



European
Commission

Horizon 2020
European Union funding
for Research & Innovation

5GENESIS Newsletter

April – June 2021 - Issue 12

5GENESIS website: www.5genesis.eu/

INSIDE THIS ISSUE

1. 5GENESIS Overview
2. Dissemination and Communication Activities
3. 5G PPP Activities
4. Deliverables
5. General Assembly Meeting

5GENESIS Project Overview

The 12th issue of the 5GENESIS newsletter presents the project activities and achievements during the period April-June 2021. This issue focuses on the latest 5GENESIS dissemination and communication activities, the deliverables that are planned to be published, as well as the details of the 12th GA plenary meeting, which was hosted virtually, due to the coronavirus pandemic, on 19-20 May 2021.

5GENESIS activities in numbers for the April-June 2021 period:

- Two Special Issues - Call for Papers
- One Special Issue - Call for Demos
- Three Journal papers
- Two White Papers
- Two 5G-PPP publications
- One event participation as sponsor
- Three Presentations
- One Workshop Activity
- One trial
- Four 5G-PPP Activities
- Three Submitted Deliverables
- Seven Upcoming Deliverables
- One GA meeting



Communication Channels



<http://www.5genesis.eu>

info@5genesis.eu

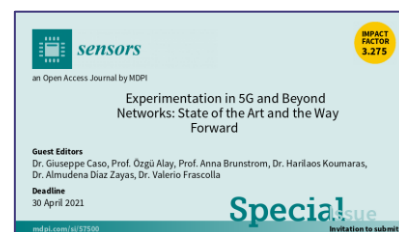


Dissemination and Communication Activities

Dissemination and Communication activities of 5GENESIS during April-June 2021, cover a great number of initiatives such as publications, articles, presentations, and trials.

Special Issues - CfP

5GENESIS team which is represented by SRL, KAU, NCSR, UMA and INTEL leads a special issue on the Sensors journal entitled: "Experimentation in 5G and Beyond Networks: State of the Art and the Way Forward". This Special Issue aims to collect original contributions on experimental aspects of 5G and beyond networks and systems. Manuscripts submission is now open! Start submitting your papers now! Deadline 30 October 2021. More information available here: https://www.mdpi.com/journal/sensors/special_issues/5G_beyond_networks



5GENESIS supports Special Session on "Securing Future Networks" in IEEE MeditCom 2021. 5GENESIS is among the projects co-organising the Special Session on "Securing Future Networks", in the frame of IEEE MeditCom 2021 (7-10 September 2021). More information available in the following link: <https://meditcom2021.ieee-meditcom.org/authors/call-for-special-sessions/>



Special Issue – Call For Demos

IEEE MeditCom 2021 Demo session co-chaired by Dr. Harilaos Koumaras (NCSR partner). Accepted and presented summaries will be submitted to IEEE Xplore®. You may find more information here: <https://meditcom2021.ieee-meditcom.org/authors/call-for-demos/>



Journal Papers

Michail-Alexandros Kourtis, Thanos Sarlas, Themis Anagnostopoulos, Sławomir Kukliński, Lechosław Tomaszewski, Michał Wierzbicki, Andreas Oikonomakis, George Xilouris, Ioannis P. Chochliouros, Na Yi, Alexandros Kostopoulos, Harilaos Koumaras, released a journal paper entitled: "Network Slicing for 5G Edge Services", Internet Technology Letters journal, 2021, DOI: <https://doi.org/10.1002/itl2.289>



G. Caso, O. Alay, G.C. Ferrante, L. De Nardis, M.-G. Di Benedetto, A. Brunstrom, released a journal paper entitled: "User-Centric Radio Access Technology Selection: A Survey of Game Theory Models and Multi-Agent Learning Algorithms", IEEE Access, early access, 2021. You may access the paper online here: <https://ieeexplore.ieee.org/document/9448025>



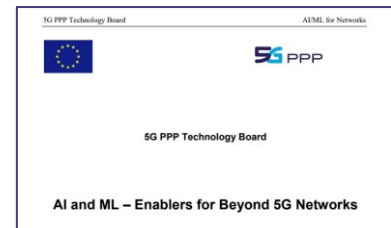
H. Wu, G. Caso, S. Ferlin, O. Alay, A. Brunstrom, released a journal paper entitled "Multipath Scheduling for 5G Networks: Evaluation and Outlook", IEEE Communications Magazine, vol. 59, no. 4, pp. 44-50, 2021. The paper is available here: <https://ieeexplore.ieee.org/document/9433513>



