

Call for Papers

First South American Colloquium on Visible Light Communications

Santiago de Chile, Monday, November 13th, 2017

Website: http://lab_getic.usach.cl/

Sponsored: **Electrical Engineering Department, Universidad de Santiago de Chile.**

More recently we have seen a growing research and development in the field of Visible Light Communications (VLC) both within the academia and industry at a global level. This emerging technology not only offers illumination but data communications, indoor localization and sensing. It operates in unlicensed bands, and offers a wide bandwidth, inherent security and robustness to interference that are complementary to the radio frequency based technologies particularly in the emerging 5G wireless communications.

Nevertheless, the widespread deployment of VLC yet to be realized and it faces a number of challenges such as integration with the existing networks, LEDs with switching functionality, protocols, weather effects in outdoor environments, safety regulation and device performance to name a few. This has led to a great attraction for global researchers to improve the system performance and make it more deployable.

This first colloquium aims to cover the entire field of VLC and bring together researchers, software, and hardware developers from academia and industry working in VLC, to present, share, and discuss their latest research results. High technical quality papers will be solicited to be presented at the event. Of particular interests is the following non-exclusive list of principal topics:

TOPIC OF INTEREST- includes (contributions are not limited to the following):

- *All organic based VLCs*
- *Camera-based communications*
- *Channel modelling and characterisation*
- *Channel capacity analysis*
- *Diversity techniques*
- *Dimming, data communications and Localisation*
- *Duplexing and multiple access techniques*
- *Energy efficiency considerations*
- *Hybrid RF/VLC technology*
- *MIMO for VLC*
- *Modulation, coding and detection schemes*

- *Mobile-to-infrastructure and mobile-to-mobile optical communication*
- *Novel (photonic) devices and components*
- *Networks: architecture, PHY/MAC design, cross-layer design*
- *Security and vulnerabilities*
- *Transceiver design and optimization*
- *VLC in 4G/5G Networks and beyond*
- *Underwater VLC communication*
- *VLC applications in*
 - *Device-to-device communications.*
 - *Applications to Robotics.*
 - *e-Health.*
 - *Intelligent transportation systems.*
 - *Internet of things.*
 - *Next generation wireless networks.*
 - *Optical links for plane/UAV/satellite Communications.*
 - *Wireless sensor networks.*
 - *Smart-city/smart-building.*
 - *Indoor and outdoor positioning.*
 - *Heterogeneous networks.*
 - *Medical applications.*
 - *Optical wireless sensor network.*

The workshop will include two keynotes on hot topics in VLC from well-known authors/industry players.

SUBMISSION PROCEDURE

Prospective authors are invited to submit original technical papers by June 30, 2017, for publication in the First South American Colloquium on Visible Light Communications Conference Proceedings and IEEE Xplore..

All submissions should be written in English with a maximum paper length of Six (6) printed pages (10-point font) including figures without incurring additional page charges.

Standard IEEE Transactions templates for Microsoft Word or LaTeX formats found at http://www.ieee.org/publications_standards/publications/authors/author_templates.htm

Only PDF files will be accepted for the review process and all submissions must be done through EDAS website.

IMPORTANT DATES

- Submission Deadline: June 30, 2017.
- Acceptance notification: August 15, 2017.
- Camera-Ready Paper: September 30, 2017

ORGANIZING COMMITTEE

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