**PhD / MSc / BSc scholarships @ Iasi 5G Open Lab offered through**

**Orange Educational Program**

**Description**

The scholar will handle 5G communications (including vehicular C-V2X) activities such as modeling and simulation of communication protocols, simulation of wireless communications applications, understanding specific equipment and its operation, design and running experiments to assess applications for interconnected traffic participants and infrastructure, as well as for other 5G specific use cases.

The scholar will also participate in academic activities, research, and innovation in the 5G communications field and related domains such as 6G, IoT, Smart Cities, Connected Autonomous Vehicles, Multi-access Edge Computing, Artificial Intelligence in Wireless Communications, and their applications, etc.

The scholarship is granted for a period of at least 6 months, amounts to minimum **700 Euro** net per month for **PhD student**, minimum **400 Euro** net per month for **MSc student** and minimum **200 Euro** per month for **Bachelor student**. The scholar cannot combine the scholarship to another working contract with a different company. However, the scholarship can be combined with other contractual forms with the university such as scholarships or research contracts.

Applicants shall send a **CV** containing relevant information and motivation by email to [**5G-Lab@etti.tuiasi.ro**](mailto:5G-Lab@etti.tuiasi.ro) by **2023, June 11th**. Scholars shall be selected after interview evaluations of the applicants.

**Role Details**

The role is based in Iasi, in the ***Orange 5G Lab*** located within the Faculty of Electronics, Telecommunications and Information Technology (ETTI). The applicant shall be a student of ETTI or of the Faculty of Automatic Control and Computer Engineering (AC) from The Gheorghe Asachi Technical University of Iasi (TUIASI). The scholar will be open to support the project ***Trials supported by Smart Networks beyond 5G – TRIALSNET***. The scholar will co-work with other colleagues in the Iasi Orange 5G Lab on assigned tasks and will report to the lab coordinator from TUIASI side. Access to the 5G Lab equipment and facility will be granted, under the conditions of internal order regulations. This scholarship experience is expected to open the pathway towards a possible research or academic career for PhD students or towards a PhD/ MSc program in the case of MSc/ BSc students.

**Tasks**

* Research and prototype components for future communication networks (beyond 5G/ 6G)
* Perform experimental tests regarding the rate, throughput, and latency of 5G transmissions
* On documenting on technology and use cases, as well as specific equipment operationalization, such as those involved in the TrialsNet project
* On demonstration of technology and use cases to thirds
* On training and experience transfer to other colleagues
* Test the information exchange between communications modules (e.g., 5G SIMCOM SIM8200EA-M2 or others) themselves and between the modules and other devices (e.g., cell phones, 5G HUBs)
* On the development of radio localization algorithms and their experimentation/ testing/ documentation
* On the evaluation of communications protocols for vehicular communications with a focus on C-V2X and 5G
* On modeling, simulation, and performance evaluation of mobile communications, regarding the communication networks, radio channels, and communication traffic
* Use simulation tools related to communication networks and road traffic, such as OMNeT++, Veins, SUMO
* Prepare scientific reports and contribute to scientific papers.

**Additional requirements**

* PhD, MSc or last year BSc student in ETTI or AC
* Strong analytical and research skills
* Strong academic record highly preferred
* The ability to work in an innovative, dynamic, and research-oriented work environment
* Dedicated, results-oriented professional
* The candidate should take challenges in a fast-paced and high-pressure environment
* High degree of independence and autonomy
* Structured and team-oriented approach
* Strong written and verbal communication skills, including strong presentation skills
* English Language proficiency
* No additional work contracts are accepted on top of the scholarship, except with TUIASI
* A minimum of 20 hours allocated weekly for the aforementioned tasks within the Iasi Orange 5G Lab

**Related details**

* On the Iasi Orange 5G Lab: <https://5glab.orange.ro/despre/orange-5g-lab-iasi/>
* On the TRIALSNET project: <https://trialsnet.eu/>
* About Orange Educational Program: <https://education.orange.ro/>

A room with a table and chairs

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