

Board Meeting
May 16, 2019

RENAME THE MICRO AND NANOTECHNOLOGY LABORATORY, URBANA

Action: Rename the Micro and Nanotechnology Laboratory

Funding: No New Funding Required

The Chancellor, University of Illinois at Urbana-Champaign, and Vice President, University of Illinois recommends for approval a proposal from the Dean of the College of Engineering, the Vice Chancellor for Academic Affairs and Provost, and the Vice Chancellor for Institutional Advancement to rename the Micro and Nanotechnology Laboratory as the Nick Holonyak, Jr. Micro and Nanotechnology Laboratory.

Dr. Nick Holonyak Jr., the son of immigrants from what is now Ukraine, was born in Zeigler, Illinois, and was among the early pioneers in the field of semiconductors and with visible light emitting diodes (LEDs), notably creating the first visible (red) LED in 1962 while working at General Electric. He received his B.S. (1950), M.S. (1951) and Ph.D. (1954) in electrical engineering from the University of Illinois. He was the first graduate student of Professor John Bardeen, the only person to be awarded the Nobel Prize in Physics twice. Dr. Holonyak returned to the University of Illinois in 1963 as Professor of Electrical and Computer Engineering where he remains today on the faculty doing active research.

In the early 1980s, the state of Illinois committed \$3.5 million to modify a campus building for microelectronics research to support the safety and facility requirements for research into semiconductor crystal growth, device fabrication, and testing. Encouraged by the leading-edge science being conducted by Nick Holonyak Jr. and other Illinois faculty, senior leaders from industry advised the state and university to “invest seriously” in the future of microelectronics research, and the state committed an additional \$10 million for a new building. This investment created a first-of-its-kind facility in an academic setting, with a cleanroom fabrication facility designed to meet the stringent fire/safety codes for working with toxic, explosive, and corrosive materials used to make semiconductor devices. Following additional renovations and innovations, in September 2008, the building was renamed the Micro and Nanotechnology Laboratory (MNTL) and became a Unit of the College of Engineering. As a College of Engineering full user research and training facility, the MNTL has become the preeminent laboratory, available to researchers around campus and from academic institutions, industry, and government organizations around the world interested in Nanophotonics and Optoelectronics, Micro and Nanoelectronics, Nanomedicine and BioNanotechnology, and MEMS/NEMS and Integrated Systems.

Nick Holonyak Jr. has mentored over 60 graduate students who have gone on to develop many useful semiconductor devices themselves. His work has led to over 575 papers and 51 patents. Holonyak is a member of the National Academy of Engineering (1973) and the National Academy of Sciences (1984), a fellow of the American Academy of Arts and Science (1984), a foreign member of the Russian

Academy of Sciences (1999), and is a lifetime member of the Institute of Electrical and Electronics Engineers (IEEE). His numerous awards include the IEEE Edison Medal (1989), the National Medal of Science (1990), the Japan Prize (1995), the IEEE Third Millennium Medal (2000), the U.S. National Medal of Technology (2002), the IEEE Medal of Honor (2003), the Global Energy International Prize (Russia, 2003), and the Lemelson-MIT Prize (2005). He was inducted into the National Inventors Hall of Fame (2008) and is the 2015 recipient of The Draper Prize (often referred to as the Nobel Prize for Engineering). Most recently, Dr. Holonyak has been recognized as a Fellow and Honorary member of the Optical Society (OSA) in 2015, and the recipient of the Franklin Medal (2017).

The Board action recommended in this item complies in all material respects with applicable State and federal laws, University of Illinois *Statutes*, *The General Rules Concerning University Organization and Procedure*, and Board of Trustees policies and directives.

The Executive Vice President and Vice President for Academic Affairs concurs with this recommendation.

The President recommends approval. This action will be submitted to the Illinois Board of Higher Education.