

COMPUTER SCIENCE COLLOQUIUM

Department of Computer Science
City University of Hong Kong

Virtual Reality (VR) Application - User Logging for Engineering Data Capture

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Date :

15 October 2009 (Thursday)

Time :

3:00pm - 4:00pm

Venue :

Room Y5101, 5th Floor, Yellow Zone, Academic Building, City University of Hong Kong, Tat Chee Avenue, Kowloon Tong

Abstract

Recent research at Heriot-Watt University has shown how the computerised logging of engineers can facilitate engineering information generation and knowledge capture. This presentation will give examples of how, using virtual reality systems, engineer monitoring and subsequent data analysis have been applied to automatically output assembly plans, analyse design tasks, identify design behaviour patterns, acquire design process maps and generate decision making syntax during product engineering tasks; demonstrating the potential for automating engineering rationale capture and reuse. Future research plans will also be outlined showing how, through a unique approach combining a number of human-centred logging techniques, engineering decision making and rationale can potentially be automatically formalised and the associated costs reduced.

Biography

Jim Ritchie is Professor and Head of Department of Mechanical Engineering at Heriot-Watt University, Edinburgh, UK. He specialises in design, manufacture and manufacturing management. With over 130 publications, his most recent research interests have focussed on product development applications including the analysis and use of virtual reality in design and manufacture, rapid prototyping, design process capability analysis, mechanical engineering knowledge and information capture, quality methods in the baking industry and logistics and supply chain management. He is a member of the University's Innovative Manufacturing Research Centre (IMRC) which has recently obtained continued funding of over £7m from the Engineering and Physical Sciences Research Council. As well as his IMRC involvement, over the last 15 years, he has been involved in number of EPSRC and EU-funded projects and Knowledge Transfer Partnerships. He is also Academic Director of the University's Advanced Manufacturing Unit.

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All are welcome!

*In case of questions, please contact Dr Ken Law at Tel: 2788 8618, E-mail: cskckl@cityu.edu.hk,
or visit the CS Departmental Seminar Web at <http://www.cs.cityu.edu.hk/>.*