

## IEEE Technical Update Series

# 3D Video Communication System

by Dr. Hezerul Abdul Karim and Ir. Dr. Nor Azhar Mohd Arif  
(Faculty of Engineering, Multimedia University)

Date: 23<sup>rd</sup> April 2013 (Tuesday)

Time: 2:30pm to 4:30pm

Venue 1: NMES Lab, 1<sup>st</sup> Floor, Block B, Faculty of Engineering, Multimedia University, Cyberjaya, Selangor

**FREE ADMISSION (Refreshments will be served)**

Co-organized by:

IEEE Malaysia Communications Society and Vehicular Technology Joint Chapter

IEEE Malaysia Consumer Electronics Society

IEEE Signal Processing, Malaysia Chapter

Graduate Institute of Engineering (GIE), Multimedia University

Centre for Communication and Signal Processing (CCSP), Multimedia University

Centre for Broadband Communications (CBC), Faculty of Engineering, Multimedia University

IEEE Multimedia University Student Branch (IEEE MMU SB)

Industrial Linkage Committee (ILC), Faculty of Engineering, Multimedia University

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**Abstract:** Recently, 3D video has been used to enhance video applications such as 3DTV, 3D Cinema and 3D video-conferencing, as it offers a greater sense of immersion. In this seminar, an overview of 3D video communication system will be presented. It includes 3D video capturing, 3D video compression and transmission, 3D video error resilience and 3D video display. Subjective and objective quality evaluation of a 3D video communication system will be discussed. Recent 3D video standardization and research activities will also be highlighted. An auto-stereoscopic 3D display (3D display without glass) will be demonstrated.

### Biography:

**Dr. Hezerul Abdul Karim** obtained his B.Eng. degree in Electronics with Communications from University of Wales Swansea, UK, in 1998 and M. Eng Science degree from Multimedia University, Malaysia in 2003. He obtained his PhD degree from Center for Communication Systems Research (CCSR), University of Surrey, UK in 2008. He is a Lecturer at Multimedia University since 2002 and now a Senior Lecturer since 2010. He has been teaching multimedia engineering subjects (Digital Video and Image Processing and Digital Image and Video Compression). He has published more than 30 scientific publications in his research area. His research interests include telemetry, 2D/3D image/video coding and transmission, error resilience and multiple description video coding. He is currently supervising and co-supervising 7 postgraduate students.

**Ir. Dr. Nor Azhar Mohd Arif** is currently a senior lecturer at the Faculty of Engineering Multimedia University (MMU) Malaysia. He received his B.Eng. in Communication and Radio from King's College London in 1998, M.Eng.Sc in Telecommunication from MMU in 2002 and recently completed his PhD degree in the field of 3D video communication. In 2012 he attained the Professional Engineer certification from the Board of Engineers Malaysia (BEM). He has been a member of the Centre for Virtual Reality and Immersive Technology at MMU since it was first established in 1999. His area of research is mainly the application of immersive technology in telecommunication and he was among the pioneers in this area of research in Malaysia. He is currently a senior member of IEEE and serving as one of the executive committee members for Consumer Electronic chapter, Malaysian section.

