

FIRST SOUTH AMERICAN COLLOQUIUM ON VISIBLE LIGHT COMMUNICATIONS

First South American Colloquium on Visible Light Communications

- **Event:** Monday, november 13, 2017
- **Location:** Espacio Fundación Telefónica (Santiago, Chile)
- **Organization:** Departamento de Ingeniería Eléctrica, Universidad de Santiago de Chile.

In recent years, there has been a growing research and development in the field of Visible Light Communications, within the academy, as well as in the industry at a global level.

The development of this type of technology is not only based on lighting, but also on data communications, localization and detection, operating in unlicensed bands. In this way, this support offers wide bandwidth, intrinsic safety and robustness to interference that are complementary to radiofrequency-based technologies, particularly in emerging 5G wireless communications.

However, the widespread deployment of visible light communications has not yet been realized and today faces a series of challenges such as integration with existing networks, LEDs with switching functionality, protocols, weather effects in environments Safety regulation and device performance.

In this way, the First South American Colloquium on Visible Light Communication, which aims to bring together researchers, software and hardware developers will be held at the Fundación Telefónica on Monday, November 13, with the master class of international speakers, Dr. Thomas Little (Boston University,USA) and Dr. Zabih Ghassemlooy (Northumbria University, United Kingdom). In this context, the call is open to present, share and discuss the results of recent publications of researchers in the area.

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INVITED KEYNOTE SPEAKERS



Master Class

“Applications of Visible Light Communications”

Dr. Zabih Ghassemlooy, Northumbria University, United Kingdom.



Master Class

“Realizing Indoor Optical Wireless Networking with Beam Control”

Dr. Thomas Little, Boston University, USA, and NSF ERC for Lighting Enabled Systems and Applications

PUBLICATION

All accepted papers will be included in the conference proceedings and will be indexed in IEEE xplora. For each accepted paper, at least one author must register for the conference and present the paper.

The Best Papers will be published in the Elsevier journal Optik, <https://www.journals.elsevier.com/optik>

THEMES DISCUSSED (but Not limited to):

The following are the topics to consider when applying for research.

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- Organic visible light communication systems
- Camera-based communications
- Modeling and characterization of channels
- Channel capacity analysis
- Diversity Techniques
- Attenuation, data communication and location
- Duplex and multiple access printing techniques
- Energy efficiency considerations
- RF / VLC hybrid technology
- MIMO To VLC
- Modulation, coding and detection systems
- Mobile-to-infrastructure and mobile-to-mobile optical communication
- New devices and components (photonics)
- Networks: architecture, PHY / MAC design, cross-layer design
- Security and vulnerabilities
- Design and optimization of transceivers
- VLC in 4G / 5G networks
- VLC underwater communication
- VLC applications in:
 - Disposition from device to device.

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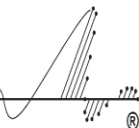
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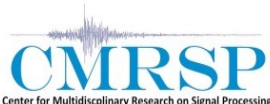
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- Applications to robotics.
- E-Health.
- Intelligent transport systems.
- Internet of Things.
- Next generation wireless networks.
- Optical links for the airplane / UAV / satellite communications.
- Sensor of wireless networks.
- Smart-city / smart building.
- Position interior and exterior.
- Heterogeneous networks.
- Medical applications.
- Optical network of wireless sensors.

HOW TO SEND A PAPER

The authors are invited to submit documents with a maximum deadline of August 21, 2017, for publication at the First South American Colloquium on Visible Light Communication in the context of the Visible Light and IEEE Xplore Communications Conference and will be indexed in this platform of scientific disclosure.

All presentations must be written in English with a maximum length of six veneers, with a font of 10.

The standard IEEE Transactions templates for Microsoft Word or LaTeX formats can be found at http://www.ieee.org/publications_standards/publications/authors/author_templates.html.

Only PDF files will be accepted for the review process and after that, all presentations will be

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submitted to the EDAS website <https://edas.info/newPaper.php?c=23224>, login in or creating a new account.

IMPORTANT DATES

- Deadline for submission: ~~August 21, 2017.~~
- Notification of acceptance: September 30, 2017.
- Paper for cameras: October 20, 2017.
- **Important:** due to problems with the web page, the period for sending the articles was extended until September 15, 2017

SCIENTIFIC COMMITTEE

Organizing Committee

- Dr. Zabih Ghassemlooy , Northumbria University, UK.
- Dr. Ismael Soto, Universidad de Santiago de Chile, Chile.
- Dr. Nicolas Krommenacker, University of Lorraine, France.
- Dr Cesar Azurdia-Meza, Universidad de Chile, Chile.
- Dr. Fernando Huenupán, Universidad de la Frontera, Chile.
- Dr. Nestor Becerra Yoma, Universidad de Chile, Chile.
- Dr. Pablo Adasme, Universidad de Santiago de Chile, Chile.

International Technical Committee

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- Dr. Rolando Carrasco, Newcastle University, UK.
- Dr. Daniel Iturralde, Universidad del Azuay, Ecuador.
- Dr. Ali Dehghanfirouzabadi, Universidad de Santiago de Chile, Chile.
- Dr. Samuel Montejo, Universidad de Chile, Chile.
- Dr. Salman Khan, University of Engineering and Technology, Pakistan.
- Dr. Ivan Jiron Araya, Universidad Católica del Norte, Chile.
- Dr. Bartolomeu Uchôa-Filho, Federal University of Santa Catarina, Brazil.
- Dr. Bruno Fontana da Silva, Federal University of Santa Catarina, Brasil.
- Dr. Jinsong Wu, Universidad de Chile, Chile.
- Dr. Claudio Estevez, Universidad de Chile, Chile.
- Dr. Kyesan Lee, Kyung Hee University, Korea.
- Dr. Kyujin Lee, Semyung University, Korea.
- Dr. Shaharyar Kamal, Kyung Hee University, Korea.
- Dr. Changping Li, Yangzhou University, China.
- Dr. Xuan Tang, Chinese Academy of Sciences, Fujian, China.
- Dr. Stanislav Zvanovec, Czech Technical University in Prague, Czech Republic.
- Dr. Ali Khalighi, Ecole Centrale Marseille-Institut Fresnel, France.
- Dr. Thomas Kamalakis, Harokopio University, Greece.
- Dr. Luis Nero Alves, Instituto de Telecomunicações, Portugal.
- Dr. Rafael Perez Jimenez, Universidad de las Palmas de Gran Canaria, Spain.

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- Dr. Min Zhang, Beijing University of Posts and Telecommunications, China.
- Dr. Hsin-Mu (Michael) Tsai, National Taiwan University, Taiwan
- Dr. Gholamreza Baghersalimi, University of Guilan, Iran.
- Dr. Anna Maris, Roma Tre University, Italy.
- Dr. Anh T. Pham, The University of AIZU, Japan.
- Dr. Yeon-Ho Chung, Pukyong National University, Busan, Korea.
- Dr. Martin Luna, Universidad Autónoma de San Luis Potosí, Mexico.

REGISTRATIONS

- General registrations (Include USB and Coffees)
Audience: USD 170
Presenting author: USD 170 (until 2 papers)
- Student registrations (Includes USB and Coffees)
Student: USD 30
- Membership discount: IEEE 10% (only one time)
- Early registration: 10% discount on each of the above values till sept, 30.

INFORMATION

For information please contact us at: comunicaciones.die@usach.cl or in http://lab_getic.usach.cl

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