

**TRAINING PROGRAMME
FOR
BANGLADESH JUDGES AND JUDICIAL OFFICERS
AT NATIONAL JUDICIAL ACADEMY, BHOPAL ON 8TH FEBRUARY 2023**

ELECTRONIC EVIDENCE:

NEW HORIZONS, COLLECTION, PRESERVATION & APPRECIATION



- DR. HAROLD D'COSTA

President - Cyber Security Corporation

Advisor - Law Enforcement Agencies

International Trainer - Judges & Public Prosecutors

ELECTRONIC EVIDENCE

The term 'Electronic Evidence' signifies a piece of evidence generated by some mechanical or electronic processes which is often relevant in proving or disproving a fact or fact at issue, the information that constitutes evidence before the court. Electronic Evidence is commonly known as Digital evidence.

IT ACT 2000 – CHAPTER III

ELECTRONIC GOVERNANCE

4. Legal Recognition of Electronic Records.—Where any law provides that information or any other matter shall be in writing or in the typewritten or printed form, then, notwithstanding anything contained in such law, such requirement shall be deemed to have been satisfied if such information or matter is—

- (a) rendered or made available in an electronic form; and
- (b) accessible so as to be usable for a subsequent reference

SECTION 61

THE INDIAN EVIDENCE ACT, 1872

61. Proof of Contents of Documents

The contents of documents may be proved either by primary or by secondary evidence.

MAN CAN LIE BUT DOCUMENT CANNOT

SECTION 293

THE CODE OF CRIMINAL PROCEDURE, 1973

293. Reports of Certain Government Scientific Experts.

(1) Any document purporting to be a report under the hand of a Government scientific expert to whom this section applies, upon any matter or thing duly submitted to him for examination or analysis and report in the course of any proceeding under this Code, may be used as evidence in any inquiry, trial or other proceeding under this Code.

(2) The Court may, if it thinks fit, summon and examine any such expert as to the subject- matter of his report.

CONTINUED...

(3) Where any such expert is summoned by a Court and he is unable to attend personally, he may, unless the Court has expressly directed him to appear personally, depute any responsible officer working with him to attend the Court, if such officer is conversant with the facts of the case and can satisfactorily depose in Court on his behalf.

(4) This section applies to the following Government scientific experts, namely:-

(a) any Chemical Examiner or Assistant Chemical Examiner to Government;

(b) the Chief Inspector of- Explosives;

(c) the Director of the Finger Print Bureau;

(d) the Director, Haffkeine Institute, Bombay;

(e) the [Director, Deputy Director or Assistant Director] of a Central Forensic Science Laboratory or a State Forensic Science Laboratory;

(f) the Serologist to the Government.

SECTION 45

THE INDIAN EVIDENCE ACT, 1872

45. Opinions of Experts.—When the Court has to form an opinion upon a point of foreign law or of science or art, or as to identity of handwriting [or finger impressions], the opinions upon that point of persons specially skilled in such foreign law, science or art, [or in questions as to identity of handwriting] [or finger impressions] are relevant facts. Such persons are called experts.

SECTION 45A

THE INDIAN EVIDENCE ACT, 1872

45A. *Opinion of Examiner of Electronic Evidence.* — When in a proceeding, the court has to form an opinion on any matter relating to any information transmitted or stored in any computer resource or any other electronic or digital form, the opinion of the Examiner of Electronic Evidence referred to in section 79A of the Information Technology Act, 2000 (21 of 2000) is a relevant fact.

IT ACT 2000 – CHAPTER XII-A **EXAMINER OF ELECTRONIC EVIDENCE**

79A. Central Government to notify Examiner of Electronic Evidence – The Central Government may, for the purposes of providing expert opinion on electronic form evidence before any court or other authority specify, by notification in the Official Gazette, any Department, body or agency of the Central Government or a State Government as an Examiner of Electronic Evidence.

