FINAL PROGRAM

International Joint Workshop on

OPS & OCDMA

Conference Co-Chairs:

Prof. Shizhong Xie,   Department of Electronic Engineering,
Tsinghua University, China

Dr. Naoya Wada,   Phonics network group,
New generation network research center, NICT, Japan

Dr. Xu Wang,   Electrical, Electronic&Computer Engineering Dept.
School of Engineering and Physical Sciences (EPS)
Heriot Watt University, UK

Dr. Hiroyuki Uenohara,   Precision & Intelligence Laboratory,
Tokyo Institute of Technology, Japan
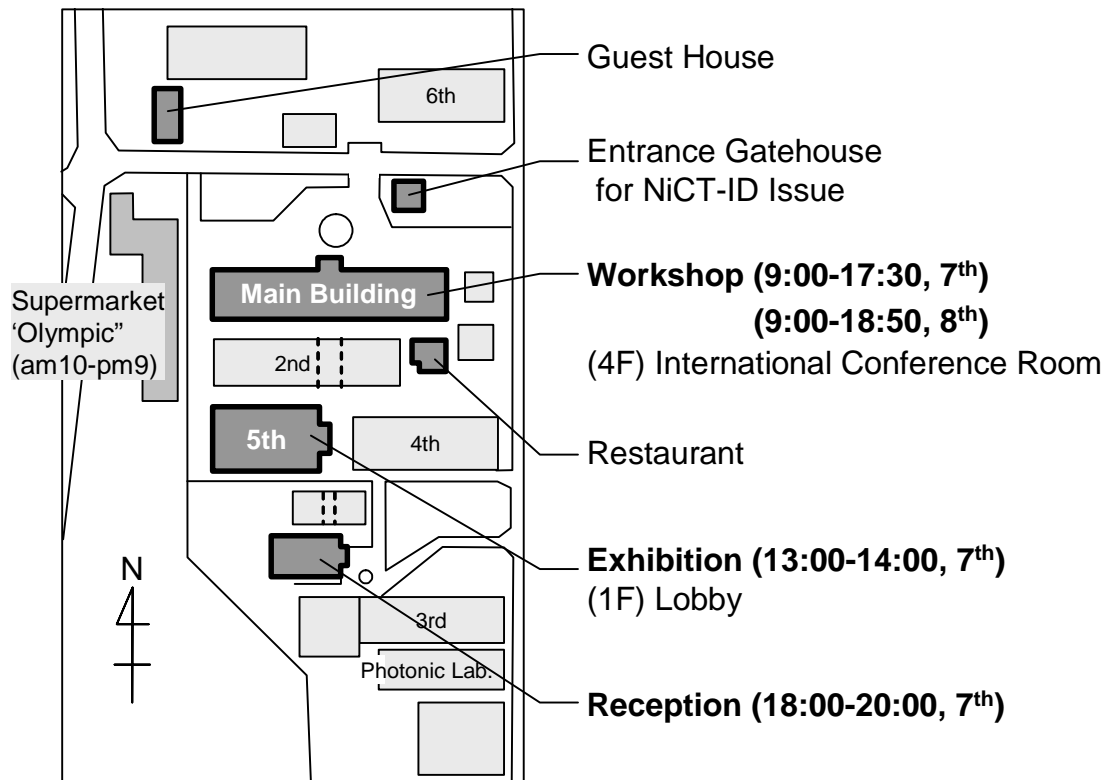
NICT, Tokyo, Japan
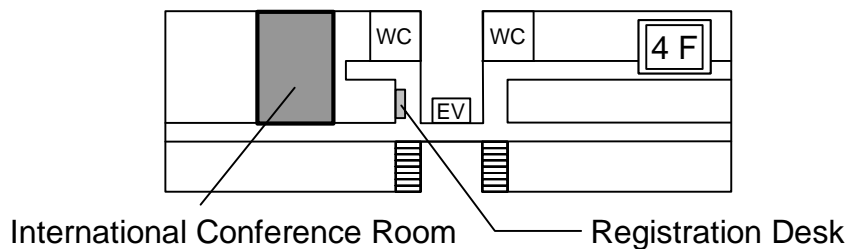
November 7-8, 2007

