

Interdepartmental SECURITY PROJECT

The Security project is one of the interdepartmental projects of the ICT department of CNR. It covers security and safety aspects from several perspectives, including the research topics addressed in the "Security" Theme of the 7th Framework Programme. Indeed, the issue of security in recent years has established itself as one of the key tasks that national and transnational administrations must face. CNR, in cooperation also with main Italian industries, is pursuing a comprehensive approach to security ranging from network and information security, border security, environmental aspects till transport and buildings security. Although the project is intrinsically covering several research disciplines, still the ICT department has many research groups involved and thus ICT security and more recently Future Internet security is one of the main objectives.



Objectives

The project intends to address in an holistic way both security and safety from several perspectives. Therefore the project will offer new technologies, protocols, systems and methods for security and safety in various areas, including:

- information and communication technologies
- sensitive areas (including borders)
- equipment and instrumentation
- buildings
- means of transport (cars, ships, planes, trains)
- personal safety and populations (protection from NBC, from electromagnetic fields, etc..)
- items of value either personal or collective

Research Units

Ubiquitous Internet
Marco Conti - IIT-Pisa

Sensors and signal processing for risk assessment on structures and territory
Emanuele Salerno - ISTI-Pisa

Planning of interventions in emergency situations: software tools and robotics
Amedeo Cesta - ISTC-Roma

Network security
Maurizio Aiello - IEIIT-Genova

Simulation and assessment of situations of environmental risk
Giovanni Sacchi - IMATI-Pavia

Safety and electromagnetic compatibility
M. Rosaria Scarfi - IREA-Napoli

Information Security
Fabio Martinelli - IIT-PISA

Sensors and processing techniques for electromagnetic imaging in applications for physical security
Francesco Soldovieri - IREA-Napoli

Remote sensing with microwave sensors
Gianfranco Fornaro - IREA-Napoli

ESTRADA: Reliability and advanced data analysis to support Security
Giuseppe Manco - ICAR-Cosenza

Security and identity management. Evaluation of the technical, legal, social and ethical aspects to support security and safety
Mario Savastano - ITTIG

Innovative materials and methods for safety
Giuseppina Padeletti - ISMN-Roma

Information Systems and Technologies for Security
Elaheh Pourabbas - IASI-Roma

Materials and devices for electromagnetic applications
Carmen Galasso - ISTEC-Ravenna

Risk analysis and safety measures in museum rooms, movement of items of artistic value and protection of archaeological sites
Rinaldo Paciucci - IIA-Roma

Assessment and use of geo-environmental technologies for safety and security
Andrea Scozzari - IGG-Pisa



Trustworthy Future Internet

The interdepartmental project SECURITY has a critical mass of research groups from ICT, including groups with specific expertise in ICT security. These groups cooperate to achieve trustworthy Future Internet. We work at several layers, including infrastructure and IT-services ones. We are actively working on embedding security mechanisms at the core of the new Internet from the very beginning in order to avoid most of the security problems we experienced in the last decades.

Structure of the Project

On the basis of participation of the CNR research groups, the project is divided into subject areas, which are for the moment:

- Information and network security**
- Emergency management and territorial safety**
- Sensors and materials for innovative safety**
- Safety of structures and property**
- Regulatory and legal aspects of security**



Expected Results

- Information and network security**
- Emergency management and territorial Safety**
- Sensors and innovative materials for Security**
- Maintenance of structures and property**
- Risk situations for people**
- Multispectral detection for the identification of risk situations**
- Legal and Regulatory Aspects of Security**



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