



5GENESIS Newsletter April-June 2019 Issue 4

5GENESIS website: www.5genesis.eu/

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Issue Highlights

The fourth issue of the 5GENESIS newsletter presents the project activities and achievements during the period April - June 2019. This issue focuses on the latest 5GENESIS dissemination and communication activities, the deliverables that have been published as well as the fifth general assembly meeting's details which took place in the University of Valencia, in Valencia, in June 2019.

5GENESIS activities in numbers:

- Eight Workshop/Conference/Journal Papers
- Eleven Presentations, Conferences, Panels and Other Dissemination Events
- Eight Workshops
- Three Articles in Newspapers and Online Sources
- Three Deliverables
- Four Demo events and a video



Communication Channels



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Dissemination and Communication Activities

Dissemination and Communication Activities of 5GENESIS during April - June 2019, cover a great number of initiatives such as publications, participation in conferences and workshops, presentations, demonstrations, additional dissemination events and preparation/planning of upcoming events.

Papers in Workshops – Conferences – Journals

IEEE WoWMoM (9-12/06/2019, Washington DC.)

A 5GENESIS conference paper entitled “Estimating Downlink Throughput from End-User Measurements in Mobile Broadband Networks” was presented in the IEEE WoWMoM conference which took place in 9-12/06/2019 in Washington DC.

EuCNC 2019 (17-21/06/2019, Valencia, Spain)

Dr. Harilaos Koumaras (NCSR Demokritos) et al. contributed the 5GENESIS paper entitled “5G Experimentation Facility Supporting Satellite-Terrestrial Integration: The 5GENESIS approach” at the EuCNC 2019 Special Session “Validating and Demonstrating the Satellite Integration into 5G” in 19/06/2019 in Valencia.

JCSD 2019 (XXVI Conference on Concurrency and Distributed Systems) (19-21/6/2019, Zaragoza, Spain)

- A 5GENESIS paper entitled “Ultra Reliable Low Latency Communications: A state of the art review” was presented at the JCSD 2019 conference on Concurrency and Distributed Systems in 19-21/6/2019, Zaragoza, Spain. Click [here](#) to download the paper.
- A 5GENESIS paper entitled “Optimizing the deployment of Virtual Network Functions in 5G networks with Model Based Testing” was presented at the JCSD 2019 conference on Concurrency and Distributed Systems in 19-21/6/2019, Zaragoza, Spain. Click [here](#) to download the paper.
- A 5GENESIS paper entitled “Modelling Software-Defined Networks with Alloy” was presented at the JCSD 2019 conference on Concurrency and Distributed Systems in 19-21/6/2019, Zaragoza, Spain. Click [here](#) to download the paper.

IEEE (April, 2019)

A 5GENESIS journal paper from Zhou et al. entitled “Computation Resource Allocation and Task Assignment Optimization in Vehicular Fog Computing: A Contract-Matching Approach” published in IEEE Transactions on Vehicular Technology (vol. 68, no. 4, pp. 3113-3125) in April 2019. Read more about this [paper](#).

European 5G Annual Journal (4th issue)

5GENESIS Project contributed to the European 5G Annual Journal (issue 4) with an article entitled “5th Generation End-to-end Network, Experimentation, System Integration, and Showcasing.” Read more about this annual [journal](#).



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Conferences – Presentations – Other Events

Spanish 5G Observatory (23/04/2019, Malaga, Spain)

Professor Pedro Merino (UMA) and Ricardo Fernandez (MoM) participated in the Spanish 5G Observatory meeting and presented the 5GENESIS Malaga platform and use cases.



5GENESIS at the 5G Observatory

5G FORUM (24-25/04/2019, Malaga, Spain)

- Professor Pedro Merino (University of Malaga) explains 5GENESIS project objectives, use-cases and achievements with a focus on the Malaga 5G experimental platform while stating: “We want to make a full 5G deployment in the city of Malaga”.
- 5GENESIS Spanish partners participated as sponsors and through the Malaga partners booth promoted the 5GENESIS project and the 5GENESIS Malaga platform. In addition, Prof. Pedro Merino (UMA) presented and demonstrated the 5GENESIS Malaga platform.



Professor Pedro Merino at 5G Forum

EMPOWER/PAWR (29/04/2019, Paris, France)

5GENESIS was represented by Airbus (ADS) at the EMPOWER/PAWR workshop, organized in parallel to the IEEE Infocom 2019 conference, on the 29th April 2019. A presentation of the 5GENESIS project was made by ADS.



Infocom 2019 (30/04/2019, Paris, France)

Anna Brunström (KAU) participated in the Infocom 2019 Panel A: Smart Networks: What is Next? which was held the 30th of April 2019 in Paris.



