

# IEEE International Conference on Ubiquitous Wireless Broadband

Wireless Highways to  
the Digital Economies  
& Smart Societies

ICUWB  
2015



5G Wireless Cloud Sensor Networks mmWave MIMO OW M2M/Y2M IoT Green ICT  
Health and Environment Safety and Security Infrastructures Natural Resources Renewable Energies  
Smart Cities Smart Vehicles Intelligent Transport Systems Smart Grids Sustainable Development

## CALL FOR PAPERS – WORKSHOP # WOS 03

Montreal.2015 Oct.4-7

The 15th edition of the IEEE International Conference on Ubiquitous Wireless Broadband **ICUWB'2015** (formerly known as International Conference on Ultra Wide-Band) will be held in **Montreal, Canada, from October 4th to 7th, 2015**, under the theme **Wireless Highways to the Digital Economies & Smart Societies**. October's Indian summer period is the perfect time to host an event in Montreal; a vibrant multicultural, multilingual, and welcoming city that offers visitors a unique and well-blended taste of Europe in North America.

ICUWB, under its new format, shall provide a new forum for the latest original research achievements **in wireless broadband technologies and their ubiquitous fields of application in microwave, millimeter-wave, and even Terahertz, light-wave or optical wireless (OW) bands**; without any restriction in scope to the standardized radio interface technologies commonly called today as UWB. It shall also offer a unique rendezvous with innovation, both in wireless-broadband techs and apps, where academic, industrial, NGO, and governmental key players from diverse streams can meet and learn from each other. With that in mind, ICUWB will present high-quality papers, keynotes, panels, tutorials, special sessions, workshops, and exhibits in the areas of wireless broadband communications and its emerging applications such as 5G wireless, internet of things (IoT), and smart metering & monitoring or management in health, environment, energy, manufacturing, transportation, navigation, safety, etc. From this perspective, ICUWB will concurrently hold the following:

## Workshop on Fiber-Wireless (FiWi) Access Networks

Cf. reverse side for details on scope and topics. Prospective authors are invited to submit technical papers of their previously unpublished work on EDAS at <<http://edas.info/N20805>>. Manuscripts shall not exceed five double-column pages. Complete information about the electronic paper submission process is available at <<http://www.icuwb2015.org/papers-submissions.html>>. All accepted and presented papers will be submitted for inclusion in IEEE Xplore®.

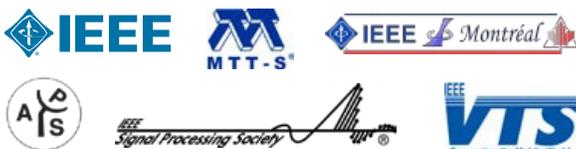
### WORKSHOP ORGANIZER AND CHAIR

Martin Maier  
INRS, EMT Center

### IMPORTANT DUE DATES

Workshop submissions	June 19 <sup>th</sup> , 2015
Workshop decisions	July 15 <sup>th</sup> , 2015
Camera-ready submissions	July 29 <sup>th</sup> , 2015
Author registration	July 29 <sup>th</sup> , 2015

### SPONSORS



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## ***Workshop on Fiber-Wireless (FiWi) Access Networks***

The Workshop on Fiber-Wireless (FiWi) Access Networks will be held in conjunction with the 15<sup>th</sup> edition of the **IEEE** International Conference on Ubiquitous Wireless Broadband **ICUWB'2015** in Montreal, Canada, from October 4th to 7th, 2015.

Mobile network operators and service providers are faced with the prospect of mobile data delivery costs outweighing revenues. In their quest for a ubiquitous ultra-high bandwidth communication infrastructure towards 5G, the backhaul is becoming a major performance-limiting factor and thus a pressing concern in mobile networks. In the past, most 4G LTE network research has been focusing on the achievable performance gains in the wireless front-end only without looking into the details of backhaul implementations and possible backhaul bottlenecks. It is only recently that backhaul-aware 4G studies have begun to take capacity-limited backhaul links, as found in many of today's existing systems, into account and investigated the performance-limiting impact and details of different backhaul technologies.

To cope with the unprecedented growth of mobile data traffic driven by the popularity of smart phones and mobile-connected tablets running diverse data-centric applications, the removal of the traditional barriers between coverage-centric 4G mobile networks and capacity-centric fiber-wireless (FiWi) broadband access networks based on low-cost data-centric Ethernet technologies represents one of several promising approaches to benefit from fiber backhaul sharing and WiFi offloading capabilities in unified cellular and FiWi broadband access networks.

Topics of interest include but are not limited to the following:

- Backhaul awareness
- Cloud radio access network
- Computation offloading
- Decentralization
- Gigabit-class wireless front-end
- Heterogeneous networks
- Infrastructure sharing
- Integration of fiber optic and wireless sensors
- Low-latency networking techniques
- Mobile cloud computing
- Mobile data offloading
- Network architectures
- Network planning and reconfiguration
- Networked robotics
- New business models
- Next-generation optical access solutions
- Optical and wireless protection
- Optical-wireless integration
- Next-Generation PONs
- Radio-over-fiber networks
- Reliable network connectivity
- Routing and QoS continuity
- Smart grid/city applications
- Techno-economic analysis
- User equipment assisted mobility
- WiFi offloading
- Wireless backhaul