

GIVING LIFE TO TRACKS



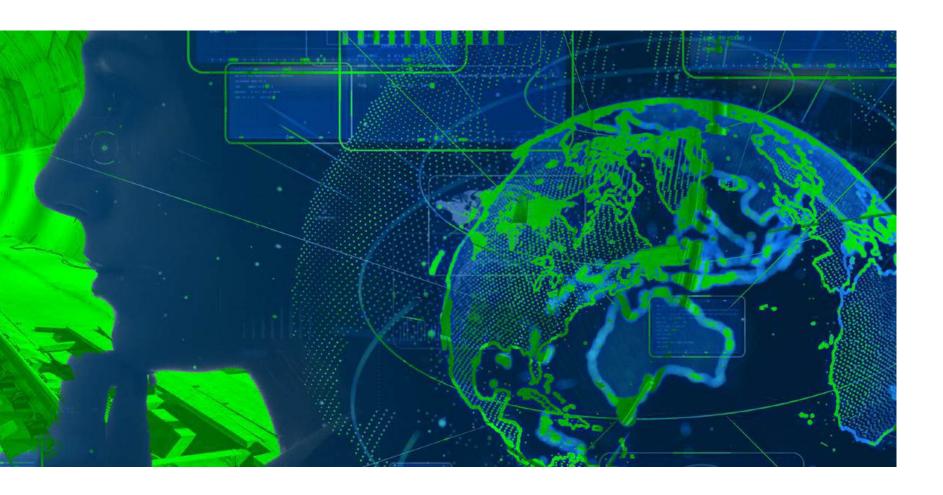
ALL ABOUT YM IDIS

YM IDIS (acronym for Monitoring, Control, and Communication Systems in Turkish)

Provides cutting-edge and cost-effective technological systems and services to rail and road sector. Since 2012, we have successfully developed products for and deployed system solutions on several major rail signaling and telecommunications projects in Turkey and Africa.

YM IDIS's rail signaling product YM IDAS is fully certified to EN50126, EN50128 and EN50129 standards at the highest Safety Integrity Level (SIL 4) for mainline, tram, LRT and Level Crossing applications.

Our Istanbul HQ houses some of the most brilliant and diverse minds in Turkey with exceptional engineering expertise and practical experience in system development, integration, and project execution. As the leading Signaling & Telecommunications technology company in the Region, YM IDIS is transforming the mainline and mass transit projects with efficient, reliable, secure, safe and environmentally sound products, systems and solutions, leveraging our own resources and our local and global technology partners.





Flexible

With our ability to respond to rapidly evolving customer needs, industry standards, and enabling technologies, YM IDIS can develop products and solutions for varying project environments, requirements, and interfaces with a well-structured "systems engineering" approach.



Customer-Oriented

We believe in involving our customers at the earliest stage, understanding their expectations, sharing our expertise to deliver state-of-the-art products and solutions that will fulfill their business and technical needs.



Innovative

Equipped with knowledge of the latest technologies and their rail and road applications, YM IDIS can combine society's demand for innovative and efficient products and systems with environmentally sustainable solutions.



OUR FUTURE VISION

Our vision is to make the best use of existing and emerging technologies for safe, efficient, and sustainable transport systems that meet the needs of the present without compromising the ability of future generations to meet their own needs. We strive to apply our know-how to create economically viable and environmentally sound solutions that help realize seamless and effective transportation infrastructures through the smart use of technology.

We recognize that tracks will progress to be the most important mode of mobility in the future. The future will see a steady increase in the social and economic role of mass transit and mainline in our lives. As the most viable among other alternatives, conventional rail transport has been reinventing itself as the most economical, greenest, fully digital, and tightly integrated mobility solution. We, at YM IDIS, are proud of our role in advancing rail and mass transit towards the cleanest, most sustainable, most comfortable, most flexible mode of transport!

KNOW-HOW MEETS THE FUTURE

We are the only SIL 4 signaling system supplier in Turkey and we also boast an ever-expanding portfolio of complimentary products. We combine our technological know-how with our product design & development, systems engineering and, project management skills to provide technologically advanced, cost-effective, and safe transportation systems and solutions to our customers worldwide.

Our position as a technology creator and exporter, coupled with our A-to-Z turn-key design and application expertise, motivates us to reach every corner of the world. Cultural adaptation is in our DNA that enables us to deliver even in the most challenging project environments and to collaborate with other system suppliers, local companies and administrators effortlessly.

Our unique value proposition comprises our knowledge of operational needs and existing technologies, our ability to incorporate AI / IOT and many other emerging technologies in our products and solutions, and our strong safety culture.





LIFE AT YM IDIS

At YM IDIS, we strive to provide our people with the finest work environment and the positive work culture that they all deserve. We believe that our greatest asset is our employees, and we are determined to enable our people get the most out of their professional and personal lives by striking a happy balance between the two. Afterall, they will never feel truly excel at work until they are satisfied by life.

