CYBER SECURITY & ETHICAL HACKING Course Code: SLC-05

10 August 2020 to 21 August 2020
(Duration: 30 Hours)

Student learning centre, IQAC, Hansraj College, University of Delhi organised a certificate course on Cyber Security & Ethical Hacking from 10 August 2020 to 21 August 2020.

Convener : Dr. Mona Bhatnagar, Director, IQAC, Hansraj College, University of Delhi.

Course Coordinator : Ms. Sunita Chand, Department of Computer Science, Hansraj College, University of Delhi.

Course Co-Coordinator : Mr. Suyash Garg, Department of Computer Science, Hansraj College, University of Delhi

No. of Students Registered: 40

About the course:

An increased Internet penetration for web and mobile applications has resulted in a high rise in instances of attacks on Information Technology infrastructure. This has led to the need to understand the challenges as well as solutions for Cyber Security. The main objectives of the course were to provide an overview of information security, ethical hacking, cyber-attacks and countermeasures, wireless networks security, social networking security, mobile hacking, Intrusion Detection Systems and malware analysis to the participants. Through extensive hands on sessions, the participants learnt to scan, test, hack and secure their own system. They gained a practical experience of cyber ethics, email hacking & security, malware (viruses and Trojans) attacks, windows system attacks, online data investigation, credit card frauds & cases, playing with Google by Google hacking and android mobile hacking etc. They also learnt about Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation through open source tools.

This training aimed to impart a basic knowledge of hacking and how to protect our system against hazardous affects.

BROCHURE PAGE-1

The detailed brochure is attached as separate document.

COURSE CONTENT

The day wise course content is mentioned in table-1 given below:

DAY	MODULE	LIST OF TOPICS	Number of Hours

1	INTRODUCTION TO NETWORKING AND INFORMATION SECURITY	Elements of Information Security, The Security, Functionality, and Usability Triangle, Security Threats, Coding threats, Networking threats, Application security, Web security, Privileges, Foot Printing, Understanding the legal implications of hacking.	03
2	SCANNING	Introduction to network security, Network Traffic Analysis: reconnaissance, scanning, Use of nmap, SNORT, Process Monitor tools	03
3	SNIFFERS	Overview, Packet sniffer or network protocol analyzer, Use of Wireshark packet sniffer tool	03
4	MALWARE DETECTION SYSTEMS AND IDS	Malware Analysis: Worms, Virus Detection, Intrusion Detection Systems, Evading IDS, Firewalls, Honeypots	03
5	SPOOFING	IP and MAC spoofing techniques, Enumeration Concepts	03
6	VULNERABILITY ASSESSMENT	System hacking: Password cracking and system security, Google Hacking, Kali Linux	03
7	ENCRYPTION	Cryptography and Steganography	03
8	WEB ACCESS THREATS	Web Browser Attacks Types, Web Attacks Targeting Users, Obtaining User or Website Data, Social Engineering attacks, Email Attacks, DDOS attacks buffer and stack overflow	03
9	TYPES OF COMMON ATTACKS	ATM, Credit card and Debit card attacks, Ransomwares, SQL Injection	03
10	WIRELESS NETWORKS SECURITY	Hacking wireless networks, Mobile Hacking, Security Compliance and Auditing, Physical Security Threats	03

Table 1: Course Content

Learning Outcomes

1. Introduction to Cyber Security & Hacking
2. Network Basics
3. Detail IP & MAC - Spoofing & security
4. Foot-printing / Information Gathering 5.

Web search / Google hacking

6. Scanning & Types
7. Password cracking and system security
8. Evading IDS, Firewalls, and Honeypots
9. Brief of Kali Linux
10. Social engineering attacks & security 11. Email hacking & Security
12. Cryptography
13. Steganography
14. Firewalls, IDS/IPS and Honeypots 15. Website Security
16. DDOS attacks buffer and stack overflow 17. ATM, Credit card and Debit card attacks 18. Virus, Trojans, worms, Ransomwares 19. Mobile E-hacking and security
20. Wi-Fi Security
21. SQL Injections
22. Security Compliance and Auditing 23. Physical security threats

RESOURCE PERSONS:

The course was conducted by the resource persons provided by TECHSPUR, a Training & Consultancy organization, placed in Indirapuram, Ghaziabad, U.P. in online form. The detailed information about the resource persons is mentioned below:

1. Dr Jagan Reddy D.

(Associate Professor)

Dr Jagan Reddy D. is an Associate Professor at LBRCE, Mylavaram with specializations as Information Security and Data Science. He has received Ph.D from Birla Institute of Technology and Science, Pilani in 2017 and MTech (CSc) from Jadavpur University in 2010. Dr. Reddy has worked as a Data Scientist in IT and also various R & D projects. He was involved in government projects such as 1100 - People First, Govt. of AP and as an analyst in Punjab elections, 2016 & Gujarat Elections, 2017. He regularly conducts security based workshops and training programs for faculty and students.

