



NALSAR
University of Law, Hyderabad
(Accredited with 'A++' grade by NAAC)

nalsarpro
e-nexus for Law
Directorate of Distance Education



FIVE DAY ONLINE COURSE ON 'FORENSICS IN NUTSHELL' (JOINTLY OFFERED BY NALSAR UNIVERSITY OF LAW AND TRUTH LABS)

About the Course

Forensic science is becoming more and more important in both our daily lives and the legal system. Forensic science is vital to the criminal justice system as it offers unbiased, objective and scientific proof to solve crimes, identify culprits, and exonerate the innocent. Its significance stems from its ability to link suspects to crimes, provide realistic descriptions of crime scenes, support accurate and just legal outcomes through techniques like DNA analysis, ballistics, and digital forensics.

Course Objectives & Outcome

The 5-Day online program will introduce all branches of forensic science to various stake holders such as Corporates, Students, Lawyers and particularly Law enforcement agencies. The program will be helpful to identify key challenges in all areas of forensic science and by the end of the program participants would be better equipped in conducting their professions whether it be legal, corporate, information and computer systems.

Schedule and Details of the Sessions (Tentatively from December 17 – 21, 2025)

Day- 1:

UNIT – I (Session –1)

1. History of Scientific Investigation and Introduction to Forensic Science

- Development of Forensic Science in India
- Forensic Science Institutions at State & Regional Levels
- Physical Evidence & its role in Crime Investigation

2. Indian Constitution and Outline of Major Criminal Acts (session – II)

- Indian Constitution and Criminal Justice
- BNS
- BNSS
- BSA

3. Special and Local Laws (Session–III)

- JJ Act and POCSO
- Cyber crimes
- NDPS Act
- Money Laundering

4. Essentials of Crime Scene Processing & Reconstruction (Session–IV)

- Physical Evidence & its role in Crime Investigation
- Handling of Physical Evidence
- Packaging and Labelling Evidence
- Chain of Custody of Evidence
- Checklist of physical evidence – crime wise
- Checklist of physical evidence – FSL section wise

Day– 2

UNIT – II (SessionI)

1. Introduction to Questioned Documents

- Scope of Document Examination
- Different types of Cases
- Different types of Questioned documents
- Examination of writings/signatures/initials
- Forgeries and their Detection
- Different types of Tampering
- Other types of Examinations
- Instruments
- Handling & Preservation of Documents

2. Basics of Fingerprints & Track marks (Session–II)

- Fingerprint Patterns
- Procedures for taking Fingerprints, Palm & Sole Prints
- Taking of Fingerprints from Dead bodies
- Role of fingerprints in Disaster Victim Identification
- Fingerprints at the Scene of Crime
- Comparison of Thumb impression on Documents
- Role of Fingerprints Ion Biometrics
- Law relating to Fingerprints
- Footprints/Footwear marks/Hoof marks & Paw marks
- Gait pattern/Tyre Impressions/Skid Marks

3. Basic aspects of Forensic Physics (Session–III)

- Introduction
- Glass
- Paint
- Soil, Dirt & Dust
- Restoration of Obliterated marks
- Tool Marks
- Spurious Articles

4. Introduction to Ballistics (session-IV)

- Classification of Ballistics
- Firearms
- Ammunition
- Mechanism of Firing
- Identification of Firearms
- Bullet Identification
- Direction of Fire
- Range of Fire
- Detection of residues on hands
- Gunshot Residue
- Determining the range of firing by studying the GSR pattern
- Entrance & Exit Wounds

Day-3:

UNIT – III (Session-I)

1. Fundamentals of Forensic Chemistry & Toxicology

- Analysis of Alcohol used in Liquors/Drinks
- Adulteration of Petroleum Products
- Cement, Mortar & Concrete
- Fire Investigation
- Oils & Fats
- Acids & Alkalis
- Examination of Chemicals used in Trap Cases
- Classification of Poisons
- Gaseous and Volatile Poisons
- Inorganic Poisons (Metallic & Anions)
- Neutral Poisons (Organic Non-volatile)
- Basic Drugs/Poisons (Organic Non-volatile)
- Acidic Drugs/Poisons (Organic Non-volatile)
- Miscellaneous Poisons

