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STMicroelectronics and Istituto Italiano di Tecnologia Sign R&D Collaboration Agreement

IIT's latest iCub Humanoid Robot is powered by ST's microcontroller, motion-sensing, and motor-control technologies

Geneva, Switzerland, Genoa, Italy, April 3rd, 2014 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, and the **Istituto Italiano di Tecnologia (IIT)**, an international scientific and technological research center based in Italy, have announced the signing of a formal agreement sealing their long-standing collaboration on a range of research activities, including Robotics, Neuroscience, Energy and Environment, and Health and Safety.

The agreement, which will have an initial duration of three years, builds on many years of previous cooperation between the two parties. The cooperation uses multiple Joint Research Programs to exploit the synergies between IIT's high-level expertise in long-term megatrends such as robotics, nanotechnology, pattern analysis, and computer vision and ST's leading-edge know-how in semiconductor technology and design.

"ST has always recognized the value of combining our own commercially-oriented R&D activities with the longer-term work conducted by research institutes and universities," said Nunzio Abbate, System Lab & Subsystem Product Group General Manager, STMicroelectronics. "This strengthened collaboration with IIT will bring benefits that cascade to our customers and to their projects in a broad range of semiconductor applications."

"Semiconductor technology plays a pivotal role in enabling the breakthroughs we make in our labs to become real products that benefit the world," said Salvatore Majorana, Technology Transfer Director, IIT. "ST has an unparalleled track record in delivering results from R&D collaborations and we are confident that this cooperative effort will help us both contribute to addressing many key issues, from smarter energy usage to greater manufacturing productivity to health and wellness."

The first Joint Research Program between the parties is in Robotics, an area in which IIT and ST already have a history of productive cooperation. These successes were jointly demonstrated at the recently concluded InnoRobo Event 2014 in Lyon,

France, where the two partners presented an iCub Humanoid Robot running on ST's silicon technology.

The most recent version of the well-known iCub Humanoid Robot (see www.icub.org) is powered by more than 20 STM32 F4 microcontrollers combined with cSPIN/dSPIN motor drivers, while ST MEMS accelerometers and gyroscopes orientate the robot.

The robot has been designed as an open-source project to establish a common platform for the global research community. It enables the community to develop technologies for embodied machine learning, artificial cognition, and motion control, grasping walking and the hundreds of behavior patterns proper to general-purpose humanoid robots.

More than 25 iCub robots, built by IIT, have already been sold to research institutes around the world.

About STMicroelectronics

ST is a global leader in the semiconductor market serving customers across the spectrum of sense and power and automotive products and embedded processing solutions. From energy management and savings to trust and data security, from healthcare and wellness to smart consumer devices, in the home, car and office, at work and at play, ST is found everywhere microelectronics make a positive and innovative contribution to people's life. By getting more from technology to get more from life, ST stands for life.augmented.

In 2013, the Company's net revenues were \$8.08 billion. Further information on ST can be found at www.st.com.

Istituto Italiano di Tecnologia (IIT)

Istituto Italiano di Tecnologia is a private Foundation jointly established by the Ministry of Education, University and Research and the Ministry of Economy and Finance. Its aim is to promote excellence in both basic and applied research and to facilitate the development of economy at national level. The number of IIT's staff people is about 1250. The scientific area accounts for about 85% of personnel, 44% of which is from abroad: 27% are scientists from more than 50 countries and 17% are Italian researchers who have come back to Italy after a professional experience abroad.

IIT has produced more than 4000 publications and 140 inventions resulting in 301 patent applications. In Genoa, departments include: robotics ("Robotics, Brain and Cognitive Sciences" and "Advanced Robotics"), life sciences ("Neuroscience and Brain Technologies" and "Drug Discovery and Development") and "Nanochemistry", "Nanophysics", "Nanostructures", "Pattern Analysis & Computer Vision" and "iCub" facilities. Since 2009 scientific activity has been further supported by 10 subsidiary

research centers located elsewhere in Italy (Turin, Milan, Trento, Parma, Rome, Pisa, Naples, Lecce) and committed to developing the platforms foreseen by the 2012-2014 scientific plan.

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