

Department of Computer Science and Systems Engineering

Faculty Development Programme

on

New Directions in Cryptography and Applications to Cyber Security

(27th May to 01st June 2019)

The Department of Computer Science and Systems Engineering organized a Faculty Development Programme on “**New Directions in Cryptography and Applications to Cyber Security**” during 27th May - 01st June, 2019, under Cyber Security and Cryptology Research Lab in association with E & ICT Academy, National Institute of Technology, Warangal, sponsored by Ministry of Electronics and Information Technology (MeitY), GOI.

The Faculty Development Programme mainly focused on Cryptography Algorithms, Design of Network Security Protocols, Programming using GMP, hands on Design and Implementation of Security Protocols, Security Simulation Tools (AVISPA) and opportunities to enhance research capabilities of faculty in Cryptography and Cyber Security. A total of 40 members of faculty and Research Scholars from Odisha, Jalgaon, Tamil Nadu, Hyderabad, Bangalore and various parts of Andhra Pradesh attended the programme.

Day – 1: 27-05-2019-FDP was inaugurated by Dr. Kamini Malhotra (Scientist, DRDO, New Delhi) followed by her Keynote address.



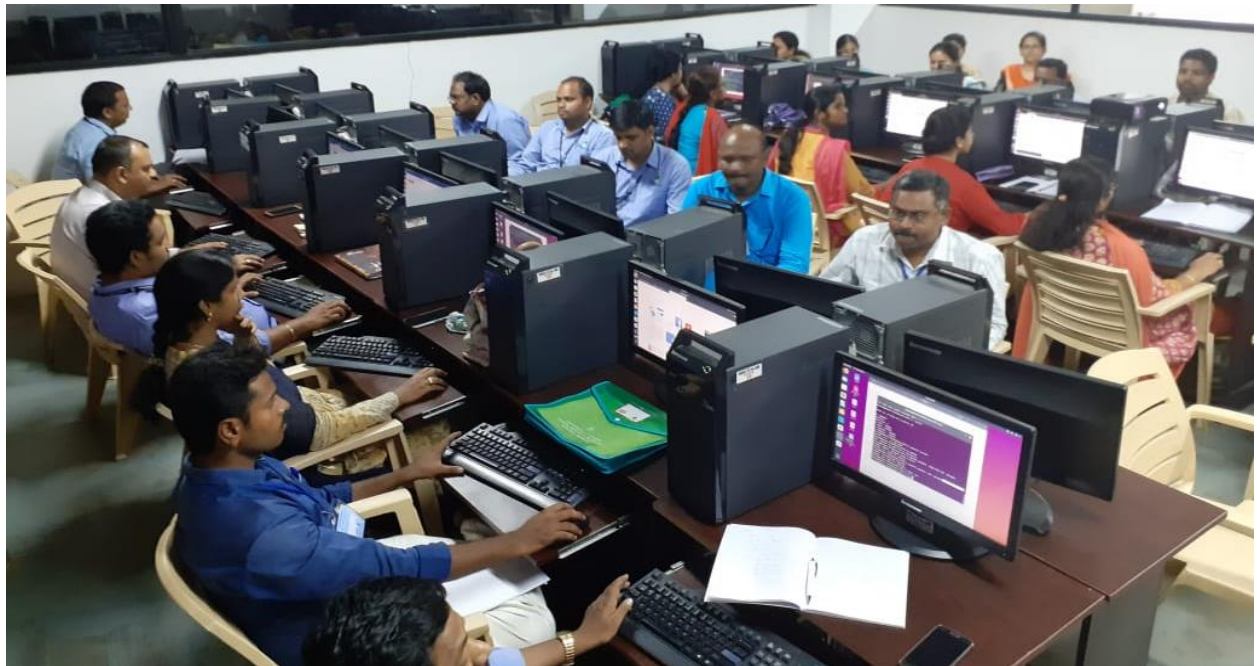
Inauguration by Dr. Kamini Malhotra, Scientist, DRDO, New Delhi

In the first technical session, **Dr. R. Padmavathy, Associate Professor, NIT Warangal** delivered a talk on *Introduction to Security*.

In the second and third technical sessions, hands-on sessions were handled by **Dr. R. Padmavathy**, on *Introduction to GMP* and conducted some experiments using GMP.



Session on 'Introduction to Security' by **Dr. R. Padmavathy**.



