

## **PhD student position in Operations Research – Ghent University & KU Leuven (joint)**

Application deadline: April 30th 2023

Topic: Increasing fairness and welfare in allocation problems

Supervisor: prof. Dries Goossens & prof. Greet Vanden Berghe

Starting date: September 2023

We are looking for a full-time PhD student to do research in the field of Operations Research under the supervision of prof. Dries Goossens, Department of Business Informatics and Operations Management (Faculty of Economics and Business Administration) of Ghent University, and prof. Greet Vanden Berghe, CODES group (Faculty of Engineering Technology) of KU Leuven. We offer a fully funded position for a period of 4 years (upon yearly positive evaluation); this work should lead to a PhD degree.

The PhD researcher will work primarily on resource assignment/allocation problems, and focus on fairness and welfare issues. Deciding how indivisible units of a scarce resource should be assigned to people is a common problem in our society. We can make a distinction between settings where it is inappropriate to use monetary transfers to settle this, and settings where a payment is used to acquire the resource or compensate those who get nothing. Examples of the former are assigning students to schools, deciding which patients can receive an organ transplant, allocating internships, exchange destinations, or campus housing to students, assigning work rosters to staff or playing schedules to sports teams. In the latter set of problems, an auction or an exchange can be organized. In this PhD, we will have a special focus on practical relevance and collaboration with industry. The objective is to publish excellent research papers on this topic, but at the same time, to have practical relevance and/or an impact on society.

Although the focus is definitely on research, the candidate can be asked to give guidance to Bachelor and Master students, to be involved in teaching activities and to supervise exams.

The successful candidate will be able to enrol in a fulltime PhD position at the Department of Business Informatics and Operations Management (Faculty of Economics and Business Administration) of Ghent University, as well as the CODES group (Faculty of Engineering Technology) of KU Leuven (Ghent campus). Successful completion of the PhD project will lead to obtaining a (joint) doctoral degree (PhD). He/she will find a dynamic and pleasant working environment in Ghent, in groups that are actively involved in scientific research at the highest international level. Candidates will be expected to participate in seminars and (international) conferences.

For this position, we are looking for someone with the following characteristics and assets:

- A completed Master's degree (MA or MSc) in a relevant field of study (e.g., business engineering, industrial engineering, mathematics, engineering, computer science). Good study results throughout the entire educational trajectory are an important asset. Students that are currently in the final year of their Masters are especially encouraged to apply.

- A strong interest in scientific research in general, and optimization in particular, combined with a flexible and creative mindset.
- Strong software development skills.
- Clear scientific and communicative skills (e.g., critical thinking, scientific writing, presentation skills, project management, methodological skills).
- A profound knowledge of the English language is a prerequisite, as the successful candidate will have to present during international conferences and publish in international scientific journals. Knowledge of Dutch is an asset, but not mandatory.
- Strong social skills that enable to work in team (both at the research groups at Ghent University and KU Leuven), combined with the necessary skills to work independently (yet with guidance and mentoring) on subprojects.
- A responsible personality who values ethics, both in social contacts as well in relation to scientific research.

What do we offer?

- A fulltime PhD position of maximum four years (upon successful yearly evaluations).
- An interesting and diverse job.
- A correct and beneficial salary (conform the official university scales). [Click here for more information about our salary scales.](#)
- The possibility to contribute to a societally very relevant research project. Given the personal contacts with people in both the academic world and with industry, a large personal network can be formed or extended.
- Numerous opportunities for personal growth, illustrated by e.g., conference participation, “doctoral schools” courses on transferable skills, participation in educational initiatives, and publication opportunities.
- A social, tolerant, and constructive working environment that offers many and diverse opportunities for personal development.

Any questions? Prof. Dries Goossens ([dries.goossens@ugent.be](mailto:dries.goossens@ugent.be)); Prof. Greet Vanden Berghe ([greet.vanden.berghe@kuleuven.be](mailto:greet.vanden.berghe@kuleuven.be)).

Interested? Please apply before April 30th 2023, by means of sending an email to [dries.goossens@ugent.be](mailto:dries.goossens@ugent.be), including your resume, a motivation letter, a copy of your degree and study results.