Even with end-to-end encryption WhatsApp messages can be modified

WHATSAPP CHAT MODIFICATION



CHECK IF WHATSAPP IS MODIFIED

Google Play Games Apps Movies & TV Books Children



Root Checker

joeykrim

Contains ads · In-app purchases

4.3★

3.69L reviews

5Cr+

Downloads

E

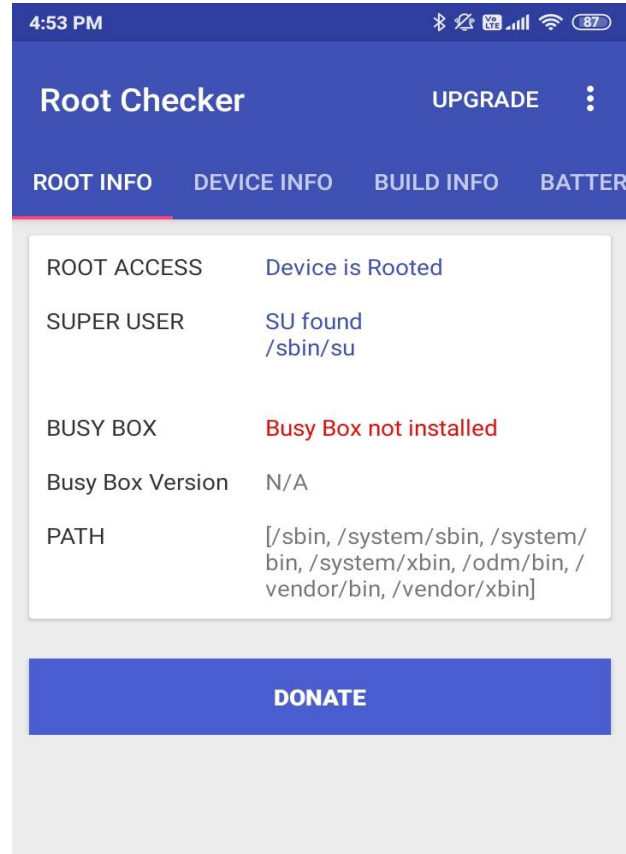
Everyone ⓘ

Install

★ Add to wishlist



ROOTED MOBILE DEVICE



SMS SPOOFING

11:29 AM

📶 🔋 70



+8801819561646

Bangladesh

2-6 11:19 AM

Dear Dr D'Costa,

This is Mir Ruhul Amin.
Kindly meet me on 8th February
2023 [at 8:30PM](#). Need to discuss
something important with you.

