

ALLIANZ TEKNİK

The First Accredited Earthquake & Fire Testing and Training Center in Turkey

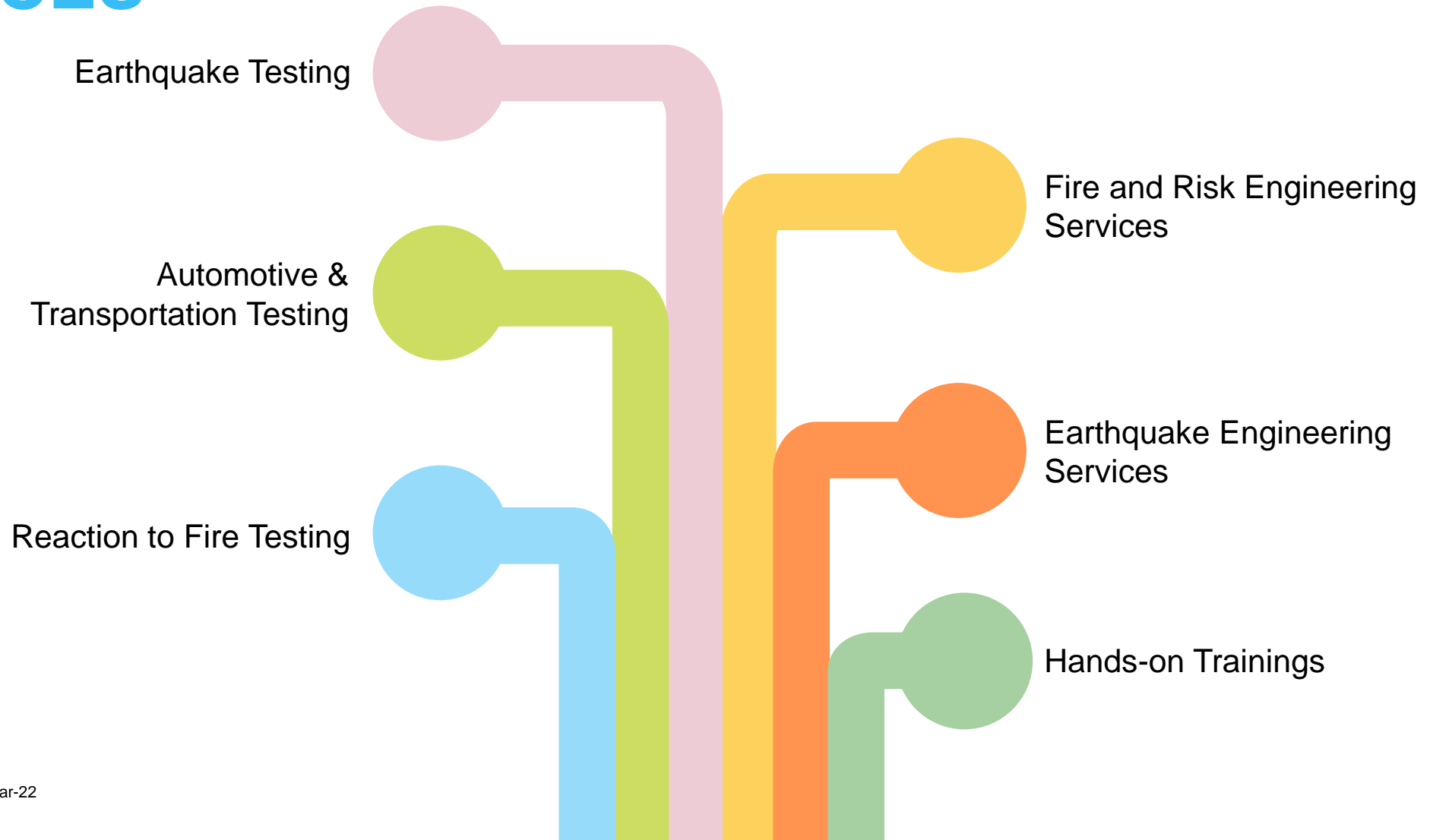
(Accreditation No: AB-1601-T)



Allianz
Teknik

01

SERVICES



02

EARTHQUAKE, AUTOMOTIVE AND TRANSPORTATION TESTS

Accredited test list:

- **Seismic Tests:**

EN 60068-2-6, EN 60068-2-57, EN IEC 60068-3-3,
EN 61587-2, IEEE 693, IEEE/IEC 60980-344, GR-63-CORE,
ICC-ES AC156, EC 62271-210, ETSI EN 300 019-2-3

