University electrical infrastructure management systems
Providing visibility, monitoring and control of the campus electrical network

Universities and colleges face a different set of energy challenges than those that existed decades ago. Key campus buildings such as labs need protection from the adverse effects of power outages, and campuses are looking to use more clean energy without islanding from the utility grid. For higher education institutions that are ready for energy-focused innovation, electric distribution systems are the way forward.

Challenges of existing systems
- Lacking real-time visibility of the campus’ electrical network
- Insufficient data on the energy consumption patterns of each campus building
- Growing infrastructure demands
- Aging electrical equipment and controls
- Campuses find it costly and difficult to recover from power outages
- Lacking ability to proactively respond to peak loads
- High operational and maintenance costs

MicroSCADA X keeps you in control
ABB’s MicroSCADA X enables you to efficiently monitor and manage the campus-wide electrical network. ABB offers connectivity and flexibility for new and legacy systems based on the understanding that no two electric distribution system are the same. Each solution is engineered to the specific needs of a college or university, but all deliver cost savings, higher visibility, resiliency and hassle-free operations.

MicroSCADA X allows you to utilize existing university communications and server infrastructure for interfacing to the campus electrical system and virtualizing the SCADA application.

Features
MicroSCADA X provides versatile SCADA functionality that is tightly integrated with modern distribution management system (DMS) functionality. Accurate data acquisition and integration of campus-wide protection and control devices allow consolidated sequencing of events.

ABB’s solution is designed to accommodate evolving cyber security requirements, with the capability to effectively manage, monitor and protect cyber assets.

Cost savings are a common reason to seek out a MicroSCADA X automation solution. One way this is achieved is by adjusting the interaction of MicroSCADA X with the utility grid during peak demand events. For example, busy campus labs can use renewable energy when the utility company is charging peak rates.

MicroSCADA X offers high-resolution data collection and the ability to refine and visualize captured data into trends and reports.

Colleges and universities are educating the leaders of tomorrow and should lead the way with forward-thinking energy solutions. ABB’s MicroSCADA X offers robust capabilities to manage and control campus-wide systems for resilient, sustainable energy.
Benefits

• Campus electrical network can be fully operated and supervised via state-of-the-art human-machine interface (HMI)
• Maintenance-free and self-healing
• Reduced time for diagnosing electrical failures
• Capable of dispatching smart notifications through integration of personnel work calendars
• Customizable displays to suit operator requirements
• Improved availability of your SCADA system utilizing redundancy options

Enabling products

• ABB RTU500 family of remote terminal units
• ABB MicroSCADA X – SYS600 & DMS600
• ABB AFS family of Ethernet switches
• ABB Tropos wireless radios
• ABB Relion® family of protection relays