2. Mr. Mukesh Kumar Rao

Cyber Security Consultant, Trainer, and Speaker.

Mr Mukesh Kumar is CHFI Certified and CCNA certified (ICND1 and ICND2), Cisco Network Academy. He has trained 200+ candidates in Cyber Security and provided Cyber Security Awareness to over 5000+ people. He has provided Ethical Hacking training to several individuals and organizations. He has won appreciation from the Indian Government for being part of the Responsible Vulnerability Disclosure Program under the program of NCIIPC, INDIA. He has reported over 50+ website vulnerabilities to the Indian Government. He is a Gold Medalist, in Bachelor Degree. (B.TECH CSE).

Mr Mukesh specializes in OSINT Frameworks, Nessus, Wireshark, Nmap, Ettercap, Burpsuite, Metasploit, Nexpose, Maltego, OWASP Zap, Armitage, W3af, SQLMap, Cain and Abel, Nikto, WP-Scan, FTK Editor, Hex-Editor, Recovery Data Tools. He is an expert in the areas of Vulnerability Assessment and Penetration Testing (VAPT), Web Application Penetration Testing (WAPT), Network Scanning, Sniffing, and System Monitoring, Ram Cloning & Analysis. o Phishing, Social Engineering (Set toolkit), SQL Injection, XSS attack, DATA Tampering, Key Logger, OWASP-TOP 10 Vulnerabilities.

STUDENT'S DETAILS

Number of Students registered: 40

Details of Students: Mentioned in table-2 given below.

S.No.	Title	Name	Name of the College
1	Ms.	Saumya Gangwar	Hansraj College, University of Delhi
2	Mr.	Nitin Dahiya	Hansraj College, University of Delhi
3	Mr.	Manind Munjal	Baby Happy Modern PG College
4	Mr.	Zubair Moahid	SGTB Khalsa , College DU
5	Mr.	SRIPAD METPELLY	Hansraj College, University of Delhi
6	Mr.	TEJAVATH THIRUPATHI	Hansraj College, University of Delhi
7	Ms.	Sanya Narbar	Hansraj College, University of Delhi
8	Ms.	HARSHITA GUPTA	Hansraj College, University of Delhi
9	Ms.	Rekha	Hansraj College, University of Delhi

10	Ms.	Neerdhi Goswami	Aacharya Narendra Dev College
11	Mr.	Manav Arora	Keshav Mahavidyalaya
12	Ms.	RUCHI GAUTAM	Dyal Singh Evening College
13	Ms.	Rashika Dabas	Mata Sundri College for Women, University of Delhi
14	Ms.	Anjali Chawla	Hansraj College, University of Delhi
15	Ms.	Divyanshi Gupta	Shardein School, Muzaffarnagar
16	Mr.	Devansh Bhardwaj	Seth Jai Prakash Polytechnic,Damla
17	Ms.	Damini Patel	Hansraj College, University of Delhi
18	Ms.	Asmita Patel	SCSIT, DAVV, Indore
19	Mr.	Anuj Agarwal	Hansraj College, University of Delhi
20	Mr.	Mohit Verma	SRM Institute of Science and Technology
21	Mr.	Amit Sachdeva	Bharati Vidyapeeth College Of Engineering, PUNE
22	Ms.	Ritisha Singh	Hansraj College, University of Delhi
23	Mr.	Umansh Bindal	Hansraj College, University of Delhi
24	Mr.	Puneet Jangir	Hansraj College, University of Delhi
25	Mr.	Siddharth Rathi	General Raj's School, Hauz Khas, Delhi
26	Mr.	Dipanshu Shekhar	Hansraj College, University of Delhi
27	Mr.	Abhinav Malhotra	Delhi College of Arts and Commerce
28	Ms.	Anshu Yadav	Maitreyi College, University of Delhi
29	Ms.	Nikita Singhal	G.D.Goenka Public School Rohini, Sector-22.

