NTT

NTT Communication Science Laboratories

OPEN HOUSE 2012

6/7 THU 12:00~17:30

6/8 FRI 9:30~16:00

Venue: NTT Keihanna Building
2-4 Hikaridai Seika-Cho Soraku-Gun, Kyoto, 619-0237, Japan

No Admission Charge
No Pre-Registration Required

Oral Presentations

Thursday, June 7

Greeting from Director — 13:00-13:30
·Communication science for big data era
Naonori Ueda, Director, NTT Communication Science Laboratories

Invited Talk — 14:00-14:50
·Connection, the social, and the political;
The mode of communication and the sociality of the youth
Akihiro Kitada, Associate Professor, The University of Tokyo

Research Talk — 16:00-16:30
·Neuroscience of liking and wanting
-Exploring biological foundations of human emotion in animal behavior-
Naoyuki Hironaka, Human and Information Science Laboratory

Friday, June 8

Research Talks — 11:00-11:30
·Preservation of digital contents
-Standardization activities and best practices for digital content preservation being discussed at ISO/IEC and other organizations-
Noboru Harada, Moriya Research Laboratory

14:00-14:30
·Random number generation from light
-Fast physical random number generation using chaos in semiconductor lasers-
Kazuyuki Yoshimura, Media Information Science Laboratory

14:30-15:00
·Real-world revealed through sensor networks
-Technologies for collecting, interpreting, and presenting information from massive and heterogeneous sensor nodes-
Yoshiyuki Suyama, Innovative Communication Laboratory

Exhibition
Introduction to Research Contents and Findings

Information Science
·Unmeasurable light produces common secrets -Secret key distribution using correlated randomness in lasers-
·Computer guarantees ultimate security of cryptosystems -Security proof using formal methods-
·Does the law protect your privacy? -Mathematical formulation of privacy and its applications to law-
·Adaptive learning from similar examples -Robust semi-supervised learning and its application to NLP-
·This is the essence of your data, isn't it? -Extracting hidden structure of data for deeper data mining-

·Quickly finding similar objects to a query -Fast similarity search based on a neighborhood-graph index-
·Live TV search -Realtime media search using incremental feature database-
·Observing the noisy world -Collective sensing, coding, and large deviation properties-
·Stereoscopic camera system for accurate color and shape reproduction -Stereoscopic 6-band video system-

Interface Science
·Massive sensor networks collect data you want to know -Dynamic configuration of sensor networks-
·Word order is critical for translation quality -English <-> Japanese translation by Japanized English-
·Dynamic displays provide more information about conversations -Conversation space by physical augmentation of head motions-
·Toward media spaces that reminisce -Reflecting on past activities on t-Room and its applications-
·Analyzing your singing style -Singing style extraction based on singing voice F0 model-
·Who spoke when and what? -Progress in scene analysis for multi-speaker conversation-

·Clearly distinguishing your voice from ambient noise -Speech enhancement using temporal, spatial, and spectral cues-
·Listening and understanding conversations -Advanced techniques for spontaneous speech recognition-
·When sound alters vision -Distortion of visual space and time by audiovisual integration-
·Reaching now, looking later -Implicit eye-hand coordination-
·Seeing materials from image cues -Adaptive strategy of human visual system-

Life Science
·Why do children suddenly begin to learn words? -Unveiling the myth of vocabulary spurt by analyzing longitudinal data-
·Appropriate words for children at particular ages -Searching for appropriate contents for toddlers-
·Speaking plays tricks on hearing -Close link between articulation and speech perception-

·Rats can better themselves by observing others -Neural basis of adaptive social behaviors-
·Exploring brain mechanisms for selective listening -Psychophysics, modeling, and functional brain measurements-
·Tactile sensation categories based on mimetic words -Tactile textures and their phonetic representations-

---

Social Gathering
We will hold a social gathering on June 7th 17:30-19:00. We look forward to exchanging opinions with visitors.