# Joint Open Lab and PhD proposal

Politecnico di Torino

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Gennaio 2016





# Joint Open Lab: Project at a glance

Joint Open Labs are research and innovation laboratories set up within university centres, as a result of partnerships and agreements between Telecom Italia and the major Italian universities in specific fields of scientific and technological interest.

### JOLs in brief:

 5 universities involved in the first phase (Polytechnic University of Turin, Polytechnic University of Milan, Trento University, Sant'Anna School of Advanced Studies in Pisa and Catania University)

Interdisciplinary teams focusing on university areas of excellence

 "Open" research at international level in collaboration with organisations such as the European Institute of Technology (EIT) and Massachusetts Institute of Technology (MIT)



200 young people involved the ~12 million innovation euros invested area Leverage on (2012 to H2020, EIT 2015) and Phd, national Master, project Stage and funding Thesis





### Telecom Italia and universities







VISIBLE
Video and Image Analysis Lab
Multimedia





S-Cube

**Smart Social Spaces** 





## SKIL

Semantics & Knowledge Innovation Lab

Semantics & Big Data



# WHITE

Wellbeing and Health Innovative Technologies Lab

E-Health and Wellbeing





Mobile devices Lab







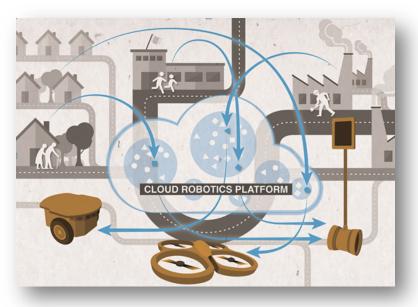
### JOL CRAB - Connected Robotics Applications laB

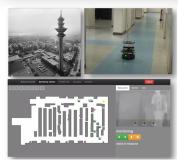
#### Mission:

Investigation of technologies and development of service concepts where the focus is mainly placed on the relationship between robots and the cloud computing, addressing issues arising from the use of robotic services in domestic and enterprise environments not only of technological, legal, economical, sociological psychological nature, but also related to ergonomics, cognitive perception, and relational experience exploiting the assets of Telecom Italia such us the broadband connectivity (eg 4G-LTE) and the Cloud Computing Infrastructure.

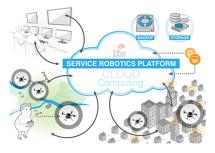
















MobiLAB Joint Open Lab
Torino

# **MobiLAB – App Crafting**

General overview JOL MobiLAB and open positions

Marco MARENGO









## **JOL MobiLAB: Activities**







# GAMESTORMING





STICKY NOTES INDEX CARDS (WHATEVER)



WHITE BOARD (WORLD)

MAKING FLOW



RULES FLOW

BREAKING FLOW



SHUFFLING















Swarm Joint Open Lab
Torino

# Swarm Joint Open Lab - Beyond the Internet of Things

General overview JOL Swarm and open positions





Claudio BOREAN





# **JOL SWARM**

Lab: Beyond the Internet of things (IoT)



Areas: Internet of everything and distributed systems to enable new services

**SWARM Joint Open Lab** studies and design innovative services leveraging on the interactions of a multitude ("swarm") of people, things, data, places, and on the competitive assets of the telco operator. New service concepts and new technologies based on complex adaptive systems (swarms) are explored and developed.

AREAS: SWARM INTELLIGENCE, INTERNET OF THINGS,
COOPERATIVE APPLICATIONS

For PhD, THESIS of INTERNSHIP just google «JOLSWARM»





# OPPORTUNISTIC SYSTEMS **JOL SWARM Perspectives** ADAPTIVE SYSTEMS **Sharing** economy **Collective** P2P IoT behaviors **SWARMS OF SWARMS OF PEOPLE DEVICES SWARM** INTELLIGENCE (DATA) MACHINE LEARNING DISTRIBUITED SYSTEMS **Swarm Metaeuristics** intelligence Swarm Joint Open Lab







Gianluca Francini





### **JOL VISIBLE**

### **Overview**

Lab: Multimedia, video and image analysis

Areas: Visual Intelligence, Big Data

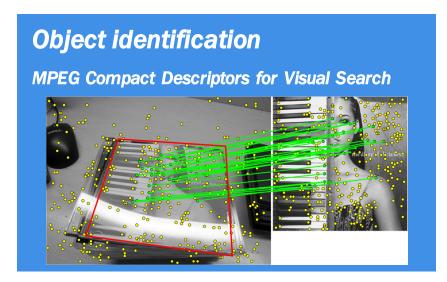
Video and images make up the overwhelming majority of all data that is acquired, produced, transmitted and stored every day. VISIBLE develops algorithms and techniques for implementing visual intelligence: systems that integrate different methods able to learn from, discover meaning in, and reason about visual data.

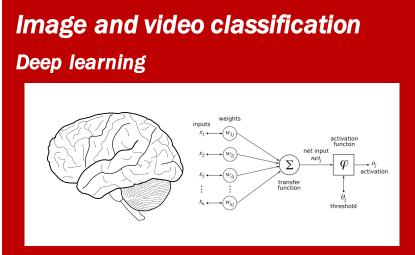


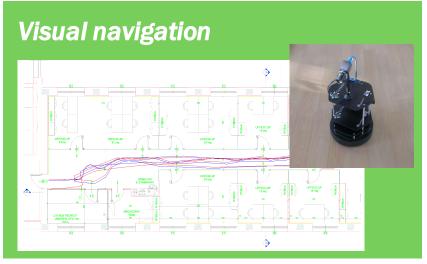


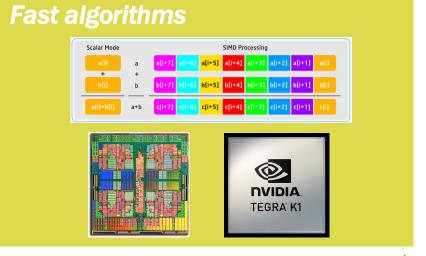
## **JOL VISIBLE**

### Main research topics













# Grazie