

Sarvajanik University
Sarvajanik College of Engineering & Technology
Department of Information Technology

**Report of an Expert Talk on “Security Aspects of Operating System” held at
IT Dept, SCET on 7th July, 2021**



SARVAJANIK UNIVERSITY
INCLUSIVE INTEGRATED INNOVATIVE

Sarvajanik College of Engineering and Technology
Information Technology Department

Organizes an Expert Talk
On
“Security Aspects of Operating Systems”



SARVAJANIK EDUCATION SOCIETY
SCET
Sarvajanik College of Engg & Tech

Date : 7th July, 2021
Time : 2:00 PM to 4:00 PM

Registration Link:
<https://tinyurl.com/ExpTalk>
Last Date of Registration: 6th July, 2021

Coordinator
Dr. Dhruvi Sharma
Assistant Professor
Information Technology Department,
SCET, Surat

Department Head
Dr. Mita Parikh
Professor
Information Technology Department,
SCET, Surat

Dean R & D
Dr. Chirag Paunwala
Dean R & D, SCET, Surat

Principal
Dr. Hiren Patel
Principal, SCET, Surat

Note:
E-Certificate will be provided to the registered participants only.
Google Meet Link will be shared to the registered participants.



Dr. Shailesh D. Panchal,
Professor and Director,
Graduate School of Engineering and
Technology, GTU, Gandhinagar.
Ex-Registrar GTU

Operating system security (OS security) is the process of ensuring OS integrity, confidentiality and availability. OS security refers to specified steps or measures used to protect the OS from threats, viruses, worms, malware or remote hacker intrusions. OS security encompasses all preventive-control techniques, which safeguard any computer assets capable of being stolen, edited or deleted if OS security is compromised. The objective of the talk is to make students aware about a distinct concept of operating system which is outside of their regular curriculum. The knowledge of fundamentals of secure operating system and access control mechanism prepares students for further competitive exams as well as for further studies. The details about the event are as follows:

Speaker	:	Dr. S. D. Panchal, Professor and Director, Graduate School of Engineering and Technology, GTU, Gandhinagar. Ex-Registrar GTU
Topic	:	Security Aspects of Operating Systems
Date & Time	:	7 th July 2021 (2:00 PM – 4:00 PM)
Venue	:	Online (Google Meet)
Coordinator	:	Dr. Dhruti Sharma
Targeted Audience	:	Students from IT/CO/MCA
Participants	:	100+ Students and Faculty members of IT department

The session was started with fundamentals of Operating System followed by the following major concepts:

- Secure operating system – Definition, Goal, Threat Model, Trust Model
- Confidentiality, Integrity and Availability (CIA) Triad
- Access Control Fundamentals
- Secure Kernel
- Protection System
- Reference Monitor etc..

At last, the question-answer session was conducted where different queries from students have attended by Prof S. D. Panchal. The session has ended by Vote of Thanks from Dr. Dhruti Sharma.

We got overwhelming response from the students of IT/CO/MCA department with around 120 entries. Besides SCET College, we also got entries from other nearby colleges viz. C.K. Pithawala, Surat; SNPIT, Bardoli; Pacific school of engineering, Surat; K. J. Institute of Engineering & Technology, Savli etc. The faculty members from IT department have also attended the session.

We are grateful to Dr. Mita Parikh, HOD, IT Dept for her guidance and co-operation in arranging the expert talk. We also extend our gratitude towards Dr. Chirag Paunwala,

Dean R & D, and Dr. Hiren Patel Principal SCET for encouraging the staff members to organize such an event.

Find herewith some **Glimpses of an Event**

The top part of the image is a promotional poster for an expert talk organized by Sarvajank College of Engineering and Technology, Information Technology Department. The event is titled "Security Aspects of Operating Systems" and is scheduled for 7th July, 2021, from 2:00 PM to 4:00 PM. The registration link is <https://tinyurl.com/ExpTalk>, and the last date of registration is 6th July, 2021. The poster lists the following roles and names:

Coordinator	Department Head
Dr. Divyesh Sharma Assistant Professor Information Technology Department, SCET, Surat	Dr. Mita Parikh Professor Information Technology Department, SCET, Surat

It also lists the Dean R & D as Dr. Chirag Parmar and the Principal as Dr. Hiren Patel. The speaker is Dr. Shalish D. Panchal, Professor and Director, Graduate School of Engineering and Technology, GFTI, Gandhinagar, Ex-Reginald GFTI. A note states: "A Certificate will be provided to the registered participants only. Google Meet link will be shared to the registered participants."

The bottom part of the image is a screenshot of a Google Meet session. The meeting title is "Secure Operating Systems". The presenter is "Director SET is presenting". The main screen shows a slide titled "Secure Operating Systems" with the following content:

- Two Forms:
- 1. Constrained Systems that can enforce security goals with high degree of assurance
 - Lead to lower utilization

A notification bubble says: "Your screen is still visible to others. Click to cancel your presentation." The right sidebar shows a list of participants: 61 Sheekha, 67_Ruchit Tejani, 69 Aashrut, 71 - Meet, 72 Aayush, 84_Yash Prajapati, and 85_Tej Vekariya. The bottom status bar shows the time as 2:38 PM, the meeting ID as xcc-esbv-mvf, and the system clock as 14:38 on 07-07-2021.

Session Outline

- ✓ OS Introduction and Fundamentals
- ✓ Secure Operating System
- ✓ Access Control Fundamentals

Session Outcome

- ✓ Understanding of Operating System
- ✓ Understand Analyze secure Operating System
- Knowledge of Access Control Fundamentals to build secure kernels

Security Aspects of Operating System - Prof S D Panchal

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