

INTETRA

FUTURE  
ON THE ROAD



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# ABOUT US

INTETRA is specialized in the research, production, and integration of Intelligent Transportation Systems and road safety products since 2005.

Since its establishment, the company operates globally and keeps expanding its product range and portfolio.

By investing %7 of its income to R&D, INTETRA focuses on finding innovative solutions in Intelligent Transportation Systems.

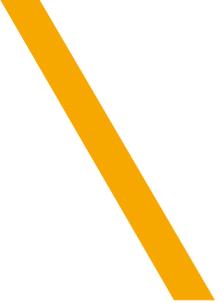
Thus, our R&D department is constantly developing better, more useful, more original products and projects using the advanced information and communication technologies with the motto "Do the Best to achieve the Best".

INTETRA manufactures and integrates Variable Message and Traffic signs, LED Traffic Lane and Speed Control Signs, Red Light and Speed Enforcement Systems, Tunnel Safety Signs, Electronic Height Detection and Warning Systems, Traffic Signalization Systems, Road & Pedestrian Studs.

All of our products are produced with assurance of ISO 9001 quality management and CE approved.

With its high quality and cutting-edge technology, INTETRA became the industry's leading solution partner.

With our sustainable business model, INTETRA implements future oriented ITS projects for smart cities all around the globe.



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# INTELLIGENT TRAFFIC MANAGEMENT SYSTEMS

Traffic flow monitoring and adaptive traffic management systems use to provide solutions for the reduction of travel time.

Instant accidents, changes in weather conditions and roadworks are emerging as a priority problem that is likely to happen in metropolitan centers and on highways causing traffic congestion.

## ***Our aim;***

*Is to ensure drivers are given accurate and timely information in order to minimize traffic congestion.*





# VARIABLE TRAFFIC SIGNS

**EN12966 certificated**

Variable Traffic Signs are LED-based small-scaled traffic signs. Intetra Variable Traffic Signs displays different messages according to different circumstances such as speed limits, lane closures, roadworks, precipitation.

In addition, Round Variable Traffic Signs, specially designed by Intetra provides ease of implementation even in narrow spaces, make urban life more orderly and safe by informing people instantly in an increasingly urban world, practically everywhere in cities.

## CONTROL CABINET

Intetra's special design control cabinet, which is used for both variable message signs and variable traffic signs, is the unit that controls all system components.

By mean of its user-friendly LCD display allows controlling the system both remotely and manually.

Intetra Control cabinet can be custom designed according to the customer preference.



Lane VTS



Speed VTS



Full Color Full Matrix VTS



Round VTS



## VARIABLE MESSAGE SIGNS

Intetra Variable Message Signs, which are used to minimize traffic problems in traffic flow and adaptive management, alerts drivers in advance by displaying instant data of the events and alternative routes that enables information to reach drivers quickly.

Intetra Variable Message Signs display different traffic signs and messages with high-quality and long-lasting LEDs.

Intetra products produced with special optical lens technology have the highest optical ratio and light reflection protection.

Intetra Variable Message Signs provide easy integration with other control systems (such as road weather stations, vehicle counting and classification sensors, cameras, radars) with new user-friendly plug-and-go integration.



EN12966 certificated



# MOBILE VARIABLE MESSAGE AND TRAFFIC SIGNS

## Specially designed trailers for traffic safety!

Mobile Traffic Safety Trailers are being used to improve safety and provide information for drivers in congestion zones, roadwork sites or high risk areas.

Urban and Highway Trailer models are specially designed by considering the traffic needs in urban roads and highways. By providing solution oriented designs it sustains its place in the market.



All mechanical and electronic components of our trailers are specially designed under the Intetra brand. Through Intetra's special software, the operator broadcasts relevant message immediately by using the one-touch button on the tablet.



## LED TRAFFIC SAFETY SIGNS

LED Traffic Safety signs are used in low visibility conditions to create a higher level of awareness.

Installing LED modules into existing mechanic traffic direction signs and warning signs provides exceptional uniformity and visibility. This can be applied to all signs meeting Traffic Standards.

Intetra LED Traffic Signs are widely used at pedestrian crossings, school crossings, roadwork sites and sharp turns.