- **Automotive and Transportation Tests:**

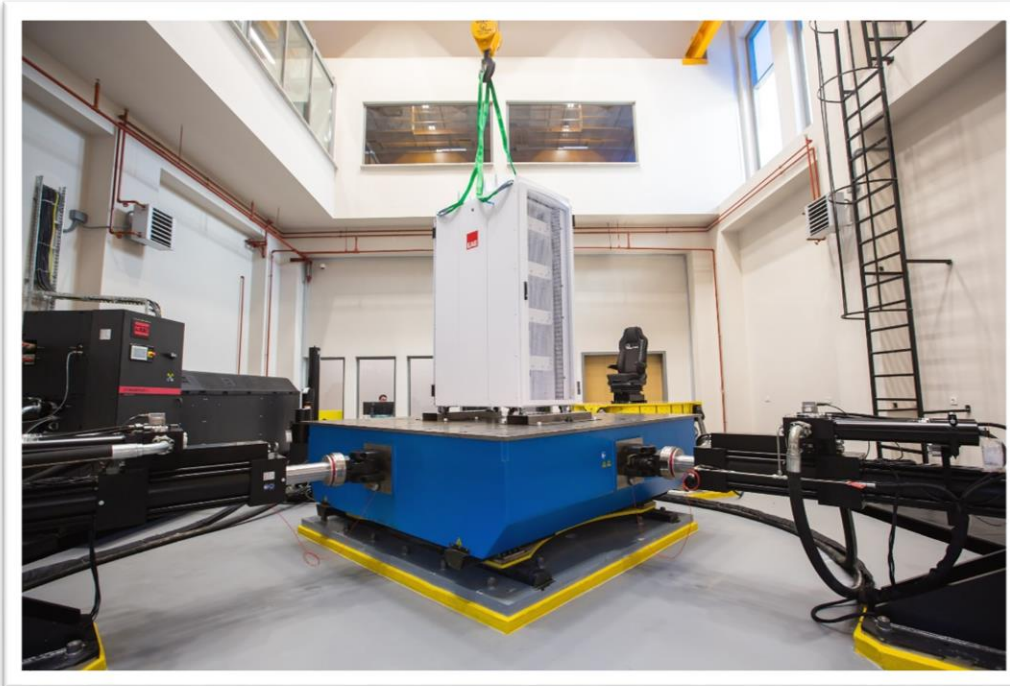
ASTM D4169-16, EN 61373, ECE R 100

- **Measuring Relay and Protective Gear Tests:**

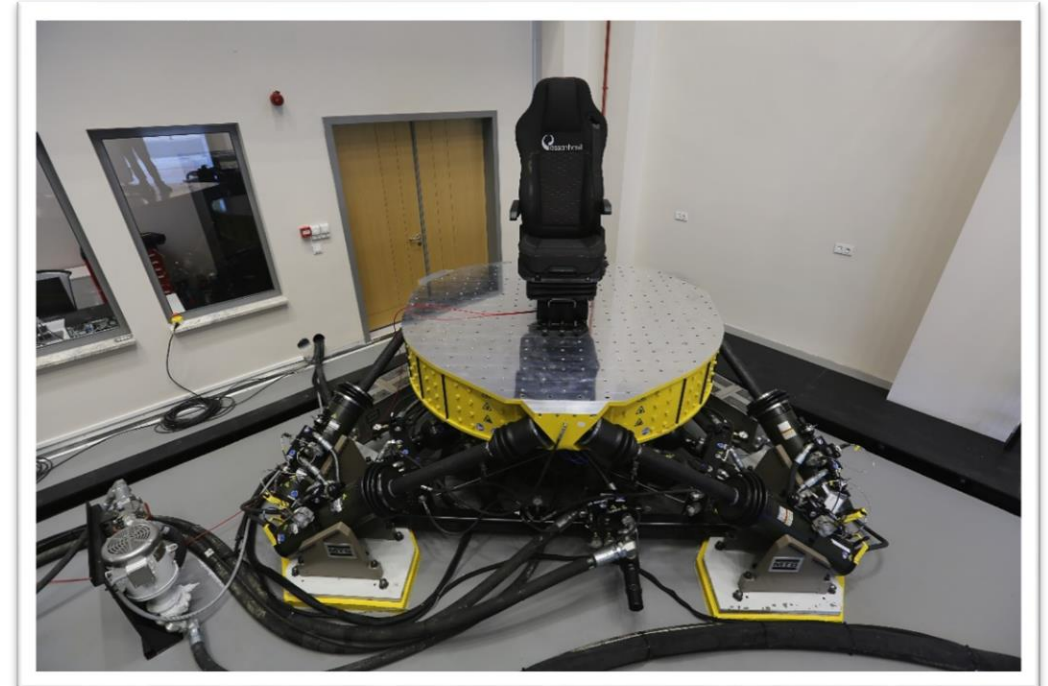
EN 60255-21-1, EN 60255-21-2, EN 60255-21-3



