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.

RV College of Engineering®

Centre of Excellence in 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

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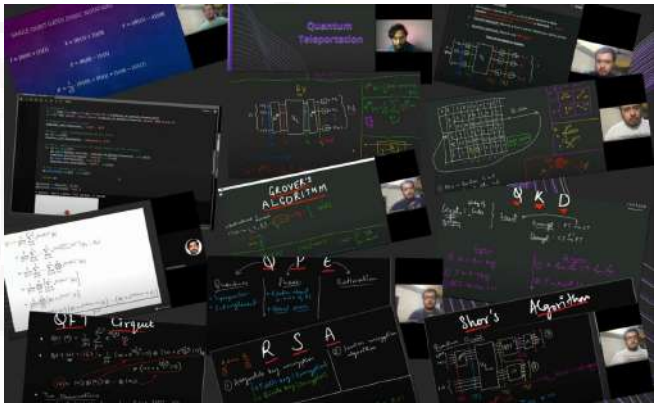
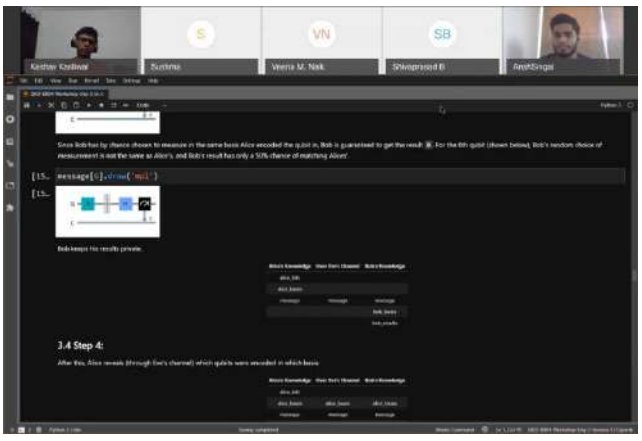
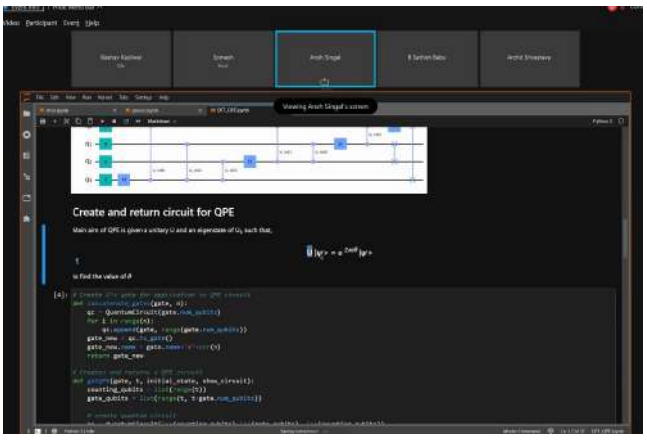
Workshops:

Inter-Collegiate Industrial Internship (Aug 2020)



