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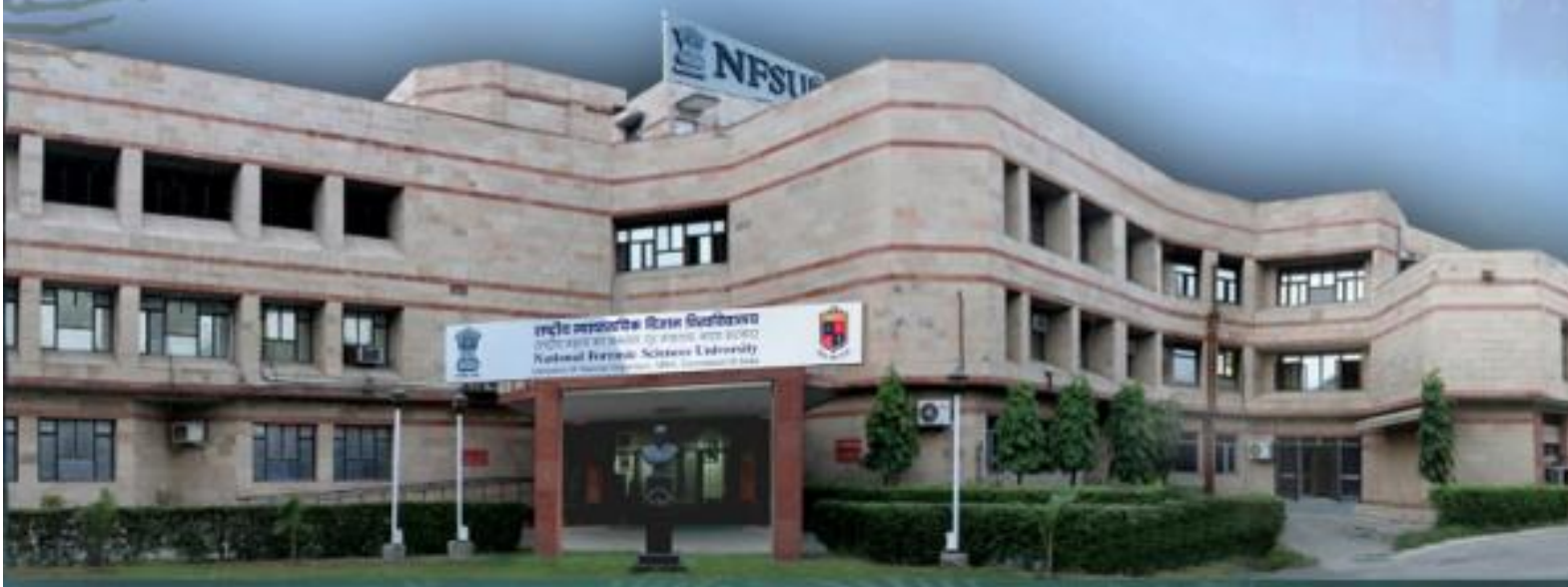

NFSU

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National Forensic Sciences University

Knowledge | Wisdom | Fulfilment

An Institution of National Importance
(Ministry of Home Affairs, Government of India)

Course on

Mobile Forensics

(14 to 16 Jan., 2025)

Level of Participants	**Judges/Magistrates, Dy. SP/ACP and above, Prosecution Officials, Defence Officers and SSO and above from CFSL/FSL**
Duration	**03days**

ABOUT THE COURSE

Recent trends in investigation of crime cases have witnessed the involvement of mobile phones acting as crucial evidence. Therefore, mobile phones, especially smartphones are an important source of digital evidence not only in cybercrimes but also in conventional crimes. They contain much information about the user and his/her activities including call logs, messages, photos, videos, and chat logs, etc., which might serve as important lead in the investigation of the cases. The rapid increase in the number of different kinds of mobile phones from different manufacturers makes it difficult to develop a generic set of procedure or tool, which can cater to all types of mobile devices. Furthermore, each mobile is designed with a variety of embedded operating systems, which require special knowledge & skills to acquire and analyse the data present in the device. The mobile phone forensics aims to recover digital evidence or relevant data in a forensically sound manner, for which it is essential to follow precise and standard rules for seizure, isolation, transportation, and preservation of mobile phones and its associated components.