Organized by

Tsinghua University

NiCT — National Institute of Information and Communications Technology

The Optical Society of Japan
An Affiliate of the Japan Society of Applied Physics
Optics for Photonic Network Research Group

Supported by

YOKOGAWA

Amonics
Specialist in Optical Amplifiers

NICT Area and Floor Map

Guest House

6th

Entrance Gatehouse
for NiCT-ID Issue

Workshop (9:00-17:30, 7th)
(9:00-18:50, 8th)
(4F) International Conference Room

Main Building

Supermarket
'Olympic"
(am10-pm9)

2nd

5th

4th

Restaurant

N

Exhibition (13:00-14:00, 7th)
(1F) Lobby

3rd

Photonic Lab.

Reception (18:00-20:00, 7th)

○ **Workshop** (Main Building 4F, International Conference Room)

WC WC 4 F

EV

International Conference Room   Registration Desk

○ **Exhibition (13:00-14:00, 7th)** (5th Building 1F, Lobby)

WC WC

Lobby

NICT
OPS Prototype

EV

Yokogawa
Electric Corp.

Coffee

Amonics Ltd.   Fujitsu Lab.
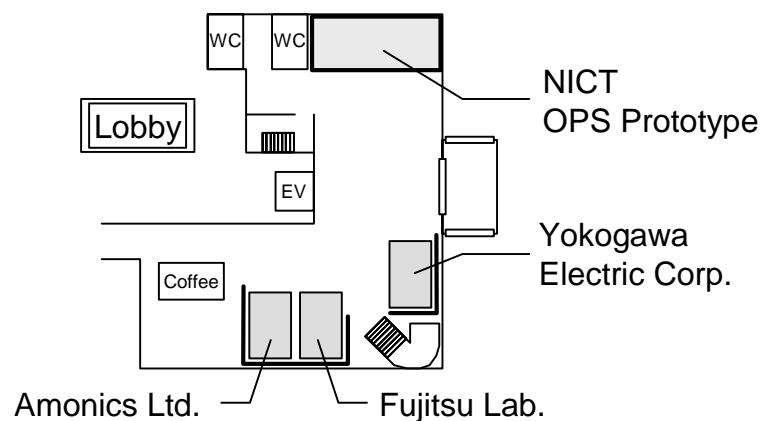
Program of International Joint Workshop on OCDMA and OPS

Day1:11/7/2007

Opening & Keynote speeches

Dr. Y.Matsushima	NICT	Japan		Opening	9:00- 9:10
Prof. S.Xie	Tsinghua Univ.	China		Opening	9:10- 9:20
Prof. T.Konishi	Osaka Univ.	Japan		Opening	9:20- 9:30
Dr. T.Kamiya	NICT	Japan	Researches toward Future Photonic Network at NICT	Keynote	9:30-10:20
Coffee Break					10:20-10:40

OCDMA workshop

Session 1:

Prof. X.Wang	Heriot Watt Univ.	UK	OCDMA with advanced modulation formats	10:40-11:00
Dr. Y.Komai	Japan Women's Univ.	Japan	Variable Bandwidth Spectrum Shaper and Application to THz Repetition Rate Optical Clock Generation	11:00-11:20
Prof. X.Chen	Nanjing Univ.	China	WDM Compatible OCDMA en/decoding using equivalent phase shift	11:20-11:40
Lunch Break				11:40-13:00
Exhibition				13:00-14:00

Session 2:

Dr. K.Sasaki	OKI Electric	Japan	Suppression of Noise in Coherent OCDM Transmission System	14:00-14:20
Prof. B.Chen	Zhejiang Univ.	China	Optical Local Area Network Based on Ring Topology and Optical Code Division Multiple Access Technology	14:20-14:40
Prof. T.Konishi	Osaka Univ.	Japan	Monitoring of O-CDMA Codes using Time-Frequency map	14:40-15:00
Prof. H.Chen	Tsinghua Univ.	China	Performance Evaluation of 511-chip 640Gchip/s OCDMA En/decoders with REC-FBG	15:00-15:20
Prof. B.Yoo	UC Davis	USA	Optical-Packet Switching	15:20-15:40
Coffee Break				15:40-16:00

