

**Andrew G. Bell**  
**Department Chair - Engineering**  
**Ivy Tech Community College of Indiana – Northeast Region**  
**3800 N. Anthony**  
**Blvd. Fort Wayne,**  
**IN 46805**

### **Professional Preparation**

Stevens Institute of Technology	Systems Engineering	Coursework completed for Ph.D., 2010
Stevens Institute of Technology	Space Systems Engineering	Graduate Certificate, 2008
Rensselaer Polytechnic Institute	Electrical Engineering	Master of Science, 1985
Southeastern Massachusetts University	Electrical Engineering	Bachelor of Science, 1982

### **Appointments**

Ivy Tech Community College, Fort Wayne, IN **2011- present**

#### **Department Chair – Engineering**

- PI for NSF ATE Grant - Microsystems Certification Project (1400470)
- Responsible for three programs: Pre-Engineering , Electrical Engineering Technology, Engineering Technology.
- Developed and taught numerous new engineering courses for all engineering programs
- Supported outreach to community and participated in new STEM related initiatives.
- Taught classes for other programs as needed in the areas of basic electrical and electronics.
- Directed the design, construction and equipment selection (hardware and software) of the new engineering lab to support Technology and Engineering Programs.
- Participated on two grants that focused on globalization of course content

ITT GS, Fort Wayne, IN

**1988-2011**

#### **Senior Staff Engineer**

Performed detailed circuit analysis, design, and test of space electronics for weather satellites and other Defense products. Mentored and trained numerous engineers in the use of advanced analysis tools to support many space programs.

- Engineering staff must be capable of simulating complicated electronics using advanced simulation tools. Developed coursework and presented material to all staff members, improving overall performance of the department.
- Ease of access to instructional information is essential to support learning. Developed and designed internal HTML-based websites with linkage to training material.
- Training budgets can be limited. Developed and presented numerous complex PowerPoint engineering presentations as lunch time training classes on more than 20 complex topics.
- Circuit Analysis tools are very difficult and can be challenging to learn. Developed and presented classes on how to effectively use advanced engineering simulation tools to support the design and analysis of electronic circuits.
- Potential loss of informal design documents can be perceived as loss of value by customers. Developed and implemented new process for capture of searchable informal documents. Led 2 million dollar savings through cost avoidance.
- Successfully sharing new ideas on complicated topics is essential for innovation. Presented papers on advanced engineering concepts to international and national audiences.

## **Andrew G. Bell**

### **Design and Analysis Verification Group Lead**

Formed and led a team of CAD tool experts who could support all products. Role of group was to perform analysis, develop SPICE device models, and educate staff on use of analysis tools.

- Use of common analysis tools and common device models can reduce cost and increase analysis all space programs.

### **Analog Design Section Head**

Led a 13 member engineering team of analog and power design engineers.

- Developed design processes, coordinated staffing with projects, and provided technical and administrative direction.

### **Anthis Career Center**

Developed and taught Industrial Electronics and third year of electrician Associated Builders and Contractors Course.

GE, Pittsfield, MA

1982-1988

**Electrical/Servo Design Engineer**

### **Publications**

Is Phase Margin Enough to Prove Stability?, Fall 2011 EMA Currents

Creating a Toleranced Transfer Function in PSpice A/D, Summer 2010 EMA Currents

### **Synergistic Activities**

Site Evaluations for the Feasibility for Potential PV Installs in the Dominican Republic, Presentation to Fall 2013, Engineering Research & Design Conference at IPFW

Bring Virtual Learning to Life in Electrical Engineering, Presentation to 2012 STEMtech conference

Bring Virtual Learning to Life at the Point of Need in Electrical Engineering” Presentation to 2012 NEW conference

Power Bus Design Optimization Using PSPICE and Taguchi, Presentation to 2004 ITT VBPD Symposium

Worst Case Analysis of Electronics Using Parameter Design Techniques, Presentation to 2003 ITT VBPD Symposium

Worst Case Analysis using Analog Workbench, Presentation to 2000 Cadence User Group

Patent, Sampled Data Automatic Gain Control, 5,642,075, 24 Jun, 1997

Stability Analysis of Multi-output switching Power supplies using state Average Models in Analog Workbench, Presentation to 1993 Cadence User Group

Modeling of Coupled Core Inductors for Application in State Average Buck Converter Simulations, Presentation to 1992 Cadence User Group

### **Collaboration & Other Affiliations**

Developed global course content for ENGT 120 as part of Global Learning Across Indiana (GLAI) a Title VI grant with Ivy Tech and Indiana University

Selected to participate in a Caribbean and Central America alternative energy US Department grant that brought a cohort of eight faculty members to rural Costa Rica to observe and participate in service-learning program focusing on Renewable Energy for International Development.