



European  
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## 5GENESIS Newsletter

April - June 2020 - Issue 8

5GENESIS website: [www.5genesis.eu/](http://www.5genesis.eu/)

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### 5GENESIS Project Overview

The 8th issue of the 5GENESIS newsletter presents the project activities and achievements during the period April - June 2020. This issue focuses on the latest 5GENESIS dissemination and communication activities (presentations, publications, articles, trials and more), the deliverables that have been published as well as the details of the eighth GA meeting, which was hosted virtually, due to the coronavirus outbreak, in May 2020. This issue presents also the release A of the Open5GENESIS Suite for experimenters.

#### 5GENESIS activities in numbers for the April -June 2020 period:

- One Conference paper
- One Journal paper
- One Workshop paper
- One Booklet publication
- One white paper
- Two Poster sessions
- Three online articles
- One Video
- Three Presentations
- Two Panel Participations
- Deliverables
- One GA meeting

#### Communication Channels



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

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## Dissemination and Communication Activities

Dissemination and Communication activities of 5GENESIS during April - June 2020, cover a great number of initiatives such as publications, participation in conferences and workshops, presentations, demonstrations and panels.

### Conference Paper

#### IEEE ICC 2020 (7-11/06/20)

A 5GENESIS Paper entitled "A nature-inspired meta-heuristic approach for minimizing service creation time in slice-enabled networks" was published at the IEEE ICC 2020 (7-11/06/20). The paper is available here: [https://5genesis.eu/wp-content/uploads/2020/03/ComSoc-A-nature-inspired-meta-heuristic-approach-for-minimizing-service-creation-time-in-slice-enabled-networks\\_.pdf](https://5genesis.eu/wp-content/uploads/2020/03/ComSoc-A-nature-inspired-meta-heuristic-approach-for-minimizing-service-creation-time-in-slice-enabled-networks_.pdf)



### Workshop Paper

The 5GENESIS paper "Peekaboo: Learning-based Multipath Scheduling for Dynamic Heterogeneous Environments" was accepted in IEEE INFOCOM WISARN Workshop, 2020. Read the paper online at: <https://5genesis.eu/wp-content/uploads/2020/04/Peekaboo-Learning-based-Multipath-Scheduling-for-Dynamic-heterogeneous-environments.pdf>



### Journal Paper

The 5GENESIS paper "Resilient Hybrid SatCom and Terrestrial Networking for Unmanned Aerial Vehicles" was accepted in the IEEE JSAC Special Issue on Advances in Artificial Intelligence and Machine Learning for Networking, 2020. Read the paper at: <https://5genesis.eu/wp-content/uploads/2020/04/Resilient-Hybrid-SatCom-and-Terrestrial-Networking-for-Unmanned-Aerial-Vehicles.pdf>



Research Papers

### Booklet Publication

ATOS (5GENESIS Partner), published a booklet in their official website entitled "The third edition of the most important Spanish event of 5G technology will be virtual." The booklet is available to read online at: <http://booklet.atosresearch.eu/content/atos-participates-most-advanced-tests-5gforum>



## White Paper

### On Board Procedure to 5G-PPP Infrastructure Projects

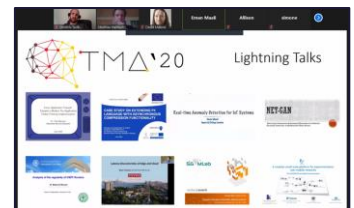
The 5G-PPP and the ICT-17 5GENESIS, 5G-EVE and 5G-VINNI projects released the white paper “On Board Procedure to 5G PPP Infrastructure Projects”. This white paper describes the basic procedures that must be followed when vertical sector oriented projects of the 5G PPP plan to use the 5G PPP infrastructure project services. For each of the infrastructure projects (5GENESIS, 5G-EVE, 5G-VINNI) this paper informs - among others - about how to interact with the infrastructure, what information is needed for running experiments, what output and how is provided, as well as what are the future plans of each infrastructure project for the longer term support of vertical applications. Read the white paper at this link: <https://5genesis.eu/wp-content/uploads/2020/04/On-Board-Procedure-to-5G-PPP-Infrastructure-Projects-1.pdf>



## Poster Sessions

### TMA 2020

5GENESIS Project partners participated at TMA2020 Conference with a poster session entitled “A modular small-scale platform for experimentation over mobile networks” referring to the 5GENESIS portable 5G demonstrator. You may access the abstract of the poster session at: [https://5genesis.eu/wp-content/uploads/2020/06/2.TMA2020-5GENESIS\\_portable-platform.pdf](https://5genesis.eu/wp-content/uploads/2020/06/2.TMA2020-5GENESIS_portable-platform.pdf)



### EUCNC 2020

Space Hellas, 5GENESIS Project partner participated in EuCNC2020 (virtual event) with a poster session entitled “Improving Apache Spot Using Autoencoders for Network Anomaly Detection” on Wednesday 17 June 2020. Additional information available at: [https://5genesis.eu/wp-content/uploads/2020/06/1.EuCNC-improving-apache-spot-using-autoencoders\\_poster.pdf](https://5genesis.eu/wp-content/uploads/2020/06/1.EuCNC-improving-apache-spot-using-autoencoders_poster.pdf)



## Articles

### ATOS OFFICIAL WEBSITE

ATOS (5GENESIS Partner), published an article regarding the 5G Forum event and the 5GENESIS participation on its official company website. The article is available at: <https://atos.net/es/events/5gforum>