Panel Discussion	Moderator :	Prof. X.Wang	16:00-17:30
	Panelists :	Prof. X.Chen (Nanjing Univ., China), Prof. S.Gao (Zhejiang Univ., China), Prof. K.Kitayama (Osaka Univ., Japan), Dr. K.Sasaki (OKI Electric, Japan), Dr. N.Wada (NICT, Japan)	

Reception	18:00-20:00

Day2:11/8/2007

Keynote speech

Prof. A.Wei	HK Poly Univ.	HK	Deflection routing in all-optical packet-switched networks	Keynote	9:00- 9:50

OPS workshop

Session 1:

Prof. K.Kitayama	Osaka Univ.	Japan	All-optical RAM-based buffer for packet switch	9:50-10:10
Dr. M.Scaffardi	CNIT	Italy	Photonic digital processing for ultra-fast all-optical networks	10:10-10:30
Coffee Break				10:30-10:50
Dr. R. Man	Amonics	HK	EDFA for next generation high speed FTTH network	10:50-11:10
Dr. Y.Aoki	Fujitsu Lab.	Japan	WDM Optical Packet Interconnection for Petascale Supercomputer	11:10-11:30
Prof. W.Hu	Shang Jiaotong Univ.	China	Demonstration of Multicasting and Burst-like ASON/GMPLS	11:30-11:50
Dr. K.Ikezawa	Yokogawa Electric	Japan	10Gbps / 40Gbps Burst Mode Clock Recovery Technologies and their Applications	11:50-12:10
Lunch Break				12:10-13:30
NICT Lab. Tour				13:30-15:00

Session 2:

Prof. K.Qiu	UESTC	China	OPS Research in UESTC-a novel optical packet format with NRZ label and DCS-RZ payload	15:00-15:20
Prof. H.Uenohara	Tokyo Institute of Tech.	Japan	40Gbps operation of a semiconductor optical DA converter and its application to label processing	15:20-15:40
Prof. A. Xu	Pekin Univ	China	An Upgrading Time-Space Label Switching Protocol (UTS-LSP) with more improved results	15:40-16:00
Prof. H.Imaizumi	Univ. of Tokyo	Japan	320Gb/s Multi-Wavelength Optical Packet Switching with Contention Resolution Mechanism using PLZT Switches	16:00-16:20
Prof. N.Chi	Huazhong Univ. of Sci. and Tech.	China	Improve the Performance of Orthogonal ASK/DPSK Modulation Format by in-line coding	16:20-16:40
Dr. N.Wada	NICT	Japan	160Gbit/s/port Optical Packet Switch Prototypes and Related Technologies	16:40-17:00
Coffee Break				17:00-17:20

Panel Discussion	Moderator :	Prof. K.Kitayama	17:20-18:50
	Panelists :	Dr. H.Harai (NICT, Japan), Prof.H.Yongqi (Peking Univ., China), Prof. S.Yikai (Shanghai Jiao Tong Univ., China), Prof. S.Xie (Tsinghua Univ., China), Prof. H.Uenohara (TIT., Japan)	

Closing Address

Conference Arrangement

- **Venue**

International Conference Room, Main Building 4F,
NICT Headquarters (4-2-1 Nukui-kitamachi, Koganei, Tokyo, 184-8795 JAPAN)

- **Access**

From Narita Airport to NICT

Narita Airport ⟶ (JR Narita Express) ⟶ JR Tokyo Station ⟶ (JR Chuo line)
⟶ JR Kokubunji Station ⟶ (Taxi/Bus/On foot) ⟶ NICT

(Time table of JR Narita Express : http://www.jreast.co.jp/e/nex/index.html)

From **Narita Airport** to **JR Tokyo Station** (70 minutes)
Please take JR Narita Express (rapid train which runs every one hour) at the airport and get off at Tokyo station.

From **JR Tokyo station** to **JR Kokubunji Station** (45 minutes)
Please take JR Chuo line (the train's body color is orange, track 1 and 2.) and get off JR Kokubunji Station.

