

Annual Conference of the IEEE Industrial Electronics Society (IECON 2022)

Special Session on

“Optical Wireless Communication for Industrial Applications”

Organized by

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Call for Papers

Theme:

Optical wireless communication, also denoted as Light Fidelity (LiFi), promises unique benefits for the implementation of Industry 4.0 and Internet of Things (IoT)-based industrial solutions. Main characteristics, such as huge amounts of unlicensed spectrum, interference-free transmission, positioning integrated with wireless communications and extra security, make LiFi a highly recommendable industrial communication technology.

This special session calls for contributions which present and demonstrate how and under which conditions LiFi can be successfully applied in industrial environments, what the key features are and how integration into existing networks can be realized. In addition, authors are encouraged to address the technical and economic aspects related to the installation and operation of a LiFi infrastructure and the associated end devices.

Topics of interest include, but are not limited to:

1	Applications of LiFi in Industry 4.0
2	Requirements and challenges for wireless transmission in industrial environments
3	Integrated positioning and communications using LiFi
4	Security and LiFi – opportunities and challenges, communication security threats in Industrial settings
5	Integration of LiFi with radio networks (Wi-Fi, 5G)
6	LiFi frontends, electronics to modulate light, prototypes and products
7	Infrastructure requirements and economic aspects of LiFi and for its backbone
8	Standardization of LiFi: Current and future activities
9	Future evolution of LiFi - from LEDs to lasers, MIMO, from laboratory to applications
10	Panel discussion: Pros and Cons of LiFi for Industry 4.0

Good quality papers may be considered for publication in the IEEE Trans. on Industrial Electronics, subject to further rounds of review.

Sponsoring IES Technical Committee(s):

IEEE IES Technical Committee on Industrial Cyber-Physical Systems (TC-ICPS) (<https://icps.ieee-ies.org/>)

(IEEE IES Technical Committee on Industrial Agents (TC-IA) (<https://tcia.ieee-ies.org/>))

Submissions Procedure:

All the instructions for paper submission are included in the conference website: <https://iecon2022.org/>

Deadlines:

Full paper submission:	May 2, 2022
Paper acceptance notification:	June 17, 2022
Camera-ready paper submission:	July 29, 2022