Two PhD positions in Deep Learning for Point Cloud Processing

Work environment

The Electronics and Informatics department (ETRO) belongs to the Faculty of Engineering Sciences at the Vrije Universiteit Brussel (VUB). ETRO performs research on the representation, processing, transmission and visualization of multidimensional signals. ETRO has built a large international collaboration network with a wide variety of academic institutions, industrial partners and R&D centres, and participates in numerous fundamental, strategic and applied research projects in these domains.

Research area

The research focuses on the design of novel methods for deep-learning based compression of static and dynamic point clouds. The aim is to advance compression performance over the state of the art. A second PhD position focuses on the design of novel deep learning based point cloud denoising methods for static and dynamic point clouds. The aim is to advance the state of the art in denoising for structured light and time-of-flight cameras.

Both research topics are of critical importance for live accurate modelling and rendering of static and dynamic 3D scenes, and find numerous applications in virtual reality, multimedia processing, robot vision and automotive industry.

Besides scientific challenges, these research positions provide a great opportunity to work closely together with experienced ETRO researchers active in deep learning and signal processing as well as to closely collaborate in running projects with prestigious academic and industrial partners active in these fields.

Prerequisites

Candidates for a PhD position (4 years) should prove strong academic record in engineering, mathematics, physics or computer sciences. Relevant work is a must.

The selected candidate must have strong mathematics / digital signal processing background coupled with good programming skills (Python, C/C++, MATLAB). You have excellent oral and written communication skills. Fluency in English is a must, given the international character of the department.

Interested candidates should submit their application, including a motivation letter, the CV, the BSc and MSc transcripts of grades, the MSc thesis, a list of projects and scientific publications, and the names of two people who could provide references.

The application should be sent to:

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