Intetra LED Traffic Signs are specially produced with 3M Diamond Grade reflectors in order to enhance visibility even when the power supply is off.

These signs can be powered both by solar and electrical components.

Intetra uses special lenses of the front surface of the products to provide the best visibility and extend their lifespan.



# TUNNEL MANAGEMENT SYSTEMS

In comparison to all other traffic systems, these are the systems that have to work with many subsystems.

In urban areas, it is of even greater significance to communicate instantly with other control systems.

## ***Our aim;***

*Is to maximize tunnel safety with the technological products we continuously develop.*





## VARIABLE MESSAGE SIGNS

EN12966 certificated

Intetra Variable Message Signs have a special electronic design for instant data transfer and a mechanical design prioritizing driver safety when used in tunnels.

Intetra Tunnel Variable Message Signs, which can easily communicate with all other control systems, keep drivers instantly informed about lane management, incident detection and all other conditions necessary for driving safely in an uninterrupted traffic flow.

## VARIABLE TRAFFIC SIGNS

Immediate transmission of lane management and speed limits alerts to drivers is of great importance in terms of driver safety in tunnel management.

Intetra Variable Traffic Signs are equipped with legible and reliable special LED technology.

Intetra knows that traffic rules differ between cities and countries and produces Variable Traffic Signs that can display every speed limit between 30-90 km as it's standard production.

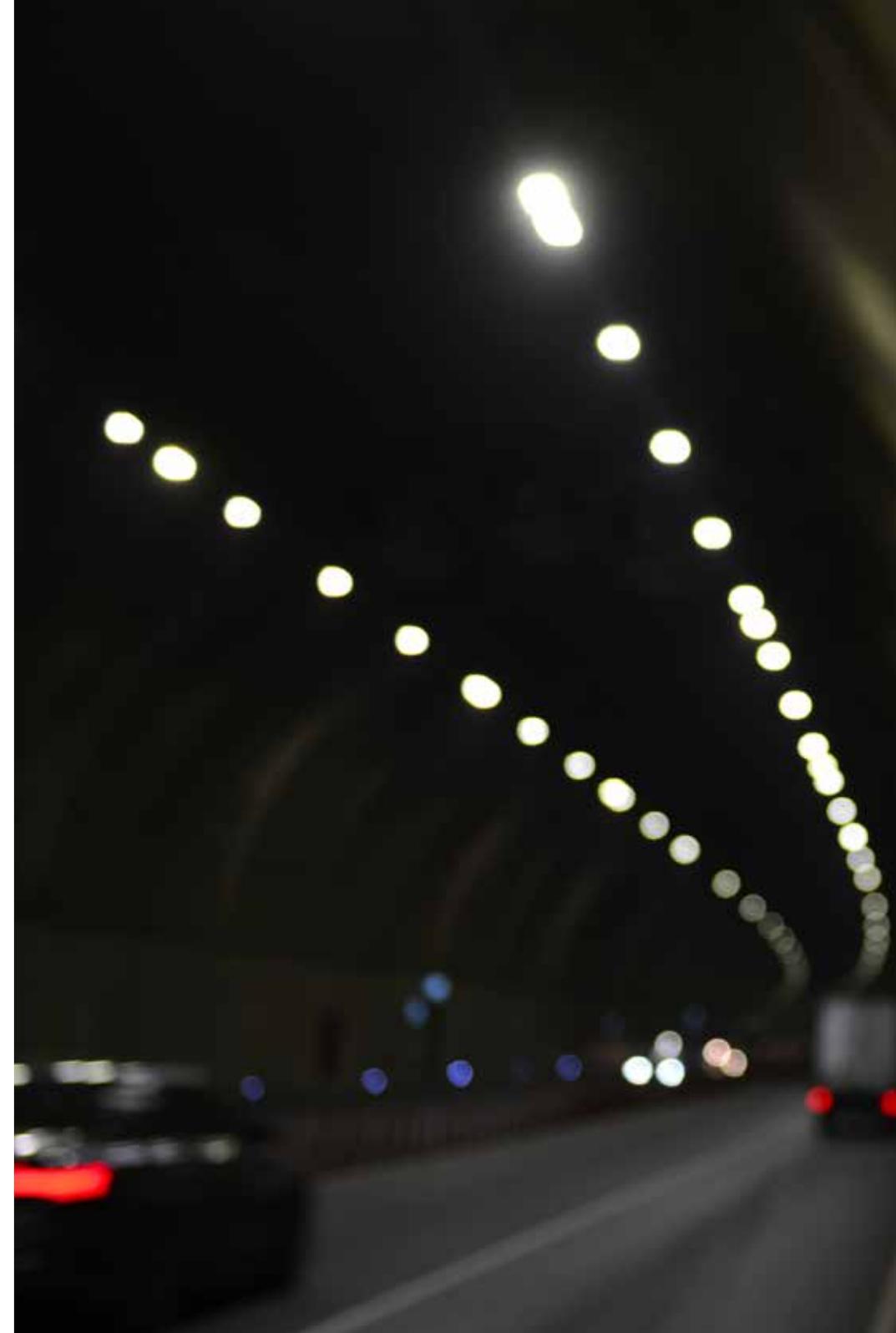
In addition, Intetra Variable Traffic Signs with plug-and-go integration communicate easily with systems such as road sensors, vehicle counting, cameras, fire equipment, road lighting and other systems.