SEISMIC TABLES



| | |
|---------------------------------|------------------|
| Table Dimensions | 3 x 3 m |
| Degrees of Freedom | 2 |
| Frequency Range | 0 - 50 Hz |
| Maximum Actuator Displacement | ± 250 mm |
| Maximum Specimen Turning Moment | 30 meter-ton |
| Maximum Carrying Capacity | 10 ton |
| Maximum Table Acceleration | 1 g @ rated load |
| Maximum Table Speed | 1 m/s |



| | |
|--------------------------------------|-------------------------------|
| Table Dimensions | 2 meters in diameter |
| Degrees of Freedom | 6 |
| Frequency Range | 0.8 - 200 Hz |
| Maximum Carrying Capacity | 680 kg |
| Maximum Linear Displacement | X: 130 mm Y: 115 mm Z: 145 mm |
| Maximum Angular Displacement | Roll: 8.5 Pitch: 7,5 Yaw: 6 |
| Maximum Linear Acceleration (Bare) | X: 16.7 g Y: 14.1 g Z: 18.1 g |
| Maximum Linear Acceleration (Loaded) | X: 10.2 g Y: 8.6 g Z: 11.1 g |

DATALOGGER (SOMAT EDAQ XR)



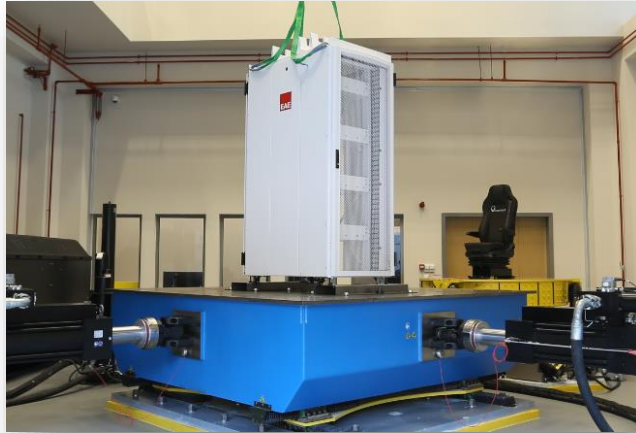
| | | Channels | Specifications |
|--------------------|---------------------|----------|------------------------|
| Inputs | Analog | 32 | |
| | Can | 3 | |
| | GPS | 1 | |
| Sampling Frequency | | NA | 0.1 Hz to 100 kHz |
| Sensors | Accelerometer | 6 | ± 40 g & 0-1200 Hz |
| | Displacement Sensor | 4 | 500 mm |
| | Strain gage | 16 | 120 Ω |

SEISMIC MASS

Accredited laboratories should have the ability to apply test methods with high accuracy according to accreditation standards. “Seismic Mass” is one of the requirements to meet this high accuracy level in accredited tests. This seismic mass, which has a weight of 650 tons, is “T” shaped and is held 25 mm from the parking position with 26 air flats. According to the tests to be carried out, this position can be increased up to 50 mm. This seismic mass has no ground connection. From the movements to be used from this facility, it will be heated and applied high with a model coming from the ground. As a result, applied vibrations during the tests are not disturbed by reaction forces from the ground and high accuracy levels can be achieved.



