IDLab

INTERNET & DATA LAB

Job description

The research for this PhD position will be conducted in the research team on Intelligent Wireless Networking and in collaboration with the team on Audio and Signal Processing, Interpretation and Enhancement.

Wireless audio streaming is omnipresent in many application domains: from listening podcasts on headphones and providing an assistive listening experience via hearing aids, to achieving audio distribution in venues. You will be performing research in the domain of wireless audio streaming, striving to deliver robust and uninterrupted wireless audio transfers.

- You study how to realize robust wireless audio streaming with minimal latency across large areas and in dynamically changing contexts. You explore new opportunities for wireless audio use cases enabled by the localization capabilities of wireless technologies. The focus will be on the wireless communication aspect of audio streaming, but complete end-to-end systems (e.g. considering codec settings) will be studied. Both Bluetooth Low Energy (LE Audio) and Ultra-Wideband are considered as wireless technologies.

- You implement the designed solutions on embedded hardware platforms and experimentally validate their performance. Experimental validation can be backed by modelling or theoretical assessments.

- You collaborate with IDLab colleagues working on audio processing. You work together with industry partners on challenging audio use cases and present your results during meetings.

- You publish and present results both at international conferences and in scientific journals, using open science practices.

- This research will lead to a PhD degree. Throughout the complete PhD period, you receive a full-time, attractive salary.

- You assist in limited educational tasks of the research group.

Your profile

We are looking for candidates with the following qualifications and skills.

- You must have (or will receive in a few months) a Master's degree in Computer Science Engineering, Master of Science in Information Engineering Technology, Master of Science in Computer Science, or a related field.

- You are interested to do research in an academic environment for a 4 years period in view of a PhD degree.

- You are proficient technically and have an affinity with wireless communication and embedded programming.

- Knowledge of C and C++ is a must. Previous hands-on experience with wireless technologies such as Bluetooth Low Energy or Ultra-WideBand is a plus.

- You can plan and carry out your tasks in an independent way. You have strong analytical skills to interpret the obtained research results.

- You are a team player and have strong communication skills.

- You can commit to timing and milestones set forward by different research projects.

- Your English is fluent, both speaking and writing.

Our offer

- We offer a full-time position as a doctoral fellow, consisting of an initial period of 12 months, which - after a positive evaluation, will be extended to a total maximum of 48 months.

- The fellowship amount is 100% of the net salary of an AAP member in equal family circumstances. The individual fellowship amount is determined by the Department of Personnel and Organization based on family status and seniority. A grant that meets the conditions and criteria of the regulations for doctoral fellowships is considered free of personal income tax. [Click here for more information about our salary scales](#)

- All Ghent University staff members enjoy a number of benefits, such as a wide range of training and education opportunities, 36 days of holiday leave (on an annual basis for a full-time job) supplemented by annual fixed bridge days, bicycle allowance and eco vouchers. [Click here for a complete overview of all the staff benefits](#) (in Dutch).

Interested?

For further information, please contact Jeroen Hoebeke - jeroen.hoebeke@ugent.be

How to apply?

Applicants should bundle the following

- Personal letter where you introduce yourself, your experience relevant to the position and motivation to apply for this position

- Curriculum Vitae

- Two reference contacts

- Copy of your diploma (if already in your possession)

https://idlab.ugent.be