2-7 11:41 AM

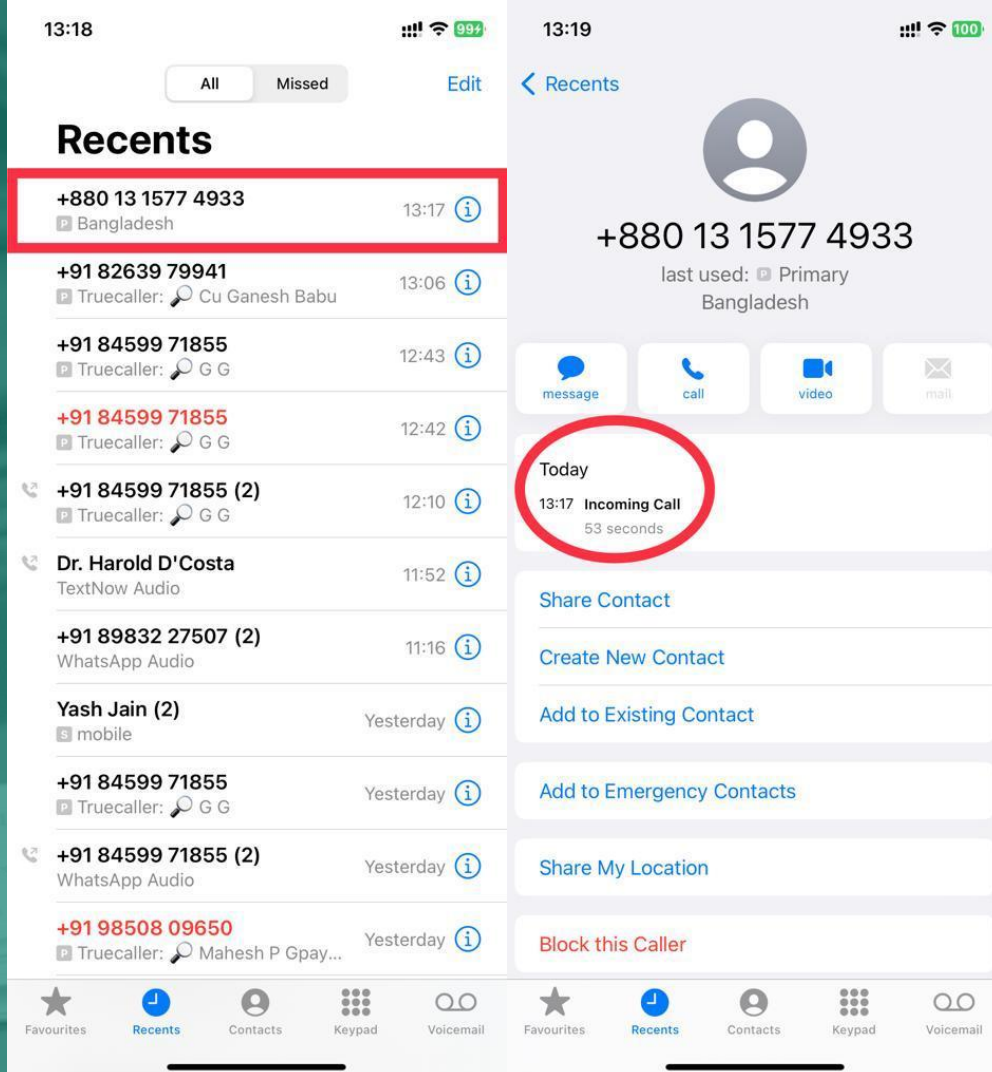
Ok



|text message



CALLER ID SPOOFING



CALL & SMS AUTHENTICATION

Calling (A) Party Telephone Number	Called (B) Party Telephone Number	Call Date	Call Time	Call Duration (in seconds)	First Cell ID of Party A	Last Cell ID of Party A	Call Type (IN/OUT/SMS In/SMS OUT)	IMEI of A	IMSI of A	Type of connection (Pre-paid/ Post-paid)	SMS Centre Number
9819194961	TA-ezoneo	01-08-2012	09:30:48		29371		SMS-INCOMING	351532043881030	404212110033190	PostPaid	919246255009
9819194961	09892898647	01-08-2012	09:40:58	64	29371	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	09892898647	01-08-2012	09:43:34	395	29371	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	7738146965	01-08-2012	10:08:50	47	29371	0	INCOMING	351532043881030	404212110033190	PostPaid	
9819194961	7738146965	01-08-2012	10:09:55	11	29371	0	INCOMING	351532043881030	404212110033190	PostPaid	
9819194961	7738146965	01-08-2012	10:10:21	29	29371	0	INCOMING	351532043881030	404212110033190	PostPaid	
9819194961	919820212219	01-08-2012	10:46:50		26871		SMS-INCOMING	351532043881030	404212110033190	PostPaid	919250255008
9819194961	09870317249	01-08-2012	11:12:24	103	23103	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	09870317249	01-08-2012	11:16:10	15	23103	0	INCOMING	351532043881030	404212110033190	PostPaid	
9819194961	912355680967	01-08-2012	11:18:02	128	23103	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	09870317249	01-08-2012	11:30:21	10	23103	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	9820826627	01-08-2012	11:33:47	19	23103	0	INCOMING	351532043881030	404212110033190	PostPaid	
9819194961	9820826627	01-08-2012	11:34:25	41	23103	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	9820126182	01-08-2012	11:36:10	13	23103	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	9820826627	01-08-2012	11:36:45	15	23103	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	09773214433	01-08-2012	11:48:39	21	29131	13611	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	09930727389	01-08-2012	12:00:38	145	31621	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	TA-RNAICOR	01-08-2012	12:37:24		32803		SMS-INCOMING	351532043881030	404212110033190	PostPaid	919246255009
9819194961	9820826627	01-08-2012	12:51:19	62	25431	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	9820826627	01-08-2012	12:52:47	29	25431	0	INCOMING	351532043881030	404212110033190	PostPaid	
9819194961	9820826627	01-08-2012	12:53:27	22	25431	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	09594340252	01-08-2012	13:15:15	15	13082	0	INCOMING	351532043881030	404212110033190	PostPaid	
9819194961	09594340252	01-08-2012	13:17:25	9	29371	0	OUTGOING	351532043881030	404212110033190	PostPaid	
9819194961	919821671554	01-08-2012	13:56:52		32342		SMS-INCOMING	351532043881030	404212110033190	PostPaid	919821000005
9819194961	LM-MANTRA	01-08-2012	15:47:18		29371		SMS-INCOMING	351532043881030	404212110033190	PostPaid	919821000005
9819194961	TD4Dr.Batr	01-08-2012	17:08:58		29371		SMS-INCOMING	351532043881030	404212110033190	PostPaid	919250255008
9819194961	LM55666	01-08-2012	17:21:03		29371		SMS-INCOMING	351532043881030	404212110033190	PostPaid	919821200005
9819194961	09594340252	01-08-2012	18:20:47	23	29371	0	OUTGOING	351532043881030	404212110033190	PostPaid	