2. General Principles of Audio-Video Forensics (Session –II)

- Principles of Forensic Audio and Video Analysis
- Basics of Voice and Sound-analysis-speaker identification process
- Voice comparison and matching
- Basics of Video and Image Analysis
- Image Authentication and Image/object/personnel identification
- Techniques used
- Hardware and Software
- Recovery of Evidence
- Evidence Enhancement
- Analysis, Interpretation and Identification
- Authentication of recordings
- Identifying people or objects on a recording

- Why and when is audio-video evidence used – To Corroborate Statements –
- Evidence Admissibility and Expert Witnesses
- Case Studies of Digital Forensics and Audio-Video Forensics

3. Foundations of Cyber Forensics and Cyber Crime Investigation (Session – III)

- Definition & Scope of IT Law and Digital Forensics
- Types of Cyber Crimes
- Cybercrime against organization
- Mobile Forensics
- Network Forensics
- Analysis of Digital Evidences
- Cloud Computing
- Search & Seizure of Computers
- Common mistakes committed by the IOs
- Current Challenges in cyber- crime investigation

4. Principles of DNA Forensics (Session-IV)

- History & Introduction of DNA Fingerprinting
- DNA Techniques used in Forensic Investigations
- DNA Profiling in Investigations
- STR Loci commonly used in DNA Typing
- Guidelines for Sample Collection
- Practical Applications of Forensic DNA Fingerprinting

Day –4

UNIT –IV

1. Basics of Arson Investigation:(Session –I)

- Failure Mechanisms (Types of Failures)
- Failures in Electrical Fields
- Failures of Metallic Orthopaedic Implants
- Electrical Component Failures
- Failure Analysis of Integrated Circuits
- Some Typical Failure Investigations
- Investigation into Accidents
- Structural Failure involving Civil Construction Material

2. Fundamentals of Forensic Psychology (Session-II)

- Introduction to Forensic Psychology
- Psychology gets a new branch
- Criminal Profiling Facts vs. Fiction
- A short history of Criminal Profiling
- FBI Crime Scene Analysis
- Investigative Psychology: The Canter Approach
- Polygraph/Lie-detector

3. Basics of Forensic Biology & Serology(Session –III)

- Blood
- Examination of Other (Body) Physiological Fluids

- Seminal Stains
- Examination of Saliva Stains
- Examination of Urine Stains
- Examination of Faecal Stains
- Examination of Milk Stains
- Human Body Remnants Examination
- Guidelines for Sample Collection

4. Forensic Medicine (Session IV)

- Role of Medico-Legal Expert in Crime Investigation
- Introduction to Human Anatomy & Physiology
- Human Skeleton
- Vital Systems of the Body
- Introduction to Post-Mortem changes
- Immediate / Early Signs / Late Signs of Death
- Post-mortem Interval
- Nature of the Injury
- Sequence of Injuries
- Traffic Accidents
- Railway Injuries
- Aircraft Injuries
- Blast Injuries
- Bomb Injuries
- Asphyxia 3.20
- Types of Asphyxial Deaths
- Classification of Sexual Offences 3.29

Day-5

UNIT – V (Session –I)

1. Essentials of Narcotics

- Introduction to Narcotics
- Opium/Morphine/Heroin Compounds
- Cannabis
- Benzodiazepines
- Barbiturates

2. Essentials of Evidence Presentation (Session –II)

- Expert Witnesses
- Report
- The Court
- Introduction to Quality Assurance
- The Quality System
- The Quality Manual
- Internal Audit Program
- Accreditation

3. Introduction to Explosives:(Session –III)

- Introduction and Origin of Explosives
- Composition of Explosives
- Classification of Explosives
- Improvised Explosive Device
- Explosions
- Explosive Train
- Effects of Explosion
- Explosion Scene Investigation
- Collection and types of Physical Evidence
- Laboratory Analysis of Explosives

4. Case studies – Q/A (Session –IV)

Eligibility

Candidates who are pursuing graduation or had graduated are eligible to register.

