沈玭興 (Yixing Shen)

Contact

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Download Resume

Education

2008 - 2010
MSc, Power System, 中原大學電機工程研究所

2004 - 2008
BSc, Electrical Engineering, 中原大學電機工程學系

Skills & Tool

C, C# .NET, QT, Matlab/Simulink
Git, Subversion, Visual Studio Code, Code::Blocks,
Keil uVision (MDK, PK51), Electronics Renesas CS+

Knowledge

Embedded System,
Low Speed Serial Interfaces (I2C,SPI,UART,I2S),
USB Video/Audio/HID Class,
CVBS, HDMI, MIPI CSI-2, SDI, TI LVDS, CMOS Image Sensor Interface,
Basic Image Processing, Camera Motor Driver, RTOS

Experience

2013/06 - Present 義晶科技,系統整合及設計處,資深工程師

Develop and maintain EVB firmware and GUI WinForm using C# .NET and WIN32 API DLL
Develop embedded 8051 peripheral drivers, bootloader and application firmware
Integrate and port source code for daughter board and module firmware

- AVS761x/AVS715x EVB Tool
  USB-to-SPI/I2C, UART-to-SPI/I2C
  Register/DRAM/Flash Write/Read Operations
  Generate AVS761x/AVS715x Initial Register Script for Different Scenarios Use
  RAW/RGB/YUV Converter, OSD Font Editor, Run-Length Encoder/Decoder
- Daughter Board
  LVDS SerDes, HDMI Transmitter/Receiver, USB to I2C/SPI
- Module
  HDMI/SDI/CVBS Receiver with USB Video Grabber

Multi-Input Digital Video Broadcast Modulator
HDMI 1x4 Video Wall

- General-Purpose MCU
  Renesas: R5F1007E, R5F100GG
  ST: STM32F103, STM32F030
- Altera FPGA EVB Platform Data Transport
  Implement USB transport using LibUSB-win32 and QT5
- HDMI 1x4 Video Wall Layout
  Implement EEPROM Burner and Video Layout Previewer
- EDID Parser Console
  Implement EDID Parser and File Converter
- Flash Programming Console
  Download Code to SPI Flash Device and Other Memory Operations

2011/12 - 2013/06 華晶科技,軟體驅動部,高級工程師

Developed and maintained lens controller firmware and calibration for MQX RTOS
Lens Device Driver (Zoom/Focus/Iris/Shutter)

- Nikon Digital Camera COOLPIX S02
- Nikon Digital Camera COOLPIX L28

2008/09 - 2010/07 中原大學電機研究所

- 應用人工智慧和訊號處理於電力系統
  以機率神經網路,時頻分析及最佳化演算法建立一套特徵選取機制於電力品質干擾自動辨識[1][3]
  運用Matlab/Simulink做為演算法開發及永磁式同步風力機最大功率追蹤控制[2]
- 協助大學部專題研究
  DC/DC 升壓轉換器模擬及實做
  永磁式風力發電機MPPT控制
- 期刊論文
  [1] C.-Y. Lee and **Y.-X. Shen**, “Optimal Feature Selection for Power-Quality Disturbances Classification,” IEEE Transactions on Power Delivery, Vol. 26, No. 4, pp. 2342-2351, Oct. 2011. (SCI; ISSN:0885-8977)
  [2] C.-Y. Lee, P.-H. Chen and **Y.-X. Shen**, “Maximum Power Point Tracking (MPPT) System of Small Wind Power Generator Using RBFNN Approach,” Expert Systems with Applications, Vol. 38, No. 10, pp. 12058-12065, Sept. 2011. (SCI; ISSN:0957-4174)
  [3] C.-Y. Lee and **Y.-X. Shen**,“Feature Analysis of Power Quality Disturbance in Smart Grid Using S- transform and TT-transform,”International Review of Electrical Engineering, Vol. 7 , No. 2 , 2012. (SCI; ISSN:1827-6660)