

HELIK

Digital Forensic Services

(Cyber & Mobile Forensic, Voice Identification, Tape Authentication & Video Analysis)

Digital forensics is a branch of forensic science encompassing the recovery and investigation of material found in digital devices, often in relation to computer crime. Technically Digital Forensics is sub-divided into: Computer/Cyber Forensics, Mobile device Forensics, Speaker (Voice) Identification, Tape Authentication & Video Analysis.

Cyber/Computer and Mobile device Forensics can be defined as techniques to examine digital media in a forensically sound manner to identify, preserve, recover, analyse and present facts and opinions in a legally accepted manner. Speaker identification can be termed as identifying a person solely by his or her speech. The aim of speaker identification is to identify voice from an unknown voice speech sample and a set of known speech samples from different speakers. Video Authentication is a process used to ascertain the trustworthiness or authenticity of a digital video.



AUDIO - VIDEO - FORENSICS

We undertake data extraction and analysis from all digital devices containing audio, video, images etc.

AUDIO / VIDEO AUTHENTICATION:

Audio / Video Authentication is a process that is used to ascertain the trustworthiness of a digital or analog recording. In other words, authentication system ensures the integrity of recording and verifies that the audio / video recording has not been tampered / altered / doctored.

SPEAKER (VOICE) IDENTIFICATION:

Identifying an individual solely by his / her speech / voice is called "Speaker (Voice) Identification" The aim of Speaker Identification is to identify the voice of an individual from an unknown speech sample compared with known / unknown sample.

AUDIO / VIDEO ENHANCEMENT:

For Audio: Noise Reduction, Voice Segregation of an individual/s, Removal of Background Noise etc. whereas

For Video: Noise Reduction, Brightness/Contrast, Sharpening / Deblurring, Video Stabilization, Color Correction, Deinterlacing, Demultiplexing can be performed in Audio / Video Enhancement

Eg.- Video Recording from mobile, computer, CCTV, video recorders, SPY cameras in infidelity, theft, obscene mails, porno images, edited, Morphed pictures etc.

FACE / PERSON IDENTIFICATION:

To identify an individual from Video / Images alongwith the standards submitted.

For Face identification different scientific features are studied and also enhancement is done in video or image if necessary.

Note: Our expert opinion is admissible under section 45 of Indian Evidence Act by all the Courts of India.

■ HELIK Cyber & Mobile Device Forensics Services

HELIK E-Forensics operations provide customers with a focused, forensic approach to retrieving information from a wide range of digital devices. Our computer and mobile Forensic Services cover all areas of Computer fraud, computer misuse, internet/email abuse any of suspicious or abusive activity wherein mobile phone, smart phone is involved etc.

■ Services:

- Data Recovery Services
- Deleted, partially overwritten or formatted data
- Water Damaged, Burned or Dropped Hard Drive
- Forensic Analysis of data from Central processing units, internal and peripheral storage devices such as fixed disks, external hard disks, floppy disk drives and diskettes, tape drives and tapes, optical storage devices, optical readers and scanning devices, CDs, DVDs, USB Devices, digital cameras and digital storage media, operating logs, software and operating instructions or operating manuals, computer materials, software and programs used to communicate with other terminals via telephone or other means, printers, Network Logs etc.
- Incidence Response and on-site support services
- Hard Disk Duplication & MD5 Hash
- Advanced Email and Internet History examination
- Advanced keywords search
- Analysis of Encrypted and Password Protected data
- Networking device logs examination
- Malware and Volatile Memory analysis
- Steganography decoding services
- Performing Bit stream Imaging/acquiring of the Digital Media seized during the process of Investigation
- Hands-on-experience on use of Encase, FTK Access Data, Nuix and other forensic tools

■ HELIK focuses on addressing the forensic issues - not just with technology - but also provides flexible, cost effective and timely solutions

■ Mobile Phone & PDA Analysis

Using cross functional expertise of our experienced examiners, supported by our research and development team, HELIK provides a range of services involving:

- Extraction of digital data from PDAs, GPS navigation devices and removable media
- HEX analysis
- Examination of devices with volatile memory
- Acquiring and analysing suspected information in mobile devices and smart phones
- Acquiring memory from Phones, SIM Cards and Memory Cards
- Extracting important evidence such as Location Information, Subscriber & equipment identifiers, Date/time, language, Phonebook information, Call log information, Text Messages, Picture Images, Video Files, Audio Files, Multimedia Messages, Emails, Web Browsing Activities, Documents, Spreadsheets and Presentation Files, User created Files or Folders, etc.

■ Information Security Services

- Vulnerability assessment & penetration testing services
- Web application testing services
- Extraction of logs from various devices on need basis - like proxy, firewall, email gateway, IPS, IDS, desktops, laptops, servers, Mail Servers, SIM tools, routers etc, to analyse them & conclude investigation
- Technical competency in LAN / WAN architecture
- Various operating systems such as Microsoft Windows 2000, XP & vista / Microsoft Windows 2003 Server, UNIX, Solaris, Firewall and network products etc
- Packet sniffers
- Database such as MSSQL, Oracle etc
- Basic knowledge regarding scripting such as shell, VB & pearl
- TCP/IP for deep content inspection, contextual analysis of transactions, analysis of logs

Note: Our expert opinion is admissible under section 45 of Indian Evidence Act by all the Courts of India.