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**Sponsored by**

- The Telecommunications Advancement Foundation

**Under the auspices of**

- The Institute of Electronics, Information and Communication Engineers (IEICE)

- IEICE technical committee on wideband system (WBS)

- IEEE Tokyo Section

- Dept. of Information and Computer Science, Faculty of Science and Technology, Keio Univ.

“2<sup>nd</sup> International Conference and Exhibition on Visible Light Communications 2018 (ICEVLC2018)”, presented by Visible Light Communications Association (VLCA) in Japan, will be held at Hiyoshi campus of Keio University, Yokohama, Japan. The conference offers a unique opportunity for researchers and developers from academia and industry to share ideas about visible light communications.

**Organizer:**

Visible Light Communications Association (VLCA)

<http://vlca.net/>

**Topics of interest includes, but are not limited to:**

- VLC transceiver design and optimization
- VLC link duplexing and multiple access techniques
- Modulation, coding and detection for VLC
- VLC using image sensor (Image sensor communication)
- Underwater VLC
- Location services using VLC
- VLC wireless sensor networks
- Optical wireless communications in 5G networks
- Vehicle-to-vehicle and vehicle-to-infrastructure VLC
- VLC for Internet of things (IoT)
- VLC for home/office/factory networks

**Registration:**

Conference: 30,000 Japanese yen

Exhibition: Free

For more information, please visit the conference home page (<http://vlca.net/conference/icevlc2018/>) or contact the conference committee ([info@vlca.net](mailto:info@vlca.net)).

**Location:**

All events will be held at Hiyoshi Campus of Keio University: (<http://www.keio.ac.jp/en/maps/hiyoshi.html>) on the 1<sup>st</sup> Floor of the Raiosha Building.

Hiyoshi Campus Map



**Advance Program:** March 16, 2018: Conference, Exhibition, and Banquet

**Conference:** at Symposium Space on the 1st floor of Raiosha Building

10:00-10:10 Opening Remarks

10:10-12:10 Technical session 1: Image Sensor Communication

1-1. Connected OCC Signages for Small-Cell Networks

*Trang Nguyen, Yeong Min Jang (Kookmin University, Korea)*

1-2. Performance Enhancement for Image Sensor Communication in an Intelligent Transport System Using a High-speed Stereo Camera

*Masayuki Kinoshita, Takaya Yamazato, Hiraku Okada and Toshiaki Fujii (Nagoya University, Japan); Shintaro Arai (Okayama University of Science, Japan); Tomohiro Yendo (Nagaoka University of Technology, Japan); Koji Kamakura (Chiba Institute of Technology, Japan)*

1-3. PSK modulation in camera based VLC for receiving from distributed transmitters

*Wataru Kihara and Tomohiro Yendo (Nagaoka University of Technology, Japan); Yoshifumi Shiraki (Nippon Telegraph and Telephone Corporation, Japan); Takashi G Sato (NTT Communication Science Laboratories, Japan); Takehiro Moriya (NTT, Japan)*

1-4. Symbol Synchronization Performance of Image-Sensor VLC with Rolling Shutter

*Takaya Zinda and Wataru Chujo (Meijo University, Japan)*

1-5. Secure VLC services and practical applications

*Noriharu Miyaho (Tokyo Denki University & Japan, Japan); Atsuya Yokoi (Samsung R&D Insitute Japan, Japan); Noriko Konno, Takamasa Shimada and Takeshi Ogawa (Tokyo Denki University, Japan)*

1-6. Psychological and Physiological Effects of VLC using Versatile CSK Code Patterns

*Takamasa Shimada and Noriko Konno (Tokyo Denki University, Japan); Atsuya Yokoi (Samsung R&D Insitute Japan, Japan); Noriharu Miyaho (Tokyo Denki University & Japan, Japan)*

12:10-13:30 Lunch

13:30-14:30 Technical session 2: Modulation and Circuit

2-1. Prototype: Enabling Commercial Off-the-Shelf LED Bulbs with Internet Protocol Connectivity

*Ming Che, Takeshi Kuboki and Kazutoshi Kato (Kyushu University, Japan)*

2-2. Non-RLL DC-Balance based on a Pre-scrambled Polar Encoder for Beacon-based Visible Light Communication Systems

*Duc Phuc Nguyen and Dinh-Dung Le (Nara Institute of Science and Technology, Japan); Thi Hong Tran (Nara Institute of Science and Technology (NAIST), Japan); Yasuhiko Nakashima (Nara Institute of Science and Technology, Japan)*

2-3. Design of Synchronization Signal Embedded Optical Wireless Differential OOK

*Yuta Asano, Hiromasa Habuchi and Yusuke Kozawa (Ibaraki University, Japan)*

14:30-15:00 Break

15:00-17:00 Invited Talks

Invited Talk 1: *Zhengyuan Xu (University of Science and Technology of China)*

Invited Talk 2: *Takao Sawa (Japan Agency for the Marine-earth Science and Technology)*

Invited Talk 3: *Nan Chi (Fudan University, P.R. China)*

Invited Talk 4: *Masao Nakagawa (Keio University)*

17:00-17:10 Closing

**Exhibition:**

12:10-17:30 Exhibition of OWC/VLC on the 1st floor of Raiosha Building

**Banquet:**

17:30-19:30 at Faculty Lounge on the 1st floor of Raiosha Building