

Allen Hollister, MSEE

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Objective - Consulting

Specialty Areas

Training

- Teach a variety of classes on wideband amplifier design
- Teach management classes on topics ranging from project leadership to improving department efficacy
- Individual training and mentoring
- Written published textbook *Wideband Amplifier Design*

Analog Design

- General Analog Design
- Wideband Amplifier Design
- Expert in ECL design
- Expert in high frequency PCB layout for low noise and crosstalk

Systems Design

- Communications including RFID and 802.11
- Analog systems
- Instrumentation systems
- Mixed analog/digital systems

Management

- Improving the efficacy of engineering departments by identifying and correcting problems due to improper use of process, people issues, or organizational barriers within the engineering organization

Technical Accomplishments

Creative

- Generated three key wireless patents during 2003 and four more on RFID in 2007 for a total of 14 when added to the other seven patents already granted. Very broad and deep knowledge base
- Hold patents in digitizer systems and circuits, and in modular instrument design
- Hold patents in adjustable skew rate timing circuits, triggered frequency locked oscillators, sampling circuits, and other high frequency analog circuitry

Designed

- High frequency wide bandwidth RF analog amplifiers, including custom analog IC's, digital design, and the systems design required for implementation
- Created and built an RFID reader capable of accurately reading tags in large tag fields at 95% of the capability of the underlying RF channel
- Designed many digital systems including control logic for advanced digitizers. Expert on state machine design
- Designed a wide range of electronic test instrumentation including the backplane design for the VXI_{bus} system

Knowledgeable and Experienced

- Member of IEEE 802.11 and 802.19
- Experienced in RFID, 802.11, 802.19, 802.15, Bluetooth, DECT, UWB, ECL, A/D converters, DAC's, and Digitizers
- Company expert in VoIP, IPv4, Ethernet, TCP, UDP, OSI 7 layer model, and telephony systems
- Experienced with instrumentation, high speed modems, GPS and Loran navigation systems, power supply design
- Software systems (written "c" and database), DSP, and simulation tools including SPICE, GENESYS, and Mathematica
- Principal electrical designer and first chair of VXI_{bus} Consortium (IEEE 1155)
- Expert in all analog design including high frequency

Published Author: Books

- *Wideband Amplifier Design*, published by SciTech Publishing Inc. May 2007
- *The Theory and Practice of Digital Design*, Unpublished
- *Practical PCB Layout for Low Noise*, Unpublished

Management Accomplishments

Leadership

- Recruited by 4 companies to create, & rebuild engineering departments, or to solve difficult engineering management problems
- Expert at finding, hiring and keeping high quality staff. Ramped staffing for a revitalized engineering department from 12 people to over 45 in one year
- Directed multidisciplinary teams (EE, CS, ME, support) of up to 45 people at multi-site locations

Reduced Time to Market

- Consistently able to reduce time to market for new products by 30 to 60 percent
- Implemented phase gate system at several companies
- Implemented engineering process controls at several companies
- Used contingency planning to keep product developments on schedule
- Used modular architectures to enable re-use of HW/SW that greatly reduces up development time

Product Creation

- Created both high-cost low-volume (10 units/month) state-of-the-art products and low-cost high-volume (80,000 units/month) consumer items with stringent packaging requirements
- Designed & released a Loran Nav product that set industry records for project time (1 yr), price, performance, & sales
- Implemented a modular architecture system that allowed us to create a new GPS navigation product in under 3 month

Negotiated

- Successfully negotiated contracts with third parties to outsource technology

Expert

- At all aspects of engineering management, including organization, strategic plan, engineering process, risk management, and people

Respected

- By management for ability to “get it done,” by staff for technical capability and for understanding their problems

Communication

- Valued as someone who can explain complex issues to nontechnical people as well as technical detail to engineers
- Given many papers to large audiences as well as important presentations to senior level executive management

Proven Employment Record

Startup Companies

- **Tiernan**, an MPEG Company--VP of Program Development
- **Identifi**, an RFID company--VP of Engineering
- **SiCom**, a manufacturer of high-speed modems for the satellite industry--Director of Engineering

Large/Medium Sized Companies

- **Tektronix**, an instrumentation company--Principal Engineer/Engineering Manager
- **Plantronics**, a manufacturer of headsets--Principal Engineer/Director of Engineering

Small Companies

- **Wavetek**, an instrumentation company--Principal Engineer/Engineering Manager
- **NH Research**, a manufacturer of power supply test systems--VP of Engineering
- **II Morrow**, a manufacturer of Loran and GPS aircraft navigation systems --Division Engineering Manager

Engineering Education

- **Portland (Oregon) State University**--Assistant Professor of Engineering

Additional Experience/Accomplishments

- Commercial pilot's license with instrument rating
- BSEE, MSEE; University of Nebraska