

## CAD Design Project 1 – OpenROAD (Part I)

**Due: 23:59, Sep. 18, 2024**

OpenROAD is a United States DARPA IDEA project that pursues open-source tools for 24-hour, "**no human in the loop**" digital layout generation across integrated circuit, package, and board domains. The development of open-source self-driving design tools is an ambitious "**moonshot**" project with numerous technical and cultural challenges. Up to now, six major design-flow stages, **synthesis, floorplanning, placement, clock tree synthesis, routing, and finishing**, have been developed. In this start-up project, you will study the OpenROAD design flow.

Please submit a preliminary study report according to the following rules:

- 1- The font size of your report is 12 in PDF format.

(NOTE: The uploaded file name should be the same as your student ID.)

- 2- Elaborate on the incremental progress of each step and provide necessary screenshots (and output texts) to support your observations.

### Reference:

[1] The OpenROAD Project – Foundations and Realization of Open and Accessible Design

URL: <https://theopenroadproject.org/>

[2] *OpenROAD* (Source code)

URL: <https://github.com/The-OpenROAD-Project>