TWO WEEKS TRAINING PROGRAMME ON POST PROCESSING OF QKD IN FPGA

(30th Aug – 9th Sep, 2021)

SETS organized a two-week training program for the M.Tech students of Quantum Technology from Defence Institute of Advance Technology (DIAT), Pune on "FPGA implementation of Key Distillation for Quantum Key Distribution (QKD)". The focus of the training session was to build the capabilities and skills for the development of QKD system operation software and FPGA realization. Deep Dive sessions were conducted on each of the modules involved in the quantum key distillation processing including authentication, error correction, privacy amplification and data encryption using quantum keys.

The training programme started with the keynote talk "Quantum Computing" by Prof .G. Raghavan, Director, School of Quantum Technology, DIAT, Pune. The sessions and demonstrations were conducted by Quantum Security Research team of SETS consisting of Dr Prem, Ms Suganya, Mr S Mithran, Dr Natarajan, Ms Foram, Ms Sarika, Ms Sarojini, Ms Hema Priya and Ms Selvagangai on post processing modules for QKD, hardware security modules for key management and post quantum cryptography.

The concluding session of the training was graced by Dr B K Murthy, Group Coordinator, Ministry of Electronics and Information Technology (MeitY) and Col. A.K. Nath, Director General C-DAC, Dr. Sarat, ED-SETS and the SETS staff.

Dr Sarat in his opening remarks indicated that the training programme is unique and designed for the specific needs of the DIAT as per the requirements proposed by Dr. G Raghavan.

Col. A.K. Nath in his address brought out the importance of quantum technology and indicated that the government is providing the funds to carry out research and development and it is a timely effort of SETS and DIAT in generating the trained resources.

Dr B K Murthy in his guest of honour address indicated that there are many institutes carrying-out research in the area of Quantum technologies such as TIFR, SETS, DIAT, IISC, RRI, IISER Pune. He advised the students to interact with researchers in these labs to get exposure in Quantum technology. He felt that the students of DIAT being the first batch of M.Tech in Quantum Technology, are fortunate to get the exposure in these labs and asked them to work with dedication to maximize the learning in this endeavor.

The program concluded with the vote of thanks by Dr.V. Natarajan, Scientist, SETS.