Assignment 2

Question

In this assignment, each group has been provided with 10K CRPs for Arbiter-PUF implemented on three different FPGA devices (Boards). Using these CRPs you have to calculate the Uniqueness, Reliability, and Uniformity of the 64-bit Arbiter-PUF. To calculate Uniqueness and Uniformity, 10k CRPs of board1, board2, and board3 will be used. Uniqueness will be calculated for the following cases:

- Uniqueness for: (*Board*1*, Board*2)
- Uniqueness for: (*Board*1*, Board*3)
- Uniqueness for: (*Board*2*, Board*3)

And Uniformity will be calculated for individual FPGA boards (Board1, Board2, and Board3). The Reliability of the PUF has to be calculated for a particular FPGA board e.g., Board3. To calculate reliability each group is provided with 15 sets of 10k CRPs for Board3.

Deliverables:

1. This is a group assignment. Group information has been provided in "Group_info.pdf". Each group has to prepare a document with the detailed procedure and have to submit the code also. Please make a zip file with name "Assignment2_ Group_Number.zip", for e.g. Group 1 will have to submit the zip file renaming it as "Assignment2_ Group_1.zip.

3. Each Group will use the corresponding folder related to the group number, for e.g. Group1 will use the data inside folder "G1". The submission should contain the following:

- A python file.
- The report (as pdf).