EMAIL SPOOFING

The screenshot displays a Gmail interface with a circuit board background. The browser address bar shows the URL: mail.google.com/mail/u/0/?tab=rm&ogbl#inbox/FMfcgzGrcXkWnmCKmngVschMgMsZCXw. The Gmail logo is in the top left. A search bar contains the text "Search in mail". On the right, there are icons for "Active" status, help, settings, and a grid view. The left sidebar shows the "Compose" button and a list of folders: "Inbox" (1), "Sent", "Drafts" (3), "Spam", "Trash", and "More". Below the folders are "Labels" for "Bansal (Delhi)" and "Citadel". The main email view shows a message from "Farzana Khan" with the subject "File" and a yellow "External" label. The sender's email address is <farzanajudge@gmail.com>. The message content reads: "Dear Dr D'Costa, The file has been sent to you yesterday as per instructions given. Kindly do the needful at the earliest. Warm Regards, Ms. Farzana Khan Additional District Judge". The email was received at 11:42 AM (1 hour ago).

EMAIL AUTHENTICITY

Farzana Khan <farzanajudge@gmail.com>
to me ▾

11:42 AM (2 hours ago)



↩ Reply

➦ Forward

Filter messages like this

Print

Delete this message

Block "Farzana Khan"

Report spam

Report phishing

Show original

Translate message

Download message

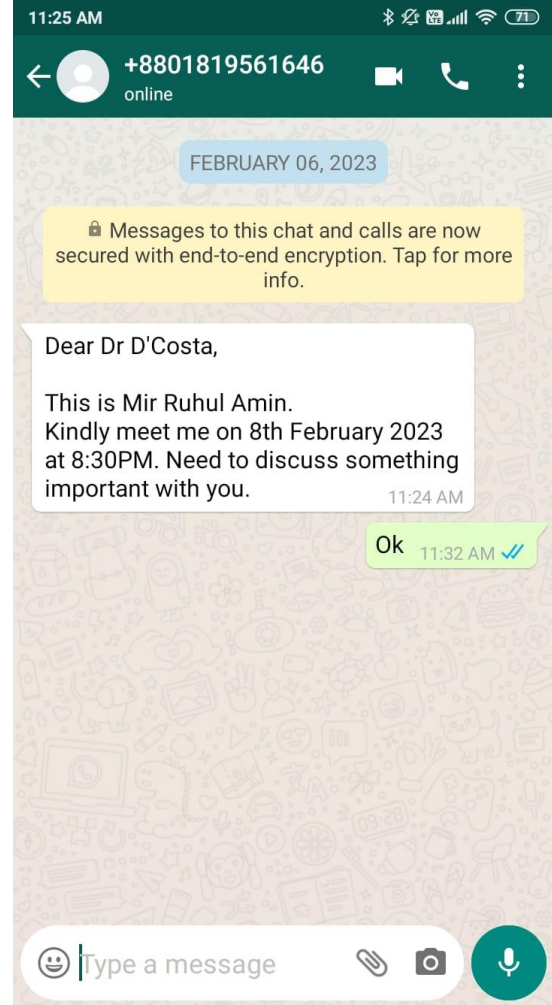
Mark as unread

EMAIL AUTHENTICITY

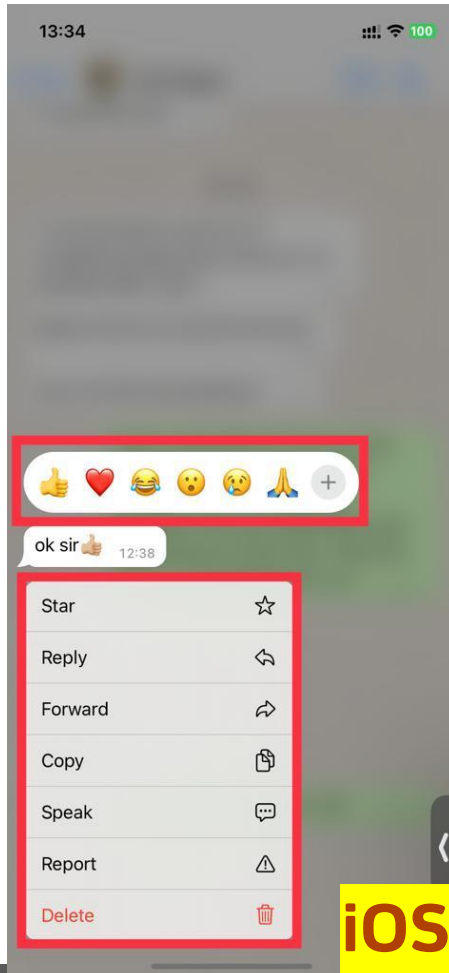
ARC-Authentication-Results: i=1; mx.google.com;
spf=softfail (google.com: domain of transitioning farzanajudge@gmail.com does not designate 89.187.129.22 as permitted sender)
smtp.mailfrom=farzanajudge@gmail.com;
dmarc=fail (p=NONE sp=QUARANTINE dis=NONE) header.from=gmail.com
Return-Path: <farzanajudge@gmail.com>
Received: from emkei.cz (emkei.cz. [89.187.129.22])
by mx.google.com with ESMTPS id f6-20020a5d50c6000000b002bfb48222dsi15543000wrt.755.2023.02.07.22.12.37
for <support@cybersolution.in>
(version=TLS1_3 cipher=TLS_AES_256_GCM_SHA384 bits=256/256);
Tue, 07 Feb 2023 22:12:37 -0800 (PST)

