



IEEE Components, Packaging and Manufacturing Technology Society – OC Chapter

Tuesday, November 18, 2014 Technical Meeting

The Origins of Silicon Valley: Why and How It Happened

Paul Wesling,

IEEE Life Fellow, SF Bay Area Council Communications Director, and SCV CPMT Chapter Advisor

Abstract

Why did *Silicon Valley* come into being? The story goes back to local Hams (amateur radio operators) trying to break RCA's tube patents, the sinking of the Titanic, Naval ship communications requirements, Fred Terman and Stanford University, local invention of high-power tubes (gammatron, klystron), WW II and radar, William Shockley's mother living in Palo Alto, Hetch Hetchy water, and the SF Bay Area infrastructure that developed -- these factors pretty much determined that the semiconductor and IC industries would be located in the Santa Clara Valley. And since semiconductor device development and production were centered here, it made sense that Charles (Bud) Eldon of H-P would be asked by his management to start an IRE Group on Product Engineering in Palo Alto, to serve our local engineers (which grew into today's CPMT Society). Bud went on to become president of the IEEE. Paul Wesling, a CPMT Society Distinguished Lecturer, will give an exciting and colorful history of device technology development and innovation that began in San Francisco and Palo Alto, moved down the Peninsula (seeking lower costs and better housing), and ended up in the Santa Clara Valley during and following World War II. You'll meet some of the colorful characters -- Lee DeForest, Bill Eitel, Charles Litton, Fred Terman, David Packard, Bill Hewlett and others -- who came to define the worldwide electronics industries through their inventions and process development. He'll end by telling us about some current local organizations that keep alive the spirit of the Hams, the Homebrew Computer Club, and the other entrepreneurial groups where geeks gather to invent the future.



Biography

Paul Wesling received his BS in EE and his MS in materials science from Stanford University. Following assignments at GTE/Lenkurt Electric, ISS/Sperry-Univac, Datapoint Peripheral Products (VP - Product Integrity), and Amdahl (mainframe testing), he joined Tandem Computer in Cupertino (now part of HP) in 1985. He designed several multi-chip module prototypes, managed Tandem's Distinguished Lectures series, and organized a number of advanced technology courses for his Division and also for the IEEE. He managed a grant from the National Science Foundation for development of multimedia educational modules. Paul retired from HP in 2001, and now serves as the

Communications Director for the IEEE S.F. Bay Area's Council. As VP of publications from 1985 through 2008, he supervised four archival journals and a newsletter. He is a Fellow of the IEEE, and received the IEEE Centennial Medal, the Board's Distinguished Service award, the Society Contribution Award, and the IEEE's Third Millennium Medal. He has organized over 500 courses for the local IEEE chapter in the Santa Clara Valley (Silicon Valley), many of them held at Stanford University (and, more recently, at Silicon Valley company facilities). He served as scoutmaster of his local Boy Scout Troop for 15 years, and was Advisor of a High-Adventure Crew, and enjoys backpacking, fly fishing, guitar and amateur radio (call sign: KM6LH).

Date: **Tuesday, November 18, 2014**

Location: **Broadcom Corporation, 5300 California Ave., Irvine, CA 92617 – Doheny in Bldg. 2 First Floor**
Check in at the Security Gate and proceed to Bldg. 2. You will be escorted into the building.

Time: **5:30-6:00pm: Social time, 6:00-7:00pm: Presentation, 7:00pm: Dinner (free for attendees!)**

RSVP: **IEEE members and non-members all are welcome. Please RSVP at <http://tinyurl.com/pgprn9t>**
Please be at the Bldg. 2 entrance by 6:00 pm; no escorts after that. For questions regarding RSVP, please contact Zijie Cai (zijiecai@broadcom.com).

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