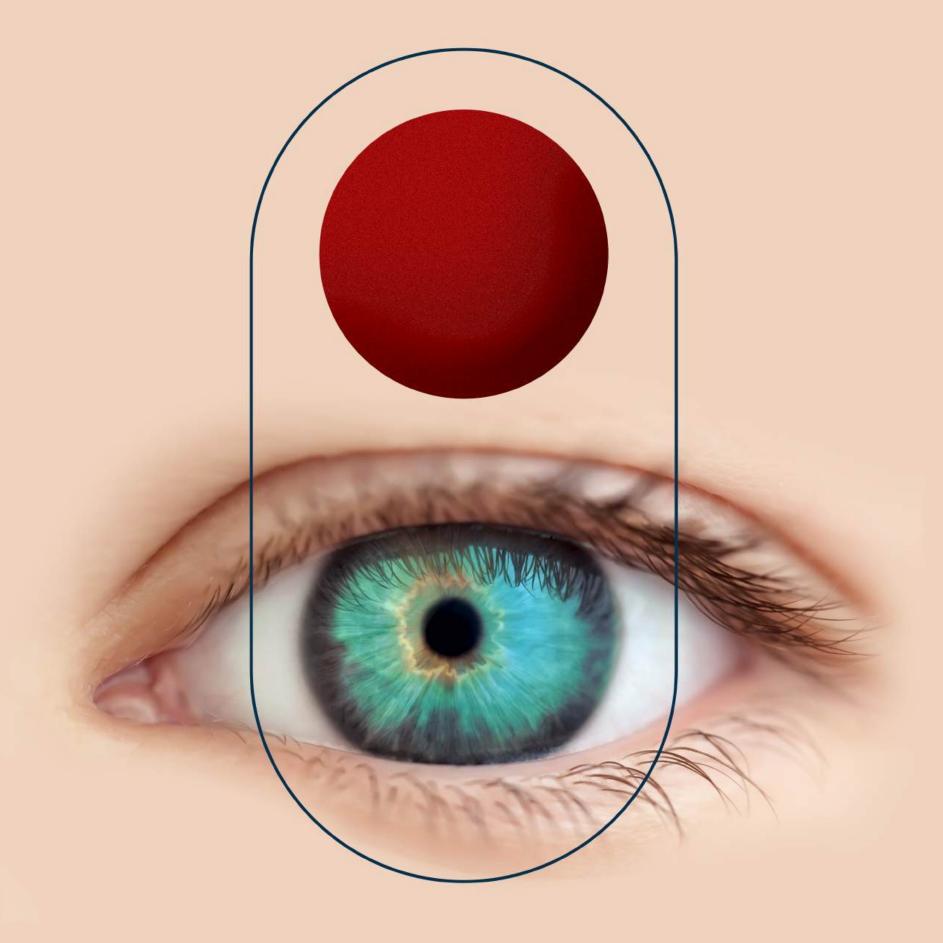
The main objective of our Human Resources Policy is to create a winning match between individual needs and organizational demands. We believe in strengthening our human resources with people who are the best fit and providing them with a positive working environment conducive to self-development. This policy helps build a solid business foundation. We continuously aim to employ the right talent with the right experiences, or potential, to the right role at the right time and support them to better themselves.

We

make each other shine, support talent, respect diversity, value teamwork, dream a better future for us and the World we live in.

We are transparent, put friendship forward, encourage creativity, listen, share ideas, advance the future, support equality, invest in training, learn from each other.

are Pioneers



Our Mission

To contribute to the advent of sustainable rail and road transport through smart application of technological advances to enhance people's access to economic opportunities, to change lives of people for the better and to leave a Greener World to future generations.

Our Vision

To become the regional leader in rail and road technology sectors by providing safe, sustainable, advanced, and economical systems and solutions. To become a major global technology powerhouse and one of the world's most admired companies for our products, people, partnerships, and performance.

Our Values

- We work as partners with our customers, listen to them, anticipate their needs, and formulate solutions together.
- We are honest and strive to make responsible decisions. We speak up for what is right. We uphold the highest standards of moral behavior, and we act ethically at all times.
- We support the professional development of each employee. We respect diversity, promote knowledge-sharing, and encourage dialogue.
- We strive to achieve excellence by acting with accountability and professionalism in everything we do. We are committed to continuous improvement.
- We consider the protection and reinforcement of environment, health, and safety a fundamental responsibility.
- · We embrace differences. Everyone has the opportunity to contribute to our work and score success.
- We treat each other with respect and dignity. We value the unique contributions that each person brings to the table.
- We welcome new ideas and dare to try new things. Problems are solved where creativity and technical expertise meet.







Our products revolve around

Innovation, functionality, reliability, availability, maintainability, and safety. They are designed and produced to meet the highest technical standards to contribute to a sustainable transportation culture.

We aim for

Efficiency at every layer.