From **JR Kokubunji Station** to **NICT**
By Taxi (Recommended): Please turn left after exiting a ticket barrier, and go down the stairs. You can find a taxi stand on the right side. It will cost about 1000-Yen. (10 minutes)

* Please show this direction to the taxi driver. (Please go to NICT)

> タクシー運転手さんへ
>
> 小金井市にある 情報通信研究機構 までお願いします。
>
> 住所：小金井市貫井北町　4-2-1
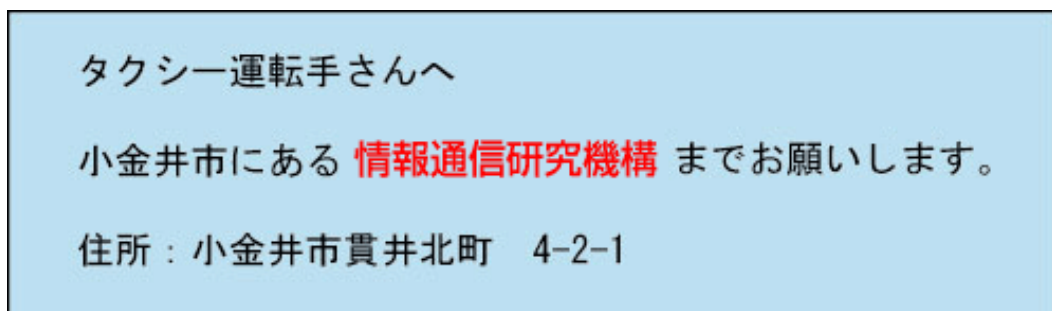
By Bus: Please turn left after exiting a ticket barrier, and go down the stairs. You can find a bus stop on the right side. Please take TACHIKAWA-Bus bound for "Syowa-Byouin".

On foot: It will take about 15min.

From NICT to Narita Airport

NICT $\longrightarrow$ (Taxi/Bus/On foot) $\longrightarrow$ JR Kokubunji Station $\longrightarrow$ (JR Chuo line) $\longrightarrow$ JR Shinjuku Station $\longrightarrow$ (JR Narita Express) $\longrightarrow$ Narita Airport

(Time table of JR Narita Express : http://www.jreast.co.jp/nex/timetable/to_narita/shinjyuku/index.html)

From **JR Kokubunji station** to **JR Shinjuku Station** (25 minutes)
Please buy a railway ticket (from Kokubunji to Narita Airport Terminal 1 or 2) and a Narita Express ticket (from Shinjuku to Narita Airport Terminal 1 or 2) at Tickets Counter (Green Counter) and enter the ticket gate. Please take JR Chuo line at track 3 or 4 and get off at JR Shinjuku Station (arrive at track 7 or 8).

From **JR Shinjuku Station** to **Narita Airport** (80 minutes)
Please change a train to Narita Express at track 5 or 6 and get off at Narita Airport terminal 1 or 2.

JR Railroad Map between JR Kokubunji Station and Narita Airport

Ōmiya

Narita Airport Terminal 1

Kokubunji (NICT)

Airport Terminal 2

Ikebukuro

Shinjuku

Chiba

Narita

Shibuya

Yotsukaidō

Tokyo

Shinagawa

JR Narita Express
Airport - Shinjuku (80 min)

Yokohama

Totsuka

JR Chūō Line
Shinjuku – Kokubunji (25 min)

