

Cyber Forensics R&D Roadmap of India



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	2023	2024		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
1. Internet Forensics	OSIN'	T and Social N	Media Analytic		· c·																			
			300	irce identi		nd Dark Wel	b Forensics		Lin	k analysis V	ision and Im	nage process	sing for CSAI	M Detection	Child Evn	loitation/H	uman Traffic	king/Drug Tr	afficking)					
									LIIII	K allalysis, v							en and Child		anicking)					-K
									Forensics of	f large scale	cyber-attac													
									orensies of		ted DDoS at					C1131C3)								
			,					! 			ed real time												,	
2. Multimedia Forensics (Image Forensics, Video Forensics, Audio Forensics, Document Forensics)		Pornograp	ohy Detection	algorithm	ns – Indian (Context																		
	Data Carvi	ng for proprie	ety CCTV Foot	age recon	struction																			
		Deepfak	e Detection th	rough ligh	ntweight, Ef	ficient and	portable so	olutions																
	CCTV Fore	nsics for Ever	nt Reconstruct	ion and F	raud Detec	tion leavera	aging GAIT	biometrics																
			lmage Forensi	c Analysis	(Forgery D	etection, Sc	ource Ident	ification)	 															
	Αι	ıdio Forensic	Analysis (Spoo	ofing Dete	ection, Enha	ancement	.)																	
			Video Fore	nsic Analy	sis (Enhanc	ement, For	gery Detec	tion)																
	Docu	ment Forensi	c Analysis (Ne	xt Genera	ition Securi	ty Features	including A	·		·														
3.Privacy Protection								Priv	acy Preserv	ving Digital	Forensics, Fo	orensics of A	Attacks on Pr	rivate/Prote	cted/Encry	pted Data								
4.Malware Forensics 5.Device/Hardware Forensics	Applicati		lity Forensics,				orensics																	
	Dran		nsomware For				Madia Issa	o ai o a																
	Dron	e Forensics, s	SSD Deleted D		ery, intellig	ent Storage		oT Forensics	of various o	domains Sn	art Wearah	le Forensics	of Smart W	atches Heal	lthcare mo	nitoring de	vices etc							
		GP	S Forensics					or rorensies	or various c		lart Wearab	ne rorensies	or smart w	ateries, riear	itilicare mo	intoring de	vices etc.							
		91	3 1 01 0113103		Vehicle Fo	orensics																		
													IC	CS/SCADA Fo	orensics									
		Next G	eneration Mot	oile Forens	sics, 5G/6G	Device For	ensics																	
										Eml	pedded Syste	em Forensic	s/ Firmware	Forensics										
6.Financial Technology Forensics		Database Fo	rensics leverag	ging IR/Da	ata Mining																			
			ATM/B	anking Fra	aud Forens	ics																		
											(Online Bank	ing Fraud Fo	rensics										
			UPI	App Frauc	d Forensics																			
7.Critical Infrastructure Forensics									Power	Sector Criti	cal Infrastru					ns -								$ \!$ $\!$ $\!$
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8.Cryptanalysis							Fo	orensics of E	ncrypted Da	ata in variou	ıs Devices(Io	oT/Smart an	d other Devi			-	_							
9. Steganalysis													ack Detecto											>>
10. Cloud Forensics	Enter	orise/Public/F	Private Cloud I	Forensics,	Cloud Clier	nt Side Fore	ensics																	
11.Blockchain Forensics		Cryptocı	urrency Forens	sics																				
					Fo	rensics of B	lockchain-l	pased System	าร															
12.Further R&D in Existing Areas								Enhancem	ent to exist	ing solution	s of Disk For					etwork For	ensics							
13.Agent Based Attacks								I					t/Automate											
14. Botnet Forensics	Automated Botnet Attack Detector Forensics of Attacks on/by AI/ML-based systems																							
15.Attacks on Al Systems											De	Forensics ————— ata Poisonir		DII/DY AI/IVIL	-pased syst	ems								
													Learning Att	tack										
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16.Quantum Forensics											110		orensics in th	ne area of O	uantum Co	mputing								33
17. Virtual World Forensics											Fo	rensics in M											,	33
													ented Real	ity										
												ensics in Virt												

- 1. Social Media Analytics Tool
- 2. Dark Web Forensics Tool
- 3. Pornography Detection Indian Context Tool
- 4. CCTV Footage Analysis Tool
- 5. Deepfake Detection Tool
- 6. CCTV Forensics for Event Reconstruction Tool
- 7. Application Vulnerability Forensics Tool
- 8. Ransomware Forensics Tool
- 9. Drone Forensics Tool
- 10. Vehicle and GPS Forensics Tool

Cyber Forensics Solutions 2023-2030

Vision: To make our Country self-reliant in Cyber Forensics

- 11. Document Forensics Tool
- 12. Botnet Attack Forensic Tool
- 13. 5G/6G Device Forensics Tool
- 14. Database Forensics Tool
- 15. ATM / Banking Fraud Forensics Tool
- 16. UPI App Fraud Forensics Tool
- 17. Cloud Forensics Tool
- 18. Cryptocurrency Forensics Tool
- 19. Multimedia Forensics Tool
- 20. Steganalysis & Steg Forensic Tool