30 Mr. SHASHANK THAKUR G.B.PANT GOVT. ENGINEERING COLLEGE

31	Mr.	Harshdeep Singh	SGTB Khalsa College, University of Delhi
32	Ms.	SHREENITHA S R	Lady Doak College, Madurai

33	Ms.	Baani Malhotra	Bharati College
34	Mr.	Ravindra Singh	Shivaji College (University of Delhi)
35	Ms.	Deepika Jain	Bharati college
36	Mr.	Athul PD	Naipunnya Institute of Management and Information Technology, Pongam
37	Ms.	Khushboo Gupta	Hansraj College, University of Delhi
38	Mr.	Shivansh Suji	G. D.Goenka University
39	Ms.	Yashika Sareen	Kamal Institute of higher education and advance technology, I.P. University
40	Mr.	Ricky Kumar	Maharaja Agrasen University, Baddi, Himachal Pradesh

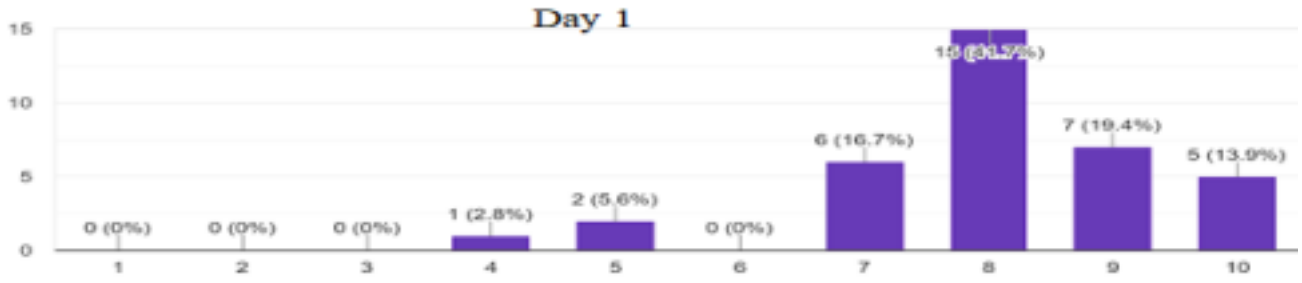
Table 2: Details of Students registered for the course

FEEDBACK

Day wise feedback responses:

