SS 02 - Optical Wireless Communications for the Industry 4.0

Principal Organizer 1: Véronique Georlette (veronique.georlette@umons.ac.be)
Affiliation: University of Mons, Belgium

Principal Organizer 2: Véronique Moeyaert (veronique.moeyaert@umons.ac.be)
Affiliation: University of Mons, Belgium

Organizer 1: Rafael Pérez-Jiménez (rafael.perez@ulpgc.es)
Affiliation: Universidad de Las Palmas de Gran Canaria, Spain

Organizer 2: Jose A. Rabadan Borges (jose.rabadan@ulpgc.es)
Affiliation: Universidad de Las Palmas de Gran Canaria, Spain

In the context of the digital revolution and the emergence of new telecommunication systems, the industrial sector is a great beneficiary of those technologies, namely for Industrial Internet of Things (IIoT) communications.

The new generation of telecommunication systems that are more flexible and adapted to the customers' demands make sense in this sector. Particularly, Optical Wireless Communication (OWC), and its relatives, Visible Light Communications (VLC), Optical Camera Communication (OCC), etc. are in a good position to be used in industrial environment due to their immunity to electromagnetic interference, the increasing availability of LED's lamps, and their genuine communication privacy.

This special session proposal aims to encourage the submission of papers using these technologies in the industrial sector. Indeed, their flexibility in terms of data rates and equipment offers a wide range of applications from low bandwidth such as IIoT to high data rate using, in this case, VLC.

The topics of interest include, but are not limited to:

- New applications of OWC and its relatives in industrial environments
- Characterization of the industrial channel for OWC and its relatives
- Use of OWC and its relatives for smart manufacturing
- IIoT using light
- Light positioning in industrial environments
- Hybrid OWC-RF (Radio Frequency) systems for robust industrial communication
- High-bit rate optical wireless connectivity for industry
- Security of systems based on OWC and its relatives in industrial environments

PAPER SUBMISSION: Up to 8 double-column pages, following the IEEE conferences template.

Website: wfcs22.unipv.it

IMPORTANT DATES (extended)**:**
Deadline: February 7th, 2022
Notifications: March 1st, 2022
Final versions: March 12th, 2022

WFCS 2022