

FENA Student Manu Shamsa Awarded Silver Medal of the Materials Research Society

Electrical Engineering PhD candidate Manu Shamsa, who works in Professor Balandin's [Nano-Device Laboratory \(NDL\)](http://www.ndl.ee.ucr.edu) [link to <http://www.ndl.ee.ucr.edu>] at the University of California - Riverside, received the Silver Medal Award for his research presentation at the annual meeting of the Materials Research Society (MRS) in San Francisco. Manu presented the paper entitled Thermal Conductivity of Nanocrystalline Diamond Films: Effects of Nitrogen Doping and Boundary Scattering. The reported measurements elucidated the physical mechanisms of thermal conduction in the nanocrystalline diamond films on silicon and proved the feasibility of the use of microcrystalline diamond films as thermal interface materials. Microcrystalline diamond films can be deposited on silicon at low temperature. Among the finalists of the MRS graduate research competition were the students from the very best US and international universities: Harvard University, UC-Berkeley, Cornell University, University of Illinois at Urbana-Champaign, Carnegie Mellon University, Purdue University, UCSD and University of Tokyo. According to the MRS press release the awards were presented to the "graduate students who authored or co-authored symposium papers that exemplified significant and timely research." The annual [MRS Spring Meeting](#) in San Francisco is the world's one of the largest and most prestigious conference in the field of materials science and engineering.



Photo: Manu Shamsa at the MRS conference in front of the board announcement with the finalists.