

Ron Nelson  
Bio

Ron received his PhD in Physics in '76 under the guidance of Nick Holonyak, Jr. and John Bardeen at the University of Illinois Urbana-Champaign working first on superconductivity (JB) then III-V photonic devices (NH: InGaAsP LEDs & lasers).

He joined the device development team at Bell Labs in 1976 working to better understand the material and device weaknesses of the 'million hour' gain-guided GaAlAs laser used in the Bell System's first fiber optic field trials that year.

He was promoted in 1979 to assemble a team to develop a 1.3 $\mu$ m InGaAsP laser targeted for deployment in the second fiber optic undersea cable (TAT-9). Less than 5 years later, the laser was deployed in terrestrial systems and displaced the GaAlAs laser for the first sub cable (TAT-8). Bell and Hitachi had independent but cooperative development programs resulting in a shared supply of lasers for TAT-9.

In 1984 he was a co-founder (along with Gene Gordon and others) of Lytel, Inc., a supplier of 1.3 $\mu$ m LED based FDDI & Escon transceivers for enterprise and data centers and 1.3 $\mu$ m lasers & photodiodes for long haul. Lytel was acquired in 1989 by AMP, Inc. (later acquired by Tyco) and soon achieved \$100 million in annual revenues.

In 1990 he joined Motorola Corporate Research to build a center focused on displays for smart pagers/phones and VR (including OLED), fiber optic modules (parallel fiber OptoBus, & Gigabit Ethernet), biotech and advanced manufacturing tools. Ron was a VP and Officer at Motorola until 1999.

In the early '90's Ron was a founder of the North American (NA) Optoelectronic Development Association (OIDA) along with Arpad Bergh & Roland Haitz. OIDA's purpose was to reverse the dramatic drop in NA market share in the late 80's and early '90s; the objective was achieved.

Ron was Board Chair for OIDA's Market Opportunity and Technology Roadmap efforts. The first Roadmaps (optical communications, display, printing & sensors) were published in '93 with DARPA funding and with participation (~500 attendees) from industry, academia and government.

In early 1999 he joined Agility Communications as CEO to commercialize Larry Coldren's SG-DBR tunable laser and 10G transponders. JDSU acquired Agility in 2005 and achieved \$100 million in revenues the following year.

He was an Exec in Residence at Battery Ventures, an angel investor and CEO of two other startups, including Pacific Light Technologies, a quantum dot supplier (LED lighting & high color gamut displays) acquired in late 2017 by a large LED supplier.

He has over 90 publications and 15 patents. Prior to obtaining his PhD, he co-authored a physics text, now in its 15<sup>th</sup> edition.