**Questions and answers about Chapter 6**

Topics: **KDN, GNN and Nanonetwork Communications**

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**Question 1:**

Give a brief summary of what RouteNet is and how it works.

**Answer to question 1:**

RouteNet is the first Graph Neural Network for Computers Networks and basically it learns the relationship between topology, traffic, routing and the resultant performance of the network. Also it is generalize for previously non-seen of any of those parameters.

Basically it is a multilayer recurrent neural network which in the first layer maps the Traffic and in the second the path of the resulting traffic output, obtaining at the end a resulting performance traffic.

Since it is a recurrent neural network that last output is re injected as an input for retrofitting the model.

**Question 2:**

What is the concept of Wireless Network-on-Chip?

**Answer to question 2:**

In a microchip different components needs to communicate each other, specially cores. In the current design of microchips this communication take place through physical communication channels which occupies space and can lead to a congestion if the number of modules increases inside the chip.

The idea of Wireless Network-on-Chip is to overcome this limitation putting Graphene antennas which allow to have several of them and increase the amount of module, having at the same time more space for designing the chip, taking into consideration the fact that Nanoantennas, specially with Graphene can be reduced much more than silicon.