

Microprocessor-based track circuit system includes an automated workplace for an electromechanic engineer, a specialized gateway, a redundant radial fiber-optic network, local area network switches, an operating redundant controller with replicated instruction control channels, a radial triplicated optical network, and contactless cross-connection modules for connecting to the track circuits. It contains input-output controllers and is designed to allow for decentralized equipment deployment—in the form of separate modules located at a distance from one another and connected via fiber-optic communication channels—as well as integration as a functional subsystem into a microprocessor-based centralization system.