Match of the vacancy within the Strategic Goals of the Department

Global Strategic Goals of the Faculty of Engineering and Architecture at Ghent University

New members of the Professorial Staff (i.e. Assistant Professors, Associate Professors, Full Professors and Senior Full Professors) are expected to develop (research) activities aimed at engineering applications or architecture and to join, as far as is possible, existing research groups rather than to separately create (very) small new and isolated research groups.

The research activities within the Faculty of Engineering and Architecture are only partially realized by employees that are funded directly by the government (Professorial Staff, Assisting Academic Personnel, and Administrative & Technical Personnel) or through research funds provided by the university itself. Indeed, a considerable share of research activities within the Faculty of Engineering and Architecture is realized by researchers that are funded through external national/Flemish or international resources (e.g., FWO-Flanders/Research Foundation-Flanders, VLAIO-Flanders/Flanders Innovation & Entrepreneurship, EU, contract research in cooperation with companies). While the latter concerns external funding, the research activities are in fact managed by internal Professorial Staff members that succeed in acquiring external funding based on their expertise and experience.

If the Faculty of Engineering and Architecture wants to safeguard its competitive position (internationally and nationally), it will continuously have to succeed in acquiring the necessary external funding. It is therefore the Faculty's strategy to preferably create vacancies in domains in which chances are high that such external funding can be acquired. This aspect is explicitly considered during the appointment procedure of Professorial Staff members within the Faculty of Engineering and Architecture.

Strategic Goals of the Department - match with the vacancy

The Circuits and Systems research group in the Department of Electronics and Information Systems specializes in advanced integrated circuit design for sensors and telecom. With over 20 years of collaboration with the Flemish semiconductor industry, the group applies its expertise to industrial projects and secures external funding. Maintaining high research standards, the team targets top journals and investigates both applied and fundamental questions and aims to secure funding for both high and low TRL projects. Key areas include wide bandwidth analog-to-digital conversion - especially oversampling architectures - and complete sensor readout circuits. The research group has a lab facility for experimental characterization of the developed chip designs.

The research group is responsible for part of the education in analog electronics in the Bachelor and Master of Science in Electrical Engineering. The courses vary from the basics of analog electronics, over analog circuits and building blocks to the advanced design of integrated circuits.

The proposed full-time Assistant Professor position is created to oversee ongoing research initiatives and to identify and develop new projects aimed at securing external funding. This also includes acquiring funding for maintaining and expanding the measurement equipment in view of needs of the research being conducted.

The successful candidate should have hands-on experience in analog chip design and should be able to hire, motivate and advise Master and PhD students, and to set up, find funding for, and participate in national and international research projects in the intended domain. This implies keeping track of evolutions in relevant research topics within the field of the vacancy and being willing to collaborate with other research groups inside and outside the department to maximize the ability to respond to those evolutions. In addition, the successful candidate will take up teaching assignments on the subject matter, and (s)he needs to possess the necessary didactic, organizational, and communicative skills for teaching at an academic level, and attract new people to the research group.