अजय के. सूद भारत सरकार के प्रमुख वैज्ञानिक सलाहकार Ajay K. Sood Principal Scientific Adviser to the Govt. of India



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<u>Message</u>

The office of the Principal Scientific Adviser to the Government of India, through its Mission programs has supported and promoted R&D in the science and technology areas of National importance. The office also brings together like-minded organizations to solve various problems which are of national importance. India as a country has taken giant steps to transform itself into digital India to enhance the quality of life to the common man. However, this has resulted in the growth of cyber threats, resulting in exponential growth of cyber-attacks. This made the cyber security as an important area at National level. *Aatma nirbharata* in all technology areas, including Cyber security is a desired goal to meet the National needs. In this context, It gives me immense pleasure to talk about Society for Electronic Transactions and Security [SETS].

The idea of creation of SETS was conceived by Hon'ble Dr. A.P.J. Abdul Kalam when he was PSA to GoI and when the field of information technology was booming. He felt the need for an organization focusing exclusively on information security. The organization draws its basic tenets, namely, directed basic research, translational research and coherent synergy from the vision of Dr. R. Chidambaram, former PSA to GoI. My predecessor Prof. K. VijayRaghavan encouraged SETS to carry-out collaborative research with other R&D labs, academic institutes, industry and user agencies in making sure that SETS will develop cyber security solutions in the areas of advanced technologies such as AI, Quantum security, Blockchain, IOT etc.

I am happy to note that SETS is taking part in important multi-institutional projects in the areas of Blockchain, quantum security and proposing similar activity in AI for cyber security. SETS has acquired a 100TF high performance computing (HPC) system, under National Super Computing Mission (NSM) programme for carrying out research in compute intensive areas of cybersecurity. I understand that SETS has established considerable competence in hardware security. The organization has established a state-of-the-art side channel analysis lab in this area. I am glad that SETS developed Integrated Threat Management Appliance (ITMA), CA software and VPN solutions, which would help the enterprises to secure the networks and systems.

I would like to see quantum communication becoming practical. I am quite impressed to note that SETS is collaborating with other institutes in developing QKD systems for different requirements as part of QUEST programme of DST and also under MeitY's Quantum R&D initiatives. I am happy to note that SETS is also carrying-out research in other quantum security topics like post-quantum cryptography, quantum authentication and quantum random number generation.

I foresee an increasingly important role of SETS in providing the usable cyber security solutions and do hope that SETS would gear-up to meet this challenge.

(Ajay K. Sood) President, SETS

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