

IEDM Best Student Paper Award Winners (since 2012)

Year	Winner
2021	Chung-En Tsai, Yi-Chun Liu, Chien-Te Tu, Bo-Wei Huang, Sun-Rong Jan, Yu-Rui Chen, Jyun-Yan Chen, Shee-Jier Chueh, Chun-Yi Cheng, Chia-Jung Tsen, Yichen Ma, and C. W. Liu, “Highly Stacked 8 Ge _{0.9} Sn _{0.1} Nanosheet pFETs with Ultrathin Bodies (~3nm) and Thick Bodies (~30nm) Featuring the Respective Record I _{ON} /I _{OFF} of 1.4x10 ⁷ and Record I _{ON} of 92μA at V _{OV} =V _{DS} = -0.5V by CVD Epitaxy and Dry Etching” (National Taiwan University)
2020	K. Sumita et al., “Subband Engineering by Combination of Channel Thickness Scaling and (111) Surface Orientation in InAs-On-Insulator nMOSFETs” (University of Tokyo)
2019	Markus Jech et al., “First-Principles Parameter-Free Modeling of n- and p-FET Hot-Carrier Degradation” (Technische Universitaat Wien)
2018	Wenjie Lu et al., “First Transistor Demonstration of Thermal Atomic Layer Etching: InGaAs FinFETs with sub-5 nm Fin-width Featuring in-situ ALE-ALD” (Massachusetts Institute of Technology)
2017	Felix Eltes et al., “A Novel 25 Gbps Electro-optic Pockels Modulator Integrated on an Advanced Si Photonic Platform” (IBM Research – Zurich)
2016	Roman Koerner et al., “The Zener-Emitter: A Novel Superluminescent Ge Optical Waveguide-Amplifier with 4.7 dB Gain at 92 mA Based on Free-Carrier Modulation by Direct Zener Tunneling Monolithically Integrated on Si” (University of Stuttgart/Philips U-L-M Photonics)
2015	Xiao Yu et al., “Experimental Study on Carrier Transport Properties in Extremely-Thin Body Ge-on-Insulator (GOI) p-MOSFETs with GOI Thickness down to 2nm” (The University of Tokyo)
2014	Jianqiang Lin et al., “Novel Intrinsic and Extrinsic Engineering for High-Performance High-Density Self-Aligned InGaAs MOSFETs: Precise Channel Thickness Control and Sub-40-nm Metal Contacts” (Massachusetts Institute of Technology)
2013	Umberto Celano et al., “Conductive-AFM Tomography for 3D Filament Observation in Resistive Switching, Devices” (IMEC)
2012	Han Wang et al., “Large-Scale 2D Electronics Based Single-Layer MoS ₂ Grown by Chemical Vapor Deposition” (Massachusetts Institute of Technology)

IEDM Best Student Paper Award Winners (1997-2011)

Year	Winner
2011	Tomoyuki Yokota et al., “Sheet-type Organic Active Matrix Amplifier System Using V_{th} -Tunable, Pseudo-CMOS Circuits with Floating-gate Structure” (University of Tokyo)
2010	Agata Šakić et al., “Versatile Silicon Photodiode Detector Technology for Scanning Electron Microscopy with High-Efficiency Sub-5 keV Electron Detection” (Delft University of Technology)
2009	Perrine Batude et al., “Advances in 3D CMOS Sequential Integration” (CEA, LETI)
2008	Jianqiang Lin et al., “Plasma PH_3 -Passivated High Mobility Inversion InGaAs MOSFET Fabricated with Self-Aligned Gate First Process and HfO_2 /TaN Gate Stack” (National University of Singapore)
2007	Dana Weinstein et al., “Internal Dielectric Transduction of a 4.5 GHz Silicon Bar Resonator” (Cornell University)
2006	Shu-Jen Han et al., “CMOS Integrated DNA Microarray Based on GMR Sensors” (Stanford University)
2005	Jianbai Wang et al., “An Integrated Position-Sensing System for a MEMS-Based Cochlear Implant” (University of Michigan)
2004	Masumi Saitoh et al., “Room Temperature Demonstration of Integrated Silicon Single-electron Transistor Circuits for Current Switching and Analog Pattern Matching” (University of Tokyo)
2003	Yuan Xie et al., “Novel UHF Micromechanical Extensional Wine-Glass Mode Ring Resonators” (University of Michigan)
2001	Hideaki Majima et al., “Impact of Quantum Mechanical Effects on Design of Nanoscale Narrow Channel n- and p-type MOSFETs” (University of Michigan)
1999	Mahmoud Rasras et al., “Photo-carrier Generation as the Origin of Fowler-Nordheim-Induced Substrate Hole Current in Thin Oxides” (IMEC)
1997	Felix Mayer et al., “Single-Chip CMOS Anemometer” (ETH Hönggerberg)