

Second South American Colloquium on Visible Light Communications

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, safety regulation and device performance.

The Second South American Colloquium on Visible Light Communications aims to bring together researchers, software and hardware developers, and will be held on Thursday and Friday, June 4 and 5, 2020. In this context, the call for papers is open to present, share and discuss recent and novel ideas related with this research field.



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INVITED KEYNOTE SPEAKERS

- **Zabih Ghassemlooy**
Northumbria University, United Kingdom.
Title: Organic LED based Visible Light Communications
- **Rafael Pérez Jiménez**
Universidad de Las Palmas de Gran Canaria, Director IDETIC, Spain.
Title: Trends on OCC systems for IoT applications
- **Carlos Gutiérrez**
Facultad de Ciencias, UASLP, México.
Title: The visible-light communications Channel in vehicular environments
- **Marcos Katz**
University of Oulu, Finland.
Title: 6G and VLC: Opportunities and Challenges
- **Juan Pablo Hurtado**
“Ventilation on Demand in Smart Mining Using VLC”
Universidad de Santiago de Chile.

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.



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THEMES DISCUSSED (but not limited to)

- Organic visible light communication systems
- Extreme learning machines in VLC
- NOMA VLC Systems
- Recent Advances on VLC Next Generation Multi-carrier Systems
- VLC in National Security
- VLC for animal management
- VLC before natural disasters
- 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 and Massive 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



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- VLC applications in:
 - Disposition from device to device.
 - 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 /roadside units (RSUs)
- Position interior and exterior.
- Heterogeneous networks.
- Medical applications.
- Optical network of wireless sensors.
- Independent Components Analysis – ICA
- Wavelet
- History of VLC
- VLC in popular culture

HOW TO SEND A PAPER

Authors are invited to submit papers in English language with a maximum length of six pages. The deadline for submission is 6th May, 2020. IEEE Transactions templates for Microsoft Word or LaTeX formats can be found at <https://www.ieee.org/conferences/publishing/templates.html>.

Only PDF files will be accepted as a valid submission to start the review process and should be submitted to the EDAS website <https://edas.info/N27438> by logging in or creating a new account.



IMPORTANT DATES

Deadline for submission	May 6, 2020
Notification of acceptance	May 13, 2020
Camera ready	May 21, 2020

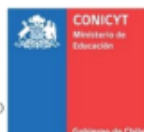
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- Dr. Claudio Estevez, Universidad de Chile, Chile.
- Dr. Kyesan Lee, Kyung Hee University, Korea.
- Dr. Kyujin Lee, Semyung University, Korea.
- Dr. Shaharyar Kamal, Kyung Hee University, Korea.
- Dr. Changping Li, Yangzhou University, China.
- Dr. Xuan Tang, Chinese Academy of Sciences, Fujian, China.
- Dr. Ali Khalighi, Ecole Centrale Marseille-Institut Fresnel, France.
- Dr. Thomas Kamalakis, Harokopio University, Greece.
- Dr. Luis Nero Alves, Instituto de Telecomunicações, Portugal.



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- Dr. Rafael Perez Jimenez, Universidad de las Palmas de Gran Canaria, Spain.
- 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.
- Dr. Fabián Seguel, Université de Lorraine, France.
- Dr. Raúl Carrasco, Universidad de Santiago de Chile, Chile.

INFORMATION

For information please contact us at: contacto@sacvlc.org or in <http://www.sacvlc.org>



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