- Production
- Application
- Maintenance
- Lifecycle

YM IDIS PRODUCT RANGE

IDIS SYNAPSES®

an extensive approach to signaling systems

IDIS REFLEX®

when critical condition monitoring and quick action needed

IDIS PERIPHERAL®

efficient monitoring and revenue collection

IDIS SYNAPSES IXL®

SIL4 SIGNALING SYSTEM

FLEXIBLE, EFFICIENT, DIGITAL

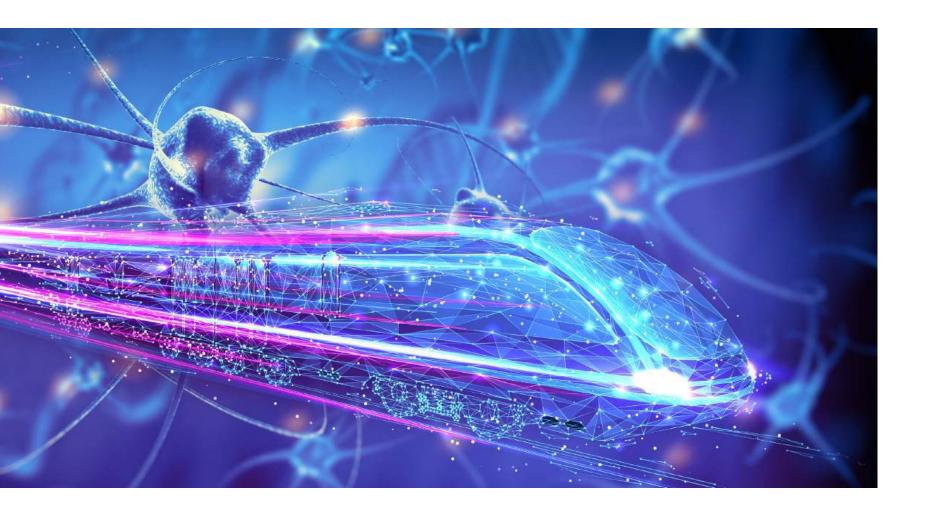
SIL4 PLC based interlocking system with open interfaces ETCS L1, CTC and wayside objects. Flexible and scalable architecture depending on application type – primary and secondary lines, light rail, tramway, marshalling yard, depot, port etc.





Highlights

- Next-Generation Digital Interlocking
- SIL4-Certified Generic Product (EN Standards) with COTS components
- Flexible and Scalable S/W and H/W Architecture
- Easy adaptation to different signaling rules and applications
- Easy integration to external systems
- Workflow-Oriented Support Tools Easy Data Configuration and T&C



Features

- Object Controller for major LED Signals
- Object Controller for major Point Machines
- Tight Integration with major AF Track Circuits, Axle Counters and ETCS L1
- Tight integration with YM IDIS Local Control System (LCS) and CTC.
- Flexible and modular system architecture
- Open and adaptable interfaces to integrate various systems
- Headway Simulation

Projects

- Metro Istanbul T4 Tram Line Junction Control
- Turkish State Railways Çamlık Signaling
- Dar es Salaam Morogoro (DSM) SGR Depot
- Bursa BURULAŞ T2 Tram Line Signaling
- Turkish State Railways Alayunt Afyon Konya ETCS L1 Signaling
- Bursa Emek-Sehir Hastanesi Light Rail Transit System

IDIS SYNAPSES DLX®

LEVEL CROSSING SYSTEM

DECENTRALISED CONTROL WITH OR WITHOUT INTERLOCKING

Level Crossing System is designed to operate automatously or as an integral part of any interlocking. This flexibility enables us to provide safe level crossing solutions for mainline, light rail and tram projects including non-signaled secondary lines.





SIL4 LEVEL CROSSING, LEVELED UP TO HIGHEST SAFETY LEVEL



- Next-Generation Digital Interlocking
- SIL4-Certified Generic Product with COTS components
- Easy configuration as an integrated or autonomous solution
- Easy integration with existing equipment and external systems
- Independent trigger and release mechanism using axle counters
- Versatile cableless data transmission with multi-protocol support
- Workflow-Oriented Support Tools for easy configuration and T&C



Features

- Half- and full-barrier integration
- Single, double, and multiple track protection
- ETCS Level 1 Protection on ETCS lines
- Includes all components for autonomous installations
- Outdoor and cost-effective indoor configuration

Projects

- Turkish State Railways Çamlık Signaling
- Ethiopia AKH Project (ETCS L1)
- Turkish State Railways Alayunt Afyon Konya ETCS L1 Signaling

IDIS REFLEX®

ECS ALARM SYSTEM

CONFIGURABLE MODULARITY FOR SAFER TRACKS

Developed for the surveillance and monitoring of signaling & telecom equipment along the track. It detects environmental conditions at every technical structure and protects them against theft, fire, and other operationally critical conditions. An extremely adaptable and flexible solution proven on several railways in Turkey and Africa





MONITOR ALL SYSTEMS FROM A
SINGLE LOCATION WITH INCREASED
EFFICIENCY, SECURITY, AND SAFETY.
ADAPTABLE TO PRECISE NEEDS OF
DIFFERENT PROJECTS

Highlights

- Modular structure
- Easy assembly
- PLC-based System
- Network connection support
- Operator-friendly and practical UI
- Local warning / announcement option



Functions

- Fire and smoke alarms
- Unauthorized access alarms
- Power System / UPS / Generator monitoring
- · Surveillance by camera
- Alarm filtering and logging
- Heat tracking
- Flood sensing
- Keyboard / card access

Standards / Protocols

- · Wide range of comm. protocol management
 - MODBUS TCP/IP
 - Standart TCP/IP
 - SNMP
 - IEC 870-5-104
 - RS232 RS485
- Flexible protection class outdoor option
- HMI option
- Scalable according to controlled area

IDIS PERIPHERAL®

FARE COLLECTION & TICKETING

FOR A PERFECT TRAVEL EXPERIENCE



The system can use various ticket technologies such as QR codes, barcodes, RFID, and magnetic cards. It can be configured in different architectures including fully centralized hot redundant or central and local servers configured in a redundant architecture. Ticket vending machines, local and central ticket workstations with printing machines, internet-based reservation and purchasing sites, mobile applications, credit/debit card interfaces, and other payment gateways can all be custom-tailored to customer needs.