White Papers

The white paper on "AI and ML as enablers of beyond 5G (B5G) networks" is based on contributions from almost 20 5G PPP projects, including 5GENESIS, coordinated through the 5G PPP Technology Board, that research, implement and validate 5G and B5G network systems. The paper introduces the main relevant mechanisms in Artificial Intelligence (AI) and Machine Learning (ML), currently investigated and exploited for enhancing 5G and B5G networks. You may find and read the white paper here:

<https://5g-ppp.eu/wp-content/uploads/2021/05/AI-MLforNetworks-v1-0.pdf>



The 5G-PPP White paper entitled "European Vision for the 6G Network Ecosystem", was released in June 2021 showcases that 6G will be one of the basic foundations of human societies of the future. It also includes contributions by 5GENESIS. You may access and read the white paper here:

<https://5g-ppp.eu/wp-content/uploads/2021/06/WhitePaper-6G-Europe.pdf>



5GPPP Publications

5G-PPP 5G Annual Journal 2021

The sixth issue of the European 5G Annual Journal was released at the end of May 2021. In this issue you may find all related information about 5GENESIS project. You may access and read the 5G Annual Journal in the following link: <https://bscw.5g-ppp.eu/pub/bscw.cgi/d424095/5G%20European%20Annual%20Journal%202021.pdf>



European
CommissionHorizon 2020
European Union funding
for Research & Innovation

5G-PPP, Phase 3 Projects Brochure

5G-PPP, Phase 3 Projects Brochure was released in early June 2021. It gives an overview of all related 5GPPP projects. It also gives a brief but comprehensive description about 5GENESIS nature, objectives, and milestones. You may access it online here:

https://5g-ppp.eu/wp-content/uploads/2021/06/5GPPP_Phase3_Brochure_v7.2-web.pdf



Sponsorship

5GENESIS project was among the sponsors of 5G FORUM 2021 which took place virtually on 4-6 May 2021. The 5G Forum included several presentations, webinar, workshop, and poster sessions from interested stakeholders around Europe. Read more about the 5G-FORUM event here:

<https://www.5gforum.es/>



Presentations/ Webinars

Presentation at 5G Forum (Malaga Platform)

5GENESIS Malaga 5G experimental platform was presented by Prof. Pedro Merino Gomez, 5GENESIS Technical manager, at the 5G-FORUM. "Malaga already has a safe testing environment for 5G" was stated.



Q&A Session

Pedro Merino Gomez from University of Málaga (5GENESIS Technical manager) and David Artuñedo from Telefónica (5GENESIS key partner) participated at the LIVE session of answering questions from attendees of the 5GForum in <https://virtual.5gforum.es/inicio.aspx>



EuCNC 2021 & 6G Summit

Space Hellas presented at EuCNC 2021 "Metrics-based Outlier Detection for 5G Security" on Tuesday 8 June 2021, in the frame of the research performed in the 5GENESIS and PALANTIR H2020 Projects.

Workshop

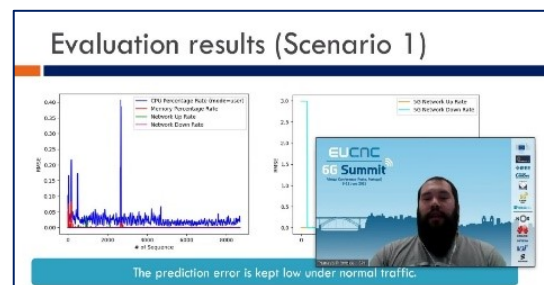
ACM SIGCOMM 2021

5GENESIS invites you to ACM SIGCOMM 2021 Workshop on 5G Measurements, Modeling, and Use Cases (5G-MeMU). There is also a Call for Papers with submission deadline on May 14, 2021 SIGCOMM is an online event this year, the workshop day is August 23 2021. You may learn more at the workshops' website:

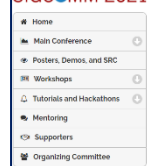
<https://conferences.sigcomm.org/sigcomm/2021/workshop-5g-memu.html>

Trials

First wave of field trials for the 5G smart farming scenario in the 5GENESIS Project Limassol platform in May 2021. The portable 5G testbed and the app developed by Universitat Politècnica de València UPV for drone-based plant identification using 5G edge computing were used.



