



Smart building helps industries

Bilkent University's nanotechnology center has intensified its initiatives, offering innovative research studies in the production of industry models. The center aims to produce solutions to supply the needs of sector representatives, its chief says, adding that projects are now in the production phase

ANKARA

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A nanotechnology research center based in Ankara is making significant efforts to surpass regular laboratory research practices with the use of its state-of-the-art infrastructure. Bilkent University Nanotechnology Research Center, or NANOTAM, will obtain high value added products with its test laboratories with its new smart building, Ekmel Özbay, head of the center, recently told Anatolia news agency.

With its new indoor area covering 3,200 square meters, clean rooms and product-focused test laboratories, NANOTAM has become a cooperation center finding solutions in many fields, including the defense industry, white goods and electrical appliances.

The new smart building, where NANOTAM recently began operations, has a capacity of 100 employees, clean rooms and 10 process test and integration laboratories, said Özbay, who is also an academic at the university's Electrical and Electronic Engineering Department. "Our research center is improving and growing constantly."

Ongoing studies at the NANOTAM are mainly on nano-electronic, nano-photonics and nano materials, said Özbay. Nanolithography, metallic coating, dielectric material covering, dry and wet erosion studies are conducted in clean rooms, he said.

Nano materials are being synthesized through chemical and physical processes at NANOTAM's new building, Özbay said, adding that their detailed characterizations are also made at this center, enabling the design and production of nano appliances. Noting that product development is different from research and development studies, Özbay said: "Quality control and repeatable tests are necessary to be able to transform R&D activity into



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CREW: Three academics, seven postdoctoral researchers, 12 postgraduate students, 23 engineers and six graduate students work at the Ankara-based Bilkent University Nanotechnology Research Center, or NANOTAM.

a high-value added product. Developed technology should pass all tests in the air, on the ground and in water, rather than being limited to a single test at the laboratory."

He continued, saying: "The infrastructure of our center enables the implementation of our results found in the laboratory to be directly applied in the field. This way, our nanotechnology-based research has succeeded in reaching

the production phase. We can bring forth such prototypes of products at the center."

He said his team produces solutions to help sector representatives with their various product needs, adding that the center conducts important projects in 12 fields, including electronics and energy technologies. Özbay said, "With our studies we have caught up with the nanotechnology revolution."