IDIS PERIPHERAL®

EARTHQUAKE WARNING & STRUCTURAL HEALTH MONITORING SYSTEM

DETECTION & EARLY WARNING REFINED



The Earthquake Warning System function is designed to detect earthquakes affecting the railway track as early as possible. Redundant electromechanical sensors listen to the railway area to spot special ground waves to warn railway operators on time.

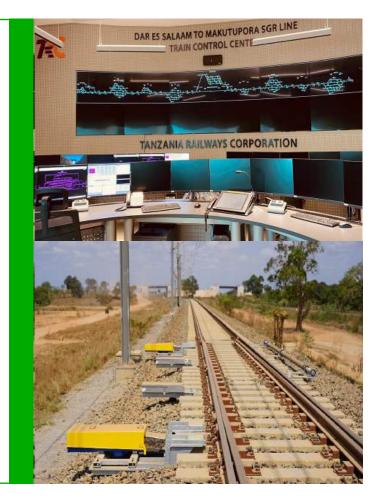
The Structural Health Monitoring function continuously monitors the health of critical railways in constructions such as tunnels, bridges, and viaducts. It can detect slow movements at the beginning to allow operators to plan for maintenance to prevent any dangerous situations from occurring.

EXPERIENCE

Dar es Salaam – Morogoro Railway Project 300 km

ETCS L2 GSM-R

The 300 km-long Dar Es Salaam - Morogoro Railway is the first phase and the most critical part of the project boasting a total track length of 1,224 km. When the five-part line is complete, it will connect Uganda, Rwanda, the Democratic Republic of Congo, and Tanzania, providing access to the Indian Ocean for all these countries. This 300 km-long single line will allow for a design speed of 160 km/h between Dar Es Salaam and Morogoro.



Signaling Systems

Project Management, Design, Installation, Systems Engineering, Testing, Commissioning and Maintenance. Mainline Signaling with ERTMS/ETCS L2, Depot Signaling, Marshaling Yard Signaling, Central Traffic Control Systems and Auxiliary Detection Systems

Power Supply Systems

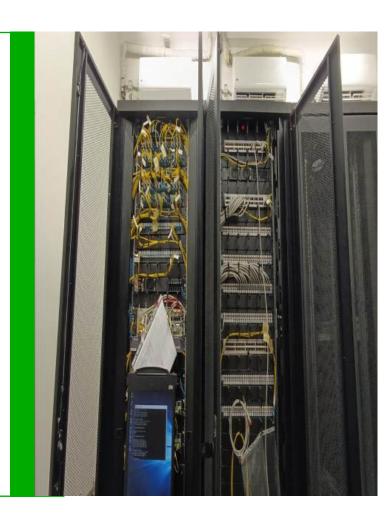
Services: Design, Supply, Interface Management, Installation and Testing, Commissioning and Maintenance. Systems: Transformers, Diesel Generators, Distribution Panels, UPS and Batteries

Telecommunication and IT Systems

Morogoro - Makutupora Railway Project

422 km

The total route length will be 422 km including workshop, depot, and siding tracks. A part of the Central Corridor, the project will be completed in 36 months and connect Uganda, Rwanda, the Democratic Republic of Congo, and Tanzania, providing access to the Indian Ocean for all these countries.



Signaling Systems

Project Management, Design, Installation, Systems Engineering, Testing, Commissioning and Maintenance. Mainline Signaling with ERTMS/ETCS L2, Depot Signaling, Marshaling Yard Signaling, Central Traffic Control Systems and Auxiliary Detection Systems

Power Supply Systems

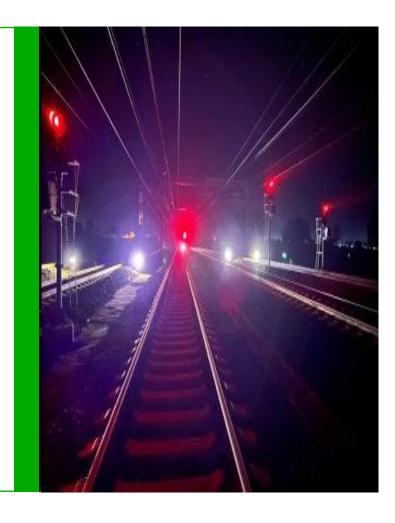
Services: Design, Supply, Interface Management, Installation and Testing, Commissioning and Maintenance. Systems: Transformers, Diesel Generators, Distribution Panels, UPS and Batteries

Telecommunication and IT Systems

Makutupora - Tabora Railway Project

368 km

The total route length will be 368 km including workshop, depot, and siding tracks. A part of the Central Corridor, the project will be completed in 44 months and connect Uganda, Rwanda, the Democratic Republic of Congo, and Tanzania, providing access to the Indian Ocean for all these countries.



