



Vimal Kamineni is the Sr. Director of Foundry Engineering at PsiQuantum, where he joined in 2018. Powered by breakthroughs in silicon photonics and quantum architecture, PsiQuantum is on course to build the world's first commercially useful general-purpose quantum computer to solve some of the world's most important challenges. At PsiQuantum, Dr. Kamineni leads the semiconductor development required to build quantum chips with novel materials and devices for quantum computing. He leads a diverse team of process, equipment, integration, design enablement, characterization, and metrology engineers to meet performance, reliability, and yield requirements of a scalable quantum computer. Dr. Kamineni holds a Ph.D. from the College of

Nanoscale Science and Engineering (Albany, NY) in Nanoscale Science with a Thesis titled "Electron-Phonon Interactions and Quantum Confinement Effects on Optical Transitions in Nanoscale Silicon Films". After his graduation, he joined GLOBALFOUNDRIES technology research organization in 2011 and was assigned to the IBM Alliance as a Research Partner. From 2014 to 2018, he led a process and integration team to evaluate cobalt as a replacement for tungsten contacts. He championed the basic materials understanding of cobalt and the integration challenges for a CMOS technology insertion. Dr. Kamineni was an active SRC liaison for GLOBALFOUNDRIES and was engaged in university research projects mentoring students. He has authored over 50 scientific publications, 47 issued patents and co-authored a book chapter in "Ellipsometry at the Nanoscale".