TEST EXAMPLES



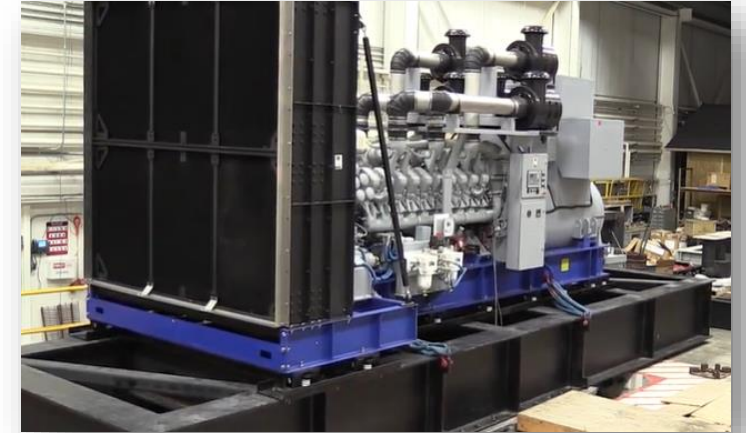
Cabinets and Racks

- Control Units
- Batteries on Racks



Construction

- Historical Buildings
- Models
- Distribution Lines



Machines

- Generators
- Transformers
- Pumps
- Chillers

TRANSPORTATION TESTS



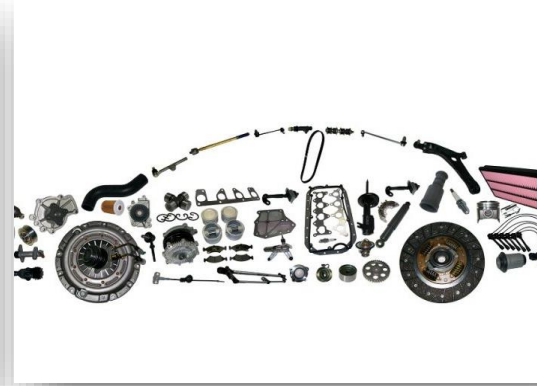
Sheet Metal Industry

- Pallet Static Loading Test
- Vibration Test



Home Appliance

- Road Simulation Test
- Static Loading Test (BCT)



Automotive

- Road Simulation
- Static Loading Test



Others

- Road Simulation
- Static Loading Test

03

REACTION TO FIRE TESTING

Test Services:

- EN 13823
- EN ISO 9239-1
- EN ISO 1182
- EN ISO 1716
- EN ISO 11925-2
- EN 13501-1 (Fire Classification Standard)



TEST EQUIPMENT

**Non-Combustibility
Apparatus
(EN ISO 1182)**



- Determines the non-combustibility performance of building products, under specific conditions
- Fire classifications: A1 and A2

**The Single-Flame
Source Test
(EN ISO 11925-2)**



- Determines the ignitability of building products subjected to direct impingement of flame
- Fire classifications: B, C, D, E

**Flooring Radiant Panel
(EN ISO 9239-1)**



- Determines the critical heat flux of building products
- Fire classifications: A_{fl}, B_{fl}, C_{fl}, D_{fl}

TEST EQUIPMENT

Oxygen Bomb Calorimeter (EN ISO 1716)



- Determines the gross heat of combustion of building products under specific conditions
- Fire classifications: A1 and A2

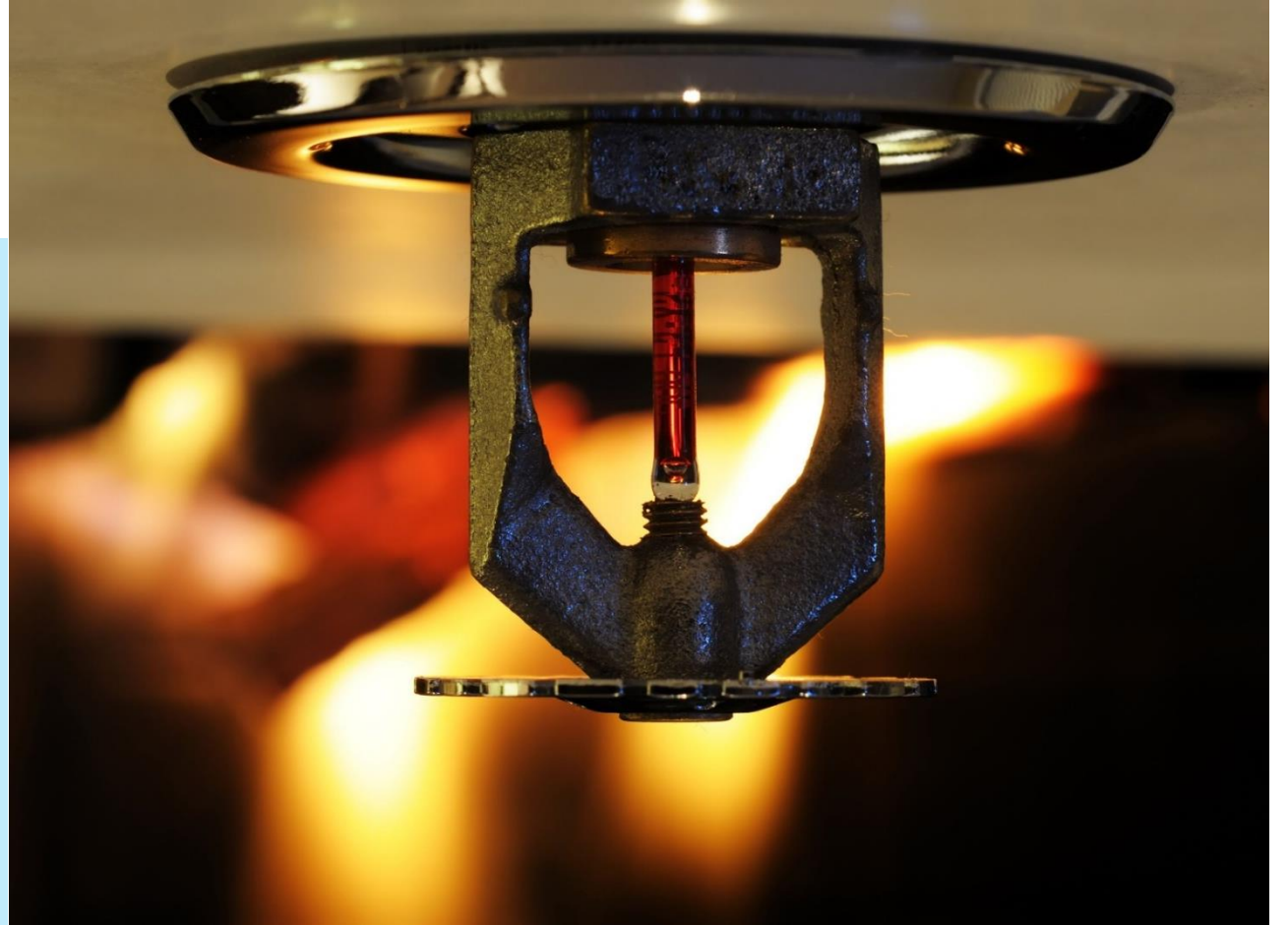
Single Burning Item - SBI (EN 13823)