## CTECH

- A CTECH article entitled “5G is driving the world crazy, but what is it really?” interviewed and featured RunEL, 5GENESIS project partner. It was published in CTECH website in June 2020. The interview-article is available at: <https://www.calcalistech.com/ctech/articles/0,7340,L-3833874,00.html>
- A CTECH article entitled “Israeli companies leading global 5G revolution” interviewed RunEL, 5GENESIS project partner. It was published in CTECH website in June 2020. The interview is available at: <https://www.calcalistech.com/ctech/articles/0,7340,L-3833773,00.html>



## New Video release

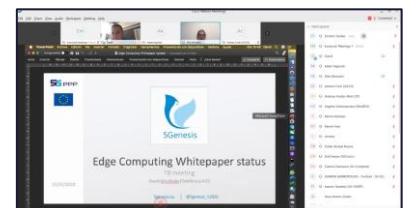
The 5GENESIS portable demonstrator “A modular small-scale platform for experimentation over mobile networks”, was presented at TMA 2020 conference (virtual), 10-11 June 2020. Watch the video of the showcasing at: <https://www.youtube.com/watch?v=hq4n6Zlx6G>



## Presentations

### 5G-PPP TB

- Bruno Garcia and Elisa Jimeno, UMA and ATOS 5GENESIS partners respectively, presented the 5GENESIS Experimentation process and open APIs in the e-workshop organized by 5G-PPP TB (26-27/5/2020).
- David Artunedo, Telefonica 5GENESIS partner, presented the current status of the TB white paper on edge computing, mentioning 5GENESIS as one of the core contributing projects, in the e-workshop organized by 5G-PPP TB (26-27/5/2020).





## Technical Steering Committee

ATOS, 5GENESIS partner, presented the OSM Repositories feature in the Technical Steering Committee meeting of OSM through which 5GENESIS is contributing to the project. ATOS has worked in the implementation of a VNF Repository that defines the structure with the set of VNF packages and metadata that will be exposed to OSM users, by HTTP(s) protocol. This new feature will be merge in the next OSM release 7.1, and will be used and tested during the 9th OSM Hackfest that will run remotely during the 1-4 of June 2020.

## Panel Participations

### 5G FORUM

Pedro Merino (UMA) and Oscar Fajardo (NEMERGENT) participated at the 5G FORUM (Virtual Event) with panel participation and presentations regarding 5GENESIS Project, the Malaga Platform and a demo video. The 5GForum event was also sponsored by 5GENESIS project.



### EuCNC 2020

Pedro Merino (UMA), 5GENESIS Project Technical Manager, participated in EuCNC2020 (virtual event), Panel 2 discussion entitled "OPENRAN, including Interoperability/Interworking with vendor solutions" on Tuesday 16 June 2020 and presented "SDR RAN Solutions from an experimental and innovation perspective".

Additional event info available at: <https://www.eucnc.eu/panel2/>

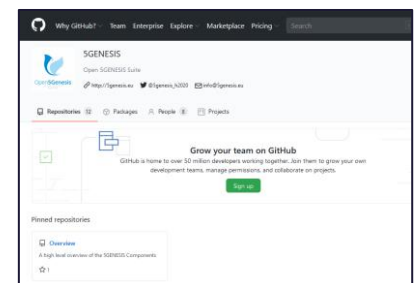


## Open5GENESIS Suite

5GENESIS announces the release of "Open 5GENESIS Suite" at GitHub (<https://github.com/5genesis>). The open source suite includes the Release A of the 5GENESIS experimentation tools and components that can be integrated on top of any 5G Platform in order to support 5G trials, following the 5GENESIS experimentation methodology. More information on the main features of Release A at <https://github.com/5genesis/Overview>



Open5Genesis  
SUITE



### A high level overview of the 5GENESIS Components

- Release A**
- Portal
  - ELCM
  - TAP Plugin
  - Slice Manager
  - Analytics
    - Statistical Analysis
    - Machine Learning Analysis
  - Probes
    - Monroo VN and Agent
    - Monroo Experiments/probes
    - Remote Ping agent
    - Remote Trif agent
    - Adb TAP plugin
    - Android agents TAP plugin

## Deliverables

The following deliverables were published by 5GENESIS during April-June 2020:

**D5.3 Documentation and supporting material for 5G stakeholders:** Midterm report on a complete guide for the provided facility in a multi-perspective approach including technical description and user's manual.

**D6.2 Trials and experimentation (cycle 2):** This deliverable will include the trials and experimentation results on the 5GENESIS platform that has resulted from the second integration cycle, emphasizing on the 5G KPI validation through the described use cases.

**D7.3 Dissemination, communication and ecosystem engagement activities:** This deliverable is based on dissemination, communication and ecosystem engagement activities, including 5G PPP contributions and synergies with other research projects.

**D7.6 Standardisation and regulation:** This deliverable will elaborate on the achieved results w.r.t standards and regulatory bodies engagements, and it will be released in an annual basis.

If you wish to learn more about 5GENESIS deliverables you may visit 5GENESIS website on the corresponding Deliverables page <http://www.5genesis.eu/deliverables/>



Deliverables



## Meetings

### 5GENESIS 7th GA Meeting

5GENESIS 8th GA Meeting took part virtually due to the coronavirus outbreak. All partners participated remotely and It ran for 3 days (5-7 May 2020). Partners discussed in detail and in parallel platform sessions the project's progress, trial activities, upcoming deliverables, demos and goals to be met by the end of year two of the project.



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#### Communication Channels



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