

yrpeng@uark.edu

POETS by the numbers:

4 Universities - University of Illinois at Urbana-Champaign (lead), Howard University, Stanford University, University of Arkansas

- 31 Faculty
- 107 Student Researchers
- 38 Ph.D., 29 M.S., 9 B.S. Degrees Granted to date
- 35 Graduates working in industry to date
- 229 POETS publications
- 64 Technical Reports
- 3 Testbeds – Aerospace, Off-Highway, On-Highway
- 3 Full patents
- 3M+ in Associated Project Funding (2020-2021)

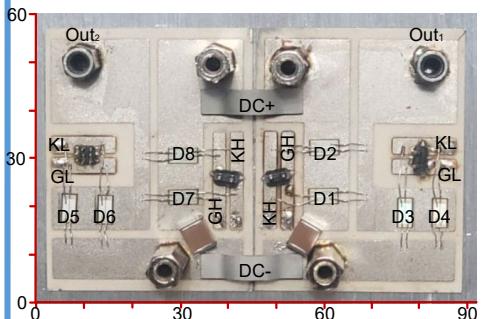
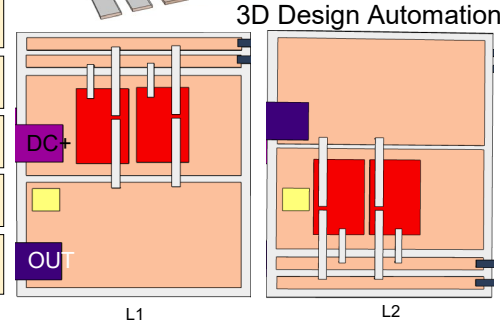
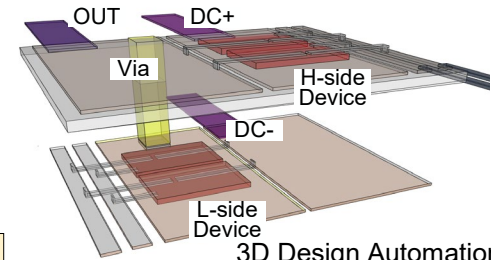
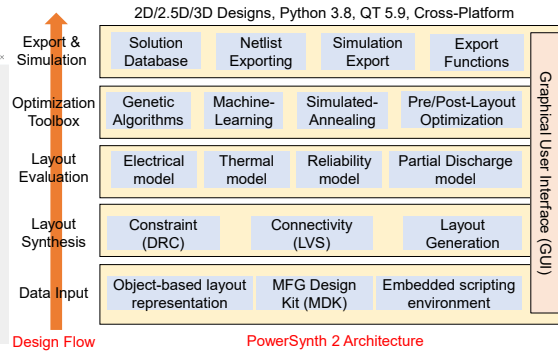
Recent POETS Projects

- Enhancing and Demonstration of PowerSynth-Integrated Physical Design Flow
- Combined Electromigration and Mechanical Failure Risk in Interconnects: The Imminent Threat to Power Package Reliability
- Integration of Thermomechanical Reliability Enhancing Technologies into High Density Module, with Design for Reliability Layout Optimization Scheme
- PowerSynth Progression Towards an Infrastructure for Heterogeneous & 3D Modules

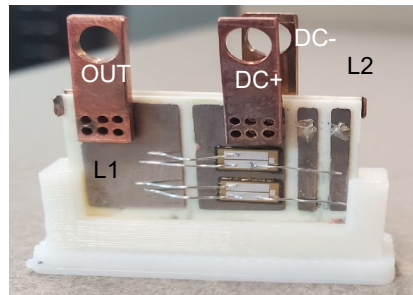
POETS & Related Research

- Computer Aided Design Tools and Design Automation
- Advanced Packaging for Heterogeneous Integration of 2.5D/3D ICs
- Physical and Layout Design Modeling, Analysis, and Optimization
- Parasitic Extraction, Signal and Power Integrity Optimization

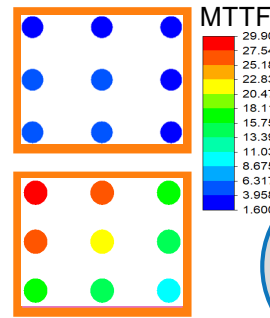
PowerSynth 1&2



PowerSynth-Designed 2.5D Module



PowerSynth-Designed 3D Module



Reliability Optimization

