5G-DIVE presents its technology cooperation project at National Chiao Tung University

The Kick-off Meeting of the project in which 5TONIC participates was held recently in Hsinchu (Taiwan)

5G-DIVE kick off meeting took place last 31th of October in Hsinchu, Taiwan. This project is funded by the European Commission and the Ministry of Economic Affairs of Taiwan. 5G-DIVE is a H2020 5G-PPP project composed of partners from industrial and academic field of both regions, Europe and Taiwan. The consortium comprises 12 partners: European organizations are, UC3M University as Project Coordinator, ADLINK Technology, Ericsson, Interdigital Germany, Telefónica, Telcaria Ideas and Rise. From the Taiwanese side the companies are, Industrial Technology Research Institute, as Taiwanese project coordinator, NCTU, Askey and Institute for Information Industry.

5G-DIVE aims at using the 5TONIC platform to perform the initial tests of the platform, before deploying it in Taiwan. Founded by experts from Telefónica R&D labs and IMDEA Networks, 5TONIC is Spain’s first laboratory of excellence in research and innovation on 5G technologies.

The aim of the project is to provide the technical merits and business value proposition of 5G technologies in two vertical pilots, (i) Industry 4.0 and (ii) Autonomous Drone Scout. These trials will put in action a bespoke end-to-end 5G design tailored to the requirements of the applications targeted in each vertical pilot, such as digital twinning and drone fleet navigation applications. 5G-DIVE’s bespoke design is built around two main pillars, namely (1) end-to-end 5G connectivity including 5G New Radio, Crosshaul transport and 5G Core, and (2) distributed edge and fog computing integrating intelligence located closely to the user.

The latter pillar extends significantly beyond the EUTW-Phase-I 5G-CORAL solution framework by adding support for automation based on artificial intelligence and distributed ledger technologies. The targeted intelligent tailored design is envisioned to achieve optimized performance and thus boost significantly the business value proposition of 5G in each targeted vertical application. 5G-DIVE trials target pilots running for several weeks on the premises of the vertical applications in real-life testbeds in Europe and Taiwan, leveraging noticeably the European 5G end-to-end facilities from ICT-17 call and Taiwan’s testbed facilities.

5G-DIVE is presented as a continuation of two previous projects, 5G-Crosshaul and 5G-CORAL. The main challenge of this current project is to approach the previous research carried out in 5G-CORAL and 5G-TRANSFORMER to improve the integration of 5G NR, Crosshaul and Core with the intelligent edge and fog platform developed by 5G-CORAL, its customization to each vertical application, and its enhancement with automation and intelligence tools to maximize the value proposition of 5G for each vertical.

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Traducción al español:
About Us

IMDEA Networks Institute is a research organization on computer and communication networks whose multinational team is engaged in cutting-edge fundamental science and technology. As a growing, English-speaking institute located in Madrid, Spain, IMDEA Networks offers a unique opportunity for pioneering scientists to develop their ideas. IMDEA Networks has established itself internationally at the forefront in the development of future network principles and technologies. Our team of highly-reputed researchers is designing and creating today the networks of tomorrow.

Some keywords that define us: 5G, Big Data, blockchains and distributed ledgers, cloud computing, content-delivery networks, data analytics, energy-efficient networks, fog and edge computing, indoor positioning, Internet of Things (IoT), machine learning, millimeter-wave communication, mobile computing, network economics, network measurements, network security, networked systems, network protocols and algorithms, network virtualization (software defined networks – SDN and network function virtualization – NFV), privacy, social networks, underwater networks, vehicular networks, wireless networks and more...

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