

LS Quantum

MnP Club

July 2023

Introduction

Welcome to the Learners' Space course on Quantum Computing!
I'm Anand, and I'll be the main instructor for this course ¹. Onto the course logistics!

¹ this line feels weird, gives me professor vibes lol

Course Logistics

This course will be 4 weeks long, with each week having theory for you all to cover and also an assignment at the end of every week to test your knowledge.

The theory would be either written material, like lecture notes / textbooks or interactive content like videos and the **Qiskit Textbook**²

² in bold because it is very important, one of the main references

The assignments could either be questions where you have to write/type down a solution and upload it, or submit code according to the question. The coding will be done in Python, using a module called Qiskit.

Tentatively, to obtain a certificate, you would have to do all the weekly assignments, plus a project that we'll let you know about later.

I'll be making a WhatsApp group to clarify any doubts you may have with the content/assignments and if there's enough interest in doubt sessions I could hold them as well ³, I'd like you all to be free to ask doubts (don't be shy/intimidated, the subject is tough and you won't learn much if you're afraid to ask doubts).

³ online on GMeet or something, we'll decide that later

I'd be delighted if people start answering doubts as well, to improve interaction, but maybe I'm hoping for too much xD

General Stuff

Okay, so I won't lie to you and tell you that Quantum Computing is easy, because it's not. The Math behind it is tricky and difficult to grasp, and requires quite some time to understand.

Basically, the amount of effort you'd need to put for this would be pretty high, but don't let that scare you, for if you liked MA106 and PH112/107 ⁴ then you will be fine.

⁴ No comments about the instructors, but if you found the course content interesting :)

There will also be things that you'll be able to understand at a high level initially and will become clearer the more and more you look at its applications, its natural to feel confused at first and only understand things at a high level. Feel free to bug me with doubts if that's the case :)

Let's get the learning started!