



Dr. Gesley is the founder of Spynsite LLC dedicated to developing spectral image recognition for biomedical and remote sensing applications.

He started his career with work at Tektronix, FEI, and Optical Data. After completing a Ph.D. under the supervision of Lyn Swanson he moved to IBM research in 1985 where he developed the first thermal-field electron optics at 25 kV and 100 kV, respectively for nanolithography and x-ray mask patterning with systems used at IBM Yorktown Heights, IBM Zurich, and UC Santa Barbara.

He moved to Etec Systems (then Perkin-Elmer) in 1989 where the concepts were commercialized and used world-wide for optical mask-making. MEBES IV became the leading-edge pilot production pattern generation tool and Semiconductor International magazine recognized it as one of the best products of 1995. As Etec Engineering vice president, he managed DARPA and Sematech contracts and developed a 50 kV ebeam system, which was subsequently productized. Later as CTO, he was responsible for corporate technology across all mask patterning product lines for laser (ALTA Beaverton, OR) and electron beam (MEBES Hayward, CA) and assessed acquisitions, new business development and technology programs for high density interconnect printed circuit board (Polyscan Tucson, AZ) and electron beam test (Feldkirchen, Germany). He initiated, directed and completed a business plan for the joint development, royalty agreement and technology transfer to AMAT-PDC of microcolumns for electron beam inspection, which led to the acquisition of Etec by Applied Materials, where he continued as VP/co-GM of the mask business group. He managed a variety of U.S., Indian, Russian, and DARPA-sponsored programs including one as principal investigator that developed a fully functional multi-beam electron-laser generated direct write on wafer lithography system. He directed precompetitive research in mask technology in partnership with universities and national labs at Stanford, SLAC, Los Alamos National Lab, Naval Research Lab, Oregon Graduate Institute, Univ. Texas, Harvard, MIT, Seoul National Univ., Univ. Neuchatel, Univ. Glasgow, and Linfield Research Institute. An intern program was also established with Oakland Technical High School. A MEBES donation to Professor Chen Bao Chin at the Chinese Academy of Sciences was initiated and he was an invited speaker at SEMICON China in 2001.

As senior VP at Skyler Technology, he led the product development team that created a multi-threaded, cluster computing, middleware application. It won the 2007 Banker Technology Award for Algorithmic Trading Innovation and was qualified for use at JP Morgan. Another version was selected as one of the most innovative European products in 2009 for aggregating market data in the UK. For a separate application, he invented a message encryption method based on numerical and hierarchical symbol assignments with R. Crandall of Reed College.

He has consulted with DARPA and new business entities, including Novatrans an Israeli-based startup. He is an IP consultant for Berkeley Law and Technology Group, based in Beaverton, OR. He holds 10 patents and authored 50 papers. He received a Ph.D. in Applied Physics (1985) at the Oregon Graduate Center (now OHSU) and a B.A. in Physics from Reed College (1977).