Bradley J. Bazuin

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Education:

Bradley J. Bazuin received the B.S. degree in electrical engineering from Yale University, New Haven, CT, in 1980 and the M.S. and Ph.D. in electrical engineering from Stanford University, Stanford, CA, in 1982 and 1989 respectively.

Dr. Bazuin's graduate work was with the Center for Integrated Electronics in Medicine (CIEM) associated with the Stanford University Integrates Circuits Laboratory (ICL) and Center for Integrated Systems (CIS). He defined and developed a custom implantable dimension measurement systems based on radar ranging techniques using piezoelectric transducers. As part of this work, Dr. Bazuin installed and characterized the bipolar IC processes he used in the CIS laboratory to fabricate the custom designed IC sensor components and electronics.

Employment:

Dr. Bazuin spent more than 19 years of full and part-time employment in California's Silicon Valley. While initially performing digital circuit design as a part-time employee, he became involved in digital ASIC design, establishing an ASIC design center, digital signal processing algorithm implementation, and system engineering. After becoming a full time employee, Dr. Bazuin became and senior systems engineer and then principal engineer responsible for the system engineering and development of a range of advanced spatial, spectral and temporal signal processing detection and exploitation systems, blind-adaptive anti-jam GPS receivers, LPI communications systems, and, later, commercial wireless communication systems.

Academic Activities:

Since Jan. 2000, Dr. Bazuin has been a term appointed and tenure-track Assistant Professor, since 2007 a tenured Associate Professor and in 2017 and currently Chair of Electrical and Computer Engineering at Western Michigan University. His research interests include; printed electronics with the Center for the Advancement of Printed Electronics (CAPE), flexible hybrid electronic sensors and system design with the Center of Advanced Smart Sensors and Structures (CASSS), printed battery development, embedded signal processing, advanced digital signal processing algorithms including adaptive systems and machine learning, wireless communication, and software defined radios. Dr. Bazuin has 11 IEEE journal and magazine publications and over 54 conference papers and publications in various research areas and topics.

Since 2008, Dr. Bazuin has been an advisor to the Sunseeker Solar Car program at WMU. While advising and supporting all team members, he works closely with those involved in the design, selection and development of custom solar array panels, energy conversion subsystems, Lithium-based storage battery and protection systems, and other car electronics. This involvement has led to Dr. Bazuin becoming the technical lead for the WMU educational solar garden being installed in 2016 and his direction of a six-year education seminars series, beginning in 2016, specifically target at the western and southwest Michigan community, K-12 and college students, and regional industry. The educational solar garden and seminar series have been funded by Consumers Energy as part of their 1-Megawatt solar installation at WMU's CEAS.

Technical Memberships

Dr. Bazuin is a member of the American Society for Engineering Education, the Institute of Navigation, and the Institute of Electrical and Electronics Engineers.