FBK CREATE-NET awarded at INFOCOM 2019

June 6, 2019

The work on connected vehicles of the FBK CREATE-NET WiN Unit wins the Best Demo Award at the International Conference on Computer Communication

Addressing Bitrate and Latency Requirements for Connected and Autonomous Vehicles was awarded the Best Demo Award at INFOCOM 2019, the main conference in the networking domain.

The work conducted by **FBK-CREATE-NET** researchers **Estefania Coronado Calero** and **Roberto Riggio** and by the technologist **Giovanni Baggio**, together with Gabriel Cebrián Márquez of the University of Oviedo, is the result of important research work on 5G for connected and autonomous vehicles.

The award-winning demo proposes a **new 5G network model for connected autonomous vehicles that combines Multi-access Edge Computing (MEC) and network slicing** (dynamically created network "slices" aimed at optimizing resources and better respond to different applications), demonstrating how this combination of technologies is an excellent solution for connected and autonomous vehicles.

"Autonomous and connected vehicles are the next challenge in the complex world of 5G connectivity – **Estefania Coronado Calero** said -. To deal with a vast set of use cases, ranging from manoeuvre management to infotainment, autonomous and connected vehicles require a radically new approach to using the mobile network. MEC and network slicing are two of the technologies that can play an important role in this game and we have worked on a 5G network design that combines them, taking advantage of the features and potential of each of them. On the one hand, MEC makes it possible for the computationally very intensive tasks of assisted driving to be offloaded towards nodes very close to the vehicles; on the other, segmentation allows the creation of multiple virtual networks, each adapted to meet the requirements of a specific type of service. We have shown how the proposed model allows to safely offload functionalities such as lane tracking and object detection as well as emergency braking to the 5G network without impairing their effectiveness ".

PERMALINK

https://magazine.fbk.eu/en/news/fbk-create-net-awarded-at-infocom-2019/

TAGS

- #5G
- #5G-Carmen
- #5GPPP
- #Autonomous Driving
- #connected cars
- #digitalsociety
- #H2020

RELATED VIDEOS

- https://www.youtube.com/watch?v=ZK08eYVMRzg

RELATED MEDIA

- Best Demo Award: https://magazine.fbk.eu/wp-content/uploads/2019/06/best-demo-award-IEEE.jpg
- INFOCOM 2019 | PAPER: https://magazine.fbk.eu/wp-content/uploads/2019/06/PID5813395.pdf
- INFOCOM 2019 | Poster : https://magazine.fbk.eu/wp-content/uploads/2019/06/Infocom2019_poster.pdf

AUTHORS

- Salvatore Romano