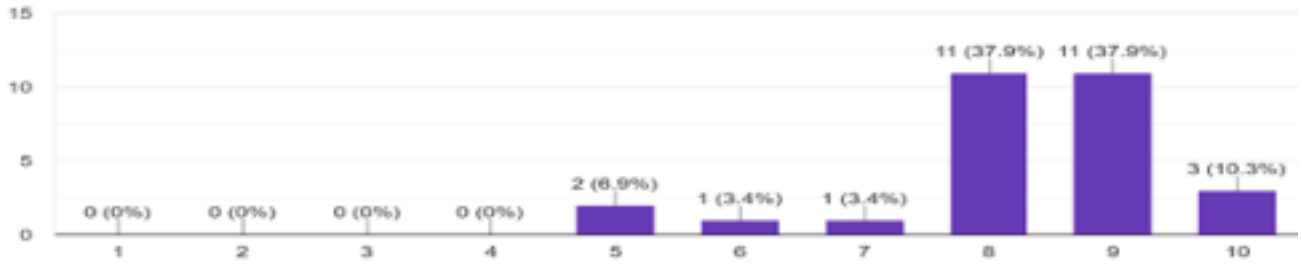
Overall rating of the today's session

36 responses



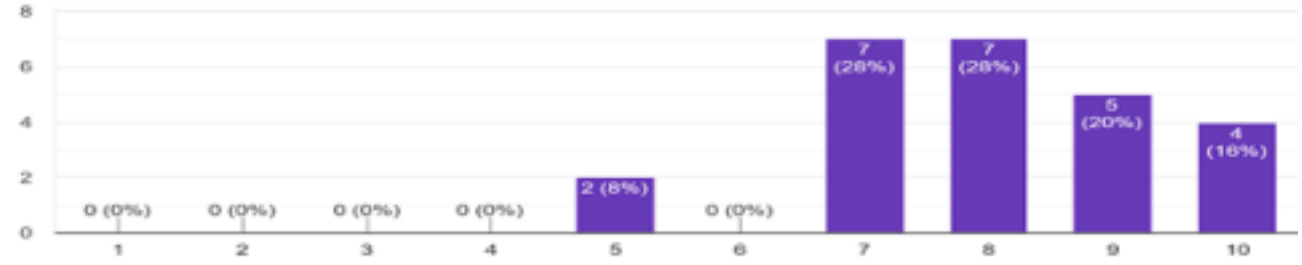
Overall rating of the today's session

29 responses



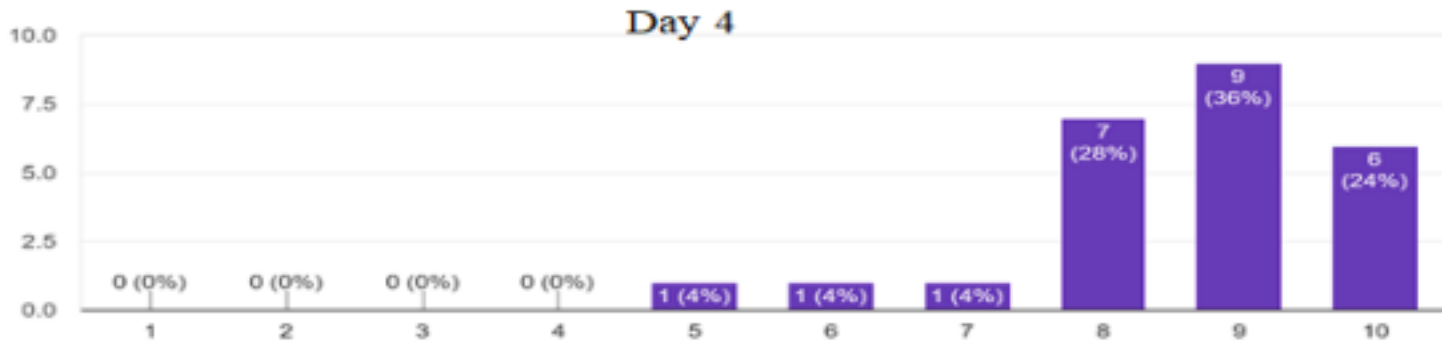
Overall rating of the today's session

25 responses



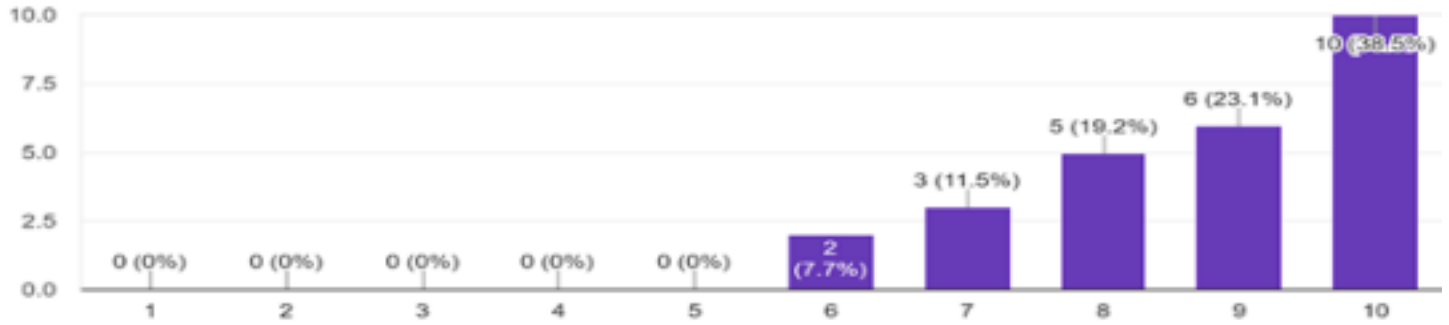
Overall rating of the today's session

