Visual Masking Modelling for XR Quality Assessment

A three-year PhD position in the field of psychophysics and visual quality assessment is available, with a focus on modelling and understanding visual masking for XR media. In the context of image and video quality assessment, visual masking effects are studied in order to better understand the limitations of human perception. For example, visual masking can be harnessed to «hide» noise or compression artifacts without perceived loss of quality. The goal of this PhD position is to better understand these visual masking effects, in order to develop more accurate and reliable methods for evaluating and improving quality in the context of XR applications. This will involve both computational simulations and experimental studies, in which the candidate will use various techniques to manipulate the visibility of stimuli and assess the impact on perceived quality.

The position is a co-tutelle between the University of Poitiers (France) and the Norwegian University of Science and Technology (NTNU), awarding the successful candidate with a PhD degree from each University. The candidate will work with a team of experienced researchers from XLIM and the Colourlab in Gjøvik and will be co-supervised by Prof Chaker Larabi (XLIM) and Dr Steven Le Moan (Colourlab).

The ideal candidate will have a strong background in signal processing or a related field, very good programming skills, as well as a keen interest in visual perception and the processing of visual information.

Selection of the candidate will be based on motivation, adequacy of profile and experience, as well as grades. Furthermore, the selected candidate must pass security clearance procedures at both universities.

The application **must** include:

- A cover letter where the applicant describes his/her personal motivation and relevance with respect to the requirements of the position.
- CV.
- Transcripts and diplomas for bachelor's and master's degrees (or an official letter stating the approximate date of graduation).
- Name and contact information of three referees.

Applications should be submitted via email to both chaker.larabi@univ-poitiers.fr and steven.lemoan@ntnu.no with the subject "**Application for PhD in Visual Masking Modelling for XR Quality Assessment**" by April 30th, 2023.

Université de Poitiers 1431

NTNU
Norwegian University of Science and Technology