BITE AWARDS 2019 (28/05/2019, Athens, Greece)

5GENESIS received the Silver Bite Award 2019 for 5G Innovation at the Bite Awards ceremony in Athens, 28 May 2019. (video available at 5GENESIS YouTube channel https://www.youtube.com/watch?v=SgXc_3g0bwo)



5GENESIS at BITE AWARDS
2019, Athens, Greece

EuCNC 2019 (18/06/2019, Valencia, Spain)

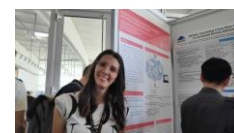
- Dr. Harilaos Koumaras (NCSR Demokritos), project coordinator of 5GENESIS, presented the "5GENESIS Experimentation Framework" at the session "5G KPIs measurement" of the 5G Global event, in Valencia on 18th of June.
- Dr. Harilaos Koumaras (NCSR Demokritos), project coordinator of 5GENESIS, presented the "5GENESIS: An Open 5G Experimental Facility for Testing, KPI Validation and Showcasing" in the workshop entitled Empowering Transatlantic Platforms for Advance Wireless Research.
- Dr. Valerio Frascolla presented "Merging MEC and mmWave in 5G & beyond use cases" at EuCNC 2019 workshop "Business models and techno-economic analysis."
- 5GENESIS participated with a shared booth with the EU-WIRELESS project in EuCNC 2019.
- A poster session focusing on Architecture Proposal for SD-IoT Deployments with a Decoupling of Gateway Functionalities was presented by Jara Suárez de Puga García (UPV).



Dr. Harilaos Koumaras at
EuCNC 2019, Valencia



Dr. Harilaos Koumaras at
EuCNC 2019, Valencia



Jara Suárez de Puga García
(UPV) at EuCNC 2019,
Valencia

Workshops and Special Sessions

IEEE WCNC 2019 (15-18/04/2019, Marrakech, Morocco)

- 5GENESIS co-organized with Sat5G and 5GALLSTAR projects, the 'Satellite-terrestrial interworking: a pillar of forthcoming 5G systems' workshop in IEEE WCNC. Find more [info](#).
- 5GENESIS co-organized with ULTRAWAVE and 5G-MiEdge projects, the "2nd Workshop on Economics and Adoption of Millimeter Wave Technology in Future Networks" in IEEE WCNC. Find more [info](#).



5GENESIS WCNC 2019,
Marrakech, Morocco

Technical Workshop for the Phase 1 Limassol Platform Release (06/06/2019 Limassol, Cyprus)

The 5GENESIS Limassol Platform technical workshop took place in Limassol, Cyprus on the 6th of June 2019 with theme the Integration and testing of the Phase 1 release of the 5GENESIS Limassol platform.



5GENESIS at Limassol, Cyprus

3rd Workshop on Mobile Network Measurement – TMA 2019 (17/06/2019, Paris, France)

Karlstad University organized the 3rd Workshop on Mobile Network Measurement (MNM'19) at TMA Conference 2019 in June 17, 2019.



Karlstad University at TMA, Paris, France

EuCNC 2019 (17-21/06/2019, Valencia, Spain)

- 5GENESIS Workshop “3th Workshop on business models and techno-economic analysis for 5G networks” co-organized with the projects 5GCity, 5G-MiEdge, 5G-VINNI, 5G-AuRA, BlueSPACE and 5G-MoNArch.
- 5GENESIS Special Session “Validating and Demonstrating the Satellite Integration into 5G” co-organized with SaT5G, 5G-VINNI, SATis5, S45G - Satellite for 5G, SHINE and VIBES projects.
- 5GENESIS Project co-organized a workshop entitled “Empowering Transatlantic Platforms for Advance Wireless Research” in EuCNC 2019, in 18/06/2019 in Valencia. Also, 5GENESIS presentation “5GENESIS Experimentation Framework” took place.



Dr. Harilaos Koumaras at EuCNC 2019, Valencia

IEEE NetSoft 2019 (24-28/06/2019, Paris, France)

5GENESIS co-organised with ASTRID, SPEAR, CYBER-TRUST, REAC and SHIELD Projects the “1st International Workshop on Cyber-Security Threats, Trust and Privacy Management in Software-defined and Virtualized Infrastructures (SecSoft)” at 5th IEEE International Conference on Network Softwarization.



5GENESIS at Satellite into 5G EuCNC Workshop



Magazines/Newspapers

La Opinion de Malaga

An article on the Malaga city is available in the online source “La opinion de Malaga” referring to 5GENESIS project. In this article is mentioned that Malaga has been chosen by the EU to be one of the five cities where the 5G's capabilities will be tested in real situations before approving its implementation. Read more about this [article](#) (in Spanish).



La Opinion de Malaga

An article on the 5GENESIS Malaga Platform demonstration that took place in the 5G Forum can be found in the La opinion de Malaga online news source. Read more about this [article](#) (in Spanish).

5G FORUM (24/04/2019, Malaga, Spain)

The second edition of the 5G Forum presented the new mobile technologies in Spain and in that meeting, partners from several European Projects including 5GENESIS participated. In this meeting, speakers from various countries, including 5GENESIS Spanish partners, presented the advantages of 5G in areas such as tourism, robotization, virtual classrooms and so on. Read more [here](#).

