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國立雲林科技大學電子系/特聘教授 (2013 / 08~)

國立雲林科技大學電子系/系主任 (2008 / 08 ~ 2011 / 07)

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國立雲林科技大學電子系/副教授 (1997 / 08 ~ 2004 / 01)

國立雲林技術學院/副教授 (1994 / 08 ~ 1997 / 07)

逢甲大學電子系/副教授 (1993 / 08 ~ 1994 / 07)

國立成功大學電機所 博士(1989 / 09 ~ 1993 / 04)

104~102 教育部高職課程大綱修訂委員會-電機電子群召集人。

104~100 年教育部顧問室”智慧電子應用設計聯盟規劃”指導委員。

104~103 科技部工程司研究計畫複審委員。

104~99 年榮獲雲林科大國科會研究績優獎勵教授。

102 年榮獲雲林科大研究傑出獎。

101~95 年國家晶片實現中心(CIC)諮議委員暨晶片審查委員。

101~99 年擔任 IEEE Tainan Session CASS Chapter Secretary

100 年執行國科會晶片系統國家科技整合型計畫榮獲「績優計畫獎」。

100 年榮獲教育部 SoC 總聯盟『推動成效優良教師』獎項

100~98 年教育部”全國大學院校積體電路設計比賽”主持人。

Intelligent Road Safety Monitoring of LED Street Light System

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In recent years, the energy saving and carbon emission reduction have become the main policy for all governments. LED is regarded as the power-saving device in offering light source such that it is widely used in the road-lighting applications. The goal of this speech is to develop the key technology for smart LED street lights to promote the traffic safety. We attempt to do integration on the cross-domain researches that include mixture of multi-color LED array, full modulation of color temperature, the second optical light shaped design, power electronics IC design, temperature and light sensing chip design, energy management and power test, road-safety monitoring, hardware and software co-design, system performance assessment, and human sensitivity factor. Main features of our street light system include 1. changing brightness when people or vehicles approximate to street light, 2. altering color temperature for the rainy or fogged weather, 3. improving safety by transferring the pedestrian message on the road to the driver. Besides, when road accident occurs, the smart light system will flash warning to notice the drivers, and the event information and images can be immediately conveyed to the first-aid station, police department and the drivers in front of the road events. The smart street system will perform self-check and self-calibration. It can send the corresponding trouble information to the maintenance staff, when the failure or malfunction of LED light module is found. For supporting the road surveillance, the information of traffic status also can be transmitted to the control center by network system.