Chair for Integrated Systems
TUM Department of Electrical and Computer Engineering
Technical University of Munich

Forschungspraxis

Evolutionary Functional Approximation of Digital Circuits

Approximate computing provides a new design paradigm by performing inexact calculations instead of the actual one at the expense of output application quality. As a result, fewer resources are used, more functions can be implemented, and the energy efficiency of the calculations is improved. However, the output quality is preserved above a certain threshold. Cartesian Genetic Programming(CGP) is an evolutionary approach that is employed in digital circuit design and optimization.

This research work aims to bring the CGP together with AC and evaluate the effect of CGP in the optimization of the approximated digital circuits.

Advisors

Manu Manuel