

APPLICATION FORM

Introduction to Quantum Computing (Online)

(18th – 27th June, 2021)
(Friday, Saturday, and Sunday: 6 days)

AT

INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI-110016

Name _____

Qualifications _____

Designation _____

Organization _____

Mailing Address _____

Mobile No. _____

E-mail Id. _____

Fees payment UTR _____

Amount (Rs.) _____

In Words _____

Drawn on _____

Dated _____

Date:

Place:

Signature:

CERTIFICATE

This is to certify that Ms/Mr/Dr _____

is an employee of our organization and is permitted to attend the short term course on
“Introduction to Quantum Computing”

to be held at IIT Delhi during 18th–27th June, 2021.

Required for teachers

Signature of
participant

Signature of authority
with official seal

IMPORTANT DATES

Jun 10, 2021 Last date for the receipt of completed application including any applicable fees.

Jun 13, 2021 Last intimation of selection to applicants

Note: Applications received before Jun 1 will receive a response by Jun 4.

MAILING ADDRESS

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Indian Institute of Technology Delhi,
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Email: qcc2021@cse.iitd.ac.in

SHORT TERM TRAINING COURSE

under
QIP

ON

Introduction to Quantum Computing

(18th – 27th June, 2021)

Course Coordinator
**Prof. Subodh Kumar &
Prof. Venkata Koppula**



Organised by
DEPARTMENT OF COMPUTER
SCIENCE & ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY
DELHI,
HAUZ KHAS, NEW DELHI-110016

IIT DELHI PROFILE

Indian Institute of Technology Delhi is one of the fifteen Institutes of Technology created as centres of excellence for higher training, research and development in science, engineering and technology in India, the others being at Kanpur, Kharagpur, Madras, Bombay, Guwahati, Roorkee etc.,. Established as College of Engineering in 1961, the Institute was later declared an Institution of National Importance under the "Institutes of Technology (Amendment) Act, 1963" and was renamed "Indian Institute of Technology Delhi". It was then accorded the status of a deemed university with powers to decide its own academic policy, to conduct its own examinations, and to award its own degrees.

COMPUTER SC. & ENGG. AT IITD

The Department of Computer Science & Engineering offers B. Tech., M. Tech. MS(Research), and Ph.D. degree programmes. MS(R), Doctoral and Post-Doctoral research is offered broadly in all areas of computer science.

The Department registers M.S. and Ph.D candidates including those under quality improvement programme from sister institutions in all relevant areas. Under its Continuing Education Programme, from time to time, it organizes advanced special courses as well as short time refresher courses, both for academic and serving senior level officers in Central and State Government, Public and Private Sector Undertakings.

OBJECTIVE OF THE COURSE

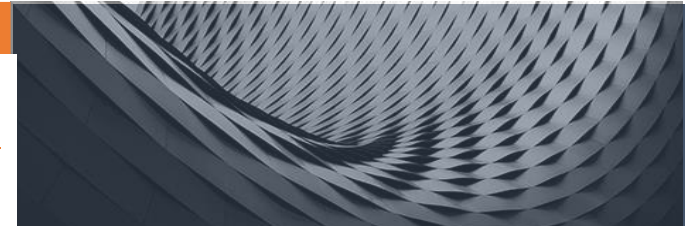
The course is designed to facilitate entry into the fast-growing area of Quantum Computing. It is suitable for both students and teachers. It requires some background in basic probability and an understanding of linear algebra concepts. It focuses on the computational aspect and not on the physics of quantum theory. It will introduce the fundamental concepts of quantum computing and convey its power and possibilities.

COURSE CONTENTS

- Basic postulates of QC. Single qubit operations
- NOT gate, Hadamard Gate, measurement
- Operating with multiple qubits - partial measurement of qubits
- Entanglement
- Quantum circuits and basics of quantum computation
- Shor's algorithm for factoring/discrete log, Grover's search
- Applications, Public key cryptography
- Hands-on exercises

EXPERTS

Experts from the Department of Computer Science & Engineering at IIT Delhi, as well as other leading experts from India and abroad will deliver lectures.



WHO CAN ATTEND

Open to teaching and research faculty in CS or associated departments (like IT and Math). It is also open to students and professionals with backgrounds listed under OBJECTIVES. Senior UG and PG students will get preference.

APPLICABLE RULES FOR TRAVEL & STAY

This is an online program so there is no provision of TA and DA. Attendees must have ready access to teleconference facility using MS Teams and sufficient internet bandwidth.

REGISTRATION FEE

There is no registration fee for teachers from AICTE approved colleges/universities. A fee of Rs 1180 (including GST) is required for non-teachers. The fees are payable online to IITD CEP Account No. 36819334799 with IFSC SBIN0001077 (Please include candidate name in remarks).

