

Research fields

Our research activities belong to the field of informatics with the following focuses:

- security and privacy in computer networks and information systems;
- advanced informatics (e-business) and advanced computer communications;
- human factor research and modeling.

Projects

Security and interoperability in next generation PPDR communication infrastructures (SALUS)

Design, implement and evaluate a next generation communication network concept for Public Protection and Disaster Relief (PPDR) agencies, supported by network operators and industry, which will provide security, privacy, seamless mobility, QoS and reliability support for mission-critical PMR voice and broadband data services.

www.sec-salus.eu

Resilient communication services protecting end-user applications from disaster-based failures (RECODIS)

The aim is to introduce the set of techniques of resilient communications, as well as recommendations on how to deploy/update topologies of communication networks to make them resistant to disruptions that can be applied in practice by network equipment operators and national/international network providers at the European level.

www.cost-recodis.eu

High-Performance Modelling and Simulation for Big Data Applications (cHiPSet)

The aim is to provide the integration to foster a novel, coordinated Big Data endeavour supported by High-Performance Computing (HPC). It will strongly support information exchange, synergy and coordination of activities among leading European research groups and top global partner institutions, and will promote European software industry competitiveness.

www.chipset-cost.eu

Laboratory of e-media (LEM)

Location: Laboratory R3.50, Faculty of Computer and Information Science, Večna pot 113, SI-1001 Ljubljana
Webpage: www.fri.uni-lj.si/en/laboratories/lem/

Cryptography for Secure Digital Interaction (Cryptoaction)

The aim is to stimulate interaction between the different national efforts in order to develop new cryptographic solutions and to evaluate the security of deployed algorithms with applications to the secure digital interactions between citizens, companies and governments. The Action will foster a network of European research centers thus promoting movement of ideas and people between partners.

www.cryptoaction.eu

Cryptanalysis of ubiquitous computing systems (CRYPTACUS)

The aim is to establish a network of complementary skills, so that expertise in cryptography, information security, privacy, and embedded systems can be put to work together. The outcome will directly help industry stakeholders and regulatory bodies to increase security and privacy in ubiquitous computing systems, in order to eventually make citizens better protected in their everyday life.

www.cryptacus.eu

International scientific and research cooperation

Advanced sensing technologies and modelling for sulfur compounds in food cold chain traceability (Bilateral cooperation with People's Republic of China)

Main aims of the collaboration are different studies of best practices in exiting systems, sensing technologies and modelling methods in food cold chain traceability system. The research is oriented towards sensor data collection and analysis, dynamic shelf life prediction and the evaluation of proposed methods by developing the prototype system.

Bilateral cooperation with Argentine Republic

Trust support is essential for advanced information services and e-environments, where it is referred to as computational trust. Although it has been researched now for roughly twenty years, computational trust management still faces many open issues that the bilateral project is addressing:

- derivation of reputation on the basis of trust and feed-back processes between trust and reputation (i.e. beliefs);
- research of reputation and trust dynamics in relation to decision processes;
- real life applications (rules and policies for achieving coherent and trustful societies, evaluation of honesty of opinions on e-forums).