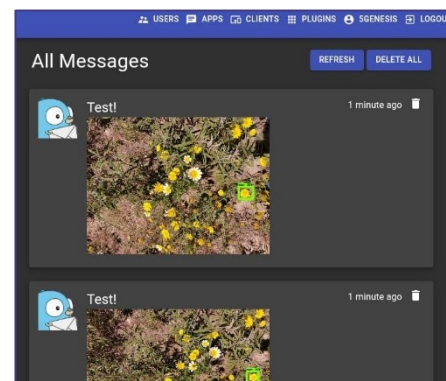
SIGCOMM 2021



ACM SIGCOMM 2021 Workshop on 5G Measurements, Modeling, and Use Cases (5G-MeMU)

Call for Papers

Commercial 5G networks are being quickly rolled out worldwide. In theory, millimeter wave (mmWave) 5G can support network throughput of up to 20 Gbps, much higher than today's 4G LTE. 5G enables us to develop revolutionized new services that require ultra-high bandwidth and/or low latency. Examples include edge-assisted machine learning, networked virtual reality and augmented reality, collaborative and autonomous vehicles, low-latency internet of things (IIoT) applications, and data-intensive sensing. To move a few Decades 5G network, the validation of 5G performance in operational systems and a complete understanding of the impact of 5G technologies on various critical use cases remains largely open. The research community also faces several major challenges to conducting research on 5G networks and on leveraging 5G networks to support the development and deployment of research prototypes.



5G-PPP Activities

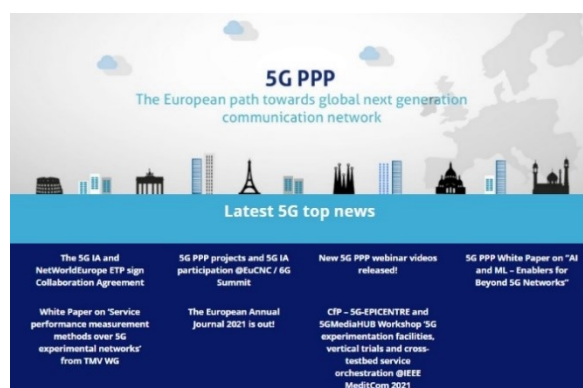
5G-PPP Newsletter Issue 24

The latest Newsletter issue (April 2021) of 5g-ppp is available online at the 5G-PPP website:
<https://5g-ppp.eu/newsletter-24-april-2021/>

5G-PPP Newsflash issues

The latest newsflash issues of the 5g-ppp are available here:

- Newsflash Issue 58 (March 2021):
<https://5g-ppp.eu/newsflash-march-2021/>
- Newsflash Issue 59 (April 2021):
<https://5g-ppp.eu/newsflash-april-2021/>
- Newsflash Issue 60 (May 2021):
<https://5g-ppp.eu/newsflash-may-2021/>



Deliverables

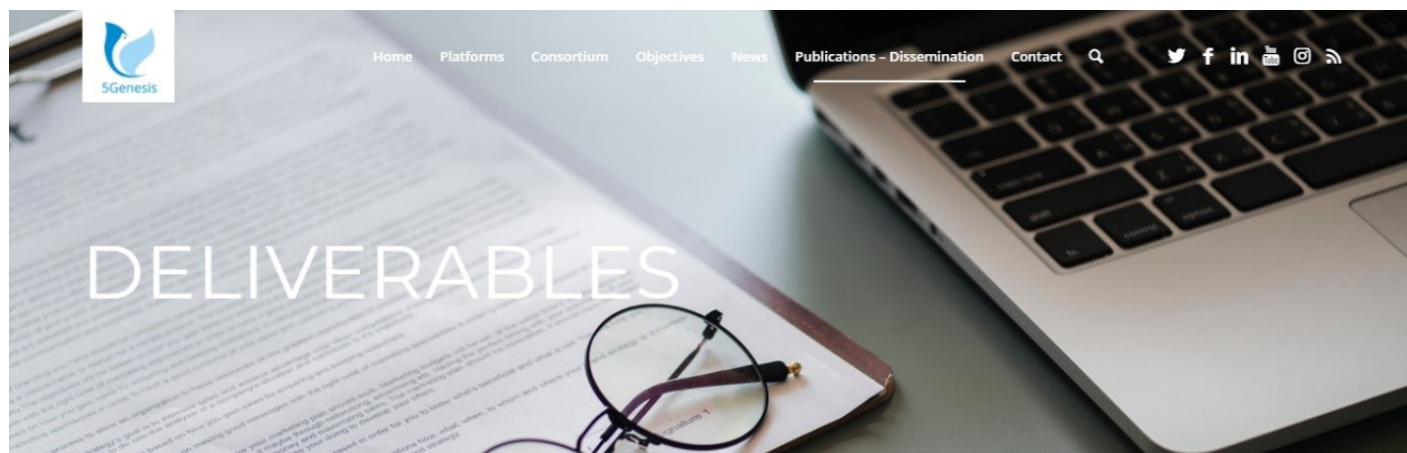
Submitted Deliverables - Period April-June 2021 (M34-M36)

