



Embedded System Design for Intelligent Car Safety Monitoring Applications

by Professor Dr Robert Chen-Hao Chang

19 December 2013

2:00pm - 5:00pm

Auditorium Ishak Pateh, Block C, Sains@USM

BEM Approved
CPD Hours: 3
IEM13/PG/350/T, CPD/PDP

Abstract

This talk presents the embedded system design for intelligent car safety monitoring applications. It includes:

1. for the driver's conditions: intelligent physiological and psychological monitoring circuits and intelligent drowsy driver video detection system are described
2. for the outdoor traffic conditions: research of real-time traffic monitoring and analysis and the CMOS-based RF transceiver for automotive millimeter wave band are depicted
3. for the driving recorder: the perceptual 3D video codec for car safety monitoring applications is presented
4. for the information integration: trajectory data mining and its application on real time personal traffic information provision for vehicle safety are discussed



Biography

Robert Chen-Hao Chang received the B.S. and M.S. degrees in electrical engineering from National Taiwan University, Taipei, Taiwan, in 1987 and 1989, respectively, and the Ph.D. degree in electrical engineering from University of Southern California (USC), Los Angeles, in 1995.

In 1996, he joined the faculty of the Department of Electrical Engineering, National Chung Hsing University (NCHU), Taichung, Taiwan, where he is currently a Distinguished Professor. He served as the Director of Center for Research and Development of Engineering Technology of the College of Engineering from 2005 to 2006, and Chairman of the Electrical Engineering Department from 2006 to 2008. Since March 2011, he has become the Deputy Director General of the National Chip Implementation Center in Hsinchu, Taiwan. He has published more than 100 technical journal and conference papers. His research interests include low-power circuits and systems design, baseband circuits design, and mixed-signal IC design.

Dr. Chang was a recipient of the National Science Council Research Award in 1997 and 1998, the Distinguished Teaching Award from NCHU in 2004, and the Outstanding Research Project Award from NCHU in 2006 and 2011. He is a Fellow of IET. He is an Associate Editor for the IEEE Transactions on VLSI Systems.

FREE ADMISSION

Register at

<http://dreamcatcher.asia/techtalk>

Agenda

2.00-2.30pm	Registration & Networking
2.30-4.00pm	Technical Talk
4.00-4.30pm	Q & A Session
4.30-5.00pm	Refreshment & Networking

Contact

DreamCatcher: leroy@dreamcatcher.asia
USAINS: ong@usainsgroup.com
USM Admin: skfong@usm.my
IEM Admin: eedt.iem@gmail.com
IEEE CAS: fawnizu@gmail.com

Jointly organized by

