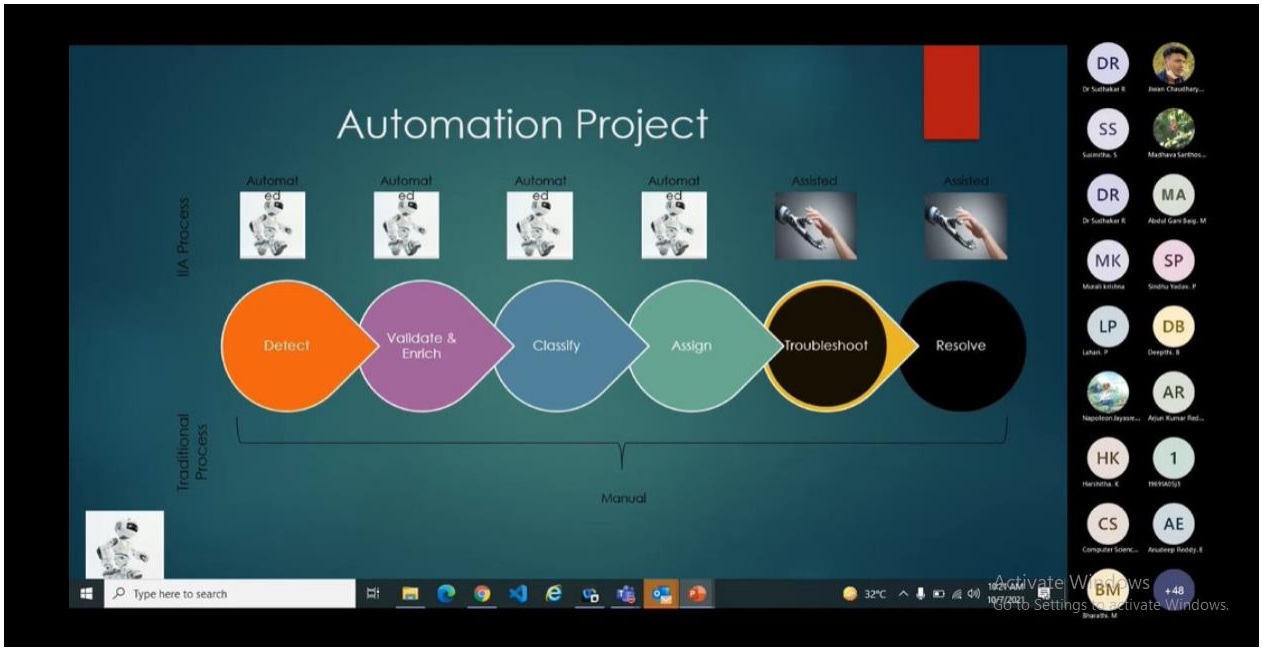
MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC - AUTONOMOUS)

A Guest Lecture on "Quantum computing"

Organized by MITS -Dept. of CSE

9th September 2021



Report Submitted by – Dr.K.Saravanan ASP/CSE

The CSE Department organized a Guest Lecture on **"Quantum computing",** delivered by Mr. Loganathan, Network Engineer, Future-wave systems on 09-09-2021.

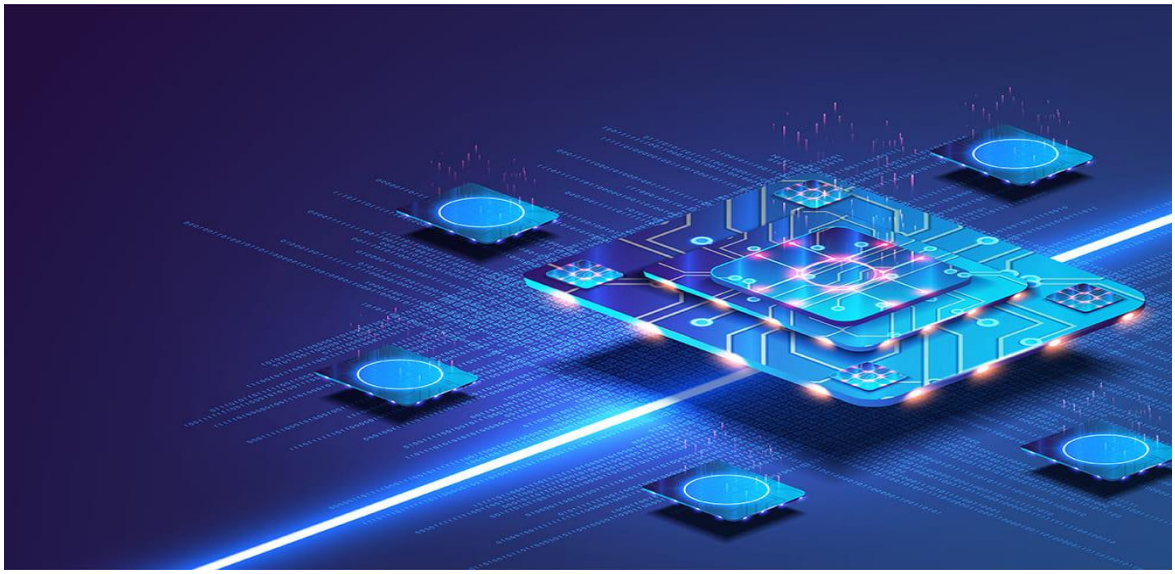
HoD CSE: The Professor and the Head, Department of Computer Science and Engineering, addressed about how Programming Languages is important in our software development. Then the session was handed over to Mr Loganathan N/W Engineer Future wave Systems.

