

Hema C. P. Movva

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Education	Ph.D., Electrical Engineering, The University of Texas at Austin M.S.E., Electrical Engineering, The University of Texas at Austin B.Tech., Electrical Engineering, Indian Institute of Technology Bombay	Ongoing 2012 2009
Select Publications	HCP Movva et al., Density-Dependent Quantum Hall States and Zeeman Splitting in Monolayer and Bilayer WSe ₂ , Phys. Rev. Lett. 118, 247701 (2017) HCP Movva et al., High-Mobility Holes in Dual-Gated WSe ₂ Field-Effect Transistors, ACS Nano 9, 10402 (2015) HCP Movva et al., Self-Aligned Graphene Field-Effect Transistors with Polyethyleneimine Doped Source/Drain Access Regions, Appl. Phys. Lett. 101, 183113 (2012)	
Experience	Research Assistant , The University of Texas at Austin Ongoing <ul style="list-style-type: none">• Ph.D. advisors: Emanuel Tutuc, Sanjay Banerjee• Electrical transport in transition metal dichalcogenide (TMD) heterostructures• Fabrication of FETs using atomically thin TMDs such as WSe₂, MoS₂, etc.• Magnetotransport measurements in high-mobility TMD FETs• Tunneling phenomena in TMD heterostructure FETs Research Assistant , The University of Texas at Austin Aug '10 - May '12 <ul style="list-style-type: none">• M.S.E. advisor: Sanjay Banerjee• Surface charge transfer doping of graphene for use in self-aligned FETs• Fabricated graphene FETs with chemically doped source/drain access regions Engineer R&D , Solar Semiconductor Inc., Hyderabad, India Jun '09 - Aug '10 <ul style="list-style-type: none">• Modeled wattage losses in c-Si photovoltaic modules• Developed distributed circuit models for c-Si solar cells and modules Circuit Design Intern , Texas Instruments, Bangalore, India May '08 - Aug '08 <ul style="list-style-type: none">• Designed a high-speed dynamic latch based voltage comparator• Designed a 250 MSPS 6-bit SAR analog-to-digital convertor	
Honors	Best Paper Award, 74 th IEEE Device Research Conference Best Poster Award, 73 rd IEEE Device Research Conference Best Poster Award, 9 th International Nanotechnology Conference (INC9) Silver Medal, 37 th International Physics Olympiad National Talent Search scholarship, India	2016 2015 2013 2005 2003
Service	Reviewer , IEEE Trans. Electron Dev., ACS Appl. Mater. Interfaces, Nanoscale Mentor , Research Experience for High School Young Scholars President , Japan Karate Association of Austin	Sum. '17 May '13 - May '15
Skills	<u>Fabrication:</u> Electron-beam lithography, standard cleanroom processing <u>Electrical:</u> Semiconductor parameter analyzers, probe stations, He cryostats <u>Metrology:</u> Atomic force microscopy, scanning electron microscopy <u>Software:</u> MATLAB, LabVIEW, C	