## TUNNEL SAFETY SIGNS

Tunnel safety signs are used for directing people to emergency exits or emergency phones in case of an emergency.

Intetra Tunnel Safety Signs have a reflective coating and illuminate with LED lights. Although reflective coating is enough to provide high-visibility, additional fluorescent lamps are also used for all types of emergencies.

Intetra designs and develops different types of energy-saver emergency signs for tunnels to meet the needs of different countries and tunnels.





## ROAD STUD

Intetra LED road studs are used especially in tunnels for traffic safety. It's CAT-ION design and by highlighting lane markings improves the visibility even in low visibility conditions.

High-quality LEDs are used in Intetra Road Studs.

Constant integrated circuit obtains uniformity in each LED button.

## TECHNICAL FEATURES

- 100 x 105 x 18 mm ± 2 mm
- Main body material PC or ASA plastic
- Weight 200 – 300gr
- A total of 12 LEDs, 6 in each direction
- Minimum 35cd radiant intensity on average for White and Red LEDs.
- Beam temperature of white LEDs: 5600K – 8900K
- The wavelength of Red LEDs: 618nm – 630nm
- 24 V DC Current- IP 68 Protection
- Operating at -25°C and +60°C

## ROAD STUD

## CONTROL CABINET

The Intetra Road Stud Control Cabinet has an aluminium housing with IP67 class protection and a special lock design on the front lid. It is produced in compliance with EN6100 standard. One control cabinet can feed 50 to 75 road studs. Intetra offers time, flash and synchronized flash applications as optional features.

# PASSENGER INFORMATION SYSTEMS

Passenger Information Systems enable more efficient use of time and energy.

As the prior application area of the system, Passenger Information Displays are used in order to show the real-time arrival of public transportation vehicles and the transportation routes.

## ***Our aim;***

*Is to encourage public transportation and to contribute to its development.*





## PASSENGER INFORMATION DISPLAYS

Intetra Passenger Information Displays are specially designed displays to bring solutions to different needs at airports, metro, train and bus stations.

While designing passenger information displays for public transportation systems, Intetra focuses on providing hardware and software solutions according to the needs and requirements of the project.

## REAL-TIME PASSENGER INFORMATION SYSTEMS

Intetra Passenger Information Displays are designed with special software to provide real-time information. This software can easily be integrated with the main control centre.

Real-time and route information can be provided on Intetra Passenger Information Displays designed with PID software that can offer alternative and flexible solutions to our customers on a project basis.

YENİKAPI İSTASYONU		11:49:39
HACIÖZMAN	PERON 2	1 dk.
KRAZLI	PERON 4	3 dk.
ÜSKÜDAR	PERON 1	5 dk.
ATATÜRK HAVALIMANI	PERON 5	7 dk.
BEYRANTEPE	PERON 1	10 dk.
SARAYI MAHALLESİ	PERON 3	13 dk.

26.03.2019 Cumartesi

Zaman	Kayıp	Varış	Durum
19:30	ANKARA	İSTANBUL	İbide Gel.
20:20			Planlı
20:30	MARDİN	İSTANBUL	Planlı

# SMART PARKING MANAGEMENT SYSTEMS

Parking spaces are optimized with smart parking systems.