Admission Procedure

- Submission of Online Application Form along with the required documents and the fee
- Direct admission subject to fulfilling the eligibility criteria

Course Fee:

Rs. 15,000/-

How to Apply

All the candidates should apply online through the website www.nalsarpro.org

Link to Apply : <https://apply.nalsar.ac.in/application-form-for-short-term-courses>

Last Date to Apply : December 10, 2025.

Conduct of the Course

Live sessions will be conducted online by the academicians, professionals and industry experts during weekend. Soft copy of the reference materials will be provided to the candidates.

If the enrollments are more than 100, then the University may conduct the classes in different batches on different dates.

Mode of Assessment

Online Examination will be conducted only once at the end of the course. The assessment may include MCQ, short answer questions, case study, problem based questions etc.

Award of Certificate (only soft copy through email):

- Course Completion Certificate: Candidates securing 50% or more in the Assessment Test will be awarded the 'Course Completion Certificate'
- Certificate of Participation: All other enrolled candidates will be awarded 'Certificate of Participation'

Please note that certificates will be issued in soft copy format only and will be sent via email. Printed (hard) copies will not be provided.

Course Coordinator & the Instructors



Prof. K. V. K. Santhy, Professor of Law & Director, Centre for Cyber Laws and Forensic Sciences, NALSAR University of Law
Course Coordinator

Prof. K. V. K. Santhy has over 24 years of teaching experience in Criminal Law and completed her Doctoral research on “Penal Reforms in India” from Osmania University. She currently serves as the Proctor of NALSAR University of Law, overseeing campus discipline and student affairs.

Prof. Santhy has led and contributed to several prestigious research projects, including the Study of the Indian Penal Code from a Gender Perspective (NCW), Law on Grievance Redressal in Public Offices in A.P. (Centre for Good Governance), and the Draft Amendment to the Transplantation of Human Organs Act, 1994 (National Deceased Donor Transplantation Network). She also coordinated major studies for the Bureau of Police Research and Development (BPR&D) and the UGC on sentencing perspectives and defective investigations.

She has been associated with the Global Internet Governance and Advocacy (GIGA) initiative of the Ministry of Electronics and Information Technology and has conducted international workshops with the ICRC on International Humanitarian and Criminal Law. As part of her post-doctoral research at the Max Planck Institute for International Criminal Law, Germany, she worked on “Punishment and Sentencing” and submitted a report on “Counterfeit Drugs in India.”

An accomplished author, Prof. Santhy has published books and articles on sentencing, police torture, fair trial standards, and human rights law. She is a sought-after speaker, having delivered lectures at leading institutions including NISA, CFSL, National Police Academy, NADT, and Women and Child Welfare Departments on topics such as criminal justice, cyber laws, and sentencing reforms.



Dr. Gandhi P. C. Kaza, M.Sc., Ph.D.
Chairman, Truth Labs

Dr. Gandhi P. C. Kaza retired in 2007 as Director of the State Forensic Science Laboratory, Andhra Pradesh, after an illustrious 37-year career overseeing multiple forensic divisions and regional laboratories. Following his retirement, he founded Truth Foundation, under which Truth Labs, Hyderabad—India’s first independent forensic science laboratory—was established.

As Chairman, Dr. Kaza provides strategic vision, leadership, and guidance to Truth Labs and its six regional centres across Delhi, Chennai, Bengaluru, Mumbai, and Kolkata. Under his direction, the laboratory continues to uphold excellence in forensic services and is progressing towards NABL accreditation for its key divisions.



Mrs. Anupama Kilaru
Director, Digital Forensics and MIS

Mrs. Anupama Kilaru holds an M.S. in Computer Engineering from the University of Houston, Texas, a B.Tech in Computer Science from Osmania University, and a Post Graduate Diploma in Criminal Justice and Forensic Science from the University of Hyderabad.

With over 25 years of professional experience in the field of Information Technology, Mrs. Kilaru brings extensive global expertise in Digital Forensics and Airline Software Solutions. She has been associated with Truth Labs since 2015, contributing significantly to the organization’s technological and forensic initiatives.

