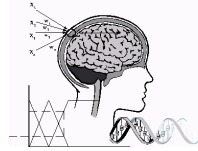




# International

Innovation in Knowledge Based and Intelligent  
Engineering Systems



## INVITED SESSION SUMMARY

**Title of Session:** Digital security of health related data

**Name of Chair:**

Luigi Romano (Università degli Studi di Napoli "Parthenope", Italy)

**Name of Co-Chairs:**

Mariacarla Staffa (Università degli Studi di Napoli "Parthenope", Italy)

Luigi Coppolino (Università degli Studi di Napoli "Parthenope", Italy)

Salvatore D'Antonio (Università degli Studi di Napoli "Parthenope", Italy)

**Details of Session:**

The digital transformation of the National Health System (NHS) has resulted in the introduction and massive use of tele-monitoring solutions, Electronic Health Records (EHR), genomic information and mHealth applications, creating new opportunities to improve both efficiency and quality of care. However, the constantly increasing digitalization, the digital preservation and the use of sensitive data are accompanied by growing vulnerabilities to cyber-attacks. This aspect has raised the need for increased security implementations, leading to improved user acceptance of such applications and thus to large-scale adoption of these technologies and to full exploitation of their advantages.

The "*Digital security of health related data*" Invited Section focuses on the best ways to safeguard the increasingly digital and technologically advanced NHS. It aims at bringing together top researchers from both academia and industry to stimulate research and create interdisciplinary collaboration links allowing the exploration of new frontiers in the area of health-care security solutions. It will promote the discussion between senior healthcare ICT professionals to solve the challenges of securing sensitive health information and devices against the threat of cyber-attacks.

The list of topics includes (but it is not limited to):

- Interoperability and Informatics Infrastructure
- Data and Network Security
- Health Apps
- Health IT Standards (FHIR, etc)
- HIE/Health Information Exchange
- Mobile Technology
- Telemedicine
- Security solutions built on existing solutions such (openNCP, projects DECIPHER, EPSOS, STORK and others)
- Security information and event management (SIEM) solution for real-time monitoring
- Secure data access, preservation and exchange solutions
- Interoperability and compliance
- Understanding the nature of emerging cyber threats in healthcare
- Developing effective national security incident management and a coordinated approach to cyber defence
- Understanding best practice in safely and effectively responding to cyber security threats
- Overcoming security and privacy challenges when using the cloud
- Taking the steps to protect health data against technology breaches
- Complying with health data protection security obligations
- Building cyber security functionality into medical devices
- Application for protecting patient electronic health records and ensuring compliance with ICO standards
- Ensuring apps and mobile devices are safe for patients and clinicians and securely integrating them in clinical pathways

- Developing new app or methods to ensure staff have a well-developed cyber security mind-set
- Protection of interconnected medical devices and increasing collaboration between device manufacturers, regulators and clinicians

**Important dates:**

- Deadline for paper submission: **February 28, 2017**
- Notification of acceptance for papers: **March 10, 2017**
- Deadline for camera-ready paper submission: **20 March 2017**
- Conference dates: **21 - 23 June 2017**

**Proceedings**

Invited Session papers will be published within the IIMSS 2017 conference proceedings, edited by **Springer** as book chapters in a volume of the [KES Smart Innovation Systems and Technologies](#) series, submitted for indexing in [Scopus](#) and Thomson-Reuters [Conference Proceedings Citation Index](#) (CPCI) and the [Web of Science](#).

Selected paper will be invited to submit an extended version of the papers on the [Special Issue "Towards Secure, Privacy-Preserving, and Reliable Smart Cities and Society"](#) of the Elsevier Journal "Sustainable Cities and Society" (guest editor Prof. Benjamin Fung).

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**Luigi Romano short CV**

Prof. Luigi Romano is a Full Professor at the Department of Engineering of the University of Naples "Parthenope". He is an expert in system security and dependability. In FP7, he was the Technical Coordinator/Principal Investigator of the INTERSECTION, INSPIRE, INSPIRE INCO, MASSIF, and SAWSOC projects. He is a member of the European Network and Information Security Agency expert group on Priorities of Research On Current and Emerging Network Technologies (PROCENT). He is the Chair of the "Cyber Security" Working Group within the context of the SERIT initiative (SERIT, "Security Research in ITaly" is the technological platform for national security jointly promoted by CNR and Finmeccanica).