

OPTICWISE

Optical Wireless Communications – An Emerging Technology

Objectives

- Make significant contributions to the scientific understanding and technical knowledge of the emerging optical wireless communication (OWC) field;
- Develop transformative and far-reaching OWC solutions as powerful alternatives and/or complements to existing technologies, and thereby help increase OWC market penetration;
- Serve as an internationally recognized reference point in the OWC field;
- Increase awareness of OWC in the scientific community and the general public;
- Influence decision makers at national and international levels;
- Attract and train graduate students and early stage researchers (ESRs) for OWC field.

Working Groups

- **WG1 (Propagation Modeling and Channel Characterization)** will develop, evaluate and validate statistical and empirical channel models for OWC applications and optical bands under consideration.
- **WG2 (Physical Layer Algorithm Design and Verification)** will provide an information-theoretic framework for OWC and investigate practical algorithms and techniques to approach these ultimate performance boundaries.
- **WG3 (Networking Protocols)** will deal with upper layer protocol stacks and investigate co-existence and interoperability of OWC with other communication networks.
- **WG4 (Advanced Photonic Components)** will work on the efficient design, characterization, fabrication, and test of state-of-the-art opto-electronic/ photonic components and sub-systems for OWC systems

Main Achievements

- OPTICWISE is the very first COST Action dedicated solely to the field of OWC.
- Since the start of the Action, OPTICWISE participants produced more than 200 publications 15% of which are as a result of COST networking through the Action.
- OPTICWISE initiated the first European workshop on OWC.
- OPTICWISE held the first training school on OWC.

Gender Balance and Early Stage Researchers

- Objectives: Involvement of female researchers and ESRs at all levels will be actively encouraged including their active participation in meetings, conferences, workshops and training schools to be organized in the frame of this Action.
- Status: 35% of the Action participants are ESR while 8% of the Action participants are female researchers. Vice-Chair positions in WGs were exclusively allocated for the candidates among ESRs. WG4 is currently vice-chaired by a female researcher.
- Foreseen: As another incentive for ESR involvement, we plan to establish a best paper award exclusively targeted for ESRs at the annual workshop of the Action.

Dissemination

- OPTICWISE has an active online presence including social networks (Facebook, LinkedIn, Twitter).
- The Action publishes a semi-annual newsletter highlighting the latest achievements and public deliverables of the Action. It is distributed by both electronic means and postal mail.

Information and
Communication
Technologies
(ICT)



Participating countries: 21

AT, BE, CY, CZ, DE, ES, FI, FR, GR,
HU, IE, IL, IT, PL, PT, RO, RS, SE, SI,
TR, UK

Internat. Collaboration:

AU, CN, KR, PK

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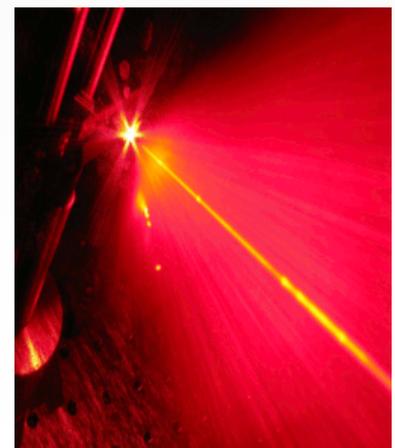
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Experiment with a red laser beam



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