Announcing the Final Examination of Anagha Sivakumar for the degree of Master of Science

Time & Location: April 6, 2018 at 4:00 PM in Colbourn Hall  Suite 146
Title: Approximate Binary Decision Diagrams for High-Performance Computing

Many soft applications such as machine learning and probabilistic computational modeling can benefit from approximate but high-performance implementations. In this thesis, we study how Binary decision diagrams (BDDs) can be used to synthesize approximate high-performance implementations from high-level specifications such as program kernels written in a C-like language. We demonstrate the potential of our approach by designing nanoscale crossbars from such approximate Boolean decision diagrams. Our work may be useful in designing massively-parallel approximate crossbar computing systems for application-specific domains such as probabilistic computational modeling.

Major: Computer Science

Educational Career:
Bachelor's of Computer Science, BS, 2016, University of Kerala

Committee in Charge:
Sumit Jha, Chair, Computer Science
Gary Leavens, Computer Science
Sharma Thankachan, Computer Science

Approved for distribution by Sumit Jha, Committee Chair, on March 23, 2018.

The public is welcome to attend.