



## ICEVLC 2015: Advance Program

International Conference and Exhibition on Visible Light Communications 2015  
- Emphasis on Image Sensor Communication  
October 25-26, 2015, Yokohama, Japan

“International Conference and Exhibition on Visible Light Communications 2015 - Emphasis on Image Sensor Communication”, presented by Visible Light Communications Association (VLCA) in Japan, offers a unique opportunity for researchers and developers from academia and industry to share ideas about visible light communication.

### Conference: “International Conference and Exhibition on Visible Light Communications 2015”

Organized by: Visible Light Communications Association, Japan

Sponsored by:

- Ministry of Internal Affairs and Communications, Japan
- The Telecommunications Advancement Foundation, Japan

Under the auspices of:

- IEICE (the Institute of Electronics, Information and Communication Engineers), Japan
- IEEE ITS Society Tokyo Chapter
- Ubiquitous Communication Laboratory of Keio University SDM, Japan
- Yokohama Convention & Visitors Bureau, Japan

◇ Conference and Exhibition Chair: Emeritus Professor Masao Nakagawa of Keio University

◇ Technical Program Committee:

- (TPC Chair) Professor Shinichiro Haruyama of Keio University
- (TPC Vice Chair) Professor Takaya Yamazato of Nagoya University, and Academic member of VLCA
- Professor Harald Haas, University of Edinburgh, UK
- Professor Thomas Little, Boston University, USA
- Emeritus Professor Mitsuji Matsumoto, Waseda University, Japan
- Professor Dominic O'Brien, University of Oxford, UK
- Mr. Richard D. Roberts, Intel Corporation, USA
- Professor Zhengyuan (Daniel) Xu, University of Science and Technology of China, China

◇ Secretariat: Research Assistant Professor Shuji Suzuki, Keio University, and Secretariat of VLCA

### Location

All events will be held at Hiyoshi Campus of Keio University: <http://www.keio.ac.jp/en/maps/hiyoshi.html>

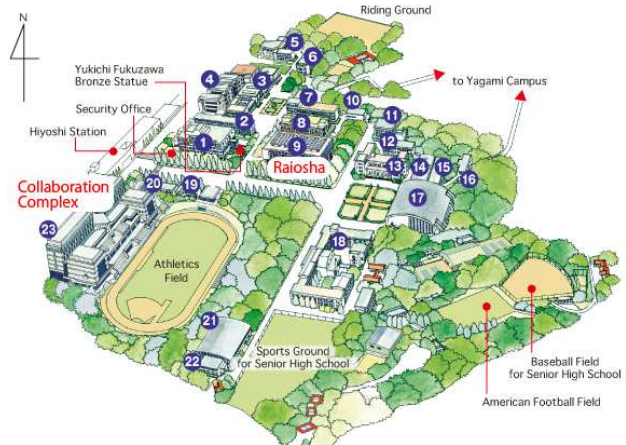
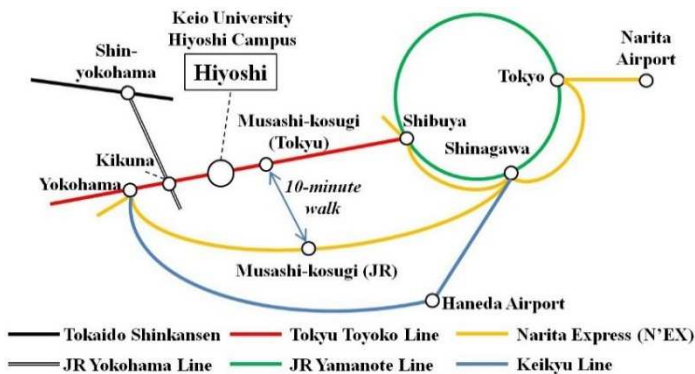
Conference: CDF room (C3S10) on the 3rd floor of Collaboration Complex Building at Hiyoshi Campus.

Exhibition: Event Terrace and Gallery on the 1st floor of Raiosha Building at Hiyoshi Campus.

Party: Faculty Lounge on the 1st floor of Raiosha Building at Hiyoshi Campus.

Access to Hiyoshi Campus of Keio University by train:

Hiyoshi Campus Map:



### Registration

- Conference: 30,000 Japanese yen (25,000 yen for IEICE members).
- Exhibition: Free

Please access <https://edas.info/registerPerson.php?c=20427> for registration.

## Advance Program

- October 25, 2015: Welcome Party

16:00 – 20:00 Registration at the entrance of Faculty Lounge on the 1st floor of Raiosha Building at Hiyoshi Campus.

18:00 – 20:00 Welcome Party at Faculty Lounge on the 1st floor of Raiosha Building at Hiyoshi Campus.

