

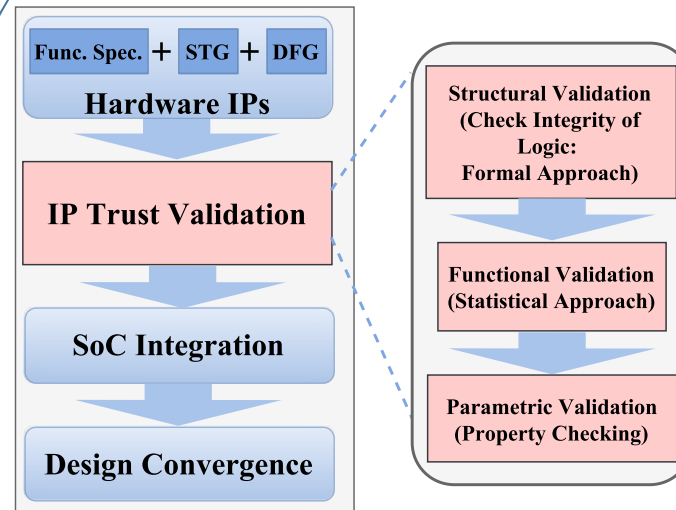
IPTrust: A Comprehensive Framework for IP Integrity Validation

Challenge:

- How to ensure the trustworthiness of SoCs designed using potentially untrusted third-party IPs?

Solution:

- Develop a scalable trust validation framework to verify the trust and integrity of third-party IPs
- Novel techniques for Trojan detection using formal methods.



Scalable validation framework to verify IP trust and security in SoC design methodology.

Scientific Impact:

- Formal methods will guarantee the security and trustworthiness of IPs
- These techniques will also enable Trojan detection using both logic testing and side-channel analysis

Broader Impact:

- Trusted IP-based SoC design will lead to trusted systems and IoT devices.
- Technology transfer to SRC member companies
- Two minority REU researchers as well as one women Ph.D. student is working in this project.

Awards: 1441667, 1603483
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