

## Secondment report

**Name:** ESR2.4 Xinhui Lai  
**IRP title:** **Functional and non-functional verification and debug methods for complex nanoelectronic systems**  
**From:** TUT  
**To:** IID  
**Period:** May 05 – June 02,2019

### Activities during the secondment

- **Scope and objectives:**
  - Security aspect verification. The object of this cooperation is to research timing side channel attack on SRAM PUF.
- **Activities:**
  - SRAM PUF research topic discussions with IID
  - SRAM PUF and error correction code study
  - Regular skype meetings for updating and discussions
  - Attending IID internal presentation
- **Main results achieved:**
  - Understand SRAM PUF and error correction code
  - Identify the timing side channel vulnerable component of SRAM PUF
  - Make the research plan to study timing and power side channel attack of error correction code decoder
- **Next steps:** Research on timing and power side channel attack vulnerability analysis of error correction code decoder.
- **Optional request for support or a technology/tool available at host:**  
No

### Self-evaluation

**Overall score:** 4.5

*I consider this secondment successful, with regards to the research objectives achieved, skills developed, supervision quality, diversity of the resources. (Agree = 5 ... Disagree = 1)*

**Optional comments:**

No

*Date of the report approval by the supervisor:* 18.11.2019

