

Nokia Bell Labs in Belgium is inviting Master or PhD students for full-time (6-12 months) industrial internship in the area of future indoor networking. This position is part of future indoor network project with internal collaborations across Nokia Bell Labs in different locations. The key challenge of this internship is to develop autonomous and smart indoor access nodes based on advanced concepts of artificial intelligence. We strive to develop autonomous nodes by exploring sensing and learning mechanisms. The work is closely aligned with laboratory efforts in advanced prototyping, with a view to provide major refinements in the understanding of autonomous indoor networks, and the design tools for engineering applications. The work requires excellent analytical and experimental skills.

Duties & Responsibilities are:

- 1) Develop prototyping platform for smart indoor networks and implement novel planning and optimization algorithms.
- 2) Perform experimental and simulation proof of concepts to transfer concepts of artificial intelligence (AI) into future indoor networks.
- 3) Contribute to integrated 5G system design, controlling and architecture.
- 4) Participate in technical documentation, journal/conference publications and patenting.



Qualifications and Skills - must have:

- Master degree with distinctions or currently enrolled in PhD program.
- Knowledge of Wi-Fi networks: architecture, protocol design, system modeling, optimization and analysis.
- Good publication record: top-tier journals/conferences.
- Good communication skills and teamwork spirit.
- Fluent in English (oral and written).

Profiles of interest are:

Profile 1:

- Excellent knowledge of artificial intelligence, intelligent agents and optimization and machine learning.

Profile 2:

- Excellent knowledge of advanced signal processing and optimization.

Profile 3:

- Excellent and extensive (embedded hardware) laboratory experience with prototyping/testbeds: LEDE/OpenWRT, emulation with ns-3 and MATLAB, R, C/C++ and Python).

CHECK-LIST FOR THE APPLICANTS (information to accompany your CV)

√ I fulfill the legal work permit criteria for students in Belgium - I am below 30 years old.

√ Please provide academic transcripts.

How to apply?

Please send, in a single document, your CV alongside the additional documents requested above in the checklist to Haris Gacanin haris.gacanin@nokia-bell-labs with Cc. to: ramy.atawia@nokia.com.