Acousto-Optic System & Method for generating PUFs

Method to generate physical unclonable functions (PUFs) which uses acousto-optic systems.

System that allows to reduce complexity while maintaining high integrability and reliability. Allows miniaturization.

Competitive advantages

- High number of Challenge-Response pairs. An electrical signal controls the acoustic wave generator and can modify the modulation of the optical beam by the system. Moreover, different acousto-optic systems can be concatenated, further increasing the number of challenge-response pairs.
- Increased Reliability. No precision alignment, mechanical stages or lenses are required, reducing complexity and probability of error.
- Integrability and Miniaturization. The method can be implemented on a chip.