

TEXT Wildwood Public Relations
PICTURES Murat Germen & Elekon

Istanbul has arguably seen some of the most dynamic, eclectic and diverse development on planet earth. In recent years it has come to mark the meeting of two continents, with one foot firmly rooted in history and the other embracing modernity in its many forms.

Helvar Controls Entire Zorlu Center Mixed Use Project

Symbolic of this melting pot, a new mixed-use project designed by the famous Turkish architects Emre Arolat Architects and Tabanhouglu Architects, Joint Venture Group, has recently been completed to include residential properties, a shopping center, performing arts center, offices and a luxury hotel from Raffles Istanbul. The Zorlu Center is Istanbul's most ambitious construction project and each lighting circuit across the project is controlled by Helvar equipment with further BMS integration achieved via its Tridium IP Driver.

“The sheer size of this project was a real challenge,” says Safak Koc of Elekon Energy Systems. “Zorlu Center is Istanbul's first mixed use project so finding a company capable of delivering vast lighting systems that could fulfil the requirements of each area on the project was essential. At Elekon we are well placed to deliver this and having worked with Helvar for a number of years, we were aware of its successful mixed use projects in London, the Middle-East, Singapore and beyond.”





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LIGHTING PICK AND MIX

When Elekon joined the project at the tender stage the lighting component of the brief was just for a simple switching system. As the project developed, and discussions with systems integrators evolved, it was decided that a more sophisticated system was required that could meet the expectations of the lighting designers that were added to the project for each section of the centre.

“As the client added 8,000 Vestel DMX luminaires to the car parks and exterior cove areas, we needed to implement a system that joined all the component parts together to a single, coherent lighting system,” says Safak. “Using Helvar’s 920 routers we were able to control each individual luminaire to give the required energy saving and control features in the car parking areas and then link it all together and communicate to the BMS installation via Helvar’s Ethernet network, Helvarnet.”

With a solid lighting infrastructure in place the project’s lighting designer Mr Zeki Kadirbeyoglu of ZKLD Studios was able to work with Elekon to deliver the required functionality, lighting levels and scenes to each of the areas. The shopping centre’s lighting scheme has been designed to enhance the

System facts:

- 222 x Imagine 920 Routers
- 508 x DIGIDIM 498 Relay Units
- 225 x DIGIDIM 474 Ballast Controllers
- 95 x DIGIDIM 458/DIM8 Dimmer Modules
- 16 x DIGIDIM 458/DIM4 Dimmer Modules
- 16 x DIGIDIM 490 Blinds Controllers
- 1125 x DIGIDIM 311 PIR Detectors
- 104 x DIGIDIM 314 MW Detectors
- 160 x DIGIDIM Control Modules
- 45 x DIGIDIM 9240 Touch Panels
- 279 x 12 Way DMX Splitters



shoppers experience by controlling and maintaining a comfortable ambience. Levels have been programmed to adapt throughout the day to reduce fatigue for a pleasant and prolonged stay in the mall.

The inner garden is a key feature of Emre Arolat and Murat Tabanoglu design and the luminaires have been programmed to synchronise colour changes throughout the course of each day. Zeki worked to a changing of the seasons theme and the Helvar system works with light monitoring cameras to adapt the light levels in the space. The luminaires are synchronised to simultaneously change the lighting levels and colours dependant on the time and levels of natural light in the garden.

ILLUMINATED INTEGRATION

To realise the energy saving elements at the Zorlu Center over 1000 Helvar presence detectors have been installed to eliminate any wasted light. In addition to these presence detectors, the system has been optimised to coincide with not just opening times but peak times and a strong daylight harvesting system that all combines to create a completely integrated system for maximum energy saving.

With open spaces, glass fronts and views across the Bosphorus, the shopping centre makes the most of the natural light available by dimming the luminaires during the day to harvest the sunlight. Throughout Zorlu Center's car parks the lu-

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minaires are set to 30% to maintain a safe base level. When cars or people are detected the luminaires automatically raise to provide the necessary functional light.

The high level of integration of the lighting extends to the BMS components via a solid, reliable Ethernet system – Helvarnet, part of Helvar’s Tridium compatible IP driver.

Each router is able to send and receive commands to the BMS system. The 3 commercial areas (shopping mall, theatre and Raffles) also connect to the overall BMS via BACnet. A bespoke graphical user interface allows the facilities teams to effectively monitor and log faults on the system, receive alarms and notifications via email, recall lighting scenes, schedule events and monitor energy consumption.

As Istanbul’s first and only mixed use development, the Zorlu Center’s ambition, scale and diversity is an impressive addition to one of Earth’s oldest, most vibrant cities. With a secure, robust Helvar infrastructure Elekon has skilfully delivered on all elements of the brief and the completed Zorlu Center is the epitome of modern life - work, rest and play - in a modern metropolis.

About Elekon

Elekon has a long and successful history with Helvar and has enjoyed sustainable growth and success in Turkey and surrounding countries. Key to this success is Safak’s continual commitment to invest in Elekon personnel to ensure that the necessary local expertise, engineering skill and ex-

perience of working on any scale and type of project are available. Elekon can support projects through the initial design stages and work with the cluster of key decision makers to ensure that any project meets the client’s expectations and that the original design brief is achieved.



Elekon team and two Helvar representatives from the left: Safak Koc, Peter van der Kolk and Alan Jackson from Helvar, Narin Batti, Mine Buyukagac, Vahit Can, Ibrahim Yucel and Aydin Sarikaya.