Ōfuna
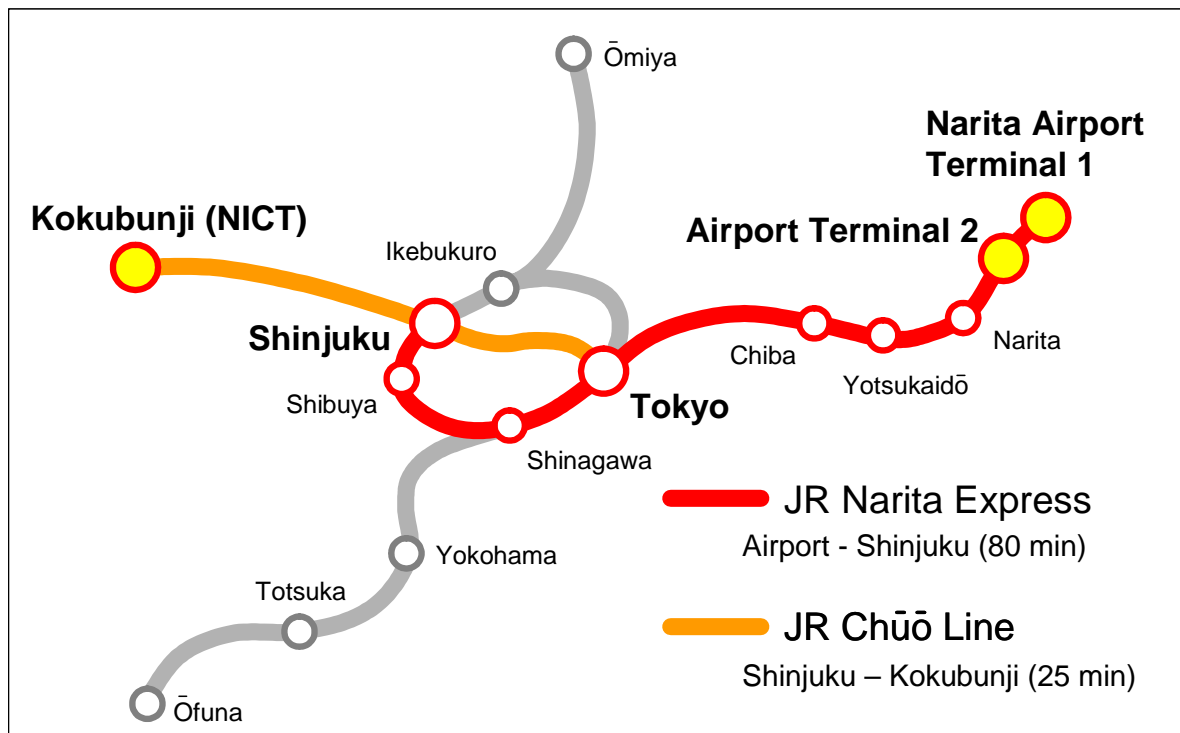
Access from JR Kokubunji Station to NICT

to Haijima

Kihei-bashi

Akaneya-bashi

to Kiyose

Itsukaichi st.

Koganei-bashi

Shin-Koganei-kaido ave.

Koganei-kaido ave.

"Jouhou-Tsuushin-Kenkyuu-Kikou" Bus stop

Gakugeidai-kado

Reception

Tokyo Gakugei Univ.

Walking route

Bus route

Kokubunji stn.

Musashi-Koganei stn.

to Tachikawa

JR Chuo Line

to Tokyo
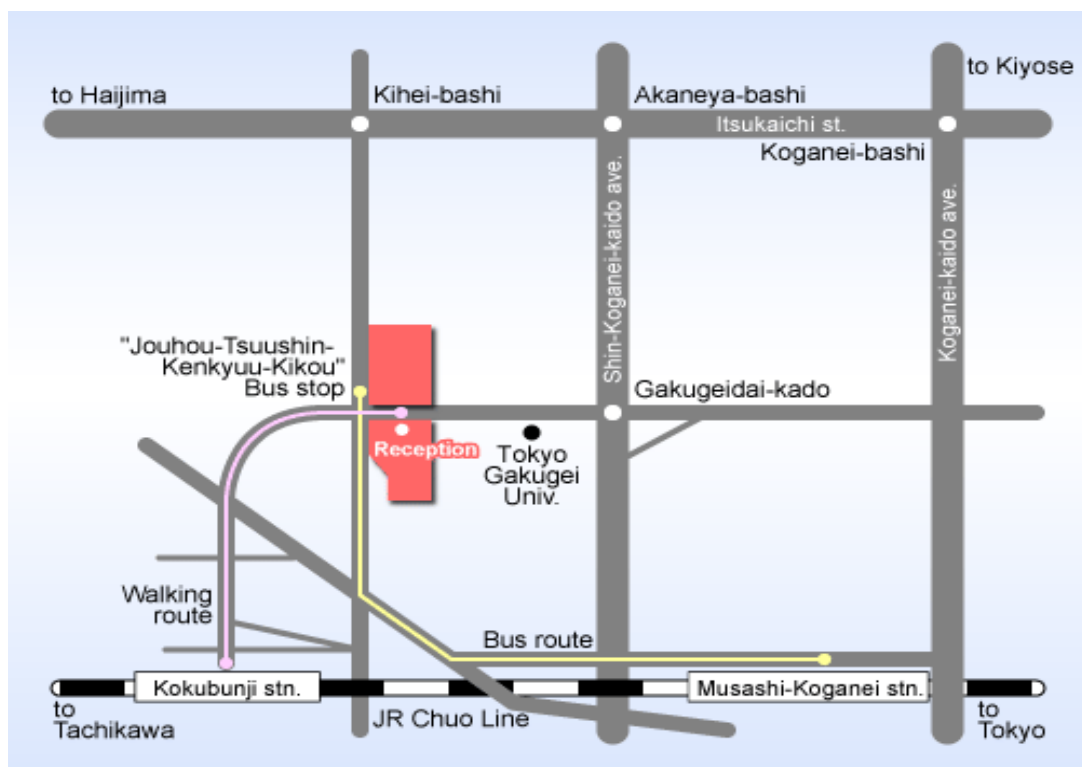
- **Workshop Registration Desk**
  Time : 8:30 -, Nov. 7th, 8th.
  Place : At the front of the International Conference Room 4F in the Main Building.
      Please take the elevator to the fourth floor and the desk is on your right.

