

Gregory Uehara received the B.S. degree in Electrical Engineering from the Univ. of Washington, Seattle and the B.S. degree in Pre-Engineering from The College of Idaho, Caldwell, both in 1983, the M.S. (1989) and Ph.D. (1993) degrees in Electrical Engineering and Computer Sciences from the Univ. of California at Berkeley. From 1983 to 1986, he worked for Intel Corporation in Chandler, Arizona and then Micro Linear Corporation in San Jose, California developing CMOS mixed-signal integrated circuits (ICs). His research at Berkeley focused on integrated circuit design and communication theory. At Berkeley, he received the Angelakos Award given to a graduate student for "altruistic assistance afforded fellow graduate students".

In 1993, he joined the Dept. of Electrical Engineering as an Assistant Professor at the Univ. of Hawai'i at Manoa. He received early tenure and became Associate Professor in 1997. He received a prestigious CAREER Award from the National Science Foundation and was co-PI on grants from NASA. He received financial and in-kind support for research in analog and mixed-signal circuit design in CMOS and GaAs from TRW, Broadcom Corp, Hitachi, Silicon Systems Inc., Infineon, and LSI Logic. He also began industrial consulting. In 1995, he received the IEEE Outstanding Faculty Award from the Student Chapter of IEEE.

During his sabbatical year in 2000, he decided to return to industry to learn and experience the full product development cycle. He and his wife moved to Austin, Texas where he became Director of Engineering for Wireless Products at Silicon Laboratories. He recruited and managed a world-class team that changed the cost structure of the radio function of cell phones with the first CMOS-only implementation of a GSM (2G) transceiver. In 2005, he left and spent one year with a colleague as Entrepreneurs-in-Residence at Austin Ventures which at the time was the third largest VC in the US. They met weekly with a partner and an associate vetting product and company concepts and ideas. After a year he decided to move on and was recruited by the founders of Marvell Technologies to develop cellular radios to integrate with the X-Scale processor business Marvell purchased from Intel which powered RIM's Blackberry handsets. He joined as Associate Vice President of Engineering and worked on 3G through the beginning of LTE over nine years at Marvell. He built a team in Austin and managed multi-site projects that included California and Italy and coordinated chip integration into cellular handsets with teams in the Far East. Building an effective working culture was always emphasized. He and his family returned to Hawai'i in 2012.

In 2015, he left Marvell to work full time on Alert Core, Inc., a startup he founded in 2012. Through Alert Core, he developed a wearable device for applications in physical therapy rehab, athletic improvement, and injury prevention. The inspiration for Alert Core came from his personal experience with chronic low back pain and the ineffective physical therapy he received in Austin and at the Mayo Clinic. Being taught by a friend to use his core muscles had a tremendous pain eliminating result that caused him to envision a product that would have made his physical therapy effective. He worked full-time for four years developing many of the foundational concepts for Alert Core and filing patents. He then returned to industry, with two short stints as Vice-President of Engineering at two small companies, managing design, applications, and test engineering. In 2021, he started GTU Consulting LLC. He continues to consult while working on Alert Core. In August of 2021, he began research to write and illustrate a book draft on back pain that's now up to 85,000 words and over 150 illustrations. He recently received an Adjunct Professor appointment in the Department of Electrical and Computer Engineering at the Univ. of Hawai'i.

He has 25 published papers in journals and conference proceedings and 45 issued US patents, and one issued Japanese patent. Ten patents protect the Alert Core wearable technology (with additional patents pending). He and his family live in Kailua, O'ahu.

Career Summary: Gregory Uehara, Ph.D.

Over 30 years of experience in industry and academia developing analog, mixed-signal, RF, power management, and digital integrated circuits for communication, magnetic storage, display, and cellular and wireless systems.

- Proven leadership in all aspects of product development including definition, architecture, design, validation, testing, manufacturability, characterization, performance optimization, platform integration, debugging, implementing generational product improvements, and patents.
- Recruited, managed, and participated in design teams which developed several best-in-class products in highly competitive markets of ADSL and cell phone integrated circuits. Led as both design and project lead a multinational development team to develop highly competitive products for top tier cellular handset manufacturers.
- Led and mentored students, graduate student colleagues, and industry engineers as a student, professor, and industry professional
- Received early tenure, strong student teaching evaluations for both undergraduate and graduate level courses, and federal and industrial grants as PI and co-PI as Assistant and then Associate Professor in the Electrical Engineering Department at University of Hawaii.
- Significant experience with patents. Served on the patent review committees of two public corporations. Authored twelve patent disclosures leading to issued US patents including two as a consultant.
- Vetted business and market opportunities for a new chip company as Entrepreneur-in-Residence at Austin Ventures (third largest US VC at the time).
- Highly sensitive to the importance of establishing and building team and corporate culture that begins with hiring and managing individual roles and interactions; Believes that excellent working culture must be designed and developed very deliberately.
- Developed concept for world's first wearable device for the core muscles; Designed housing, belt, and app running in iOS to teach users to engage, train, and strengthen their core muscles; Ten (10) US patents issued, numerous patents pending; Wrote the app in Xcode (Apple tool for app development) including real-time graphing of core muscle and body movement data algorithm for identifying core muscle contraction, exercise apps, and games. Designed the device housing and belt. Anecdotally demonstrated the prototype on numerous people. Developed principles for use models in back pain rehab, athletic performance improvement, and workplace injury prevention. Navigating the development of a capital efficient business strategy to include Food and Drug Administration (FDA) clearance and beyond. Working closely with a Neurosurgeon who focused career developing minimally invasive spine surgical techniques.
- Career Journey: Three years in industry (Intel and Micro Linear), followed by seven years in graduate school (UC Berkeley), seven years teaching (University of Hawai'i) and consulting (primarily with Datapath Systems), then a full-time return to industry (Silicon Laboratories), Entrepreneur-In-Residence at Austin Ventures for a year, then became Associate Vice-President of Engineering, Wireless Products at Marvell. Returned to industry for experiences in the full product cycle, i.e., product conception through high volume manufacturing. Worked full-time on Alert Core for four years. Then, served as engineering VP/GM of the US office of a China-based company (Chipone) to improve the engineering culture and fix design problems. Became VP of Engineering at a Silicon Valley startup building small cell base stations for the 5G market. Then, transitioned to full-time chip design consultant which allows me time to continue working on Alert Core. Consulting for eTopus, a Silicon Valley startup co-founded by his first graduate student at Univ. of Hawai'i. Recently received an Adjunct Professor appointment in the Department of Electrical and Computer Engineering at the University of Hawai'i at Mānoa, Honolulu.