

## IBM Fellow: Moore's Law defunct

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A new twist on the annual design contest this year was a clock network synthesis task. Twenty-seven teams (16 from the U.S.) entered, but only nine survived.

"Research in EDA tools for clock synthesis is not as popular as other areas such as placement or routing," said Cliff Sze, contest organizer and a research staff member at IBM's Austin Research Laboratory. "However, clock design automation is actually much more difficult."

The task involved distributing a 2-GHz clock across a chip with picosecond precision. IBM evaluated the submissions using seven benchmarks derived from its most recent 45-nanometer designs. It verified results with electrical circuit simulations using open-source tools and the Predictive Technology Model created at Arizona State University.

Of the three winning entries, one came from the U.S.: "Contango", written by Dongjin Lee, a graduate student working in the lab of Professor Igor Markov at the University of Michigan.

The two other winning teams were the National Taiwan University and National Chiao-Tung University.