- October 26, 2015: Conference, Exhibition, and Banquet

### ➤ Conference:

08:00 – Registration at CDF room (C3S10) on the 3rd floor of Collaboration Complex Building at Hiyoshi Campus

09:00 – 09:10 Opening Remarks, Conference and Exhibition Chair, Emeritus Professor Masao Nakagawa of Keio University, Japan

09:10 – 09:20 Guest Remarks, TBD, Ministry of Internal Affairs and Communications, Japan

09:20 – 10:40 Technical Session 1: Image Sensor Communication, Session Chair: Professor Takaya Yamazato, Nagoya University, Japan

09:20 – 09:40

○Wataru Chujo, Tomoki Kondo, Ryotaro Kitaoka, Meijo University, Japan

“Improvement of Symbol Rate and Flicker-Free Performance of LED Visible Light Communication with Low-Frame-Rate CMOS Camera”

09:40 – 10:00

○Daiki Tanimoto<sup>1</sup>, Koji Kamakura<sup>1</sup>, Takaya Yamazato<sup>2</sup>, <sup>1</sup>Chiba Institute of Technology, <sup>2</sup>Nagoya University, Japan

“Additional Bit Transmission Using Space Modulation in Layered Space Time Coded Visible Light Communications”

10:00 – 10:20

○Yuta Kawai<sup>1</sup>, Takaya Yamazato<sup>1</sup>, Hiraku Okada<sup>1</sup>, Toshiaki Fujii<sup>1</sup>, Tomohiro Yendo<sup>2</sup>, Shintaro Arai<sup>3</sup>, and Koji Kamakura<sup>4</sup>, <sup>1</sup>Nagoya University, <sup>2</sup>Nagaoka University of Technology, <sup>3</sup>National Institute of Technology, <sup>4</sup>Chiba Institute of Technology, Japan

“Tracking of LED headlights considering NLOS for an image sensor based V2I-VLC”

10:20 – 10:40

○Takashi G Sato, Gabriel Pablo Nava, Yoshifumi Shiraki, Takehiro Moriya, NTT Communication Science Laboratories, Japan

“Heart Rate Measurement Based on Event Timing Coding Observed by Video Camera”

10:40 – 11:00 Break

11:00 – 12:20 Technical Session 2: Circuits and Modulation, Session Chair: Emeritus Professor Mitsuji Matsumoto, Waseda University, Japan

11:00 – 11:20

○Karel L. Sterckx, Bangkok University, Thailand

“Analysis of Op Amp Based Transimpedance Photo Receivers: A Comprehensive Practical Approach”

11:20 – 11:40

Nan Chi<sup>1</sup>, ○Mengjie Zhang<sup>1</sup>, Yiguang Wang<sup>1</sup>, Xiaoyuan Lu<sup>2</sup>, <sup>1</sup>Fudan University, <sup>2</sup>National Engineering Research Center for Broadband Networks & Application, China

“Experimental demonstration of high-speed WDM VLC systems employing high-order CAP modulation”

11:40 – 12:00

Amena Ejaz Aziz<sup>1</sup>, ○Kainam Thomas Wong<sup>1</sup>, Jung-Chieh Chen<sup>2</sup>, <sup>1</sup>Hong Kong Polytechnic University, Hong Kong, <sup>2</sup>National Kaohsiung Normal University, Taiwan

“Color-Shift-Keying Constellation-Design Case Studies”

12:00 – 12:20

○Atsuya Yokoi<sup>1</sup>, Sangon Choi<sup>2</sup>, Hiroki Mizuno<sup>1</sup>, <sup>1</sup>Samsung R&D Institute Japan, Japan, <sup>2</sup>Samsung Electronics, Korea

“A new image sensor communication system using Color Shift Keying”

12:20 – 13:30 Lunch

13:30 – 14:30 Invited Talks, Session Chair: Professor Yeon Ho Chung, Pukyong National University, Korea

13:30 – 14:00

Invited Talk 1: Richard D. Roberts, Intel Corporation, USA

“Kick Starting the VLC Market via Optical Camera Communications”

14:00 – 14:30

Invited Talk 2: Nobuo Iizuka, Casio Computer Co., Ltd., Japan

“Image Sensor Communication - Evolution, Now and Future-”

14:30 – 15:30 Panel Session: “Image Sensor Communication and High Speed Visible Light Communication”

Panelists:

Yeong Min Jang, Kookmin University, Korea

Fahim Nawabi, Fraunhofer Institute for Communication, Heinrich Hertz Institute, Germany

Richard D. Roberts, Intel Corporation, USA

Nobuo Iizuka, Casio Computer Co., Ltd., Japan

Moderator:

Shinichiro Haruyama, Keio University, Chairman of VLCA

### ➤ Exhibition:

12:00 – 17:30 Exhibition of visible light communication will be held at Event Terrace and Gallery on the 1st floor of Raiosha Building at Hiyoshi Campus

### ➤ Banquet:

18:00 – 20:00 Banquet at Faculty Lounge on the 1st floor of Raiosha Building at Hiyoshi Campus.

**Further information about the conference:** <http://vlca.net/conference/icevlc2015/>

**Contact email address:** Visible Light Communications Association at [info@vlca.net](mailto:info@vlca.net)