

High-tech for cool heads in summer in Istanbul

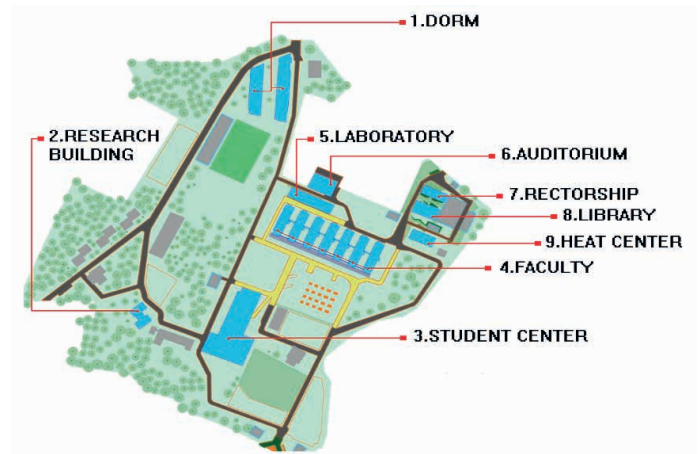
Around 30 kilometres south of the Golden Horn, the new İstanbul Şehir University campus is springing up along the coast. In a few years' time, 36 state-of-the-art buildings will be nestled among historical architecture and tall palm trees. An intelligent automation solution from SAUTER will ensure an optimum climate and energy-efficient operation.



© İstanbul Şehir University / information technologies

Spanning two continents, the city of İstanbul welcomes visitors with its art and culture, while signs of its history and future can be seen around every corner. The extensive building project at the Şehir University demonstrates just how seamlessly tradition and modernity can fit together. Since 2014, a campus for more than 4,000 students has been in development. It lies on the Asian side of İstanbul between the historical buildings of a former tobacco factory, covering an area of 290,000 square metres.

SAUTER is installing a modern solution to create the ideal climate in the 36 buildings planned. It will also allow efficient use of resources in this sub-tropical area. SAUTER was delighted to take up the challenge of this construction project, providing its innovative products and expertise.



A modular solution for varying demands

In the first phase, nine buildings will be completed on the campus by the end of 2018. They include the actual faculty building with auditorium, library and student centre. Also in construction are the vice-chancellor's office, research areas and laboratories, a building for the heating and cooling systems, and men's and women's accommodation.

The buildings and rooms differ greatly in terms of the air-conditioning, ventilation and shade that they require. The university has commissioned a modular solution from SAUTER. It will ensure a cool ambience in the library even at the height of summer, maintain optimum temperatures and air conditions for experiments in the labs and provide a comfortable climate even if lecture theatres are full.

Demand-controlled regulation

The SAUTER EY-modulo 5 system family is the go-to choice for connecting the room automation to the energy supply. 150 powerful automation stations (SAUTER ecos504/505) and 1,500 fan coil controllers – with 25,000 data points in total – will regulate the climate according to the number of people in the room. With the supply of the exact amount of heat, cold or air needed, energy savings can be substantial. This is particularly so where occupancy levels fluctuate vastly, for example in lecture theatres or the cafeteria. SAUTER ecoUnit346 and ecoUnit365 operating devices with integrated touch screens are being installed for students' and staff's individual needs. Just a few swipes of the finger temporarily adjust the lighting, shading and ventilation.

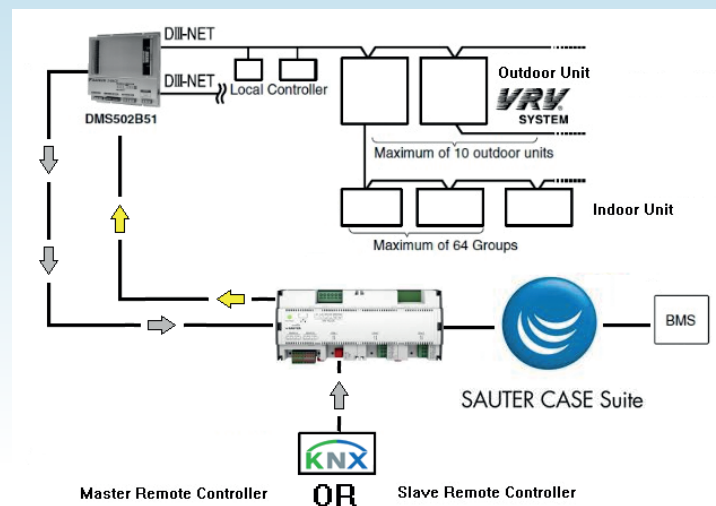
Sustainable energy concept

The university is committed to sustainable energy use. That is why the campus has its own cooling system with pumps to create the ideal temperature. Heating is also provided through pumps connected to the city's district heating network.

Each installation is linked up to the SAUTER Vision Center management system. This includes not only all heating and cooling pumps but other third-party systems – ventilation controllers and thermostats, for example. Facility managers can thus keep an eye on the systems and energy consumption and make any necessary interventions.

Components installed by SAUTER

- Various versions of SAUTER ecos504/505 room roomautomation stations with KNX and DALI interfaces
- SAUTER ecolink520/521/526 remote I/O modules
- SAUTER ecoUnit346 room operating units
- 1,500 fan coil controllers
- Sensors and actuators
- SAUTER Vision Center building management system



Comfortable climate with low energy consumption

The end of the first building phase at İstanbul Şehir University is approaching. Students will be greeted with optimum room climates when, in a few months' time, they move into the campus. SAUTER's intelligent solution, the university's own cooling system and integration in the city's district heating network are the key. This means that energy consumption remains low even if temperatures outside are subtropical.