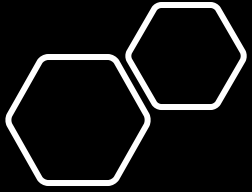




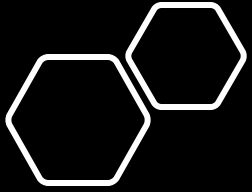
DAY 5

INTRODUCTION TO QUANTUM
COMPUTATION



Topics

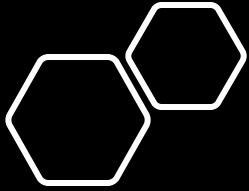
- Qiskit
- Control Gates
- Circuit Design



Qiskit

Resources

- Qiskit Documentation
 - <https://qiskit.org/documentation/>
- Qiskit Textbook
 - <https://qiskit.org/textbook/preface.html>
- Qiskit YouTube Channel
 - https://www.youtube.com/channel/UCIBNq7mCMf5xm8baE_VMI3A



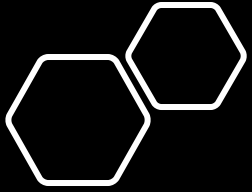
Control Gates

A control can be paired with almost all the single qubit gates present in QC.

Just like CX and CCX , we can have

- CY , CCY
- CZ , CCZ
- CH , CCH

and many more.



Quantum Circuit

- Importing required Packages.
- Number of Qubits and classical bits.
- Make a Quantum Circuit
- Implementing required gates for the circuit.
- Putting measurement gates at the end of the circuit.
- Choosing Backend and no. of shots
- Executing the circuit
- Retrieving the Counts