The rapid development of urbanization brought parking a serious problem along with it.

Due to the increase in population, it can only be resolved with a good parking management.

## ***Our aim;***

*Is to reduce traffic congestion by keeping drivers updated with accurate parking information provided in advance.*





## LED PARKING AND VARIABLE MESSAGE SIGNS

Intetra provides smart parking management by transferring vacant parking space count data which is collected from the sensors to Intetra Routing Information Displays are delivering the information to the drivers at the right time.

- ◆ Parking Routing
- ◆ Routing Information Displays
- ◆ Vehicle Counting
- ◆ System Integration

## VEHICLE AND LICENSE PLATE RECOGNITION SYSTEMS

Intetra installs systems running on the real-time data collected from vehicle recognition and vehicle counting sensors with the software that gives instant parking status information.

Integrating license plate recognition feature to the system and one-to-one matching method, we are able to develop various toll collection solutions.

- ◆ License Plate Recognition
- ◆ Vehicle Recognition
- ◆ Access Control
- ◆ Barrier System
- ◆ Toll Collection System
- ◆ System Integration

# INTELLIGENT ELECTRONIC DETECTION SYSTEMS

These are the systems used to control traffic flow, inspect transportation and prevent those accidents which are likely to be caused by vehicles causing a disruption in traffic.

In case of a violation in the traffic, class of the vehicle and license plate number is identified and reported by the sensors and image processing software to the main control center and also displayed on the Variable Message Signs.

By combining special software, which is developed by INTETRA with system's technological hardware offers an operating performance with the highest accuracy.

## ***Our aim;***

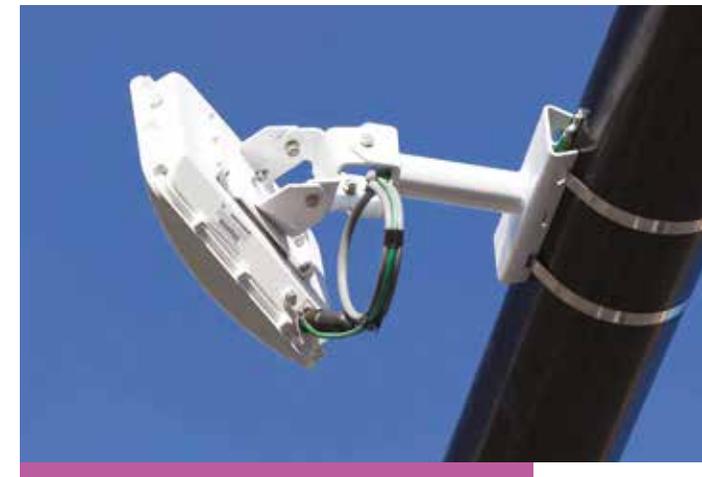
*Is to contribute to improving traffic safety by warning drivers and enhancing drivers' visibility.*



## VEHICLE COUNTING AND CLASSIFICATION SYSTEMS

Intetra works with solution partners around the world to increase the safety and security of highways, main roads and intersections by offering custom designed solutions.

Intetra offers project-based solutions according to customer needs by using premium quality products and different technologies. These include loop-detectors, video image processors, microwave radar-based sensors, laser sensors, passive infrared sensors and ultrasonic sensors.



# ELECTRONIC HEIGHT DETECTION AND WARNING SYSTEMS

The Intetra Electronic Height Detection and Warning System warns drivers about impending overhead structures and potential dangers via Variable Message Signs beforehand.

The system captures a photo of the over-height vehicle and reports its license plate to the control center. At the same time, the system activates a warning message on Variable Message Signs and alerts the driver.

## System Components

- ◆ Full Matrix Variable Message Signs
- ◆ Weather-resistant Sensor Technology
- ◆ License Plate Recognition Cameras
- ◆ Secondary Warning System Besides Prior Warning
- ◆ Control System with GSM Option
- ◆ System Integration Software



# RADAR SPEED WARNING AND LICENSE PLATE RECOGNITION SYSTEMS

The Intetra radar speed warning and license plate recognition system detect if vehicles are traveling within the speed limit of urban areas via radars and cameras, by this means alerts drivers by displaying the license plates of vehicles that are violating traffic rules via Variable Message Signs.