Received-SPF: softfail (google.com: domain of transitioning farzanajudge@gmail.com does not designate 89.187.129.22 as permitted sender) client-ip=89.187.129.22;
Authentication-Results: mx.google.com;
spf=softfail (google.com: domain of transitioning farzanajudge@gmail.com does not designate 89.187.129.22 as permitted sender)
smtp.mailfrom=farzanajudge@gmail.com;
dmarc=fail (p=NONE sp=QUARANTINE dis=NONE) header.from=gmail.com
Received: by emkei.cz (Postfix, from userid 33) id 179E25510FC; Wed,
8 Feb 2023 07:12:37 +0100 (CET)
To: support@cybersolution.in
Subject: File
From: Farzana Khan <farzanajudge@gmail.com>
X-Priority: 3 (Normal)
Importance: Normal
Errors-To: farzanajudge@gmail.com
Reply-To: farzanajudge@gmail.com
Content-Type: text/plain; charset=utf-8
Message-Id: <20230208061237.179E25510FC@emkei.cz>
Date: Wed,
8 Feb 2023 07:12:37 +0100 (CET)

WHATSAPP MESSAGE SPOOFING




WHATSAPP MESSAGE AUTHENTICITY





GOOGLE - MY ACTIVITY

My Activity !


 Image Search ×


Viewed image from [i.pinimg.com](#)

5:51 PM • Details 


 Image Search ×


Viewed image from [i.pinimg.com](#)

5:51 PM • Details 


 Image Search ×


Searched for [modern ganesh rangoli](#)

5:47 PM •  • Details


 Image Search ×


Viewed image from [i.pinimg.com](#)

5:47 PM • Details 


 Image Search ×

Viewed image from [fashionlady.in](#)

5:47 PM • Details 

 Image Search ×


Searched for [ganpati rangoli design](#)

5:46 PM •  • Details

My Activity !


Viewed area in Google Maps !


2:08 PM • Details

 Maps ×

Directions to [Orchid hotel radha chowk baner, Baner Highway Side Rd, National Games Park, Mahalunge, Pune, Maharashtra](#)


Current location
Orchid hotel radha chowk baner, Baner Highway Side Rd, National Games Park, Mahalunge, Pune, Maharashtra

2:08 PM •  • Details


 Maps ×


Used Maps


2:08 PM • Details

 Maps ×


Searched for [Orchid hotel radha chowk baner, Baner Highway Side Rd, National Games Park, Mahalunge, Pune, Maharashtra 411045](#)

2:08 PM •  • Details


 Maps ×


Viewed area in Google Maps 

2:08 PM • Details

 Maps ×

Searched for [orchid](#)

2:08 PM •  • Details

 Search ×

Searched for [orchid](#)