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





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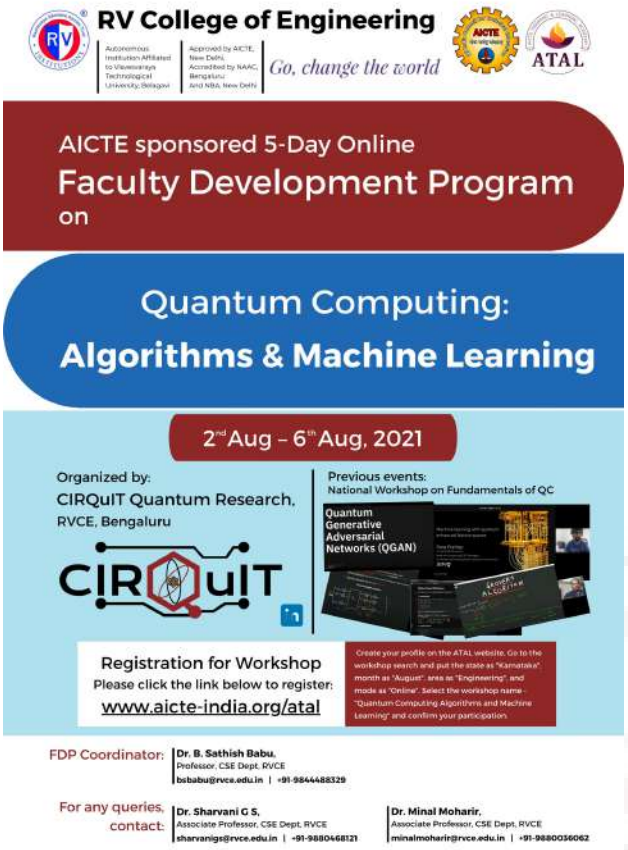
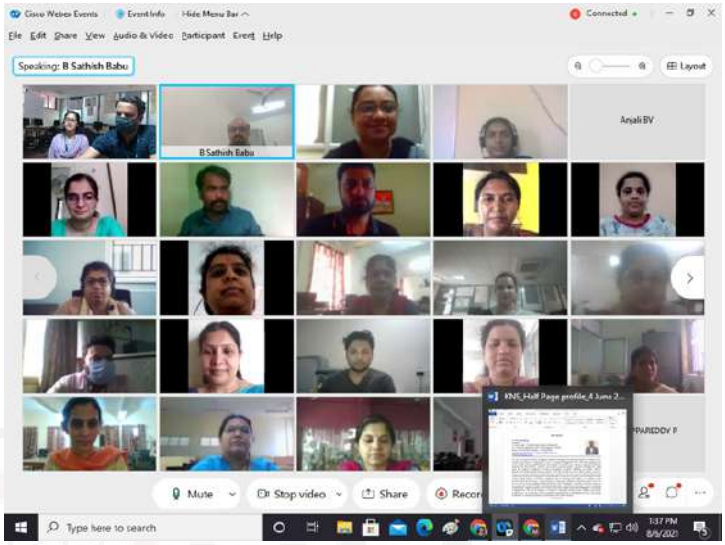
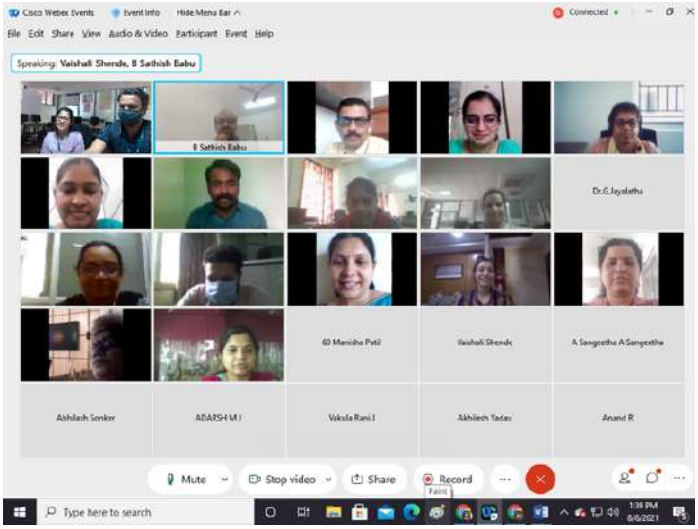
Centre of Excellence in Quantum Computing

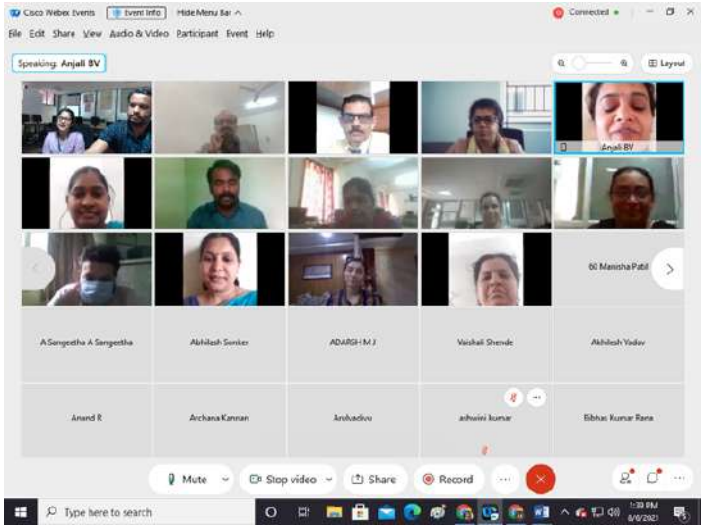
Quantum computing: Algorithms & Machine Learning

A Faculty Development Program (August 2021)









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