Satoshi Tadokoro
Tohoku University, Professor

Satoshi Tadokoro received the B. E. degree in precision machinery engineering in 1982, the M. E. degree in 1984 from the University of Tokyo, and the D. E. degree in 1991.　He was an associate professor of Kobe University in 1993-2005, and has been a professor of Graduate School of Information Sciences (GSIS), Tohoku University since 2005, and is a Deputy Dean of GSIS in 2012-2013.　In 2012, he joined newly established International Research Institute of Disaster Sciences in Tohoku University.

He was a project leader of MEXT DDT Project on rescue robotics in 2002-2007 having contribution of more than 100 professors nationwide, and NEDO Project that developed a rescue robot Quince which is being used at the Fukushima-Daiichi Nuclear Power Plant Accident since June 2011.　He established RoboCupRescue in 1999, TC on Rescue Engineering of SICE in 2000 (the first chair), IEEE Robotics and Automation Society (RAS) TC on Safety, Security and Rescue Robotics in 2001 (the first co-chair), and International Rescue System Institute (IRS) in 2002.

He was IEEE RAS Japan Chapter Chair in 2003-2005, trustee of The RoboCup Federation in 2005-2010, Chair of JSME Robotics Mechatronics Division (RMD) in 2009, IEEE Robotics and Automation Society (RAS) AdCom Member in 2008-2010.　He is at present President of IRS, and IEEE RAS Vice President for Technical Activities in 2012-2013.

He received IEEE Fellow in 2009, JSME Fellow in 2005, SICE Fellow in 2011, The Robot Award 2008, FDMA Commissioner Highest Award in 2008, JSME Funai Award in 2007, Best Book Author Award from AEM Society in 2006, JSME Robotics and Mechatronics Award in 2011, JSME Robotics and Mechatronics Academic Achievement Award in 2005, etc.　He published Rescue Robotics from Springer, RoboCupRescue from Kyoritsu Publ., etc. is research interest is in rescue robotics, virtual reality and new actuators.

Speech Title: Disaster Response Robot Quince and Lessons at Fukushima-Daiichi Nuclear Power Plant Accident

Abstract:

The Great Eastern Japan Earthquake was the first disaster in history where many robotic systems were applied. An unmanned ground vehicle Quince is being used for monitoring and investigation in the nuclear reactor buildings at the Fukushima-Daiichi Nuclear Power Plant accident since June 24, 2011. Quince could climb up to 2nd to 5th floors through narrow slippery steps with inclination of 42 degrees using its superior mobility. It succeeded in measuring air radiation dose rate, taking high resolution photos, sampling contaminated dust in the air, and checking the conditions of valves, pipes, floors, equipment, etc. This keynote introduces Quince's technologies, mission executions in Fukushima-Daiichi, and lessons learned through its application as well as necessary robot technology for the future decommission.