2:08 PM • Details

**Can Location Coordinates
be modified?**

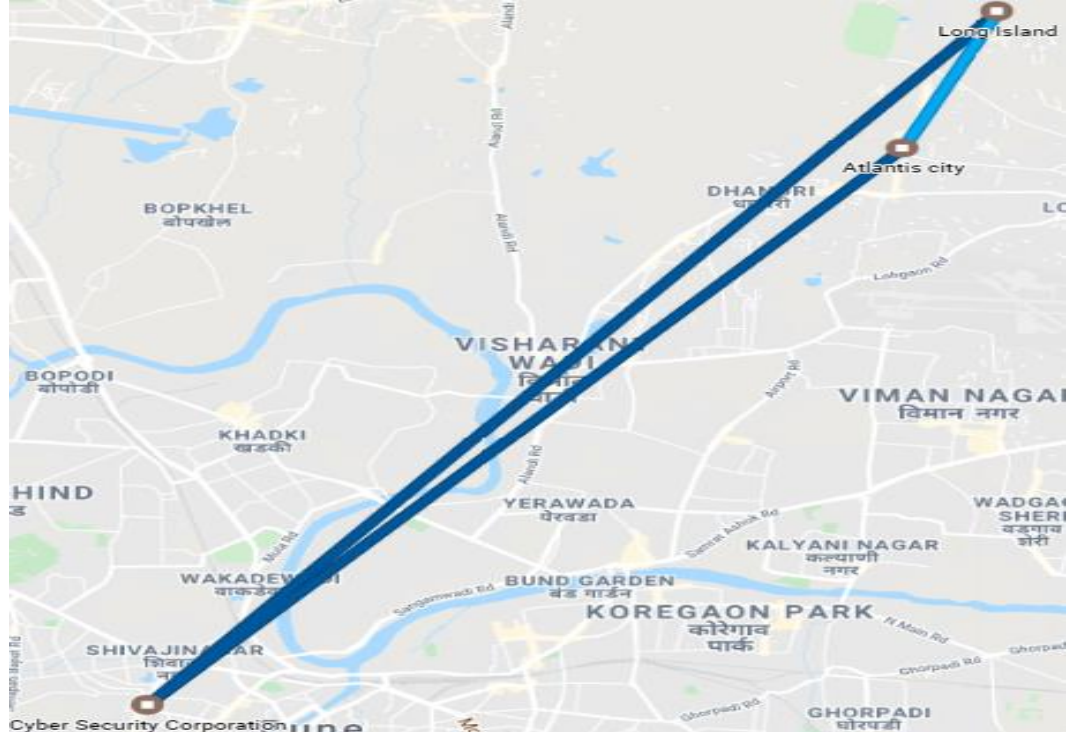
Yes!

EDITED LOCATION

Once you have added all locations, Select appropriate mode of transport.

The screenshot shows a route planning application interface with a vertical blue line on the left representing the route. The interface is divided into four sections, each representing a stop:

- Stop 1:** Long Island (9:00 AM). Address: Pride World City Rd, Charholi Budruk, Pune, Maharashtra 412105. Mode: Driving - 13.5 km, 1 hr, 15 mins.
- Stop 2:** Cyber Security Corporation (10:15 AM - 5:10 PM). Address: Office No. 5, 3rd Floor, Anandi Gopal Building, Fergusson College Rd, behind AU Small Finance Bank, Shivajinagar, Pune, Maharashtra 411005. Mode: Motorcycling - 11.3 km, 50 mins.
- Stop 3:** Atlantis city (6:00 PM - 6:45 PM). Address: 283/1, Porwal Road Near Kand Nagar Chowk, Lohgaon, Pune, Maharashtra 411047. Mode: Walking - 2.3 km, 15 mins.
- Stop 4:** Long Island (7:00 PM). Address: Pride World City Rd, Charholi Budruk, Pune, Maharashtra 412105.



COLOR REPRESENTATIONS

Dark Blue	Sea Green	Light Blue	Red
Driving	Cycling	Walking	Running
In a taxi or Rideshare	Horse Riding	By Wheelchair	Catching Pokémon
Motorcycling	Kayaking	Moving	Hiking
On a bus	Kite Surfing		Nordic Walking
On the Subway	Paragliding		Rowing
On a train	Sailing		Snowshoeing
On a tram	Skateboarding		Swimming
Flying	Skating		
Boating	Skiing		
In a Cable Car	Sledding		
In a Gandola Lift	Snowboarding		
On a ferry	Surfing		
On a funicular			
Snowmobiling			

TIMELINE MODIFICATION DATE WILL BE DISPLAYED



Viewed [your Timeline](#)

Viewed 03-Mar-2020

Updated location for 03-Mar-2020

Viewed 02-Mar-2020

Viewed 01-Mar-2020

Viewed 06-Mar-2020

Viewed 07-Mar-2020

Viewed 08-Mar-2020

9:45 PM • Details

PRE-INVESTIGATION ASSESSMENT

- I. Collection of all necessary information like:
 - i) profiles of the suspect,
 - ii) location,
 - iii) circumstances,
 - iv) computer system

- II. Collection should be done by In-charge/cyber cell (Investigating Officer)

- III. Analyzing scope of the offence and its possible outcomes.