This course is specifically focused on mobile phone forensics, where the participants will be made familiar with the different aspects of mobile communication technologies including hardware components, file-systems, data storage technology, operating systems etc., and the first responder process to handle mobile phones at the crime scene. With the help of case studies, the participants will also be enlightened about carrying out investigations of various crime incidents using mobile phones. They will be introduced to the various techniques for acquiring and analyzing data (including recovery of deleted data) from latest smartphones, theoretically as well as through online practical demonstrations. The course will also focus on the various features of SIM card including the procedure for acquiring and analyzing data from it. It will also include analysis of CDR and IPDR (alongwith online demonstrations of the tool), lawful interception and tracking of mobile phones and advanced topics like JTAG and Chip-off data extraction techniques from mobile phones. Lastly, legal experts will talk on the laws, and regulatory issues pertaining to use of mobiles and communication devices in India.

COURSE OBJECTIVES

- To sensitize the participants about role and responsibilities of Criminal Justice Functionaries in handling Cyber Crime Cases.
- To provide hands-on knowledge of tools and techniques of mobile forensics and application analysis.
- To demonstrate the participants different high-end mobile forensic tools like UFED and MOBILedit .
- To discuss lawful interception and tracking of mobile phones and investigation of crimes using mobile phones with the help of case studies.
- To familiarize with the analysis of CDR and IPDR along with a practical demonstration of the same using different tools and techniques.
- To provide an overview on the highly-advanced JTAG and Chip-off Technologies used for acquisition of data from the memory chip of the mobile phone.
- To enable the participants appreciate, evaluate and interpret the case laws with reference to the IT Act and other laws related to Mobile Phone Evidence.
- To enable the participants, appreciate, evaluate and interpret the case laws with reference to the IT Act.

TRAINING CURRICULUM

1. **Use of Mobile Phones for investigation of crimes**
    - Different types of crime incidents involving the use of mobile phones.
    - Mobile phone as a source of evidence for the LEA.
    - Use of mobile phone in collecting evidence and intelligence.

2. **Introduction to Data Storage, File System and Hardware used in Mobile Devices**
    - Mobile Architecture
    - Mobile File System.

3. **First Responder Procedure for handling Mobile Phone from Crime Scene**
    - Preservation of digital data from Mobile Phone.
    - Collection of volatile and non-volatile Mobile Phone data.
    - Demonstration of techniques for preservation and handling of mobile phone.

4. **Mobile Forensics:**
    - Basic concepts of Mobile forensics: data recovery and evidence collection from mobile devices.
    - Advance mobile forensic tools such as Cellebrite UFED.
    - Cell Data Forensic Analysis.
    - Challenges faced by LEAs in mobile forensics.
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    - Hands-on Session: SIM CARD Extractor: Imaging and analyzing of SIM cards.
    - Analysis of CDR using tools by CDAC.
5. **SIM card, Imaging and Analysing**
    - Various types of SIM cards and its file-system structure.
    - Different potential evidences present in the SIM card
    - Tools available for the extraction of data from the SIM card.
    - Tracking of mobile phone devices through IMEI and host-based techniques.
    - Interception of mobile phones using Triangulation method.
    - Examination and analysis of CDR, Tower Dump and IPDR using different techniques and specialized tools

6. **IT Act and other laws related to mobile phones**
    - Misuse or abuse of mobile phones, cell phones, PDAs and other communication devices within the ambit of legal regulation in India.
    - Legal, policy and regulatory issues pertaining to use of mobiles and communication devices in India.
    - Issues relating to mobile contracts in India and types of permissible contents on mobile and mobile platforms.
    - The existing legal position in India pertaining to mobiles and the various aspects of development of Mobile Law in India.