

September 2<sup>nd</sup> – 3<sup>rd</sup> 2019



## Call for Papers

for a special session during FOAN

## Integrated Microwave Photonics in Access Networks

<https://foan.info/micro-wave-photonics>

During the 8<sup>th</sup> International Workshop on Fiber Optics in Access Networks (FOAN) we are organizing a special session on **Integrated Microwave Photonics in Access Networks**. This event will take place in Sarajevo, Bosnia and Herzegovina, from 2–3 September 2019.

### Motivation:

The convergence of radio and optical access networks [1] in a physical layer is leading to a brand new technological field called microwave photonics (MWP). It will bring new functionalities to access networks that will enable higher bandwidths and lower latencies. Using integrated MWP in optically supported wireless networks can provide solutions that are especially suitable for a high-capacity radio system based on microwave and millimeter-wave frequency bands. Current MWP communication systems are based on optical fiber and discrete components, which limits the high-volume applications. Nowadays, the research challenge in optical access networks [2] is to incorporate these discrete sub-systems into photonic integrated circuits. The integrated MWP technology is offering cost and energy efficiency based on a decrease in size and complexity. Besides increasing the capacity, integrated MWP will enable the flexibility and scalability of 5G mobile and wireless communication networks as well as introducing low latency.

[1] B. Batagelj, et al., "Convergence of fixed and mobile networks by radio over fibre technology" Informacije MIDEM, Vol. 41, No. 2, 2011, pp. 144-149, [http://www.midem-drustvo.si/Journal%20papers/MIDEM\\_41\(2011\)2p144.pdf](http://www.midem-drustvo.si/Journal%20papers/MIDEM_41(2011)2p144.pdf)

[2] B. Batagelj, et al., "Research Challenges in Optical Communications Towards 2020 and Beyond" Informacije MIDEM, Vol. 44, No. 3, pp. 177-184, [http://www.midem-drustvo.si/Journal%20papers/MIDEM\\_44\(2014\)3p177.pdf](http://www.midem-drustvo.si/Journal%20papers/MIDEM_44(2014)3p177.pdf)

### Fields of interest:

- integrated microwave photonics
- microwave photonics sub-systems
- radio-over-fiber (RoF) systems and solutions
- microwave photonics for signal generation
- microwave photonics distribution systems
- processing of microwave signals by microwave photonics
- combined optical technology and microwave engineering
- microwave photonics for millimetre waves

### Important Dates

Paper submission: July 10

Notification of paper acceptance: July 15

Final Paper submission: July 22

Special session: September 2–3, 2019



**EUIMWP**  
European Network for High Performance  
Integrated Microwave Photonics

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### Special session chairs:

- Assoc. Prof. Eszter Udvarý Gerhátné, Budapest University of Technology and Economics ([udvary@hvt.bme.hu](mailto:udvary@hvt.bme.hu))
- Asst. Prof. Adriana Lipovac, University of Dubrovnik ([adriana.lipovac@unidu.hr](mailto:adriana.lipovac@unidu.hr))
- Asst. Prof. Boštjan Batagelj, University of Ljubljana ([bostjan.batagelj@fe.uni-lj.si](mailto:bostjan.batagelj@fe.uni-lj.si))

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