EVALUATION OF THE SCENE OF CRIME

- Crime scene should be evaluated properly before collection of evidences.
- Digital evidences are very volatile in nature and could be available in number of devices, locations and formats.
- Evidences like number of computer system, type of connection (Wi-Fi, Ethernet), personal appliances and computer peripherals should be noted and photographed.

Categories of Crime Scene:

- I. House of an individual having one or more computer network.
- II. Office or coffee shop of an individual or company.
- III. Public place





COLLECTION OF PHYSICAL EVIDENCES

- Identification and collection of potential evidences from crime scene.
- Evidences include- receipts of cyber appliances, left behind diaries, notes/password on slip, e-mail IDs, contact numbers or bank account number.
- Noting and sketching position of various equipment's at crime scene. For e.g. a mouse at left hand side of keyboard may indicate the user being dexterous.

PRECAUTION TO BE TAKEN WHILE COLLECTING DIGITAL EVIDENCES

- Minor mishandling may corrupt or vanish the evidence.
- Without proper documentation evidence may not be admissible in court of law.
- Special skills are required for leveling and preserving of digital evidence.
- Chain of custody should be prepared to identify who handled the evidence.
- A proper documentation like the Digital evidence form should be done separately for every device.
- Serial number of devices should be properly documented.

ADMISSIBILITY OF DIGITAL EVIDENCE

CONDITIONS FOR ADMISSIBILITY OF ELECTRONIC EVIDENCE

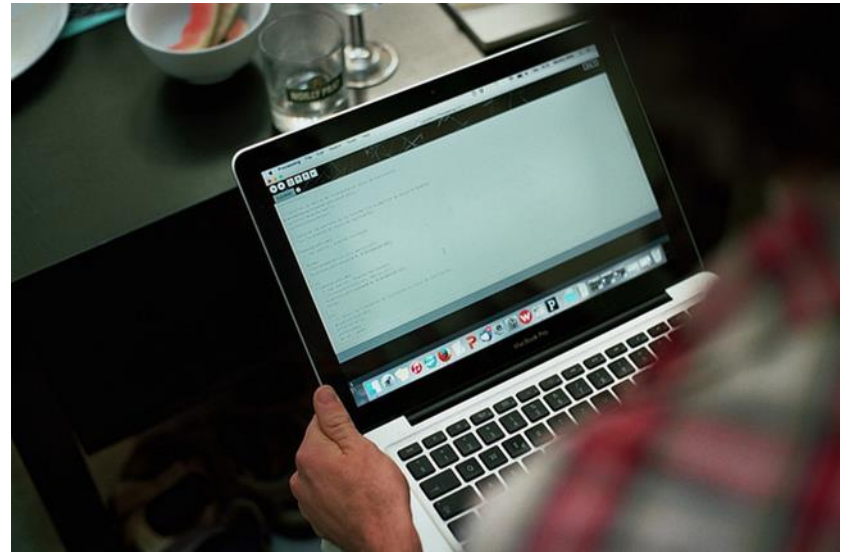


- (a) The computer output containing the information was produced by the computer during the period over which the computer was used regularly to store or process information for the purposes of any activities regularly carried over that period by person having lawful control over the use of the computer;
- (b) During the said period, information of the kind contained in the electronic record or of the kind from which the information so contained is derived was regularly fed into the computer in ordinary course of the said activities;
- (c) Throughout the material part of the said period the computer was operating properly, or if not, then in respect of any period, in which it was not operating properly or was out of operation during that part of time, was not such as to affect the electronic record or the accuracy of its contents; and
- (d) The information contained in the electronic record reproduces or is derived from such information fed into the computer in ordinary course of the said activities.

APPRECIATION OF DIGITAL EVIDENCE

SECTION 65(B)(4)

Under the section 65(B)(4) the certificate which identifies the electronic record containing the statement and describes the manner in which it was produced giving the particulars of the device involved in the production of that records and deals with the conditions mentioned in Section 65(B)(2) and is signed by a person occupying a responsible official position in relation to the operation of the relevant device shall be evidence of any matter stated in the certificate.



