

IMPEE PhD Opportunity

Project title: Game Eco-systems for Engineering
Supervisor(s): T. Lim, J.M. Ritchie

Abstract

The term Serious Games might sound like an oxymoron. But it is not just about frivolity and fun. Games have long been used in pedagogy and training. Today, serious games have been applied to a diversity of domains from engineering to cognitive health. Yet the role of game-based approaches as beneficial components to engineering design and manufacturing are often overlooked. The misconception that games are highly constraint environments and the notion that games have limited functionality needs to be reconciled. This research is to investigate games and game worlds as serious platforms from engineering a product from the standpoint of CAE tools to its use as crowd sourcing for scientific studies. The focus is on the dynamic, the transition, and the transformation; not on the static information. It is about the flow/reuse of information across phases, functions, persons, processes, and systems, as an innovative method towards engineering design for manufacture and assembly (DFMA).

Requirement

BEng 1st Class, MEng. Core skills required will be programming (e.g. C++), computer aided engineering and knowledge of virtual engineering environments. Any experience in engineering product design, process engineering, manufacturing and assembly with game engines, game design, authoring and programing will be beneficial.