Signaling Systems

Project Management, Design, Installation, Systems Engineering, Testing, Commissioning and Maintenance. Mainline Signaling with ERTMS/ETCS L2, Depot Signaling, Marshaling Yard Signaling, Central Traffic Control Systems and Auxiliary Detection Systems

Power Supply Systems

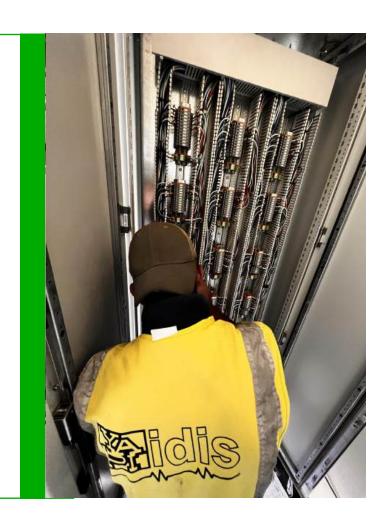
Services: Design, Supply, Interface Management, Installation and Testing, Commissioning and Maintenance. Systems: Transformers, Diesel Generators, Distribution Panels, UPS and Batteries

Telecommunication and IT Systems

Tabora - Isaka Railway Project

165 km ETCS L2 GSM-R

The total route length will be 165 km including workshop, depot, and siding tracks. A part of the Central Corridor, the project will be completed in 36 months and connect Uganda, Rwanda, the Democratic Republic of Congo, and Tanzania, providing access to the Indian Ocean for all these countries.



Signaling Systems

Project Management, Design, Installation, Systems Engineering, Testing, Commissioning and Maintenance. Mainline Signaling with ERTMS/ETCS L2, Depot Signaling, Marshaling Yard Signaling, Central Traffic Control Systems and Auxiliary Detection Systems

Power Supply Systems

Services: Design, Supply, Interface Management, Installation and Testing, Commissioning and Maintenance. Systems: Transformers, Diesel Generators, Distribution Panels, UPS and Batteries

Telecommunication and IT Systems

Mwanza - Isaka Railway Project

341 km

The services provided are design, manufacturing, software development, integration, factory test, delivery, installation operation and maintenance training, installation supervision and test and commissioning.



Ticketing and Fare Collection System

Services: Design, Supply, Interface Management, Supervision and Testing, Commissioning and Maintenance. Description: System is designed to serve 1.1 million passengers annually across 10 strategically located passenger stations along the 341 km railway. The system supports various ticketing options, including Box Office sales, Ticket Vending Machines (TVMs), and online ticket sales and reservations, offering flexibility and convenience for passengers.

Freight Management System

Services: Design, Supply, Interface Management, Supervision and Testing, Commissioning and Maintenance Our system is designed to manage 7 million tonnes of freight annually across 5 strategically located freight stations along a 341 km railway.

Government Electronic Payment Gateway (GEPG)
Government SMS Push Service
Tanzania Revenue Authority (TRA)
Tanzania Port Authority (TPA)
Tanzania International Container Terminal Services (TICTS)
Tanzania Electronic Single Window System (TeSWS)
Land Transport Regulatory Authority (LATRA)
Enterprise Resource Planning (ERP)
Marine Services Company Limited (MSCL)
Electronic weigh wagon bridge system

Bir Touta - Zeralda Railway

23 km etcs l1 gsm-r

Bir Touta–Zeralda Railway Project is a 23 km double track railway with 140 km/h design speed which is constructed by Yapı Merkezi and Infrarail SpA Consortium and links Zeralda suburb to the capital city of Algeria. The projects includes approximately 10 million m³ of earthworks and 30.000 m² of heavy construction structures like bridges and viaducts. Electrification, signalization (ERTMS Level 1), telecommunication and commissioning are also in the scope of the turn-key contract.



Signaling Systems

Design Review, Installation, System Engineering, and T&C

Mainline Signaling with ERTMS/ETCS L1

Power Systems

Design, Interface Management Installation, and T&C

S&T Low-Voltage Power Systems Diesel Gens

UPSes and batteries



Telecom Systems

Interface Management
Installation and T&C FO
Network (SDH, LAN)
Wireless Network (GSM-R) CCTV
Telephone

Public Announcement
Passenger Information
Revenue Collection (passenger)
Alarm SCADA, and etc.

Awash – Kombolcha – Hara Gebaya Railway

390 km ETCS L1 DMR

Yapı Merkezi constructs a 390 km-long, singletrack railway for the Awash – Kombolcha – Hara Gebaya line. Starting from the northeast of Awash, the track extends toward the North to reach the city of Kombolcha before eventually arriving at Weldiya. Including ten stations and a 400-km line allowing an operating speed of 120 km/h, the project involves undertaking infrastructure, superstructure, electromechanical works to accommodate passenger and freight transportation.