- **Workshop**
  Time : 9:00-17:30, Nov. 7th.
          9:00-18:50, Nov. 8th.
  Place : International Conference Room on 4F in the Main Building.

- **Exhibition**
  Time : 13:00-14:30, Nov. 7th.
  Place : Lobby on 1F in the 5th Building.

- **Lunch**
  Time : 11:40-13:00, Nov. 7th, 8th.
  Place : Restaurant in the back of the Main Building.

  Restaurant   (OPEN : 11:30-13:30)
  How to use the restaurant
      #1 Buy the meal ticket with a ticket vendor.
          You can find it in the restaurant.
          There are three kinds of menus (A, B, C).
          A and B : 400 yen (main dish, rice, soup and small bowl)
             C   : 300 yen (main dish, rice and soup (or Curry, Soba, Udon))
      #2 Take the tray and chopsticks.
      #3 Put a ticket in a basket on the counter
          (The leftmost counter is for Curry, Soba, Udon.)
      #4 Pick up the dishes.

  Menu of restaurant
      Nov. 7th
          A set : Deep fried shrimp, rice, soup and small bowl
          B set : Mustard deep-fried Tofu, rice, soup and small bowl
          C set : Meatball, rice, soup

      Nov. 8th
          A set : Deep-fried fish with Chinese sauce, rice, soup and small bowl
          B set : Deep-fried Chicken, rice, soup and small bowl
          C set : Cream stew, rice, soup

Cafeteria   (OPEN : 10:00-14:00)
All menus are 300 yen.
Please pay the money at the casher in advance.
Please tell a waitress your order at the casher.
She cannot speak English. Please show Japanese menu to her.
She will bring it to you.

Menu of cafeteria

Japanese menu

- Syoyu ramen (Chinese noodle) 「醤油ラーメン」
- Miso ramen (Chinese noodle) 「味噌ラーメン」
- Tanmen (Chinese noodle) 「タン麺」
- Wafu Spaghetti (Japanese style pasta) 「醤油スパゲティ」
- Napolitan (Tomato ketchup taste pasta) 「ナポリタン」
- Yakisoba (Chow mein) 「焼きそば」

- **Reception**
  Time : 18:00-20:00, Nov. 7th.
  Place : Reception Hall in the back of the 5th Building.

