

Allianz Teknik Earthquake & Fire Test & Training Center Linear Heat Detection system



The Scenario

The Allianz Teknik Earthquake and Fire Test and Training Center is one of 3 key testing centres for Allianz (and the first outside Germany) and was officially opened in 2019 in Istanbul.

Allianz Teknik has the distinction of being the first laboratory to perform fire and earthquake testing at a single center equipped with modern testing devices in compliance with international standards and is the first laboratory to be accredited by TÜRKAK. The centre can provide its services to a wide range of industries using its hands-on training halls and testing laboratories. These include:

- Fire, Earthquake and Risk Engineering
- Reaction to Fire Testing and Reporting
- Earthquake, Automotive, Transportation Testing and Reporting
- Post-Loss Root Cause Analysis – Damage Assessment / Review
- Hands-on Training and Certification Programs
- Supporting Academic and Scientific Research

Client Requirements

Allianz was looking to provide a state-of-the-art training center than functions on multiple levels to provide product testing and consultation as well as education from school level to advanced industry bodies. The centre needs to demonstrate Allianz's leadership in innovation, technology-oriented new generation insurance applications, sustainability, and its agile approach to business practices,

"Our main focus in this project is raising public risk awareness. We can organize hands-on trainings for catastrophe risk management and emergency response against earthquake and fire exposures as well as giving test services to reduce potential risks before anything bad happens to our customers," says Dr Ceyhun Eren, Director of Allianz Teknik and Risk Engineering.

What Did We Do?

BTS Yangin worked closely with the customer to design fiber optic linear heat detection system in the fire training rooms. In addition to the linear heat detection systems, the training rooms also include smoke & heat detectors, flame detectors, and aspiration smoke detection systems. The room also contained a fully operational sprinkler system.



Figure 1 - Fire test room

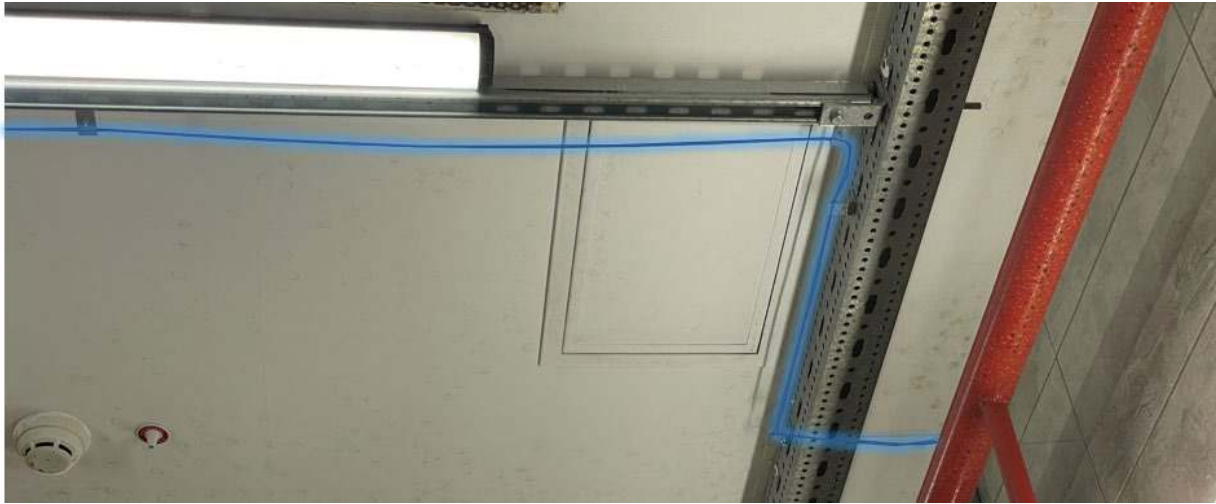


Figure 2 - Path of Linear Heat Detection cable in test room

In addition to the test room, which demonstrates how quickly the fiber optic Linear Heat Detection cable can detect the fires, there was also cable installed in the interactive training room. BTS Yangin worked with the customer to come up with a fully interactive demonstration that incorporated the sensing cable within the unit to show its fully distributed nature and how rapidly it can react.

