



power systems applications department



A photograph of two power line workers at a substation. The worker in the foreground is wearing a red hard hat and a high-visibility yellow vest over a blue shirt. He is holding a clipboard and looking towards the right. Another worker in a blue shirt and high-visibility vest is partially visible behind him. The background shows high-voltage electrical equipment, including insulators and metal structures. The entire image is overlaid with a semi-transparent blue filter. A white, handwritten-style text is positioned on the right side of the image.

*with power,
we perform*

power systems applications department (PSA-D)

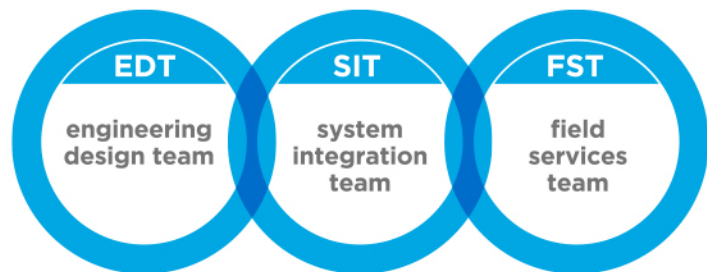
PROTASIS is an international power systems engineering and consulting company that provides state of the art services and solutions for Transmission and Distribution utilities, Power Generation companies and industrial clients. PROTASIS is organized in three main departments:



Our dynamic, flexible and highly competent technical group of professionals can provide complete electrical engineering services to meet your specific project requirements and deliver reliable, efficient and safe solutions.

With activities and customers in a number of countries worldwide, PROTASIS is your ideal partner for power systems consulting and systems integration work.

The **PSA Department** is structured into multiple interrelated teams, namely the engineering design, systems integration and field services teams. These teams consist of expert engineers that are committed to maintaining a high level of professionalism throughout their engineering and design activities.



Our longstanding experience in the energy market and our extensive know-how of power systems technology allows us to offer a variety of solutions and services to T&D utilities, generation companies and industrial plants aiming to maximize the integrity, reliability, safety and cost-effective operation of their electrical network infrastructure.



Power Management & SCADA Systems (PMS)

Our **PMS solution** offers overall protection, control & monitoring of power generation systems, including:

- Automatic Generation Control
- Remedial Action Schemes
- Islanding Detection & Control
- Monitoring & Control of Substation Elements



Substation Automation Systems (SAS)

Our **SAS solutions** provide complete protection, control & monitoring over each element in a substation. We use state-of-the-art Hardware & Software to effectively monitor and control substation operations.

- **Intelligent Electronic Devices (IEDs)**
- **Data Network Equipment**
- **Data Communication Equipment**
- **HMI Software**



Distribution Automation Systems (DAS)

Our **DAS solution** provides the following functions:

- **Automatic Volts/VAR Control**
- **Fast Fault Detection**
- **Accurate Fault Location Estimation**
- **Automatic Isolation of Faulted System Segments**
- **Automatic Reconfiguration & Service Restoration (Self-Heal)**
- **Increased Distributed Generation Integration**

Protection & Control Systems Upgrade

We undertake all necessary tasks to adapt your protection & control systems to modern power system requirements. Our retrofitting plan in existing switchgears includes:

- **Site Survey & Data Collection**
- **Evaluation of Existing Installation**
- **System Upgrade Study & Engineering**
- **Upgrade Works Supervision & Support**
- **System Startup & Commissioning**





Field Testing Services

Our field testing and measuring capabilities include:

Primary Equipment Testing

- **Power Transformer Testing & Diagnosis**
- **Measuring Transformers Testing**
- **Cable Testing**
- **Circuit Breaker Testing**

Secondary Equipment Testing

- **Protection Relays Testing**

Power Quality recording and analysis

On-site Training Courses

We can organize tailor-made courses on-site or in our training facility on the following topics:

- **Power System Protection Principles**
- **Digital Relays**
- **Data Networks**
- **Security & Network Monitoring**
- **SCADA Systems**
- **Communication Media**



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