

# Chris Robbins

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## ENGINEERING EXPERIENCE

**Engineering Associates, Inc.** – Chattanooga, TN

*August 2008 – August 2010*

*Fiber Network Design Engineer, Electric Power Board (EPB-Chattanooga)*

- Designed distribution and feeder fiber networks for EPB's fiber-to-the-home project (170,000 business/residential customers).
- Specialized in quality control and process flow improvements to increase project efficiency and minimize losses.
- Plotted design prints for installation crews to use during construction.
- Assisted team lead as designated point-person for inquiries from designers about current procedures.
- Learned new CAD package (G-Technology) to facilitate both initial fiber design and post-construction troubleshooting.
- Took initiative to write and maintain a 10-page fiber design manual to document design procedures.
- Took initiative to write and maintain a 10-page CAD-specific training manual to assist new hires.
- Designated as mentor for training all new hires on both fiber design and CAD procedures.
- Interacted daily with field engineers, construction crews, and management to solve network errors.

**Roper Corporation (GE Consumer and Industrial)** – La Fayette, GA

*January 2008 – May 2008*

*Co-op Rotation – Free Standing Electric Range*

- Trained in the basics of lean manufacturing and Six Sigma analysis to reduce waste and improve process efficiency.
- Mentored in the GE design process – from project initiation and concept development, to design guidance and confirmation, to the pre-pilot, pilot and production phases – to work more effectively on any given task.
- Utilized cost benefit analysis, part measurements, gauge R&R, and tolerance loop analysis to influence tooling decisions.
- Participated in weekly technical review and business change meetings to stay current on design procedures and processes.
- Functioned as intermediary between assembly line workers, suppliers, and design engineers to facilitate clear communication.
- Collaborated with multi-national site employees on part changes (Louisville, KY; Satyam, India, San Luis Potosi, Mexico).

**Raytheon Missile Systems** – Clemson, SC

*August 2007 – December 2007*

*Design Internship*

- Modified the nose landing gear assembly design of the Cobra Unmanned Aircraft System (UAS) to address recurring design failures experienced during hard, improper landings as part of a 4-person design team.
- Utilized CAD modeling (SolidWorks) and finite element analysis (COSMOSWorks) to model and predict how adjustments to component design and material properties would affect landing performance.
- Fabricated two full, bolt-on assembly replacements, machining some parts with facing and milling operations and working with local machine shops to laser-cut and water-jet others.
- Tested both iterations of new design assemblies in a test lab to confirm and improve CAD simulations.
- Wrote 90% of a 100+ page final report that (1) documents design rationale, (2) includes detailed drawings for reproduction, and (3) provides a complete assembly manual, ready for immediate use.
- Represented design team in weekly progress meetings with advising committee made of professors and an industry professional.
- Communicated weekly with Raytheon employees in Tucson, Arizona to clarify customer constraints and criteria.

## ADDITIONAL WORK EXPERIENCE

**Bethlehem Baptist Church** – Minneapolis, MN

*September 2012 – present*

*Pastoral Assistant to Lead Pastor South*

- Serve as first point of contact for lead pastor in various roles – staff leadership, email, scheduling, counseling, hospital visitation.
- Preach and teach to help people better understand the Bible (up to 600 people at once).

## EDUCATION

**Clemson University** – Clemson, SC

- Bachelor of Science, Mechanical Engineering
- Minor: Spanish (Spanish Language and Cultural Studies Abroad – Seville, Spain)
- Overall GPA: 3.37
- Coursework: Machine Design, Mechanics of Materials, Heat Transfer, Thermodynamics, Fluid Mechanics

**Bethlehem Seminary** – Minneapolis, MN

*Expected Graduation: May of 2014*

- Masters of Divinity, Whole Bible Concentration

## QUALIFICATIONS AND TECHNICAL SKILLS

**Fundamentals of Engineering (FE) Certification** – Engineer-in-Training (License EIT.16850)

**CAD experience** – SolidEdge, Solidworks, G-Technology

**FEA experience** – COSMOSWorks

**Computer experience** – MATLAB, Simulink, Minitab, Maple, Microsoft Office (Word, Excel, PowerPoint, Access)

**Languages** – English, Spanish, Biblical Greek, Biblical Hebrew