## Report on the Exhibition at "nano tech 2014" and Hosting Report on "Nano ICT Symposium 2014"

NICT exhibited at nano tech 2014, The 13th International Nanotechnology Exhibition & Conference which took place in Tokyo Big Sight from January 29 to 31, 2014. We introduced latest achievement of R&D; high-performance devices and systems with advanced functions related to nano technology and bio-ICT such as "Superconducting nanowire Single-Photon Detector (SSPD)", a highly efficient, high-speed response technology that leads to realize quantum communication and single photon imaging, as well as "cell and molecule sensing system" which takes advantage of the advanced features of biological system.

In three days of exhibition, many visitors came to NICT booth, vigorously exchanging ideas with the researchers.



Snapshot of the venue



Compact, lightweight vacuum ion pump



Superconducting nanowire Single-Photon Detector (SSPD)



EO polymer  $2 \times 2$  switch



Bipolar differential response

light sensor using biomolecules



Bio-ICT research

On January 29, Nano ICT symposium 2014 was held at the Conference Tower, Tokyo Big Sight, as a side conference/ seminar of nano tech 2014, themed in "Social implementation and deployment of ICT to the practical application of basic technology research results that combines nanotechnology and new materials". The conference began with a keynote speech by Dr. Hideo HOSONO, Professor of Tokyo Institute of Technology, who talked about the prospect of transparent oxide electronics, indicating the importance of developing the new materials as a driving force for innovation. Then six talks followed, introducing examples of NICT's R&D on gallium oxide, organic electric-optic polymer, and quantum dots optical device, and their work towards practical implementations. Many participants came to listen to the lecture, actively joining the conversation in question and answer sessions.

We hope to further strengthen the cooperation between the industry and the academia through exhibitions and symposiums, and seek to inform the public about NICT's research achievement on nano technology and bio-ICT.



Snapshot of the venue



Keynote speech by Dr. HOSONO