

Cutting-edge, interdisciplinary research in intelligent monitoring, optimization, and management of complex safety-critical systems

As a leading research center in Cyprus, KIOS contributes to the advancement of knowledge in the areas of computational intelligence and intelligent networked embedded system design, and the application of these methodologies in monitoring, controlling, and optimizing the operation of large-scale complex systems.

Modern societies have come to a point where our everyday life relies heavily on the safe operation and management of critical infrastructures, such as electric power systems, telecommunication networks, water distribution networks and health care systems. Monitoring and control of such systems is becoming increasingly more challenging as a consequence of the fact that the size and complexity of such system are steadily growing.

Research Applications

The intelligent system approaches developed at KIOS can apply to a wide spectrum of applications. Currently, the emphasis of the applications are on:

- Power systems
- Communication networks
- Water distribution networks
- Transportation systems
- Health-care delivery systems



Multi Sector Partnerships

With a key priority to promote technology transfer from academia to industry and governmental bodies, the KIOS Research Center has fruitful collaborations with a large number of organizations:

Industrial & Local Partnerships

- Public Sector Departments and Services
- Electricity Authority of Cyprus
- PrimeTel Plc

International Partnerships

- Arizona State University
- Boston University
- ETH Zurich
- Georgia Institute of Technology
- Imperial College
- John Hopkins University
- Politecnico di Milano



Research Areas

Recognizing that research in intelligent (network embedded) systems requires multidisciplinary expertise, the KIOS Research Center brings together researchers specializing in a wide range of fundamental areas in an attempt to provide holistic and viable solutions for a variety of critical systems including:

- Systems and control
- Distributed systems and algorithms
- Graph theory and optimization
- Computational intelligence
- Fault diagnosis and fault tolerance
- Simulation and hardware tools (e.g., sensor networks and intelligent systems)