The Intetra radar speed warning and license plate recognition system has been developed to store the obtained information of model, color and license plate of a vehicle and report to the control center via its special software.

## System Components

- ◆ Camera
- ◆ Radar
- ◆ Variable Message Sign
- ◆ License Plate Recognition System Software



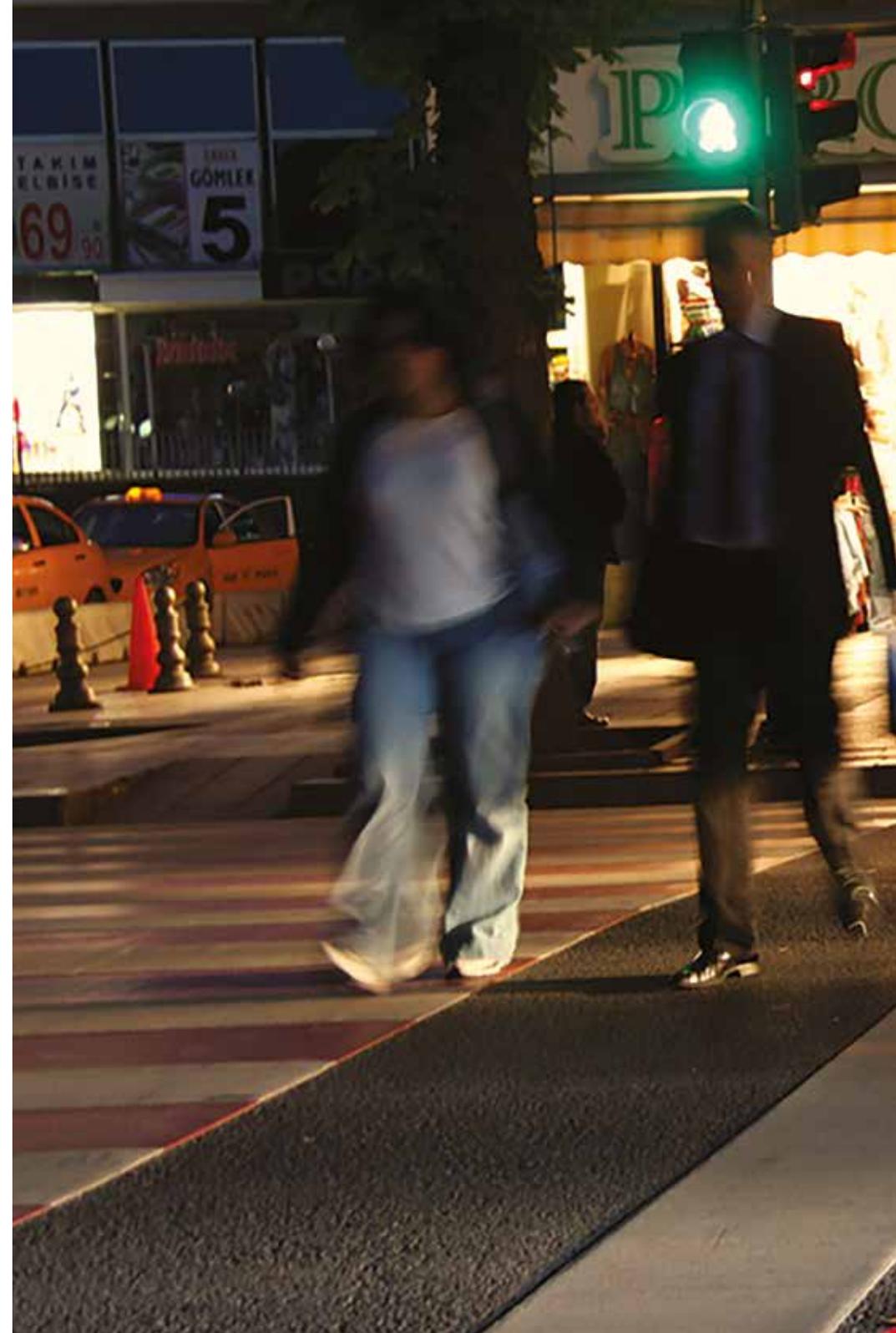
# TRAFFIC SIGNALIZATION SYSTEMS

These systems are commonly used in small and large intersections, highways and connection points for adaptive traffic management.