Signaling Systems

Design Review, Installation, System Engineering, and Testing.

Mainline Signaling with ERTMS/ETCS L1 Independent, ETCS L1-compliant Level Crossing Systems developed by YM IDIS

Power Systems

Building Electrical Systems, Design Review and Consultancy, Installation, Testing, Commissioning

Turnkey Systems to be provided: S&T, Low-Voltage Power Systems, and UPS



Telecom Systems

Core Communication Backbone System (CCBS)
Fiber Optic Network System (FON)
Telephone System Radio System (DMR)
CCTV System
Load Vehicle Management

Public Address System (PAS)
Passenger Information System (PIS)
Access Control System
Ticketing System
Fire Detection System (FDS)
SCADA System

Yerköy - Sivas High Speed Railway

245 km

ETCS L1 & L2 GSM-R

The Yerköy-Sivas line is a 245 km part of the Ankara-Sivas High-Speed Railway Project with a design speed of 300 km/h. When it is complete, it will be possible to reach Sivas from Yerköy at a speed of 250 km/h in less than one hour.

Scope of Work;

Signaling System (ETCS L1 & L2)

Communication Network & telephony

GSM-R System

CCTV System

IDIS Earthquake Early Warning System and Structural Health Monitoring System

IDIS Alarm SCADA System (ECS)

The Yerköy-Sivas High-Speed Railway is set to meet the standards of the Turkish State Railways, EN Standards, and Deutsche Bahn Standards. The project will utilize 62,000 tons of rail, 89 turnouts, and 13 spare turnouts. Yapı Merkezi will also employ 700,000 sleepers, more than 21,000 prefabricated superstructures, and four transformer stations. A modern Traffic Control Center in Sivas will control the railway.



Irmak-Karabük Zonguldak Railway

477 km

This EU-funded project aimed to rehabilitate the existing 415 km Irmak-Karabük-Zonguldak line and deploy a modern signaling system to increase safety and capacity. This line constitutes an important link between the Central Anatolia region and several ports on the Black Sea for freight, coal and iron ore, and passenger transport.

Signaling Systems

Design Review, Interface Management, Installation, Testing & Commissioning Mainline Signaling with ERTMS/ETCS L1

Power Systems

Design Review, Integration, Installation, Testing & Commissioning S&T Low-Voltage Power Systems (transformers, UPSes, batteries)

Telecom Systems

Design, Procurement, Integration, Installation, T&C

FO Network

Passenger Information System Public Announcement System Scada, and etc.

Apart from generating significant environmental benefits, this project led to time gains, improved security, and boosted economic development. The project also had a European dimension, as it connects to the extended Trans-European-Network (TEN-T) lines.



TCDD 3. Region Çamlık Station

20 km

Conventional with ATS

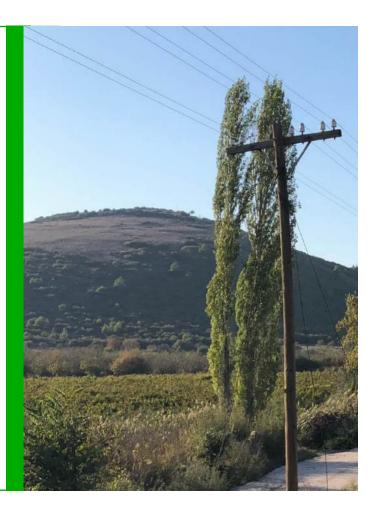
20 km length mainline signalling works completed under operation.

Single Line, 2 Stations, 80 km/h Operating Speed

Client: TCDD 3. Region Year: 2018-Completed.

Project Scope

YM IDIS was responsible for the realization of all processes from design to commissioning phase of all the systems listed below.



Signaling System

Mainline Interlocking installation,

1 System Room and 6 auxiliary system room,

8 set turnout control via point machines,

30 set axle counters for train detection,

31 set signal lambs,

1 Local operator control for dispatching,

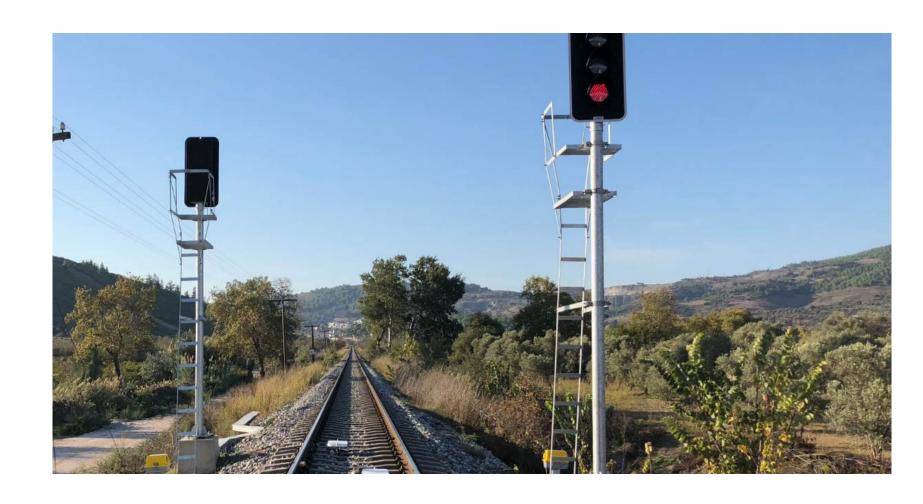
Signal design,

System Engineering and tests

Installation

Power System

Design, Test and Commissioning
Low Power System
UPS / Diesel Generators
Technical Buildings Electrical Works



