

**Date Released:**

Saturday, September 27, 2025

**Due Date:**

Tuesday, September 30, 2025

## Quantum Computing & Information Processing

### Assignment - II

---

#### Task

- Implement single and double coin toss quantum circuits and run them on IBM's QPU.
- Retrieve the results from the QPU and analyze them using a histogram, as well as computing the probabilities for each outcome.
- Choose a quantum gate that best describes the behavior of a coin toss event.

#### How to upload your code

1. Format your code nicely.
2. Include your full name as a block comment in your Python scripts.
3. Zip your Python scripts and plots into a single file and name it with your full name.
4. Upload your assignment [here](#). Ensure the file extension is **.zip**.