

PMRF-ISSS Teaching Programme

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



Module PMRF-ISSS019/2023

Software Security

Name of the PMRF student

Sai Venkata Krishnan V, IIT Madras

Required background of the students taught

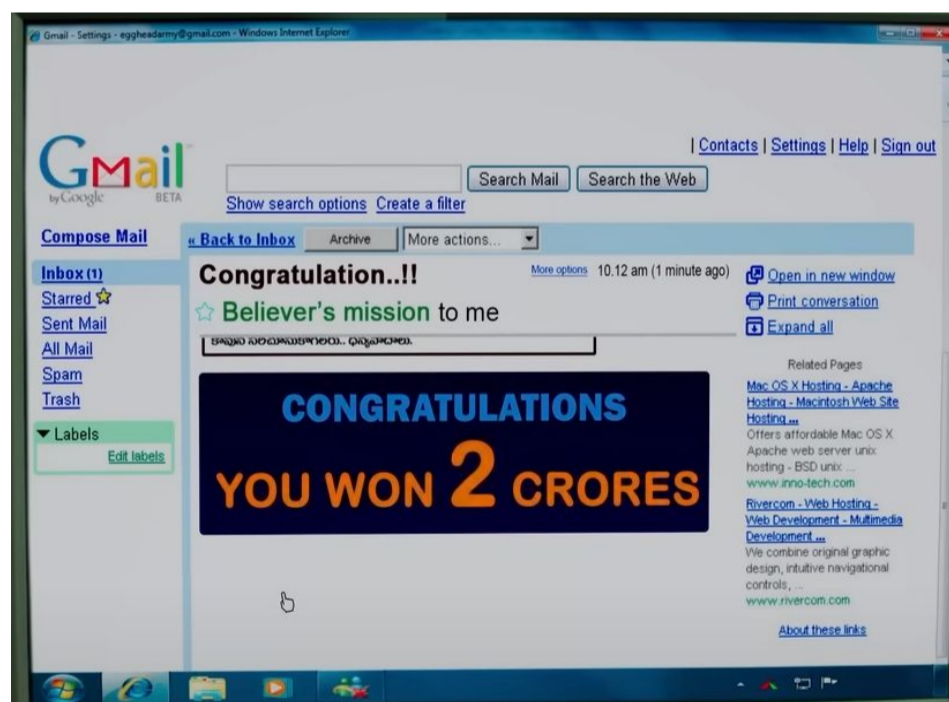
Anyone looking for an hands-on session
on software security

Pre-requisites

C, Python(basics), assembly language
basics of computer organisation

Online session coordinator

Will be chosen from the list of registrants



Details of the content of the module

Week 1: Program => Process

Week 2: Introduction to GDB & x86 Assembly
refresher

Week 3: Buffer overflow exploit

Week 4: Ret-2-Libc exploit

Week 5: ROP exploit

Week 6: ASLR

Week 7 & 8: Heap exploits

Week 9: Format string based exploits

Week 10: Current mitigations and advanced
exploits

All sessions are hands-on, with both practical
and theory sessions combined.

Schedule of the module

Course Start date: 22 September, 2023 (Tentative)

Course End date: 24 November, 2023 (Tentative)

Lecture days: Every Friday and Saturday

Session timings: 6 - 7:30 PM(Fri), 3 - 4:30 PM (Sat)

Meeting link : Will be shared later

[Link](#)

Contact email ID: issf.forum@gmail.com

Registration link:

<https://forms.gle/ft5KiPzQFq4VMVJN6>