LA SEMAFORICA

TECSEN

MOSYS

Monitoring System for Flooded Underpasses

WHAT IS MOSYS?

MOSYS SMacs is the web-based solution to monitor and control flooded underpasses. In just a "click", anywhere you are, thanks to the potential of the fully web-based platform, the condition of the underpasses and of the devices connected to them can be monitored.

With MOSYS an email or sms can be sent in case of warning caused by a flood in the underpass to allow for real-time decision about what to do.

MOSYS Smacs is easy to integrate and functional. It creates a safer network of roads as an answer to severe climate conditions. Thanks to its quick responsiveness any aspect of safety is greatly enhanced.

HOW DOES IT WORK?

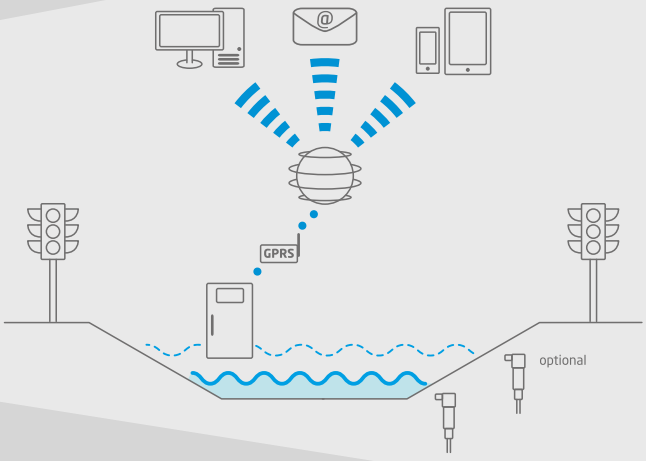
The aim of MOSYS is to improve the safety of underpasses in case of severe precipitation, by controlling the conditions and sending signals and warnings in case of excessive level of water.

The alarms, activated by level detectors installed in tanks for the collection of the rain and by one/two detectors for the presence of water on the road, activate visual signals for vehicles to stop (red light) and are sent in different ways to different receivers with diversification according to the type of alarm and level of access.

All alarms are centralized and visualized through the most advanced IT systems.

APPLICATIONS

- Centralized underpasses for vehicles, trains and pedestrians
- Real time monitoring of water tanks
- Filing of statistical data relative to flooding
- Real time information through VMS, Web, Smartphone and tablets



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CENTRALIZED MANAGEMENT SYSTEM

The centralized system allows monitoring of underpasses connected to it through GPRS modem or other devices from one or more remote end users.

The system's framework is the web-service type: a remote server (hosting) hosts the necessary web services and makes them available through IP protocol.

- The software includes the following:
- Web Interface fully customizable
- Interactive and user friendly interface
- Geo-referenced Interactive interface with graphic display, street map and layers/POI made available by the client
- Real-time acquisition and visualization of the states of the different components of the system and of alarms
- Mailing list of the state of the system
- Mailing list of the alarms
- Management system of the access to the levels: it is possible to force the system by switching the lights or the pumps on, or the whole system to simulate the alarm
- Visualization of the time-line of the states of different components (e.g. time, duration and water level in the tank)
- System logging

For each of the underpasses the system allows to visualize all the alarms and to control different functions:

- Water level in the pit for the sensors (danger level, second pump switch on, etc.) and alarm transmission
- Water level on roads and alarm transmission
- Presence of network voltage with alarm transmission in case of absence of voltage
- Control of the state of the pumps, with the option of controlling the ON/OFF remotely
- Remote control of the state of the magnetic-thermal switches of the pumps with the option of controlling the ON/OFF remotely
- Remote control of ON/OFF cycle of the lights divided into two groups (one for each direction)
- Remote control of all states ON/OFF of both pumps, lights and water level (remote simulation of flood and test of the response of the system) and transmission of mail/sms in case of malfunctioning of the system
- Transmission of mail/sms in case of malfunctioning of the UPS group

MOSYS is made of the following parts:

- 1x Control unit in a IP55 box suitable for managing two distinct lights groups up to 6 lights, 8/16 inputs configurable as flood sensor, water level in water tanks, state of the pumps, time-meter reading function, presence of power on the network etc.
- 1x GPRS modem with aerial and PSU (Power Supply Unit), excluding card; includes the license for the connection to the server TMacs to access the data.
- 2x black polycarbonate traffic lights (green or yellow upon request) with one 300mm red light with universal clamps and sunvisor (different kind of clamps for pole-to-pole fastening diameter 60/90/102 are available upon request)

- **Control unit with GPRS modem**

- **Traffic light with red LED signal**

- **Sensor for flood control (optional)**

- **Tablet 3G with dedicated App for mobile control**

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