They are used to measure and adapt uninterrupted vehicle and pedestrian traffic flow according to the results of vehicle and pedestrian counts.

## ***Our aim;***

*Is to maximize vehicle and pedestrian safety with the new technologies that we have developed in accordance with adaptive traffic management.*





## PEDESTRIAN CROSSING WARNING LIGHT

### New Designs for New Lifestyle!

Pedestrian crossing warning light has been designed as a new method for safety by Intetra. Nowadays, pedestrians do not look in front of themselves while walking but look at their phones, instead.

For this reason, we designed the pedestrian crossing warning light, which enhances safety to prevent possible accidents and embellishes the city view with a new design.

### Technical Features

- ◆ Pedestrian warning light 505nm Green and 625nm flashes Red.
- ◆ Automatic brightness control based on sunlight.
- ◆ Resistance to weight up to 10 tons with rubber spring system
- ◆ 10mm tempered glass surface
- ◆ Ribbed surface design to prevent slips
- ◆ Easy maintenance
- ◆ Stainless steel body
- ◆ IP67 Protection

## TRAFFIC LIGHTS AND COUNTDOWN SIGNS

Intetra designs and produces unique and innovative traffic lights in compliance with international quality standards. In addition to this, it creates special designs in urban implementation areas.



- ◆ Project-based design
- ◆ UV resistant polycarbonate body
- ◆ IP65 protection
- ◆ Low power consumption
- ◆ 100, 200 and 300mm diameter option



## SIGNALIZATION AND PEDESTRIAN STUD

Intetra Navigator-Push Button, which has become an irreplaceable part of signalization systems, is a pedestrian stud that has been specially designed for people with disabilities.

This button, integrated into the signalization system itself, minimizes waiting times for both vehicles and pedestrians without any additional components.

There is an arrow sign embossed on the button that can be rotated 360 degrees. All voice messages can simply be activated if desired. Intetra buttons are impact-resistant and come with a vibration feature.



# SMART LIGHTING SYSTEMS

It is possible to enhance the quality and comfort of people's lives by using the minimum amount of resources without affecting the natural environment.

Energy saver LEDs are the most suitable tools to create economic and long-lasting products.

## ***Our aim;***

*Is to obtain energy savings between 50% and 70% by implementing special LED technology in smart lighting systems.*



## SMART ROAD AND STREET LIGHTING

Intetra's special LED technology provides good visibility and reduces light pollution for pedestrians and vehicles on a certain route.

Environmental friendly, Smart road and street lighting has been outstanding designs and comes with Wi-Fi hotspot and cell phone charging station features.



# PROJECT INTEGRATION SOLUTIONS

INTETRA designs optimal solutions for the integration of all subsystems and products of Intelligent Transportation Systems under one management system for urban and inner-city road infrastructures. In order to offer a complete solution to our customers, we also design and produce optical fiber and IP/Ethernet network communications.



INTETRA has a wide range of products commonly used in transportation, security and control industries including video, audio, and data transmission. INTETRA offers rugged, easy-to-assemble, maintenance-free devices able to withstand extreme environmental conditions. INTETRA's main objective is to design, develop and produce high-tech solutions in the field of intelligent transportation systems. INTETRA, which has expertise in product and system design, offers a complete package of communication infrastructure, SCADA control system, control center management solutions and integration for your ITS needs.

INTETRA identifies software and integration solutions in three main groups:

- ◆ Intelligent Transportation Solutions for Highways,
- ◆ Tunnel Management Solutions,
- ◆ Urban Traffic Management Solutions

INTETRA has expertise in working with different protocols such as Modbus, Profibus, TCP/IP and NTCIP.

Some of the INTETRA's solutions are:

- ◆ High-level Traffic Management System
- ◆ Web-based Control and Management System
- ◆ Mobile Phone Information System
- ◆ GIS Based Control System
- ◆ Tunnel Automation Control System
- ◆ Urban Control Center Management System



INTETRA



# FUTURE ON THE ROAD



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