Telecom System

Communication Backbone System
FO Cable and System
CCTV System
Access Control System
Fire Detection System
Alarm / Scada System

Metro Istanbul T4 Tram Line Mescid-i Selam Station

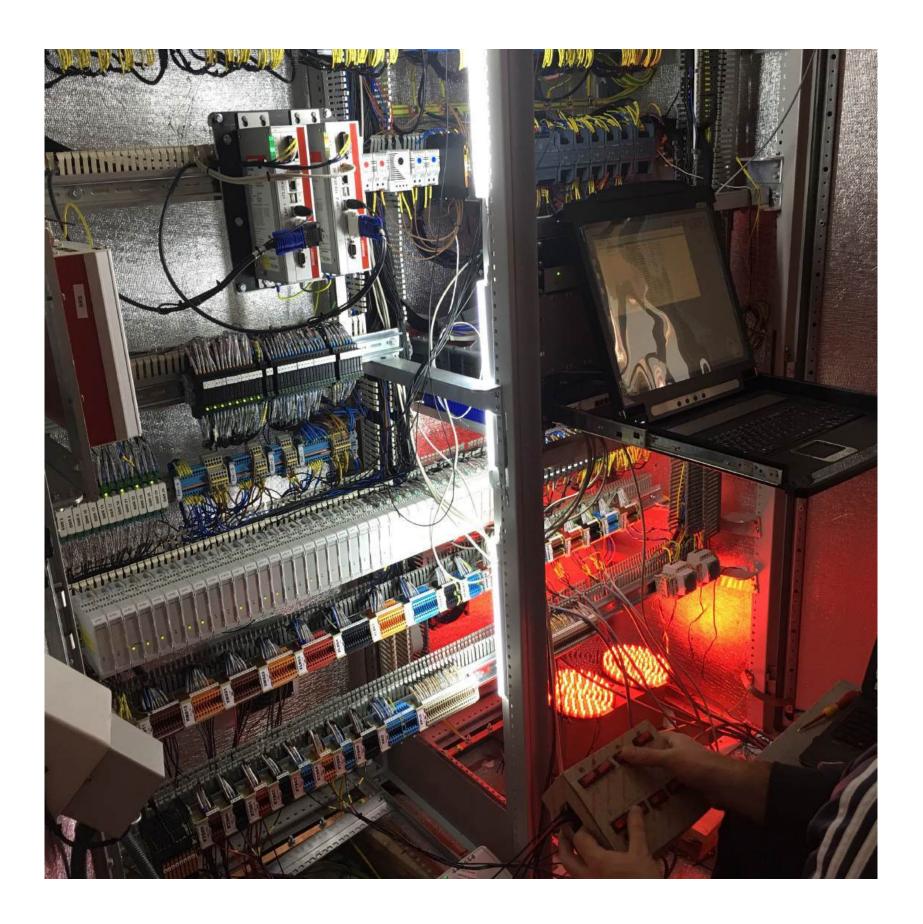
Single Interlocking, 1 Station, 60 km/h Operating Speed

Client: Metro Istanbul Transportation Corporate Company

Year: 2017-Completed.

Signaling System

Station Interlocking Application Signalling system design System Engineering and tests Installation



Alayunt-Afyon-Konya Railway Rehabilitation **Project**

408 km

ETCS L1

Double Track, 30 Stations, 120 km/h Operating Speed

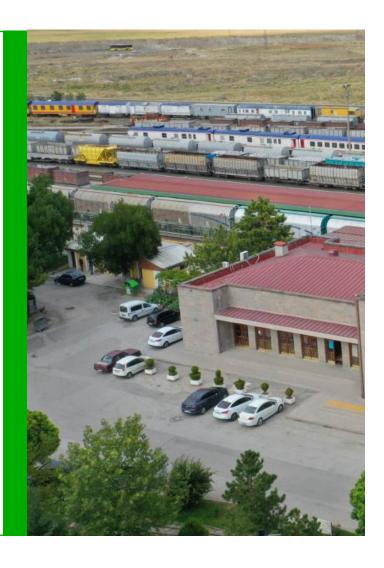
Main Contractor: Yapı Merkezi Construction Company

Subcontractor: YM IDIS Engineering Company

Year: 2022- Ongoing

Project Scope

YM IDIS was responsible for the realization of all processes from design to commissioning phase of all the systems listed below.



Signaling System

CTC and Videowall supply, 7 set Local Operator Consoles, Interfaces with neighbor CTC, IXL and ETCS, 30 set interlocking for stations, 450+ signal lambs,

200+ point machines,

30 set point heater system,

400+ rail track circuits,

550+ ATS Magnets,

71 set Level Crossing application,

ETCS System with 250+ LEU and 1700+ Balises,

Signal design

System Engineering and Tests

Installation.

