



# RV College of Engineering®

Centre of Excellence in Quantum Computing



The CIRQuIT (Centre for Interdisciplinary Research in Quantum Information and Technology) is a group of passionate students and faculty researchers of engineering from RVCE. The group works under the Centre of Excellence in Quantum Computing to unleash quantum technologies and computing potential for 21st-century requirements of industry and society.

## **Vision:**

To inspire young minds to take up research in Quantum Computing and develop viable solutions to real-world problems.

## **Mission:**

1. To increase awareness and spread knowledge about quantum computing and related topics.
2. Pursue research in various quantum fields.
3. Utilizing open-source quantum computing tools like IBM Qiskit, Cirq, Tensorflow Quantum, DWave Ocean SDK, PennyLane, and other related software.



## Objectives:

To provide a platform to promote research and develop useful research applications using quantum computing.

## Current Research Focus:

- Quantum Hardware
  - Explore and research about the innumerable technologies for implementing a quantum bit.
- Quantum Communication
  - Research in various Quantum Key Distribution protocols for secure data transfer.
  - Exploring on generating true random numbers.
- Quantum Machine Learning
  - Discusses the use of quantum algorithms within machine learning programs.
  - Application of such methods to real-world problems.
- Quantum Algorithms and Optimization Techniques
  - Deals with various algorithms developed in the field of quantum computing.
  - Details the numerous optimization techniques in enhancing the deployment of said algorithms.

## Outcomes:

- Building a community of people interested in quantum computing.
- Providing efficient solutions to industry level and real world problems.
- Spreading awareness about quantum computing.



## Founding Members:

*Abeer Vaishnav*  
*Archit Srivastava*

## Verticals and Members:

### Quantum Hardware

*Head:*

Keshav Kasliwal

*Members:*

Dayamaya K

Divam Trivedi

Shreenidhi T L

Yashasvi S

### Quantum Algorithms

*Head:*

Ansh Singal

*Members:*

Allen Lobo

Ankit Srivastava

Ashutosh B

Rajule Harish

Sameeksha K

Sanjan D

Yashasvi S

### Quantum Communication

*Head:*

Keshav Kasliwal

*Members:*

Amithkumar V

Dayamaya K

Sanjan D

Shreenidhi T L

### Quantum Machine Learning

*Head:*

Shiwam Birajdar

*Members:*

Allen Lobo

Amithkumar V

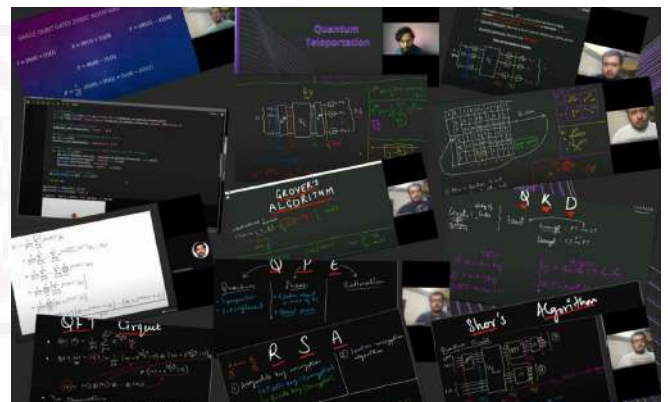
Ashutosh B

Divam Trivedi

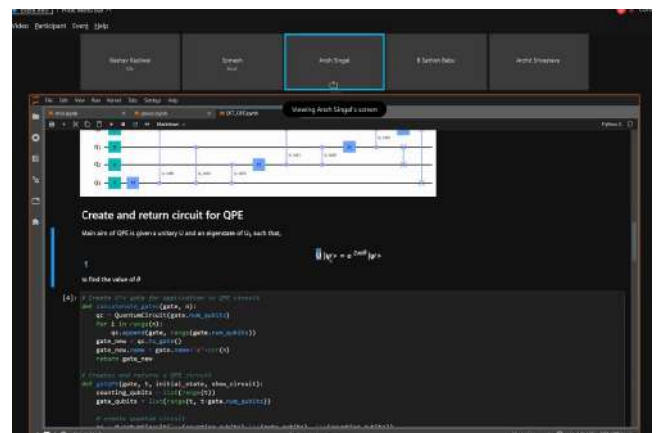
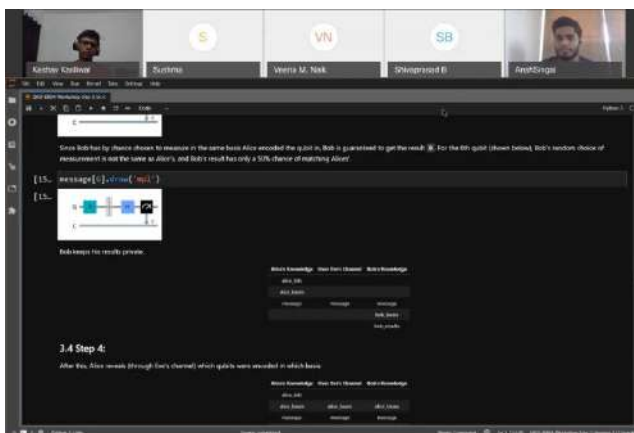


## Workshops:

### Inter-Collegiate Industrial Internship (Aug 2020)



### Fundamentals of Quantum Computing and Applications, in Association with IEEE and IBM (March 2021)





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## Quantum computing: Algorithms & Machine Learning A Faculty Development Program (August 2021)



