

# GENESI



## Green sEnsor NETworks for Structural monitoring

*GENESI develops structural health monitoring systems for critical infrastructures such as tunnels, bridges, dams, private and public buildings, providing cutting edge green wireless sensor networks technology*

## Second Workshop

**12th June, 9.30-16.00**  
**ST Microelectronics, Catania – Sicily (Italy)**

### Objectives

The second Workshop of the GENESI project is addressed to the scientific community, with the aim to present the promising results achieved so far, confront them with results from other research activities, obtain feedback from peers on the implemented methodologies and discuss challenges still ahead.

### Draft Programme

*Chair:* Dr. Salvatore Leonardi, Manager Supporting Technologies Group STMicroelectronics

#### 9.00 Registration

9.30 The GENESI project: challenges, objectives, and overview of results (Prof. Chiara Petrioli, University of Rome Sapienza)

9.50 Novel Hardware for Longevous Wireless Structural Health Monitoring (Dr. David Boyle, University College Cork/Tyndall)

10.10 Towards longevous wireless sensor networks operation (Prof. Chiara Petrioli, University of Rome Sapienza)

10.30 Achievements in in-network data processing and reasoning (Prof. Paul Havinga, University of Twente)

10.50 Achievements in deployments (Holger Wörsching, Solexperts AG)

11.10 *Coffee break*

11.30 Formal Model-Driven Validation of Deployed Architectures with a Focus on Power Consumption (Prof. Kai Lampka, Assistant Professor in Embedded system University of Uppsala)

11.50 Hybrid Monitoring Networks for Houses Energy Efficiency Optimization (Prof. Costantino Giaconia, Associate Professor Laboratorio di Elettronica dei Sistemi Digitali Programmabili, University of Palermo)

12.10 Making in-network data processing decisions based on pragmatic value of information (Prof. Ladislau Bölöni, Associate Professor Dept. of EECS, University of Central Florida)

12.30 Structural health monitoring systems: security and privacy issues (Prof. Roberto Di Pietro, Assistant Professor Computer Science at Dept. of Maths, Università di Roma Tre / Chair of Excellence at Universidad Carlos III Madrid)

12.50 Wireless sensor networks for large scale environmental monitoring –integration and deployment in the field (Prof. Dr. Christof Hübner, Hochschule Mannheim Fakultät Elektrotechnik)

# GENESI



## Second Workshop

**12th June, 9.30-16.00**  
**ST Microelectronics, Catania – Sicily (Italy)**

13.10 Lunch break

14.15 Demo presentations

15.00 Panel discussion: Challenges and Opportunities for long lasting wireless monitoring

*Panel chair:* Dr. Ilenia Tinnirello, Assistant professor Laboratory of Telecommunications TTILab University of Palermo

*Panel Participants:*

- Dr. Miodrag Djurica – innovator at Department: Network Technologies, TNO, GENESI advisory board
- Prof. Kai Lampka, Assistant Professor in Embedded system University of Uppsala
- Prof. Costantino Giaconia, Associate Professor Laboratorio di Elettronica dei Sistemi Digitali Programmabili, University of Palermo
- Prof. Ladislau Bölöni, Associate Professor Dept. of EECS, University of Central Florida
- Prof. Roberto Di Pietro, Assistant Professor in Computer Science at Dept. of Maths, Università di Roma Tre/Chair of Excellence at Universidad Carlos III Madrid
- Prof. Dr. Christof Hübner, Hochschule Mannheim Fakultät Elektrotechnik

- Prof. Paul Havinga, University of Twente
  - Prof. Brendan O' Flynn, University College Cork/Tyndall
  - Dr. Michele Magno, Alma Mater Studiorum University of Bologna
  - Dr. Salvatore Leonardi, Supporting Technologies Group Manager IMS group R&D STMicroelectronics
  - Ing. Roberta Giuffrida, Health & Energy Integration ST Group IMS R&D STMicroelectronics
  - Holger Wörsching, Solexperts AG
  - Maurizio Martino, Consorzio Tressa
  - Prof. Chiara Petrioli, University of Rome Sapienza
- 15.45 Conclusions  
 16.00 Closure

### FOR INFORMATION AND REGISTRATION:

*Gertruud van Leijen*  
 GENESI Management Support Team  
 University of Rome 'La Sapienza'  
 Department of Computer Sciences  
 g.vanleijen@tiscali.it; +39 06538907

*Chiara Petrioli*  
 GENESI Project Coordinator  
 petrioli@di.uniroma1.it

*Participation is free of charge*