



# ***PAINLESS - TeamUp5G***

## ***WINTER SCHOOL***



*These projects have received funding from the European Union's Horizon 2020 research and innovation programme 2014-2018 under the Marie Skłodowska-Curie grant agreement No. 812991 (PAINLESS) and 813391 (TeamUp5G).*





## AGENDA

DAY 1 - Wednesday 01/Dec/2021

[Zoom Link](#)



\*\*\*Times shown below are based on UK Time\*\*\*

Time	Topic	Speaker / Host
<b>Wednesday 01 Dec 2021 - Technical lectures</b>		
09.00 - 09.15	Welcome and introduction to PAINLESS project	Christos Masouros (UCL)
09.15 - 09.30	Introduction to TeamUp5G project	Ana Garcia Armada (UC3M)
09.30 - 10.30	Keynote: Towards connecting the remaining 3+ billion Slim Alouini (KAUST, Saudi Arabia)	Christos
11:00 - 12.30	Lecture: Integrated Sensing and Communications Fan Liu (SUSTech, China)	Christos
13.30 - 15.00	Lecture: Fully Autonomous Drones: From the design board to the skies Dario Pedro (PDMFC Lisbon, Portugal)	Fernando
15.30 - 17.00	Panel discussion: "Spectrum management, regulation and standardization for Energy Efficient Future Networks" <ul style="list-style-type: none"><li>- Andrea Tonello (AAU), Smart energy grids and wireless networks</li><li>- Marja Matinmikko-Blue (Oulu), 6G and the UN Sustainable Development Goals (SDGs) - Where is the Connection?</li><li>- Peter Faris (ECO), The European regulatory context for spectrum management - implications for energy efficiency</li><li>- Pedro Sebastião (IT), Energy efficient UAV communications</li><li>- Jon Peha (CMU), Multi-network access in 5G</li></ul>	Organizers: Fernando J. Velez , M. Julia Fernandez-Getino Garcia





## AGENDA

DAY 2 - Thursday 02/Dec/2021

[Zoom Link](#)



**\*\*\*Times shown below are based on UK Time\*\*\***

<i>Time</i>	<i>Topic</i>	<i>Speaker</i>
<b>Thursday 02 Dec 2021 - Soft skills training</b>		
<b>09.00 - 12.30</b>	Marie Curie Fellowships and Research proposals Elena Gatti (UCL, UK) Fernando Velez (IT, Portugal) Fan Liu (SUSTech, China) Pete James (Lyra Electronics, UK)	Introducer: Constantinos
<b>13.30 - 17.00</b>	Exploitation, IPR and Entrepreneurship Adam Flizikowski (IS Wireless, Poland) Juan Manuel Vazquez , Oficina Española de Patentes y Marcas (OEPM, Spain) Virginia Trigo (ISCTE-IUL, Portugal)	Introducer: Fernando



# AGENDA

**DAY 3 - Friday 03/Dec/2021**

*Friday 03 Dec 2021 – ESR collaboration*

<b>09.00-10.30</b>	<p><b>PAINLESS</b> selected presentations (20 min each)</p> <ul style="list-style-type: none"> <li>• Marco, Nithin, Mahshid, Iman – Cost analysis of Energy neutral UAV network</li> <li>• Nithin, Aljarrah, Marco, Xiaoye – Trajectory optimization + IRS</li> <li>• Yuan – Stochastic geometry SWIPT</li> <li>• Igor: secondment – experimental analysis of drone mounted access point</li> </ul>	Chair: Jimmy
<b>11.00-12.30</b>	<p><b>TeamUp5G</b> selected presentations (20 min each)</p> <ul style="list-style-type: none"> <li>• Manuel – massive MIMO</li> <li>• David Alejandro – sensing and energy harvesting</li> <li>• Ayman – MAC sub-layer and sensing</li> <li>• Leonardo - MIMO Radar virtual array, integrated radar-comms</li> <li>• Bahram, Nidhi - carrier aggregation and functional splits for 5G second phase</li> </ul>	Chair: Periklis
<b>13.30 - 15.00</b>	<p>2 min pitches by each ESR</p> <p><b>Instructions:</b> 2 slides: short overview, objectives, highlights/results</p>	Chair: Constantinos <a href="#">All ESRs</a>
<b>15.15 - 16.15</b>	<p>Break out poster sessions</p> <p>5 min presentation + 5 min questions/feedback</p> <p>4 topic groups:</p> <ul style="list-style-type: none"> <li>- <i>UAV-based communications/spectrum (Chair: Pedro)</i> Xiaoye, Mohammed, Nithin   Joseanne, Diego, Pedro, Nidhi, Ahmed</li> <li>- <i>Energy-efficiency/modelling/harvesting + MAC sub-layer (Chair: Julia)</i> Iman, Yuan, Marco, Mahshid   Daniele, Ayman, David Alejandro, Farinaz</li> <li>- <i>ML for communications / security (Chair: Jimmy)</i> Igor, Eloise, Vinicius, Arzhang   Hamed, Bahram, Manuel</li> <li>- <i>Intelligent surfaces and mMIMO (Chair: Emad)</i> Mahmud (UMAN), Muhammad (ALBA), Abdelhamid, Andreas   Illias, Leonardo, Aboubacar</li> </ul>	<a href="#">All ESRs</a>
<b>16.15- 16:30</b>	Closing of winter school	

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