D3.10 5G Core Network Release B (M36): Final report on 5G network functions developed to support the use cases of the project. The deliverable will also touch the integration progress with the other components of the network chain.

D3.12 Access Components and User Equipment (Release B) (M36): Final report on 5G access components and user equipment, emphasizing on the NR and the wireless access link of the facility. Includes also the MTC end devices, and the non-3GPP access technologies integrated in the 5GENESIS facility.

D5.2 System-level tests and verification (Release B) (M36): Final report with detailed documentation and analysis of the results from the system-level tests and the verification trials.

Please note that all submitted public deliverables are available online at the 5GENESIS website:
<https://5genesis.eu/deliverables/>



Deliverables

Upcoming Deliverables - Period July-September 2021 (M37-M39)

D4.3 The Athens Platform (Release C) (M37): Provides an updated summary of each of the components/sites that will form the Athens Platform. It will describe in detail the architecture, the functional components and the interfaces of the Athens Platform.

D4.6 The Malaga Platform (Release C) (M39): Provides an updated summary of each of the components/sites that will form the Malaga Platform. It will describe in detail the architecture, the functional components and the interfaces of the Malaga Platform.

D4.9 The Limassol Platform (Release C) (M37): Provides an updated summary of each of the components/sites that will form the Limassol Platform. It will describe in detail the architecture, the functional components and the interfaces of the Limassol Platform.

D4.12 The Surrey Platform (Release C) (M37): Provides an updated summary of each of the components/sites that will form the Surrey Platform. It will describe in detail the architecture, the functional components and the interfaces of the Surrey Platform.

D4.15 The Berlin Platform (Release C) (M39): Provides an updated summary of each of the components/sites that will form the Berlin Platform. It will describe in detail the architecture, the functional components and the interfaces of the Berlin Platform.

D4.18 Portable 5G Demonstrator (Release C) (M37): This deliverable provides an updated summary of each of the components/sites that will form the portable demonstrator of the 5GENESIS. It will describe in detail the architecture, the functional components and the interfaces of the portable demonstrator.

D5.4 Documentation and supporting material for 5G stakeholders (Release C) (M38): Final report on a complete guide for the provided facility in a multi-perspective approach including technical description and user's manual.



GA Meeting

5GENESIS 12th GA Meeting (virtual)

The 12th 5GENESIS GA plenary meeting was organised virtually! It ran for 2 days (19-20 May 2021). Approximately 50 partners' representatives participated in this online GA meeting. The discussion was focused on actions related to Open5GENESIS release B status, platforms trials and showcasing status as well as upcoming deliverables.



GA Meeting



European
Commission

Horizon 2020
European Union funding
for Research & Innovation

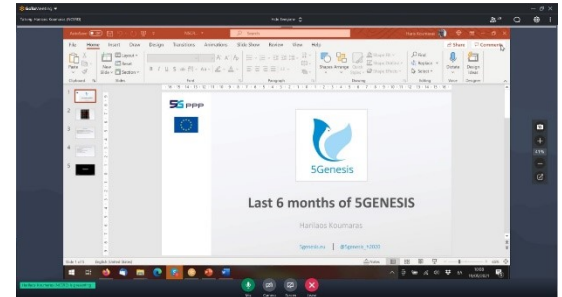


Communication Channels



<http://www.5genesis.eu>

info@5genesis.eu



Platforms Contact Information

5GENESIS Athens Platform: athens@5genesis.eu

5GENESIS Malaga Platform: malaga@5genesis.eu

5GENESIS Limassol Platform: limassol@5genesis.eu

5GENESIS Berlin Platform: berlin@5genesis.eu

5GENESIS Surrey Platform: surrey@5genesis.eu