PhD/Postdoc positions in 3D video processing and 3D graphics

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 areas

In recent years, we have seen the convergence of computer vision and computer graphics, addressing highly challenging, yet unsolved problems in research areas such as 3D video, free viewpoint video and 3D reconstruction. Research in these areas aims at providing live accurate modelling and rendering of dynamic 3D scenes, and finds numerous applications in domains such as multimedia, robot vision and automotive industry.

The research focuses on the generation of dynamic 3D models based on multicamera systems. Research topics include the design of new methods for point cloud processing in multicamera systems, sensor fusion, 3D pose estimation, 3D surface generation for non-rigid point clouds, as well as the design of efficient transforms and compression systems for this type of data. Besides scientific challenges, the position provides a great opportunity to work closely together with experienced ETRO researchers active in image and video processing, 3D graphics and data compression as well as to 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, computer sciences, mathematics or physics. Relevant work in computer vision / sensor fusion / data compression / 3D graphics is a must.

If you are candidate for a postdoc position (2 years), you must already have extensive experience in computer vision and an excellent track record with relevant publications in renowned journals and conferences.

In both cases, the selected candidate must have good programming skills (C/C++) and MATLAB experience. 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, a CV, BSc and MSc transcripts of grades, the MSc thesis, the PhD thesis for the postdoc candidates, a list of projects and publications, and the names of two people who could provide references.

The application should be sent to:

Prof. Dr. Ir. Adrian Munteanu
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Web: www.etro.vub.ac.be