- Determines the reaction to fire performance for all construction products excluding flooring.
- Fire classifications: A, B, C, D

04

ENGINEERING SERVICES



ENGINEERING SERVICES



Fire Engineering Services

Earthquake Engineering Services

Risk Engineering Services

Design, Test and Inspection Services of
Fire Protection Systems

05

HANDS ON TRAININGS

- Earthquake & Fire Risk Training Programs
- Hands on Trainings and Certification Programs



FIRE TRAINING ROOM



Alarm Valve Station

- Test and Commissioning Procedures of Alarm Valves
- Operation, Maintenance and Control Procedures of Alarm Valves



Spray Room

- Design Criteria of Fire Protection Systems
- Maintenance, Test and Commissioning Procedures of Fire Protection Systems
- Sprinkler System Activation and Operation Principles



Fire Pump Station

- Design Criteria of Fire Pumps
- Performance Test of Fire Pumps
- Operation, Maintenance and Control Procedures of Fire Pumps
- Test and Commissioning Procedures of Fire Pumps

FIRE TRAINING ROOM



Edok Room

- Real Fire Experience
- Fire Growth Stages
- Fire Alarm and Detection Systems



Demo Panels

- Design Criteria of Fire Alarm and Detection Systems
- Maintenance, Test and Commissioning Procedures of Fire Alarm and Detection Systems



Training Modules

- Operation Procedures of Fire Protection System Equipment

EARTHQUAKE TRAINING ROOM



- Earthquake Risk
- Lego Shake Table

- Earthquake Engineering Trainings
- Quanser



EARTHQUAKE AND FIRE SIMULATIONS

Kitchen Fire Simulation



Respond a Fire Simulation



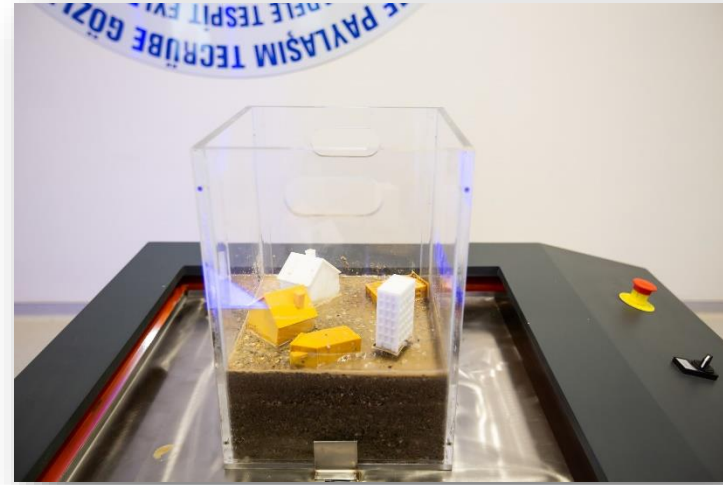
Fire Simulation



Earthquake Simulation



TRAINING MODULES



THANK YOU