**RV College of Engineering**

Autonomous Institution Affiliated to Visvesvaraya Technological University, Bengaluru

Approved by AICTE, New Delhi  
Accredited by NAAC, Bengaluru  
And NBA, New Delhi

*Go, change the world*



AICTE sponsored 5-Day Online  
Faculty Development Program  
on

Quantum Computing:  
Algorithms & Machine Learning

2<sup>nd</sup> Aug - 6<sup>th</sup> Aug, 2021

Organized by:  
CIRQUIT Quantum Research,  
RVCE, Bengaluru



Previous events:  
National Workshop on Fundamentals of QC



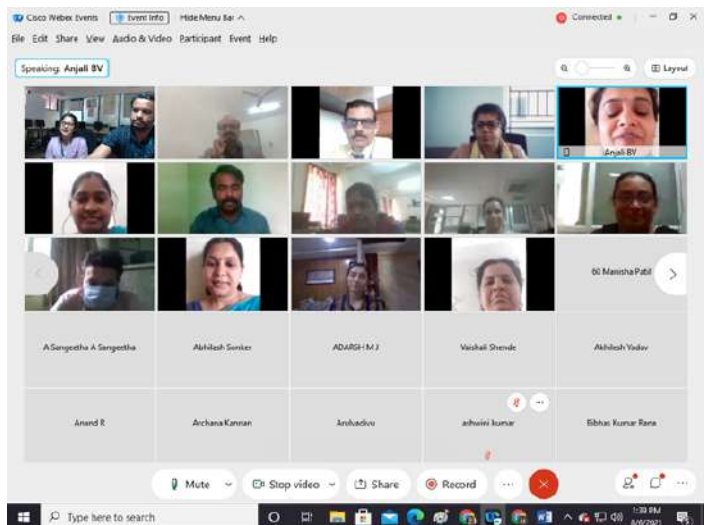
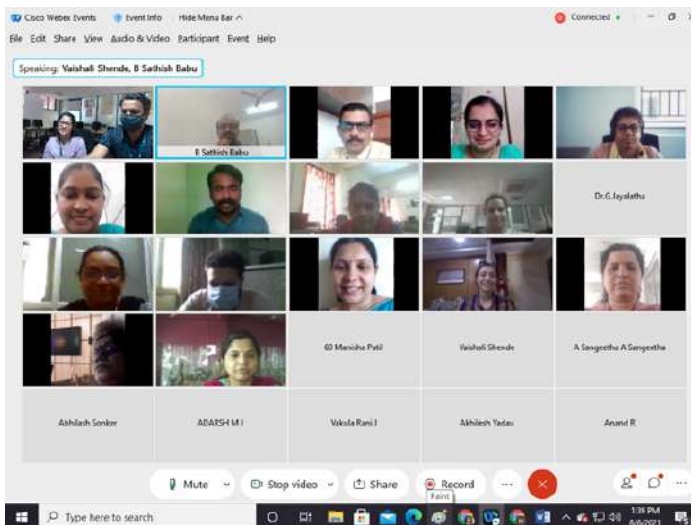
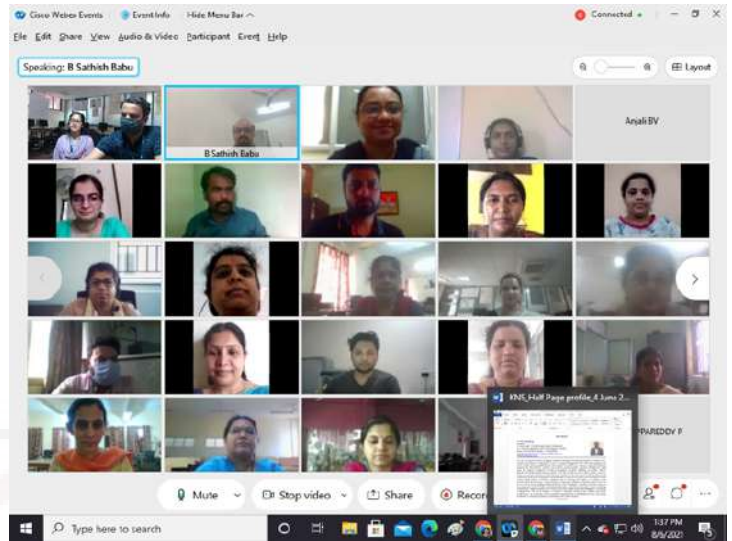
Registration for Workshop  
Please click the link below to register:  
[www.aicte-india.org/atal](http://www.aicte-india.org/atal)

Create your profile on the ATAT website. Go to the workshop search and put the state as "Karnataka", month as "August", area as "Engineering", and mode as "Online". Select the workshop name - "Quantum Computing Algorithms and Machine Learning" and confirm your participation.

FDP Coordinator: **Dr. B. Sathish Babu**,  
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## Contact Details:

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### *Student Heads:*

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Keshav Kasliwal, (ECE, 4th year), [keshavkasliwal.ec18@rvce.edu.in](mailto:keshavkasliwal.ec18@rvce.edu.in)

Shiwam Birajdar, (CSE, 4th year), [bssanjaykumar.cs18@rvce.edu.in](mailto:bssanjaykumar.cs18@rvce.edu.in)