Hands-on practice on 'Introduction to GMP and some experiments using GMP

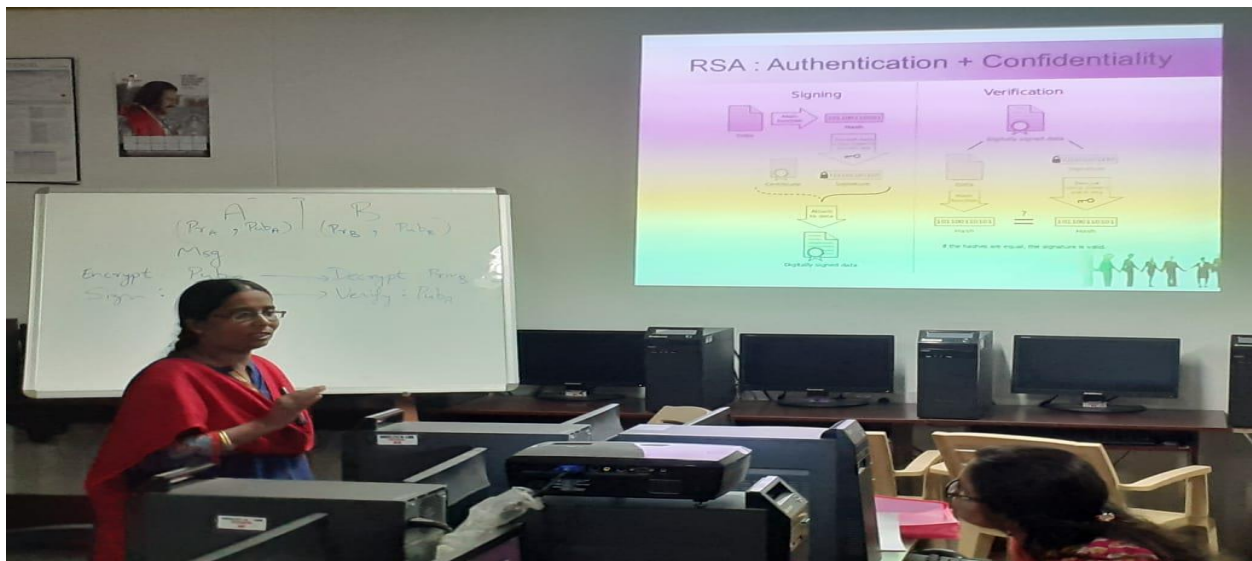
28-05-2019: On the second day of the programme **Dr. R. Padmavathy** discussed how to design security protocols. She explained Cryptographic techniques in the next session. The afternoon session began

with the hands-on practice on Implementation of Cryptographic Algorithms and Vulnerability Testing using Kali Linux.



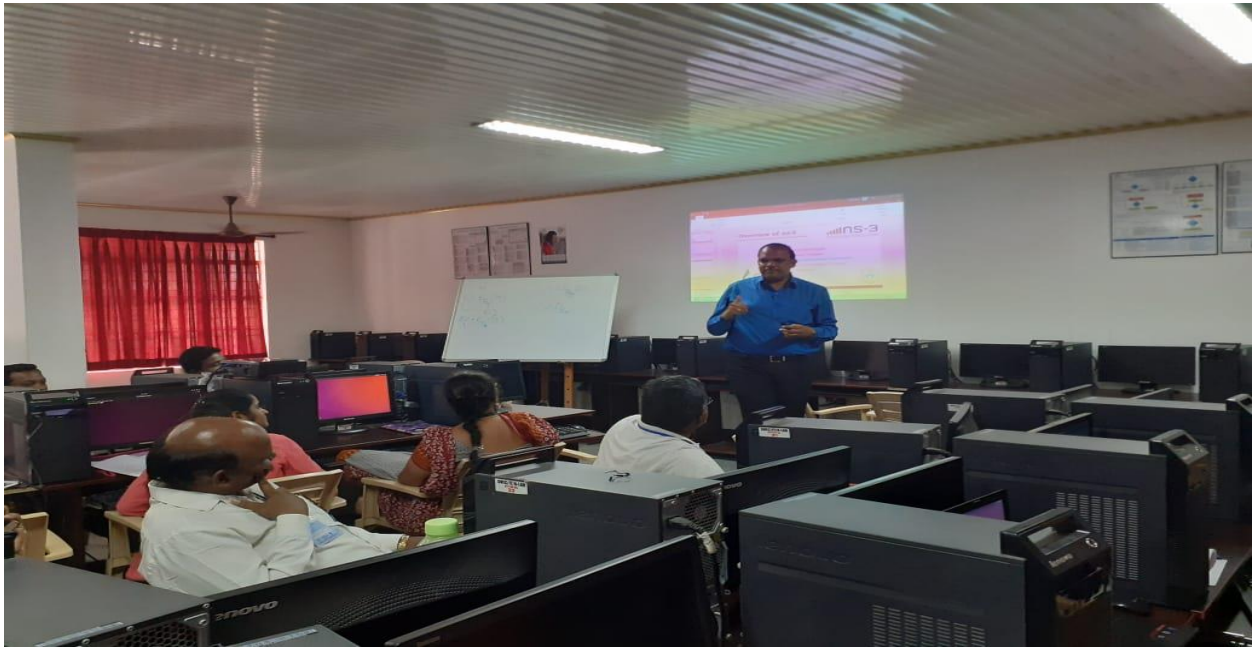
Hands-on practice on 'Implementing Cryptographic Algorithms'