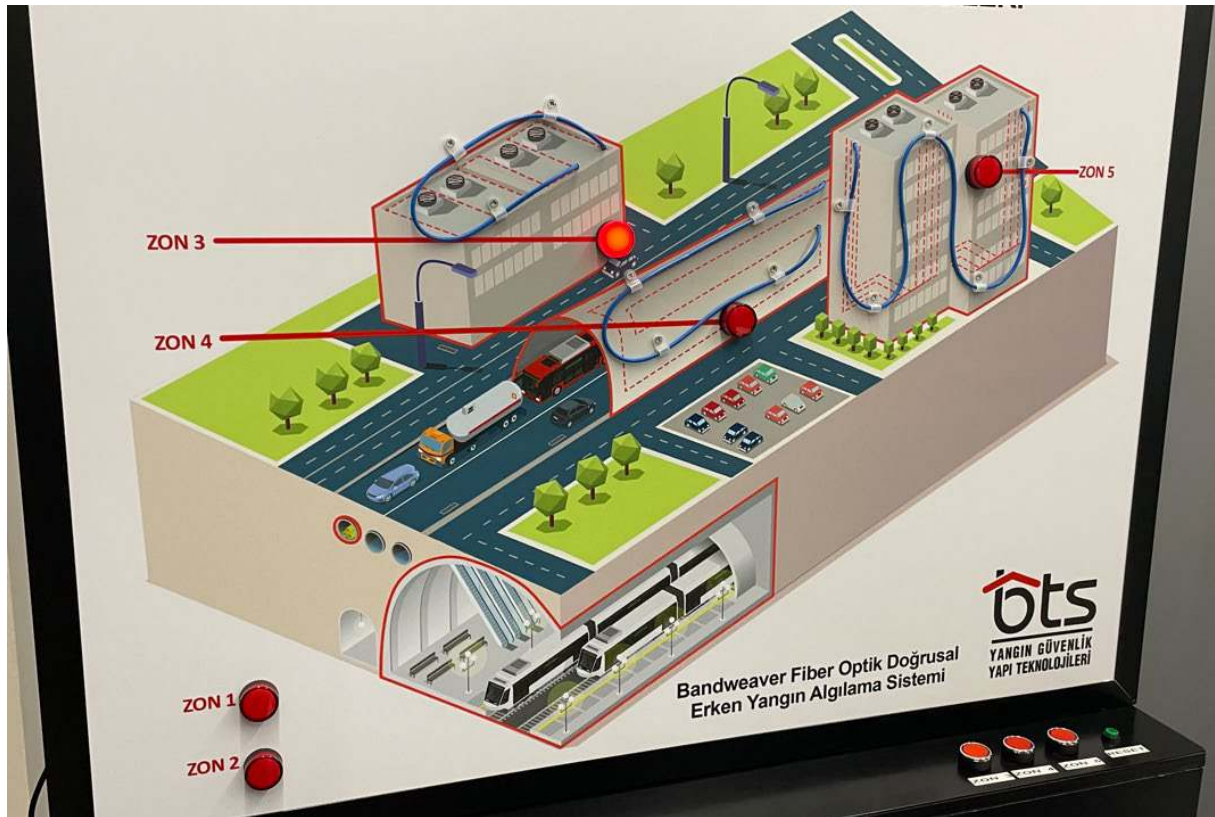


Figure 3 - Interactive fiber optic demonstration



Figure 4 - Interactive training room

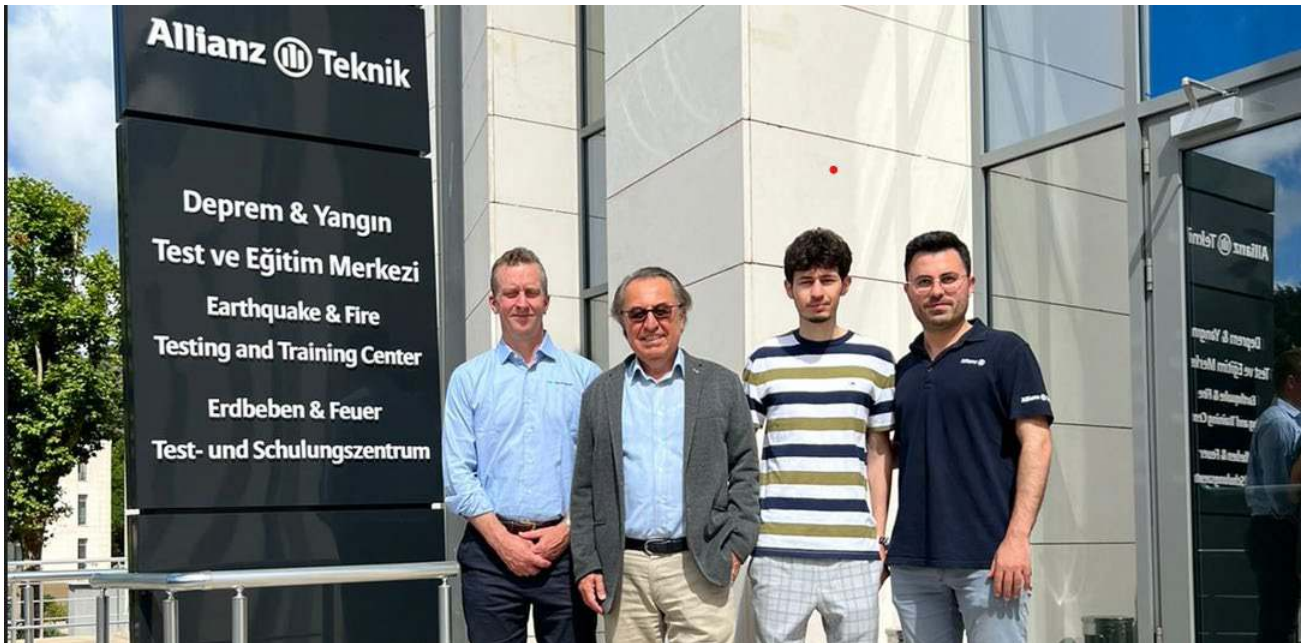


Figure 5 - Member of Allianz Teknik, BTS Yangin and Bandweaver teams



Benefits to the Client

Allianz Teknik was looking for state of the art technologies from the top providers to include in the test center. The Bandweaver LHD system is one of the key technologies utilised along with a number of other world class providers. Some of the key following benefits and advantages to the end user for fiber optic LHD include:

- **Early detection of even a small fire:** Bandweaver LHD systems are approved to operate with a measurement time of 5 seconds which is considerably quicker than the alternatives. With the smart alarms (including rate or rise and deviation alarms), the system can detect fires at a very early level without risk of false alarms.
- **Complete Coverage:** The distributed nature of the fiber optic system provides measurements every 1m along the length of the cable providing complete and continuous coverage with no blind spots or gaps in the protection.
- **Reliable and robust system:** The system was configured in a loop configuration which means that there is a level of redundancy even if the cable is damaged. Also, it is not affected by any dust, particulates or moisture in the air. For example, the electrically based system is affected adversely by moisture.
