PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement facilitated by the Institute of Smart Structures and Systems

Module PMRF-ISSS138/2024

Secure Computer Systems

Name of the PMRF student

Nikita Yadav, IISc Bangalore

Required background of the students taught

Computer Science students interested in security of computer systems.

Pre-requisites

Familiarity with C language, Basics of computer organisation and operating system.

Online Session Coordinator

Dive into Secure Systems!

Details of the content of the module

Weekly Schedule (tentative)

Week 1: Stack smashing attacks (lecture) and Demonstration.

Week 2: Defense Mechanisms: DEP, ASLR, Stack Canaries and Demonstration.

Week 3: Code-reuse attack and Control-flow integrity.

Week 4: Control-flow attestation and trusted hardware.

Week 5: Virtual Machine Introspection and Applications.

Live classes will be conducted. Under unavoidable circumstances, classes may be rescheduled on other days. Recording will be uploaded regularly.

Schedule of the module

Start date: 4th September 2024

End date: 3rd October 2024

Lecture days: Every Wednesday and Thursday

Timing: 3:30 PM – 5:30 PM

Total number of hours: 19

Meeting link : Will be shared later

Link

Contact email ID: isss.forum@gmail.com

Registration link:
https://forms.gle/FuW3wDcR6QExx8E56