29-05-2019: The third day began with the presentation by **Dr. R. Padmavathy**. She discussed different Public Key Cryptographic techniques and case studies on Secure Protocols. Last session of the day was on Web Apps Vulnerability Testing and Network Vulnerabilities like ARP spoofing.



Dr. R. Padmavathy delivering a session on 'Public Key Cryptographic Techniques'

30-05-2019: All the Technical Sessions on day 4 began with the presentation by **Dr. Suresh Babu**, Assistant Professor, NIT Warangal followed by hands-on practice in Secure Protocols-II, III, IV and V.



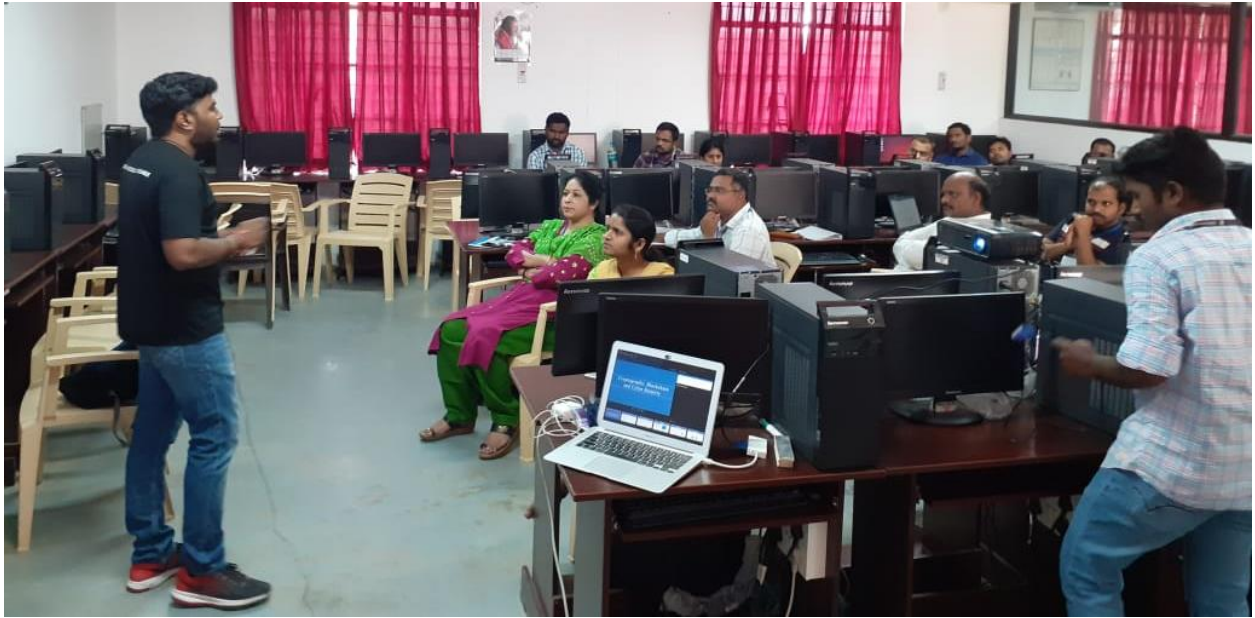
Dr. Suresh Babu delivering a session on 'Secure Protocols'

31-05-2019: The fifth day began with a Presentation by **Mr. Vinod Maher, RCI, DRDO, Hyderabad**. He discussed Security Simulation Tool, AVISPA and in the afternoon session he demonstrated Simulation of Security Algorithms using AVISPA.



Hands-on Session on 'Security Simulation Tool', AVISPA

01-06-2019: Last day of the FDP began with the session by **Mr. Nitin Reddy, Nplus Research Block Chain Labs**. He discussed pros and cons of Blockchain and demonstrated Blockchain Technology-II. The last session of the FDP was handled by **Mr. Rajeev Ranjan, Wipro Pvt. Ltd.** He discussed IoT Security mechanisms.



Mr. Nitin Reddy delivering a session on 'Blockchain Technology'



Mr. Rajeev Ranjan delivering a session on 'IoT Security'



Participants with Resource persons

The Faculty Development Programme successfully completed on 01st June, 2019. Participants expressed their enthusiasm and interest towards attending the programme and appreciated the organizers.