



Bilkent University - Nanotechnology Research Center (Nanoteknoloji Araştırma Merkezi, Bilkent Üniversitesi)

Ankara (Turkey)

Field of activity of the research laboratory: Nanotechnology

Name of researchers involved: Prof. Dr. Ekmel Özbay
Dr. Mutlu Gökkavas
Dr. Bayram Bütün

Languages spoken: English

Nanotechnology Research Center at Bilkent University is dedicated to research on theoretical and experimental nanoscience and nanotechnology with strong emphasis on education and training. The Center is an interdisciplinary research environment which houses the nanotechnology related research efforts in science and engineering faculties, and serves to all departments in both faculties as well as the other Turkish universities that would like to have access to the centers facilities.

The center has a class-100 level clean room for sub-micron lithography and processes along with general-purpose electrical and optical characterization measurements. An electron-beam lithography system and several equipments for nanometer scale processes and measurements; including atomic force, scanning probe, and scanning electron microscopes. The Bilkent University Nanotechnology Research Center is one of the self-sufficient laboratories around the world, with capabilities from theoretical simulations to nanofabrication and packaged devices.

The research activities range from metamaterials and photonic crystals to photodetectors, light emitting diodes, semiconductor and organic lasers, high power transistors and monolithic microwave integrated circuits. These studies have been supported with various national, international and European Research 6th and 7th Framework Programmes (FP6/FP7) of the European Commission.

The last 5 projects where the centre is involved are as follows:

- PHOME, "Photonic Metamaterials" EU FP7, 2008- 2011.
- EU-PHOREMOST, "Nanophotonics to realise molecular scale technologies" Network of Excellence under EU FP6. 2004 - 2008.
- EU-METAMORPHOSE, Network of Excellence under EU FP6. 2004 - 2008.
- "Development and Analysis of Left Handed Materials, (DAHLM) EU 5th Framework Project, IST, in collaboration with University of Crete and Imperial College, UK. September 2002-March 2006.



- "Integrated Optoelectronic Circuits for Infrared Wavelength Telecommunication (INOWATE), NATO Science for Peace Program, 1998- 2003, in collaboration with Romania, Russia, and USA.

Facilities available:

The center is located in Bilkent University campus, 45 minutes from airport and 15 minutes the city center by bus. The buses are hourly from 8:00a.m. to midnight, to- and from the city center.

Ankara Esenboğa International airport is located northeast of Ankara, 28 km from the city center. You can use the HAVAŞ shuttle service, which provides transportation between Esenboğa airport and the city. The fare is 10 TRY (approximately 6 euros). HAVAŞ buses stop at two terminals: first at the HAVAŞ city terminal and then at AŞTİ (Ankara Intercity Terminal). If you arrive with baggage, it is easiest to take a taxi, which will cost around 20 TRY (approximately 12 euros), from AŞTİ to Bilkent University. There are also city buses (EGO) that run between Esenboğa and the city center.

<http://www.bilkent.edu.tr/bilkent/general/info.html#transportation>

There are various food centers, canteens and a table d'hôte available for breakfast, lunch and dinner. Also, there is an outlet center near the campus open 10am-10pm for shopping and food.

Working space for participants:

A meeting room will be prepared as the newsroom. Wireless internet access is available and at least two notebook PCs will be ready (students may bring their own).

Location maps:

<http://www.nanotechnology.bilkent.edu.tr/map7.JPG>

CAMPUS: <http://www.bilkent.edu.tr/bilkent/general/map.html>

<http://www.nanotechnology.bilkent.edu.tr/>

<http://www.nanotechnology.bilkent.edu.tr/map2.JPG>

<http://www.nanotechnology.bilkent.edu.tr/index.htm>