Test and Commissioning

Training



Power System

Design, Test and Commissioning
Low Power System
Signal and Telecom Cables,
UPS / Diesel Generators
Technical Buildings Electrical Works

Telecom System

Communication Backbone System
400+ km F0 Cable and System
Telephone System
CCTV System
Access Control System
Fire Detection System
Alarm / Scada System

City Centre- Bus Terminal Tram Line Signalization Project

10 Station

Double Track, 60 km/h Operating Speed

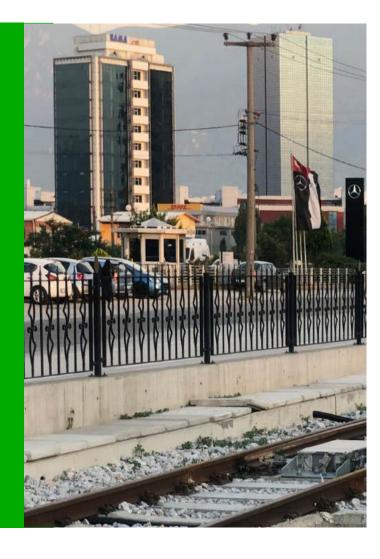
Main Contractor: Öztimurlar Construction Company

Subcontractor: YM IDIS Engineering Company

Year: 2022-Completed.

Project Scope

YM IDIS was responsible for the realization of all processes from design to commissioning phase of all the systems listed below.



Signaling System

CTC supply,

2 set interlocking for stations and 1 set interlocking application for depot area

39 set point machine

9 set point heater

97 set axle counters for train detection

46 set signal lambs

1 Local operator control for dispatching

Signal design

System Engineering and Tests

Interfaces (with PIS, Pikes, and T1 Tram Line)

Installation,

Test and Commissioning

Training



Power System

Design, Test and Commissioning Low Power System UPS Technical Buildings Electrical Works

Telecom System

Centralized Clock System

Bursa Emek - Sehir Hastanesi Light Rail Transit Project

11 Station

Double Track, 70 km/h Operating Speed

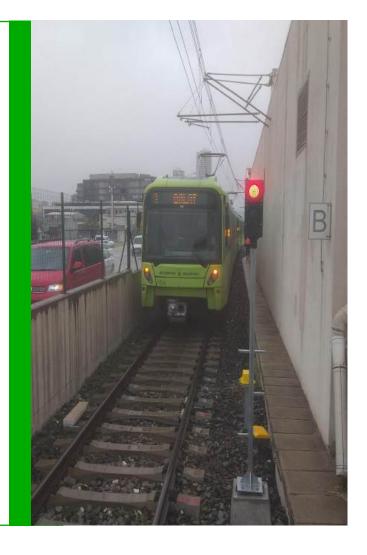
Main Contractor: Sogut Tasyapi JV

Subcontractor: YM IDIS Engineering Company

Year: 2024-Ongoing.

Project Scope

YM IDIS was responsible for the realization of all processes from design to commissioning phase of all the systems listed below.



Signaling System

CTC supply,
2 set interlocking for stations
14 set point machine
2 set point heater
64 set axle counters for train detection
67 set signal lambs

129 ATP magnets
3 Local operator control for dispatching
Signal and ATP design
System Engineering and Tests
Interfaces (IXL, TCMS, ATP)
Installation,
Test and Commissioning
Training

Sahinbey Motorway Tunnel Project

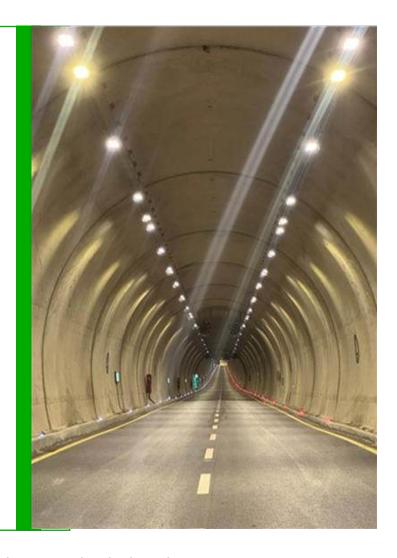
1250 metres long Double tube

Main Contractor: YM IDIS Engineering Company

Year: 2023-2024

Project Scope

YM IDIS was responsible for the realization of all processes from design to commissioning phase of all the systems listed below.



- 2 Energy Distribution Buildings, 1 Water Tank Construction and Electromechanical Works
- Energy Transmission Lines
- Tunnel Energy Distribution (Medium Voltage, Transformers, Generators, UPS, LV Panels)
- Lighting and Lighting Control System
- Emergency Escape Guidance Luminaires
- LED Road Buttons
- Tunnel Ventilation Jet Fans and Air Quality Sensors
- Water Fire Extinguishing System
- Public Address System
- Signaling Systems (Variable Message Signs, Variable Traffic Signs)
- Fire Detection and Alarm System (Linear and Regular Fire Detection System)
- Emergency Phones
- CCTV System and Event Detection System
- Network System
- Tunnel Radio Repeater System
- SCADA System









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