- **Low Cost of Ownership:** Fiber optic cables are completely passive and have no moving parts, they are non-corrosive and immune to electromagnetic interference and typically have a lifetime of more than 30 years and so carry a very low cost of ownership and no maintenance.

About Bandweaver Technologies

With an installed base of 60,000km and 8,000 systems installed worldwide, Bandweaver's vision is to be the first choice for integrated distributed fiber optic sensing solutions across the globe. Since 2002, Bandweaver has been committed to delivering reliable, innovative, client-centric and value-added products and services, via a dedicated and talented team of people.

Bandweaver manufactures and distributes advanced fiber optic monitoring sensors and integrated technologies, enabling customers to monitor, secure and keep personnel and critical assets safe. Bandweaver provides solutions for Security, Fire, Power and Pipelines.

For further information please contact our global team at info@bandweaver.com

About BTS Yangin

BTS Yangin is the exclusive business partner of Bandweaver Ltd in Turkey. BTS Yangin offers FireLaser DTS fiber optic sensor technologies and the associated specific system design, system installation services, and technical support and long-term maintenance packages. BTS Yangin has extensive experience both inside and outside Turkey with more than 675,000 m of fiber optic sensor cables and more than 177 DTS Units.

For more information, please contact us. info@btsyangin.com.tr