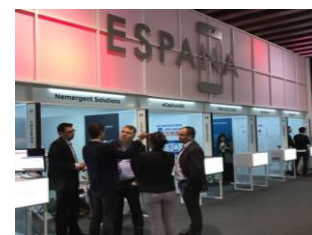
Demonstrations

During the first year of the 5GENESIS Project demonstrations at various events have taken place.

Mobile World Congress 2019 (25-28/02/2019, Barcelona, Spain)

The Global System for Mobile Communications Association (GSMA) Mobile World Congress (MWC) is the world's largest exhibition for the mobile industry and took place in Barcelona (Spain) on 25-28 February 2019. 5GENESIS partners (Nemergent Solutions, Athonet and RunEL) participated at MWC 2019 and together with their solutions they exposed and demonstrated parts of the under development 5GENESIS facility.

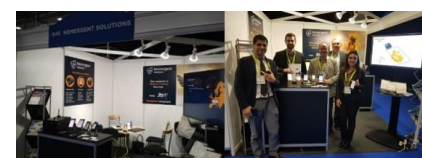
La **Opinión** DE MÁLAGA



5GENESIS partners at MWC 2019

BAPCO-CCE 2019 (12-13/3/2019, Coventry, UK)

The BAPCO show is the annual event for professionals working to utilise, advance and improve Public Safety Technology. The CCE 2019 event took place in conjunction with the BAPCO Annual Conference & Exhibition, at the Ricoh Arena, Coventry, UK, on the 12th-13th March 2019. 5GENESIS partner, Nemergent Solutions, presented their 5GENESIS components as part of the 5GENESIS facility.



Nemergent Solutions at BAPCO-CCE 2019

5G Forum (24-25/4/2019, Malaga, Spain)

5GENESIS has presented the demo “Advanced communications services for Police” at the 5G Forum: Advanced communications services for Police Emergency networks are currently undergoing a major transformation process. The 5G Forum was held in Malaga, Spain, on the 24th to 25th April 2019.



5GENESIS partners at 5G Forum 2019

5GENESIS Global 5G Event & EuCNC 2019 Demo (17-21/6/2019, Valencia, Spain)

5GENESIS attended the Global 5G Event and EuCNC 2019, the European Conference on Networks and Communications, from June 17th to 21st, with a shared booth where a demo with the last developments in the project's platforms was shown. The demo prepared for the event demonstrated the different functions available through the 5GENESIS web experimental portal, including the creation and execution of experiments, the debugging of the experiment run thanks to logs from the different components participating in the experiment, automation and execution, and finally the results exhibition using a dashboard where the user could see different measurements and statistics.

5GENESIS Portal Release A

A video on the 5GENESIS Portal Release A is available on the project's YouTube channel. In order to view the video use the following link:

https://www.youtube.com/watch?v=_juix8coh28



5GENESIS booth and portal demo at EuCNC 2019.



5GENESIS partners at Global 5G Event and EuCNC 2019

Deliverables

Three deliverables have been published in the period April - June 2019 referring to the trials and experimentation, dissemination and communication activities as well as standardisation and regulation of the 5GENESIS project.

Deliverables (Public)

D6.1 Trials and experimentation (cycle 1): This deliverable will include the trials and experimentation results on the 5GENESIS platform that has resulted from the first integration cycle, emphasizing on the 5G KPI validation through the described use cases.

D7.2 Dissemination, communication and ecosystem engagement activities: This deliverable focuses on dissemination, communication and ecosystem engagement activities, including 5G PPP contributions and synergies with other research projects during the first year of the 5GENESIS project.

The table below is part of the D7.2 and summarizes the activities that have been performed during the first year of the project's run.

Summary of 5GENESIS Year 1 activities

Activity	Y1 Achievements
Publications (in Conferences / Journals)	11
Publications (in Workshops)	3
General Publications in Magazines, Books, Websites, Newspapers	11
Workshops (organized by 5GENESIS, co-organized with other projects, participation)	9
Presentations (in Conferences, Workshops, InfoDays, Events)	27
Participation in Conference Panels and Invited Talks	3
Others (Exhibitions, Business Days, Booths in Conferences, Poster Sessions, Awards)	13
Year 1 Total number of activities	77

D7.5 Standardisation and regulation: This report elaborates on the achieved results concerning standards and regulatory bodies engagements for 5G and 5GENESIS achievements.

Upcoming 5GENESIS deliverables (July - September 2019)

- **D3.1** Management and orchestration
- **D3.3** Slice management
- **D3.5** Monitoring and analytics
- **D3.7** Open API, service-level functions and interfaces for verticals
- **D3.9** Core Network Functions
- **D3.11** Access Components and User Equipment
- **D3.13** Security Framework

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

General Assembly Meetings

Fifth Plenary Meeting

The 5th plenary meeting of 5GENESIS took place at the premises of the Universitat Politècnica de València (UPV), Spain from the 24th to 26th June 2019. The partners met in order to evaluate the project's year 1 progress, trials results and achievements, as well as, to plan the next steps.



Communication Channels



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