CONTENTS OF THE CERTIFICATE



- Following points are the necessary to be covered in the certificate to prove the authenticity of the evidence.
- That the information contained in the hard disks of the mentioned electronic device was regularly recorded into them in the ordinary course of activity.
- That during the period in question the mentioned device were operating properly at all times and there have been no such operational problems so as to affect the accuracy of electronic record.
- That the computer hardware and software used in the computer system have built in security systems.

WHEN IS IT APPLICABLE?



- When signed by a person occupying a responsible official position in relation to operation of relevant device.
- Source, authenticity which are the two hallmarks pertaining to electronic record sought to be used as evidence.
- Only if the electronic record is duly produced in the terms of the Section 65-B of Indian Evidence Act, the question would arise as to the genuineness thereof and in that situation, resort cannot be made to Section 45A - opinion of examiner of electronic evidence.

**Certificate u/s 65B of the
Indian Evidence Act, 1872.**

This is to certify that I, _____, residing at _____, state to the best of my knowledge and belief that I have extracted the images from a mobile device having following details:



DEVICE DETAILS	
MODEL NUMBER	
DEVICE NAME	
SIZE	
SERIAL NUMBER	
IMEI NUMBER	



I state that the device used for extracting the photos was functioning normally at all times.

I further state that the device utilized by me was used to store and process data and were operating properly and there is no distortion in the accuracy of the contents of the copies of the images.

The above is stated to the best of my knowledge and belief.

TIME OF 65-B(4) CERTIFICATE

<p>31. Avadut Waman Kushe v. State of Maharashtra (decided on - 03.03.2016)</p> <p>R. P. Sondurbaldota J.</p>	<p>High Court of Bombay</p>	<p>2016 SCC OnLineBom 3236</p>	<p>The certificate need not be filed at the time of production of the electronic record. It can be filed at the time when the evidence is tendered in evidence and that subsequent filing cannot reduce its effectiveness.</p> <p>Section 65B is about the admissibility of the electronic record and the not the production of it.</p>
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PERSON COMPETENT TO PRODUCE THE CERTIFICATE

35. Shradha
Shipping Co. v.
Adhithri Trading
Co.

(decided on -
25.11.2014)

U.V. Bakre, J.

High
Court of
Bombay

2014 SCC OnLine
Bom 2273 : 2015 Cri
LJ (NOC 483) 158

Certificate under Section 65B of the Evidence Act must be signed by a person occupying a responsible official position in relation to the operation of the relevant device or the management of the relevant activities (whichever is appropriate) so that the electronic record produced can be taken as admissible evidence.

Held, private consultant with no responsible official position and no free access to computer cannot issue a 65B certificate.

ELECTRONIC EVIDENCE AS PRIMARY EVIDENCE (NO CERTIFICATE REQUIRED)

<p>12. Sunil Panchal v State of Rajasthan decided on - 13.06.2016) Mohammad Rafiq and Vijay Kumar Vyas, JJ.</p>	<p>High Court of Rajasthan</p>	<p>2016 SCC OnLine Raj 5140 : (2017) 1 RLW 566 : 2016 Cri LJ 4238 : (2016) 4 WLC 437</p>	<p>A tape-recorded cassette is a primary and direct evidence of what has been said and recorded. Difference between primary and secondary evidence is of utmost importance.</p> <p>Therefore, tape recorder attached to land line telephone to be considered, without a 65B certificate.</p> <p>Voice of accused recorded at the time when ransom call was made by him has matched with his voice recorded in another cassette.</p>
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MOBILE PHONE FALLS UNDER THE DEFINITION OF COMPUTER

<p>64. Syed Asifuddin v. State of Andhra Pradesh (decided on - 29.07.2005)</p> <p>V.V.S. Rao, J.</p>	<p>High Court of Andhra Pradesh</p>	<p>2005 SCC OnLine AP 1100 : 2005 Cri LJ 4314 : (2006) 1 AIR Kant R (NOC 4) 2 : (2006) 1 AIR Jhar R (NOC 4) 1</p>	<p>The judgment examines how a cell phone works and compares it to the definition of 'Computer' and 'Computer Network' under the IT Act, to hold that, "a cell phone is a computer which is programmed to do among others the function of receiving digital audio signals, convert it into analogue audio signal and also send analogue audio signals in a digital form externally by wireless technology."</p>
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SECURITY
CORPORATION** 

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