

Project proposal template – Faculty studentships Summer 2014

<i>Project title</i>	<input type="text" value="Perceptual quality evaluation based on subjective studies and perception modelling in 3D UHDTV and"/>	<i>Director of Study</i>	<input type="text" value="Dr Maria Martini"/>
<i>Second Supervisor</i>	<input type="text" value="Ian Millward"/>	<i>School</i>	<input type="text" value="Computing and Infor"/>
<i>Other members of supervisory team</i>	<input type="text" value="Dr Fatima Felisberti"/>	<i>Any requirements from applicant (eg degree in specific subject area)</i>	<input type="text"/>

**Project summary
(max 1,000 characters)**

The television industry has recently adopted ultra-high definition television (UHDTV) as “4K” standard and displays supporting this standard are now available in the mass market, as well as 3D HD definition displays. At the same time, video transmission over IP is more and more popular. In the design of such multimedia communication systems, the final goal is to achieve a high quality of experience (QoE) [1][2] for the end user of the system.

The **goal** of this project is hence to identify the main factors influencing the perceptual quality in recent imaging and video standards, via subjective studies [1] and models of the human visual system [2], and to propose relevant objective quality metrics [1]. Quality-driven adaptation strategies for video over IP will also be addressed.

The selected **candidate** will work in a team in link with standardization bodies and European collaborative actions.

References:

[1] Hewage, C.T. and Martini, M.G. (2013) Quality of experience for 3D video streaming. *IEEE Communications Magazine*, 51(5).

[2] Felisberti, F. M. and Zanker, J. M. (2005) Attention modulates perception of transparent motion. *Vision Research*, 45(19), pp. 2587-2599.