In her current role, she serves as a Certified Digital Forensics Expert specializing in Cyber Forensics and Audio-Video Forensics. She also oversees the Management Information Systems (MIS), ensuring efficient database management and digital infrastructure for the organization.



Mr. G. V. H. V. Prasad

Director, QD, DNA and In-charge, Hyderabad Region

Mr. G. V. H. V. Prasad holds an M.Sc. and M.Phil. in Chemistry along with a Post Graduate Diploma in Cyber Forensics. He has over a decade of experience with the State Forensic Science Laboratory, Andhra Pradesh, Hyderabad, and has been associated with Truth Labs since 2007, where he currently serves as Director.

He functions as the Technical Manager overseeing compliance with ISO/IEC 17025:2017 standards, and is a Designated Expert in Questioned Document Examination, Fingerprint Analysis, and DNA Forensics. Mr. Prasad also heads the Hyderabad Regional Laboratory, ensuring excellence and integrity in forensic investigations.



Mr. U. Ramamohan

Director, Digital Forensics and Cyber Security, Truth Labs International

Mr. U. Ramamohan holds an M.Sc. in Statistics from S. V. University, Tirupati, and a Post Graduate Diploma in Computer Applications from the University of Hyderabad. A retired Superintendent of Police from Telangana and Andhra Pradesh States, he brings over 25 years of expertise in digital evidence handling and forensic analysis, having investigated more than

1000 cases as a Computer Forensic Expert with APFSL and CID.

With an additional 15 years of experience in field crime investigations, including cybercrimes, bomb, and explosive cases, Mr. Ramamohan now leads the Digital Forensics and Cyber Security division at Truth Labs International, providing expert guidance and technical insight in complex forensic investigations.

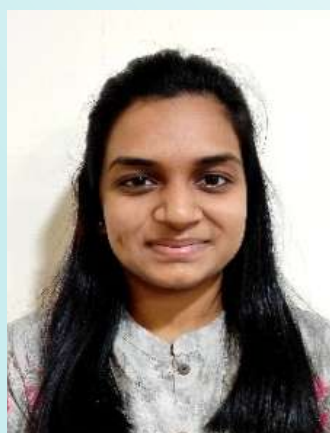


Mr. Immanuel Premkumar

Deputy Director, CF/AV Section

Mr. Immanuel Premkumar holds an M.Tech in Nanotechnology and an M.Sc. in Nanoscience. He has been associated with Truth Labs since 2016 and currently serves as Deputy Director in the Cyber Forensics and Audio-Video (CF/AV) section.

In his role, he functions as an expert in CF/AV analysis, issuing forensic reports and contributing to a range of scientific and administrative operations within the organization. His expertise supports the lab's mission of ensuring accuracy and integrity in forensic investigations.



Mrs. Shaikh Raeesah Tasleem

Deputy Director, QD and FP Sections

Mrs. Shaikh Raeesah Tasleem holds an M.Sc. in Forensic Science and has been associated with Truth Labs since 2019, currently serving as Deputy Director in the Questioned Documents (QD) and Fingerprint (FP) sections.

She functions as an expert in Questioned Document Examination, Fingerprint Analysis, and Forensic Linguistics, issuing expert reports and contributing to the scientific and administrative operations of the laboratory. She also coordinates with other forensic experts to ensure efficiency and precision in handling forensic casework.



Ms. Gargi Deshmukh
Deputy Director, QD and FP Sections

Ms. Gargi Deshmukh holds an M.Sc. in Forensic Science from King's College London, specializing in DNA Forensics. She possesses extensive expertise in molecular biology and microbiological techniques, including multiplex PCR, DNA sequencing, DNA fingerprinting using ABI Genetic Analyzer, and autosomal STR analysis.

She has handled a wide range of forensic cases involving paternity and maternity disputes, weapons identification, murder, and sexual assault investigations. With experience analyzing over 500 biological specimens such as blood, hair, teeth, and bones, Ms. Deshmukh is proficient in interpreting and preparing detailed DNA fingerprinting reports with high scientific accuracy.