



DEPARTMENT OF COMPUTER SCIENCE (DCS)

The Department of Computer Science conducts fundamental and applied research in the area of computer, communication and information sciences. The goal is to push forward the scientific frontiers of these fields in close collaboration with the Interdisciplinary Centre for Security, Reliability and Trust (SnT). In addition, the DCS is in charge of the 3 Bachelors, 7 Masters and 1 doctoral programme in computer science.

dcs.uni.lu

MEMBERS

- 22 professors
- 64 post-docs and 74 doctoral candidates
- 17 technical and administrative staff

FUNDING AND COLLABORATION



PUBLICATIONS

- 146 peer-reviewed journal articles
- 130 peer-reviewed conference papers



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CAMPUS

Belval, Maison du Nombre

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DEPARTMENT OF COMPUTER SCIENCE

Research areas

COMMUNICATIVE SYSTEMS

- Secure communication protocols
- Network and systems security, 5G and beyond, IoT
- Collaborative socio-technical systems
- Virtual and augmented reality
- Vehicular communication (V2X, in car, C-ITS)
- Reliable distributed energy-systems
- Distributed anonymity and privacy
- Machine learning and adaptive networking
- Network science

INTELLIGENT AND ADAPTIVE SYSTEMS

- Intelligent agents
- Computational intelligence
- Computational/applied Logic
- Human-computer interaction
- Social robotics
- Data science
- High performance computing
- Artificial intelligence
- Machine Learning
- Legal informatics, Al ethics
- Space informatics

INFORMATION SECURITY

- Symmetric and public key cryptography
- Efficient software and hardware implementation of cryptograhy
- Side-channel analysis of smartcards & embedded devices
- Security protocols
- Network, mobile and embedded systems security
- Privacy and anonymity
- Verifiable voting systems, E-democracy
- Cloud computing, reputation based systems
- Cryptocurrencies, blockchain & distributed ledger technologies
- Mathematics of security
- Socio-technical aspects of security and trust
- Quantum information assurance
- Formal methods for security and privacy
- Security and privacy in machine learning
- Al Security

SOFTWARE AND SYSTEMS

- Software modelling, testing and validation
- Software engineering for AI and data science
- Devops and agile development technologies
- Real-time embedded systems
- Software security
- Proactive computing oriented systems
- Data-intensive systems