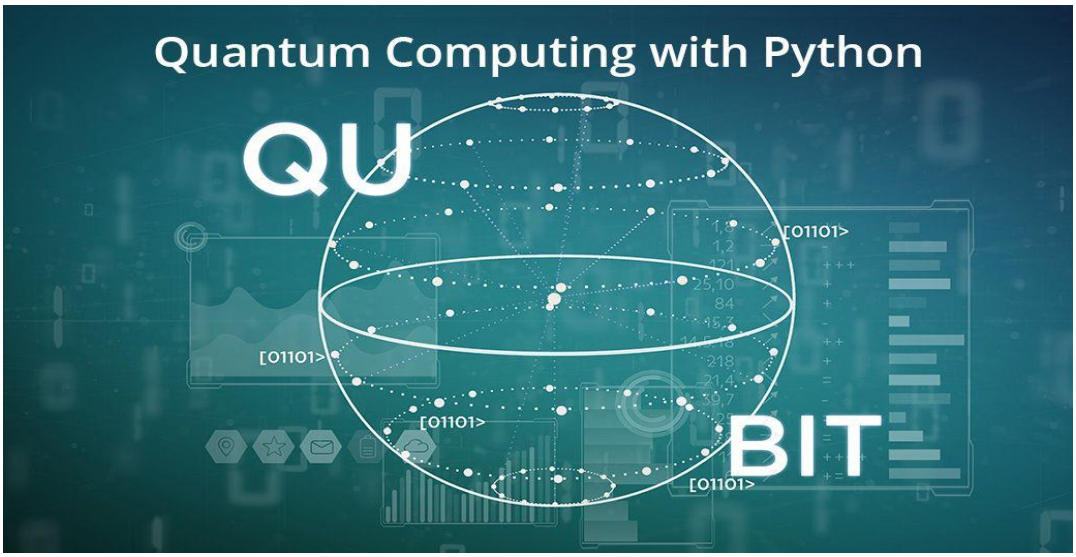
The speaker discussed about quantum computing Life Cycle in detail. Quantum computing is the process of finding bugs in the software and making the software bug free. This quantum computing mainly improves the quality of software, reliability and performance of the system. Such a continuous testing to enhance the quality of software requires a lot of patience and knowledge in debugging the program to understand where is the possibility of encountering bugs. Tester may not require how to program, but always requires the knowledge of debugging the program. Such a testing must be actually included in the early stages of the SDLC phases so that the fixing of bugs may get lower and even bugs can be identified and rectified easily than identifying at the end. Around 68 Students has participated in the online programme.

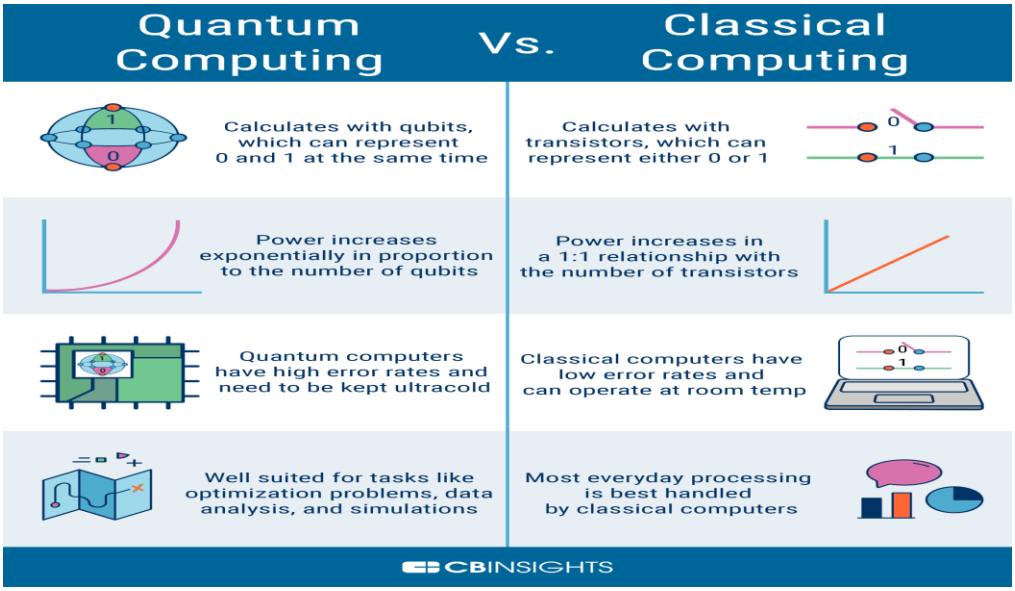
The speaker spoke about various types of quantum and importance of each and every type in a brief manner like Manual types.

- Quantum computing is a rapidly-emerging technology that harnesses the laws of quantum mechanics to solve problems too complex for classical computers.
- Quantum computing opens the door potentially solving very large and complex computational problems that are basically impossible to solve on traditional computers.
- Taking large manufacturing data sets on operational failures and translating them to combinatoric challenges .

The students expressed that the technical session was very purposeful and helped them in knowing in depth about Quantum computing.







Quantum computing is a type of computation whose operations can harness phenomena of quantum mechanics, such as superposition, interference, and entanglement. Devices that perform quantum computations are known as quantum computers.[1][2] Though current quantum computers are too small to outperform usual (classical) computers for practical applications, larger realizations are believed to be capable of solving certain computational problems, such as integer factorization (which underlies RSA encryption), substantially faster than classical computers. The study of quantum computing is a subfield of quantum information science.