential. However, no English-language certificates are required.

Engagements

Tutorials – courses and workshops – will be provided by professors from Warsaw University of Technology (WUT) and Koszalin University of Technology (KUT).

All lecturers are from the following faculties:

Faculty of Materials Science and Engineering (WUT) Faculty of Chemistry (WUT) Faculty of Chemical and Process Engineering (WUT) and Institute of Mechatronics, Nanotechnology and Vacuum Technique at KUT.

We plan 5 hours of sciences engagements per day – from Monday to Friday (50 hours in total).

The full program of 2^{nd} Polish–German Summer School - with classes and entertainment particulars - will be posted on our website by the end of May.

Upon completion, the students will receive certificates.

In order to receive detailed information, please contact:

Secretary office: Institute of Mechatronics, Nanotechnology and Vacuum Technique, Koszalin University of Technology

e-mail: anna.biec@tu.koszalin.pl

phone: +48 94 3478 345

Expenses

All courses at Polish-German Summer School are free!

Students cover only the following costs:

- accommodation (Warsaw students' hostel Riviera, PLN 45/night (ca. €10); Koszalin Student Hostel, 21,40 PLN/night (ca. €5);
 - board (Warsaw lunch + dinner PLN 25/day (ca. € 6); Koszalin FB
 PLN 20/day (ca. €5);
- railway ticket Warsaw Koszalin, PLN 40 (ca. €10);
- entertainment (museums, trips, etc.) ca. PLN 20/day (ca. €5).

All prices are approximate and are subject to change!

Warsaw University of Technology

Centre for International Cooperation

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