

Project Automation

Ingegneria dei sistemi

Cagliari L.R.T. System

Line 1 of the Cagliari Light Metro-tramway represents a major intervention for the modernization of the town's transport system. The current route extends for about 6.6 Km and connects Cagliari with the Pirri borough and with the small town of Monserrato. The route is ready for a future extension of both the route itself and the number of tramcars. The project is of unique interest because a previous one-track route of the Ferrovie della Sardegna was partially reconditioned, with sections of double tracks at the stops.

The service, started in the first months of 2007, is supplied by Ferrovie della Sardegna with a parking lot of 6 low floor cars that make possible to provide a travelling time of 15' with a frequency of about 7'.

The installation includes a Central Control System, located in the Monserrato tramcar depot which supplies the infrastructures for tramcars maintenance.

In this context, Project Automation was commissioned to install the technological systems for Signaling, Supervision and Operation Services, together with the related optical fibre and radio coverage infrastructures for voice communication with the cars. For the centralized management of all aspects related to the operation, the tested client-server platform SMARTRAMS® was used, integrating the main functions of tramway control in one IT environment.

The Localization and Interblock functions are performed by dual-processor static equipment installed along the line for the protection of the tram progress in the bi-directional track sections, and in the depot for car parking, while providing the Control Centre with the location and movement data needed for the coordination of the traffic, the management of traffic lights priority at the intersections with the street traffic, and finally for the information to passengers on board and at the stops.



The infrastructures of the traction network are remotely monitored and controlled by a special module of the SMARTRAMS® system. Moreover, Video surveillance system arranged at the stops integrates with the Emergency SOS calls, providing for the safety of the passengers.

