Double Diverse Compiling Framework for Hardware Security using Open Source EDA Tools (AISEC)

Double diverse compiling is a technique used in software security to check for the insertion of malicious code by compilers during the compilation process. It involves compiling the code using two different tools and then cross-referencing the results to ensure their consistency. This approach can also be applied to hardware, where the netlist generated by a commercial tool can be formally verified against the output of an open source tool, and vice versa. The main goal of this project is to develop a framework that automates and verifies this process.

Prerequisites

Motivation to learn, or experience with:
- Python
- Hardware description languages (e.g. VHDL, Verilog)
- Hardware Synthesis
- Formal Verification

Interested?
We are constantly looking for new student team members that are excited about hardware security. Please send your application via e-mail with your CV, and most recent certificates and grades to the contact below. We are excited to meet you!

Contact

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