

Chen Deng

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Power by \LaTeX

Education

China University of Geosciences(Wuhan)

Bachelor, Faculty of Mechanical and Electronic Information

Communication Engineering

2009 – 2013

China University of Geosciences(Wuhan)

Master, Faculty of Mechanical and Electronic Information

Electronics and Communications Engineering

2013 – 2015

Projects

SerDes Receiver

2013.09 – 2014.04

SerDes interface is a new high-speed serial interfaces, commonly used in analog-digital conversion chip. Rates up to 10Gbps. The main design using Verilog language, Modelsim simulation, Design Compiler synthesis. Completed the work of the link layer and transport layer in receiver and published journal articles.

- Platform: Windows + CentOS + Sublime
- Tools: Verilog + Modelsim + Design Compiler
- Duty:
 - Protocol: JESD204B protocol understanding and refining the core master workflow interface.
 - Data Link Layer: Designed 8B/10B Decoder, descrambler, code group synchronization, frame synchronization, lane synchronization and error control.
 - Transport Layer: Designed deframer, control interface and error control.

Bearing vibration detection system

2010.07 – 2014.08

Automatic rolling bearing fault detection system. Expected to change the existing small bearing human auditory detection technology as the basis to judge the status quo.

- Hardware: Raspberry Pi + Omron PLC + MSP430F149 + FT232H
- Software: Eclipse + Ubuntu + Raspbian + MySQL + CCS
- Tools: C++/C + Python + JavaFX + Matlab
- Duty:
 - Signal: Based on MSP430F149 and FT232H constitute sample card. It can flexibly change the length of the sampling frequency and data via configuration interface.
 - Preprocess: The sampled signal level conversion, FIR filters, FFT, Hilbert-Huang transform and denoising work.
 - Data: Matlab GUI design data capture interface, automatically or manually collect data, labeled it and stored the data in database.
 - Algorithms: preprocessing the signal, based on large amounts of data, the use of learning algorithm to classify the decision.
 - Implementation: Embedded Linux programming, including serial PLC program control, USB sample card program, the control flow of the program, UI program.
 - Control: PLC to control the mechanical parts, take PLC status by C Command mode.

Work

Ningbo HOLO Instruments

2010.07 – 2014.08

Ningbo HOLO Instruments is one of the earliest in the condition monitoring system development and application of professional firms.

- Maintenance of existing projects, Sinopec Zhenhai Refining & Chemical Plant dynamic monitoring platform fault monitoring and maintenance.
- Development of new projects, bearing vibration measurement system design and development, USB sampling board design and development.
- Product manufacturing, food waste incineration controller shipboard production.

Social

Student Union Office: Responsible for student yearbook production.

2011.05 – 2012.05

Vice squad: Class awards, activities of the organization.

2010.09 – 2011.06

Computer Skills

Programming

C/C++:	4 year	Skilled	Verilog:	2 year	Skilled
Python:	2 year	General	Bash:	1 year	General

Tools

Matlab:	4 year	Skilled	Modelsim:	2 year	Skilled
Git:	2 year	General	Design Compiler:	1 year	General
Word:	5 year	Skilled	L^AT_EX:	2 year	Skilled
Vim:	2 year	General	PLC:	1 year	Skilled

OS

Windows:	8 year	Skilled	Ubuntu:	2 year	Skilled
Raspbian:	1 year	Skilled	CentOS:	1 year	General

Datanase

MySQL:	1 year	General	SQL Server:	1 year	Skilled
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Certificates

Language

CET-4: 510

CET-6: 485

IELTS: 6.0

Computer

NCER: C programming language

NCER: Network Technology

Interests

Riding: 2012 completion of the Sichuan-Tibet riding; 2013 Qinghai Lake.

Website: Master station basic principle, the use Jekyll hosted blog on GitHub; build GitLab server within the network.

MOOC: 2013 to complete five courses; 2014 currently completed a course of study.

Rock: There used to go LiveHouse listen to live music; went to Beijing strawberries, Midi Music Festival in 2011 during May.

Travel: 2013 Thailand; 2013 Malaysia. .