Hong Kong Electronic Industry Summit
香港電子業論壇

Latest Acoustic Technology and Product Design
最新音響科技及產品設計

Date 日期 : 15 / 10 / 2013 (Tuesday 星期二)
Time 時間 : 10am – 12:30pm
Venue 地點 : Meeting Room S426-427, Hong Kong Convention & Exhibition Centre
香港會議展覽中心 會議室 S426-427
Language 語言 : English and Putonghua (With simultaneous interpretation service)
英語及普通話（附設即時傳譯服務）
Remarks 備註 : Free admission (Please click **HERE** to register online)
免費入座 (請「**按此**」登記)

Time 時間	Programme 程序表
9:45am – 10am	Registration 登記
10am – 10:15am	**Welcoming Remarks by 致歡迎辭** Mr Johnny Yeung, Chairman of HKEIA 香港電子業商會會長 楊志雄先生 **Opening Remarks by 致開幕辭** Mr Andrew Young, VP Marketing and Sales, Hong Kong Science & Technology Parks Corporation 香港科技園公司市場及銷售副總裁 楊孟璋先生 **Souvenir Presentation to Speakers 頒發紀念品予演講嘉賓** Mr Daniel Lam, Senior Exhibitions Manager, Hong Kong Trade Development Council 香港貿易發展局展覽事務高級經理 林國駿先生 **Group Photo Taking with all representatives 代表合照**
10:15am – 10:55am	**The Spatial Equalizer 音響空間均衡器** Professor Yang-Hann KIM, Korea Advanced Institute of Science and Technology (KAIST)
10:55am – 11:30am	**Sound matters for mobiles 數碼移動產品的聲音考慮趨勢** Mr Alex Or, Senior Manager, Field Marketing, Greater China, Dolby China 杜比實驗室高級市場經理 柯永德先生
11:30am – 12:10pm	**Progress in the loudspeaker development - an illustrated case study with historical context** **擴音器的發展進程 – 以圖片及歷史文脈作個案研究** Mr Mark Dodd, Head of Group Research, GP Acoustics (UK) Limited
12:10pm-12:30pm	**Product Acoustic Quality Design 音響產品質量設計** Dr Randolph C. K. Leung, Associate Professor, Department of Mechanical Engineering, The Hong Kong Polytechnic University
12:30pm – 12:45pm	**Panel Discussion and Q&A Session 專題討論及問答環節** Moderator 主持: Mr Brian Li, Vice Chairman of HKEIA 香港電子業商會副會長 李耀祥博士

Organizers 主辦機構:

Supporting Organization 支持機構:

Remarks 備註:
- Free admission. Seats are granted on a **first-come-first-served basis**. 免費入場。座位有限，**先到先得**。
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Professor Yang-Hann KIM, Korea Advanced Institute of Science and Technology (KAIST)

Abstract of the Presentation

Complete reproduction of spatial impression of sound, or simply three-dimensional [or 3-D] sound, is what human beings have dreamed to have. It is interesting; however, 3-D sound cannot be scientifically well defined. An idea of simple knob from a stereo system can solve this problem. The 'balance knob' provides a means to control the sound of stereo system, so that it meets what the listener wants to hear. The key idea is giving rights to select a desired 3-D sound to the listener. In this article, 'the knobs' that can implement the desired 3-D sound in space and time by the listener is proposed. This objective can be achieved by introducing an interface that can generate the sound field sounds in a way the listener wants. The interface is called "Spatial Equalizer", which is analogous to the frequency equalizer that has been used for most of the audio system. In Spatial Equalizer, controlling is done by a "point" or multiple "points" related with the location of the virtual sound source. Using these points, by moving and adjusting the magnitudes of the points, listener can control and hear the desired sound. However, it is never evaluated in terms of objective measures or how the equalizer really performed. The user controls the points and listens to the sound until it is satisfactory. The points can be either focused sound field or virtual sound sources which we call sound balls.

Mr Mark Dodd, Head of Group Research, GP Acoustics (UK) Limited

About the Speaker

Mr Mark Dodd studied Physics at Southampton University in the UK and graduated with a BSc in 1979. He started his career as a loudspeaker design engineer at Vitavox where he worked on compression drivers getting his first experience in transducer design. He also studied part time gaining an MSc at Chelsea College London University. Mr Dodd then Joined Tannoy where he continued his work in loudspeaker design in both professional and consumer fields. He presented his first paper in 1992 at the AES on a coaxial driver giving controlled dispersion.

In 1994 Mr Dodd joined GP Acoustics, a group including KEF and Celestion becoming Head of group Research in 2001. Since joining GP Acoustics, Mr Dodd has pioneered the use of Finite Element Analysis in transducer design presenting a several papers on transducer design and Finite Element techniques at AES, IOA and ALMA conferences. More recently his work with FEM has widened it's scope to include the analysis of loudspeaker enclosures. He is also responsible for several patented innovations such as the 'stiffened dome', 'optimal dome wave-guide geometry', 'Tangerine wave-guide' and the 'Single Apparent Source'.

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Dr Randolph C. K. Leung, Associate Professor, Department of Mechanical Engineering, The Hong Kong Polytechnic University

About the Speaker

Dr Leung is an Associate Professor at Department of Mechanical Engineering, The Hong Kong Polytechnic University (PolyU). His research interest areas are flow-induced sound and structural vibration, computational aeroacoustics and gas dynamics, product sound and vibration quality design, aviation science. Dr Leung joined a research project on gas turbine exhaust acoustic resonance at the Department of Engineering, University of Cambridge, U.K. in 1998 and another one on turbine blade flow-induced vibration at the PolyU in 1999. Afterwards, he moved to industry and took up a sound engineer position at Emerson Climate Technologies supporting the refrigeration compressor sound and vibration R&D, and joined PolyU again as an Assistant Professor from 2002.

Abstract of the Presentation

Product acoustic quality contributes to the consumer's overall evaluation of a product in terms of its acceptability and functionality. The need for product design engineers to develop products for high-value and international markets has made product acoustics an important product attribute. Nowadays manufacturers are often faced with customers' negative reactions to the acoustics of their products (high noise complaints). However, acoustics may enhance/detract from the pleasure in using a product, and may indicate how well the product is working. In this presentation the speaker is going to share his academic and industrial experience in incorporating acoustical knowledge and advanced technology into the product design processes so that the positive attributes of product acoustics enhanced, and the negative ones are reduced.

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