

## **PhD student position in Operations Research / Computer Science – Ghent University / KU Leuven**

Application deadline: April 11<sup>th</sup> 2022

Topic: Fraud prevention in sports planning & optimization in industry

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

Starting date: September 2022

For the PrOFS (Prevention Of Fraud in Sports) research project, we are hiring a PhD researcher. This multidisciplinary project (funded by FWO – Research Foundation Flanders) includes a consortium of researchers of Ghent University and KU Leuven, studying fraud in sports in all its aspects.

The PhD researcher will work primarily on issues of competition design and planning related to prevention of fraud (in particular, match-fixing and bribing of officials) in sports. The idea is to investigate and develop competition formats, as well as schedules of play and referee assignments such that the incentives for fraud are minimized, using operations research/mathematical programming methods. The objective is to publish excellent research papers on this topic, but at the same time, to develop specific tools to prevent fraud in sports in close contact with a large number of leading organizations in the field of sports and beyond. In a second stage of the PhD, other optimization problems with practical/industrial relevance will be studied.

The successful candidate will be able to enrol in a fulltime PhD position for a maximum of four years (upon yearly positive evaluations) in 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. Successful completion of the PhD project will lead to obtaining a (joint) doctoral degree (PhD). Students that are currently in the final year of their Masters are especially encouraged to apply.

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.
- A strong interest in scientific research in general, and optimization in particular, combined with a flexible and creative mindset. Affinity with sports is a welcome plus.
- 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 as regular contacts with organizations in the fields of sports in Flanders will be required.
- Strong social skills that enable to work in team (both in the PrOFS multidisciplinary project consortium as well as in the research groups 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 and large-scaled research project on fraud in sports. Given the many personal contacts with people in both the academic world and the field of sport, 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, personal contacts with organizations in the field of sports and beyond, participation in educational initiatives, and publication opportunities.
- A social, tolerant, and constructive working environment that offers many and diverse opportunities for personal development.

More information: 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 11th 2022, 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.