

## Daniel A. Staver

3130 Hollycrest Dr.  
Tave Tech Corporation

Colorado Springs, CO 80920  
(719) 502-1675 - cell

dan.staver@tavetech.com  
[www.tavetech.com](http://www.tavetech.com)

**Objective:** Project management, engineering, hardware or firmware design, consulting.

**Education:** M.Eng. EE Cornell University, 1984  
BS EE Cornell University, 1982

### Specific Skills:

- Project leadership in design of complex systems and products using digital & mixed analog-digital integrated circuits, custom ASICs, COTS<sup>†</sup> devices and innovative DSP algorithms. (<sup>†</sup> Commercial-Off-The-Shelf)
- Twenty plus years industrial experience in digital & mixed signal analog-digital system design: printed circuit board and system design & test; instrumentation & sensor interfacing for a broad base of industrial, medical, consumer and government applications and products.
- Integrated Circuit design and project management of digital & mixed-signal analog-digital IC's and UHF RFID IC's.
- Extensive embedded code development (C/C++) using TI DSP/MSP430 family parts, MicroChip uControllers.
- Custom data filtering and script development, developed secure automated web-based filtering service using HTML, PHP, MySQL.
- Primary customer contact: work with customers to learn their application, define system goals, and, by determining what is needed vs. what is initially wanted, develop a more optimal system solution.
- Innovative application of DSP (Digital Signal Processing) to products and systems, custom DSP-course design.
- Experience in managing projects with varied, cross-cultural and remote resources. I have managed projects with concurrent resources in the U.S., Switzerland, the Czech Republic and Slovenia.
- Experience in communicating cross culturally: Mandarin Chinese - spoken, German - written and spoken, French: written & spoken (learning). I have quite a bit of cross-cultural experience and can speak Mandarin Chinese, some French, German, Spanish and Czech and I know a few words/phrases in many languages just for fun. It's good to be able to "break the ice" in just about any situation.
- Tools experience, simulation & modeling: IDL, Matlab, Saber, SPICE, Modelsim, awk, C/C++, Fortran, Pascal, Forth, Excel, Cadence, various CAD tools. Computing environments: UNIX tools & filters, Windows, DEC.
- Coaching less experienced engineers. Demonstrated commitment to succeed. It's amazing what can be accomplished when your main concern is not about who gets the credit. I usually have fun doing what I do.
- RF measurement and analysis experience to 2.5GHz.
- Embedded programming using various uC families (TI\_DSP/MSP430/Chipcom family and Microchip processors).
- Development of FPGA-based systems using VHDL & Verilog for both Altera and Xilinx targets
- Six Sigma Green Belt Certified. I try to be educable.

### Experience:

#### (3/2008 - Present) President, Tave Tech Corporation, Colorado Springs, CO:

- Currently in initial product development phase of RF communication consumer products including security and entertainment applications. Electrical engineering consulting services and embedded system development.

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### **(9/2001 – 5/2008) US-ASICs Group Leader, EM Microelectronic-US, Colorado Springs, CO:**

- Matrix management of mixed-signal design group, new project evaluation and estimation, customer interface, spec negotiation, progress tracking, negotiating resource allocation, technical contribution in analysis, digital design, RF measurement & analysis.
- Project manager and customer contact for various low-voltage/low-power ASIC's, RFID chips, encryption & authentication, dispersed team: US, Switzerland, Czech Republic, Germany and Slovenia.
- Get IC's into production and keep them in production, keep the customer happy, creative problem solving, keep the fab happy, production planning, lab tests, modeling and analysis to support product development, qualification and production involving low-freq general instrumentation & measurement as well as RF measurement to 2.5GHz.

### **(7/1984 – 9/2001) Senior Staff, GE Corporate Research and Development Center, Schenectady, NY:**

Lead teams of designers and layout technicians in developing mixed-signal analog-digital ASICs and systems for industrial, medical and government applications.

#### **Various system design projects:**

- Detector Framing Node (DFN) - Complex full-size PCI board which interfaces solid-state X-ray detector electronics via 1.25GHz optical Fibre Channel link to PC. Responsible for all aspects of hardware design and architecture, component selection, supervision of board layout (12-layer board), population and support during production. Board fully functioned first pass.
- Aux. Image Interface (AIMI) Board – Complex daughter card for DFN board allows alternate real-time image processing, responsible for all aspects of board design.
- Data Acquisition Platform Project – Project leader responsible for: directed customer in defining system partitioning and specs; definition of meter/ASIC partitioning; overall system design of mixed-signal analog-digital ASIC; design of control logic, digital decimation filter, and sensor drive architecture. ASIC worked in customer's kV Meter application first-silicon. Developed DSP-based metering algorithms for the GE kV & kV<sup>2</sup> Meter product lines. Developed and taught DSP course "DSP for Metering Applications" at request of internal GE component. Traveled off-site to teach 6-day course over a 3-wk period to approximately 17 engineers who then with my guidance implemented my filtering architecture in the GE kV and kV<sup>2</sup> meter product lines.
- High-Speed Modem Project - Responsible for all aspects of project design and development and source selection of modem protocol IP. Delivered working DSP-based modem board (first pass) capable of performing desired V.32-bis protocol and embedded functions, as well as up to V.90 protocol; in-field re-programmable - at a 30% lower cost than current V.22-bis modem and at 65% lower cost than customer's expected development approach.
- Jet Engine Turbine Tip Clearance Measurement Project - Researched and invented a new approach for high accuracy high temperature turbine tip-clearance measurement system.

#### **Patents:**

- 33 patents granted, 7 additional patents actively pending, not including foreign patent filings.

#### **Publications:**

- 8 publications.

Detailed resume with list of patents and publications is available at:

[http://www.tavetech.com/dan\\_staver\\_resume\\_detailed.php](http://www.tavetech.com/dan_staver_resume_detailed.php)