

Juan Jose Chong

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EDUCATION

- Master of Science in Electrical Engineering (MSEE) – Thesis: Image Quality Defect Analysis of Texas Instruments DLP DMD Devices**
Texas Tech University, Lubbock, TX **GPA: 3.833** **May 2013**
- Bachelor of Science in Electrical Engineering (BSEE) with Minors in Spanish and Mathematics**
Texas Tech University, Lubbock, TX **GPA: 3.000** **May 2011**

WORK EXPERIENCE

- iSensor Test Development Engineer** | Analog Devices, Greensboro, NC **July 2015 – Present**
- Assisted in designing IMUs which integrate MEMS accelerometers and gyroscopes
 - Wrote software to analyze IMU performance metrics such as noise, stability, offset, and g-sensitivity
 - Developed application-specific hardware and software, integrating iSensors into customer solutions
- Lead Electrical Engineer** | camBLOCK, Dallas, TX **February – June 2014**
- Designed and manufactured an ARM-based controller for the camBLOCK Adventure camera control system
 - Assembled the initial revision of circuit boards and verified system functionality
 - Designed peripheral boards for the system's additional features such as motor controllers, encoders, Ethernet interfaces, etc.
- RF MEMS Product Development Engineer** | Texas Instruments DLP, Plano, TX **January – November 2013**
- Coordinated testing of RF MEMS devices and analyzed information using statistical analysis tools such as JMP and Spotfire
 - Worked to create an environmental testing infrastructure consisting of five test platforms and four test boards to be used for device qualification (HAST, IVA, temperature, shock, vibration, BLR, etc.)
 - Used bench equipment for the testing of RF MEMS devices and assisted in correlating electrical information to mechanical operation
 - Assisted in developing bench and production scale accelerated life test in order to acquire package and superstructure lifetime data
 - Developed a novel method of testing time-dependent dielectric breakdown on MEMS structures
 - Managed engineering time and resources to develop customized hardware for bench and production testing
 - Provided bi-weekly updates to project managers and technical team members on the performance of device revisions
- DLP Product Development Engineer Co-Op** | Texas Instruments DLP, Plano, TX **January – August 2012**
- Worked with process, characterization, design, and test engineers to improve yield and reliability of DLP devices
 - Used JMP to correlate device parametrics to production yield
 - Subjected MEMS devices to environmental tests such as HAST, IVA, temperature, shock, vibration, etc. and investigated outliers
 - Assisted with ongoing yield improvement projects by correlating device parametrics to intended device improvements
 - Assisted with qualifying a high volume DLP device, .55XGA S450 (1024 x 768), for release to manufacturing and sale

ACTIVITIES & CURRENT PROJECTS

FIRST Robotics Senior Mentor

- Led groups of students to design, prototype, build, test, and debug a competition robot in six weeks
- Mentored 50+ high school students on three different teams since joining the FIRST program in 2008
- Taught students practical and analytical skills such as working with power tools, prototyping, CAD, time management, and teamwork
- Worked with the NI LabVIEW and the cRio platform to interface with sensors, motor controllers, and human interface devices (HIDs)
- Built manipulator prototypes using tools such as a 3D printer, lathe, mill, and laser cutter

Two and Three Axis Motor Controllers

- Designed a hand held motor control system for camera motion control applications
- Integrated an ARM microprocessor, stepper motor controllers, and other peripherals on one PCB

Solid State Tesla Coil (SSTC)

- Designed and built a controller and gate driver incorporating IGBTs, temperature, current, and frequency control, and fiber-optic triggering

ACADEMIC EXPERIENCE

Study Abroad at Hochschule Landshut in Germany

- Worked with international students to develop automated parametric tests using LabVIEW and a NI PXI system
- Created a test plan for SN74HC02 quad 2-input NOR gate and wrote functionality, continuity, and high/low level input voltage tests

Parametric Testing of Analog-To-Digital Converter

- Tested and characterized TLC0820AC ADC using LabVIEW and an NI PXI system
- Tests performed: continuity, high/low level input current, high/low level output voltage, conversion time, access time, and nonlinearity error
- Used statistical analysis programs to generate visualizations of mean, median, standard deviation, C_p , and C_{pk}

SKILLS & CERTIFICATIONS

- Familiar with EagleCAD, Cadence OrCAD, AutoCAD, Autodesk Inventor, and Replicator G
- Experience configuring, maintaining, and using Cascade automated and manual probe stations
- Experience using an interferometer (Zygo) to measure MEMS structures
- Familiar with configuring ADDS, DNS, Exchange, VPN, Apache, MYSQL, and PHP servers in Linux and Windows environments
- Experience with Matlab, Maple, MathCAD, Verilog, C, C++, Robot C, and LabVIEW
- Skilled with statistical analysis programs such as JMP and Spotfire
- Worked with 3D printers, laser cutters, automated & manual mills, lathes, press breaks, band saws, and most other shop equipment
- Certified Engineer-In-Training by the Texas Board of Professional Engineers (No. 46300)
- Fluent in Spanish