

ECE 8446: High-Perf Processor Arch

In-depth coverage of the advanced architectural features of current and next-generation high-performance computer processors. Topics include superscalar and VLIW design, out-of-order execution, register renaming, caching, value prediction, confidence levels, branch prediction, predication, control speculation, multithreading, compiler optimizations, trace-drive simulator development and case studies of existing processors. A project involves writing a simulator to evaluate the performance of a microprocessor component. Prerequisites: ECE 3445 and C or C++, or permission of the instructor.

Credits: 3.0

Program: [Electrical and Computer Engineering](#)