

Presentation Title:

Intelligent eLearning System with the Visible-Spectrum Gaze Tracker

Abstract:

At present, a variety of eLearning System has been developed rapidly. However, most of eLearning systems only replace traditional teaching with audio and video, without the function of promptly evaluating the learning behavior and performance. Hence, in contrast to immediate instruction and feedback from the teacher, the post test system is required to assess the final learning effects. Our team has successfully developed a Visible-Spectrum Gaze Tracking System as well as a software tool for data analysis. That is, by analyzing the reading process of the learner with the gaze data, their learning behavior and cognitive process will be obtained. This talk aims to discuss the development of an intelligence learning system for the next generation one. The system integrates the artificial intelligence engine, analyzes the gazing data of the learner, offers the prompt feedback, and imitates the instructing behavior of the teachers.

Biography

Prof. Wen-Chung Kao received the M.S. and Ph.D. degrees in electrical engineering from National Taiwan University, Taiwan, in 1992 and 1996, respectively. From 1996 to 2000, he was a Department Manager at SoC Technology Center, ERSO, ITRI, Taiwan. From 2000 to 2004, he was an Assistant Vice President at NuCam Corporation in Foxlink Group, Taiwan, where he was responsible for leading embedded software team to develop digital still/video cameras. In 2002, he was also invited to form SiPix Technology Inc., Taipei, Taiwan, where he was in charge of setting up the research team of the company and studying flexible electrophoretic display. Since 2004, he has been with National Taiwan Normal University (NTNU), Taipei, Taiwan, where he is currently a Professor at Department of Electrical Engineering and the Dean of College of Technology and Engineering. His current research interests include system-on-a-chip (SoC) as well as embedded software

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He is the Founding General Chair of IEEE International Conference on Consumer Electronics – Taiwan, the General Chair of The 17-th IEEE International Symposium on Consumer Electronics, and the General Chair of The 38-th IEEE International Conference on Consumer Electronics, Las Vegas. Currently, he serves as a Senior Editor of IEEE Transactions on Consumer Electronics, VP of International Affairs in IEEE Consumer Electronics Society, and VP of Conferences in IEEE Product Safety Engineering Society. He is a Fellow of IEEE.