- **Contact Information**
  Naoya Wada (NICT, JAPAN),
    Tel : +81-42-327-6371, E-mail : wada@nict.go.jp
  Tetsuya Miyazaki (NICT, JAPAN),
    Tel : +81-42-327-6791, E-mail : tmiyazaki@nict.go.jp
    Fax : +82-327-7035

- **Participants List**

<u>**From abroad**</u>

    Prof. XIE Shizhong (Tsinghua University)
    Prof. CHEN Hongwei (Tsinghua University)
    Prof. HU Weisheng (Shanghai Jiao Tong University)
    Prof. SU Yikai (Shanghai Jiao Tong University)
    Prof. QIU Kun (University of Electronic Science and Technology of China)
    Prof. CHI Nan (Huazhong University of Science and Technology)
    Prof. GAO Shiming (Zhejiang University)
    Prof. CHEN Biao (Zhejiang University)
    Prof. CHEN Xiangfei (Nanjing University)
    Prof. He Yongqi (Peking University)
    Prof. XU Anshi (Peking University)
    Prof. Alex. Wai (The Hong Kong Polytechnic University)
    Prof. Wang Xu (Heriot Watt University INEST)
    Prof. S.J. Ben Yoo (UC Davis,USA) (*Video Conference*)
    Dr. Mirco Scaffardi (CNIT)
    Dr. Ray Man (Amonics Limited)

<u>**From Japan**</u>

    Dr. Yuichi Matsushima (VP NICT)
    Dr. Takeshi Kamiya (Program Director NICT)
    Dr. Fumito Kubota (Director NICT)
    Dr. Tetsuya Miyazaki (GL NICT)
    Dr. Naoya Wada (NICT)
    Dr. Abedin Kazi sarwa r(NICT)
    Dr. Yosinari Awaji (NICT)
    Dr. Yukiyoshi Kamio (NICT)
    Dr. Moriya Nakamura (NICT)
    Dr. Makoto Naruse(NICT)
    Dr. Satoshi Shinada (NICT)
    Dr. Nobuyuki Kataoka (NICT)
    Dr. Hideaki Furukawa (NICT)
    Dr. Guo-Wei Lu (NICT)
    Dr. Hiroaki Harai (NICT)
    Prof. Ken-ichi Kitayama (Osaka U)
    Prof. Tsuyoshi Konishi (Osaka U)
    Prof. Hiroyuki Uenohara (TIT)
    Prof. Hideaki Imaizumi (U Tokyo)
    Dr. Yuki Komai (JWU)
    Dr. Yasuhiko Aoki (Fujitsu Lab.)
    Dr. Kensuke Sasaki (Oki Electric Industry Co.)
    Dr. Katsuya Ikezawa (Yokogawa Electric Corp.)

Institutes:

NICT: National Institute of Information and Communication Technology
THU: Tsinghua University
PKU: Peking University
ZJU: Zhejing University
SJTU: Shanghai Jiaotong University
NJU: Nanjing University
UESTC: University of Electronic Science and Technology of China
Huazhong Univ. of Sci. and Tech.: Huazhong University of Science and Technology
HK Poly Univ: The Hong Kong Polytechnic University
UC Davis: University of California at Davis
HWU: Heriot Watt University
CNIT: Photonic Networks National Laboratory of the Italia Inter-University Consortium for Telecommunications
Osaka U: Osaka University
TIT: Tokyo Institute of Technology
U Tokyo: University of Tokyo
JWU: Japan Women's University

Amonics Ltd.
FUJITSU LABORATORIES LTD.
Oki Electric Industry Co., Ltd.
Yokogawa Electric Corporation

Map around NICT

←Hagiyama

Bunka women's college

Guest

Chinese noodle shop
in japanese style
「HUKUROKUJU」
¥800～

ESSO gas station
「DOTOUR COFFEE」
You can eat some
good sandwitches and
coffee.
10minutes on foot

"Olympic"
super market

NICT

Gakugeidai College

Cake shop
「SHIBA-SEN」

Police box

"OK"
Discout super market

maison de TABASA
French restaurant

Seibu Tamako Line

Indian restaurant
「PANAS」
¥1000～¥2000

Waseda Jitugyo School

「Viva Japanesque」
Mexican restaurant

←Tachikawa

Chuo Line

Tokyo→

MARUI
Department store
Station terminal

Denny's

「THIS IS THE BURGER」
This is new shop of hamburger

「UME NO HANA」
Japanese cuisine "tohu"
a little expensive restaurant
but recommend !

「AJIGEN」
Chinese noodle shop
in japanese style named "ramen".

TONOGAYATO
traditional Japanese Garden