25 responses



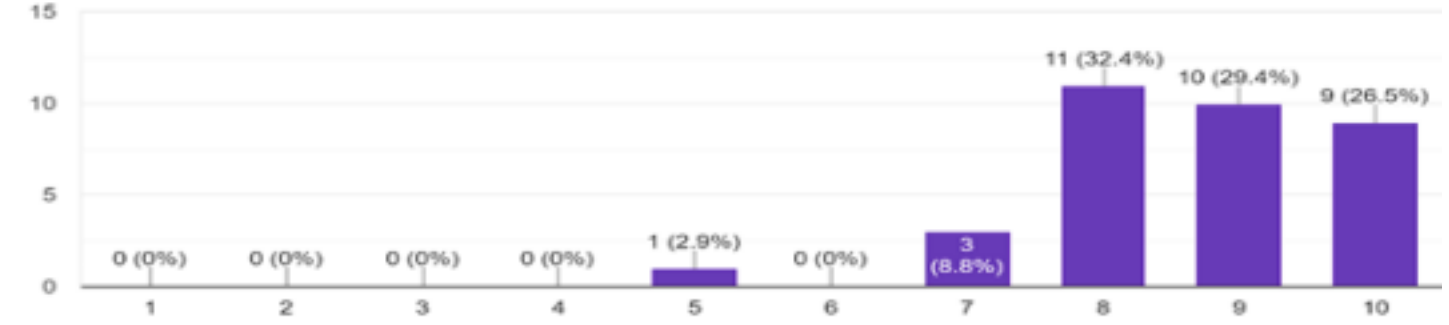
Overall rating of the today's session

26 responses



Overall rating of the today's session

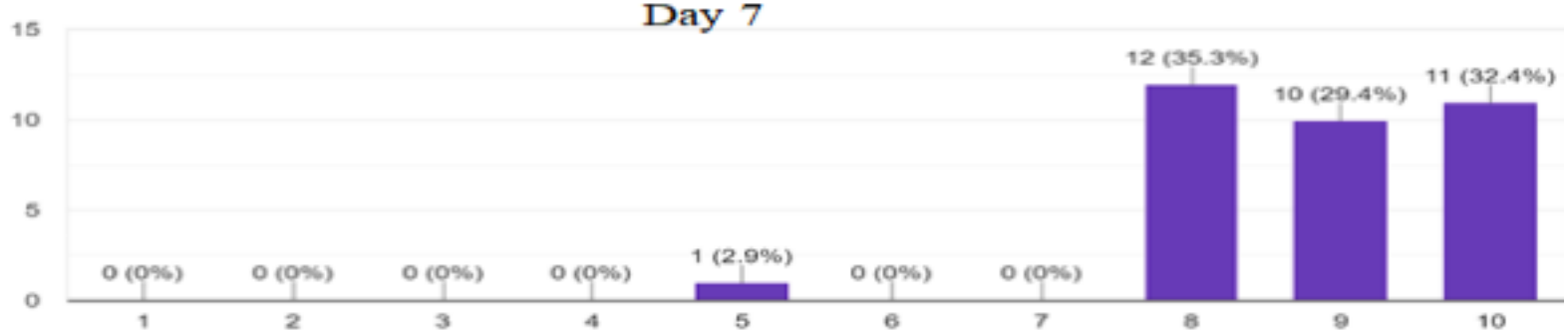
34 responses



Overall rating of the today's session

34 responses

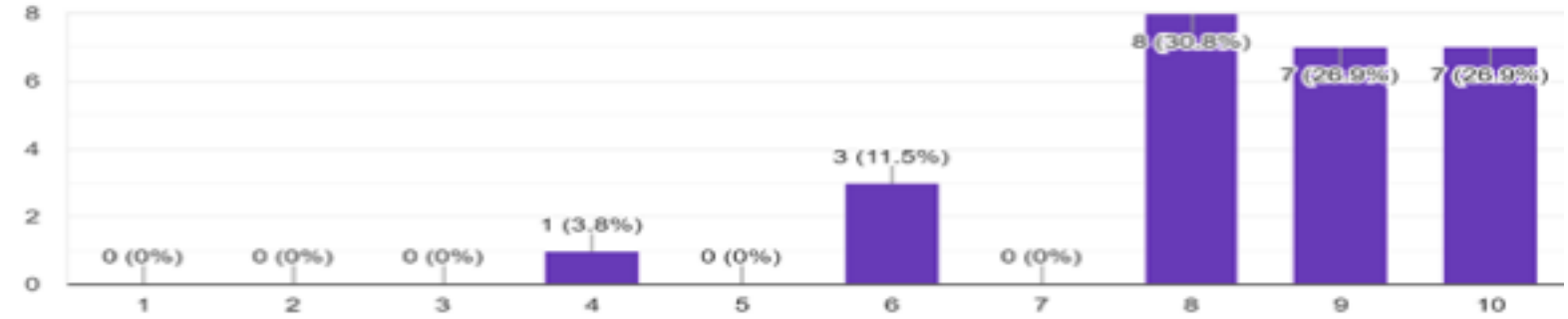
Day 7



Overall rating of the today's session

26 responses

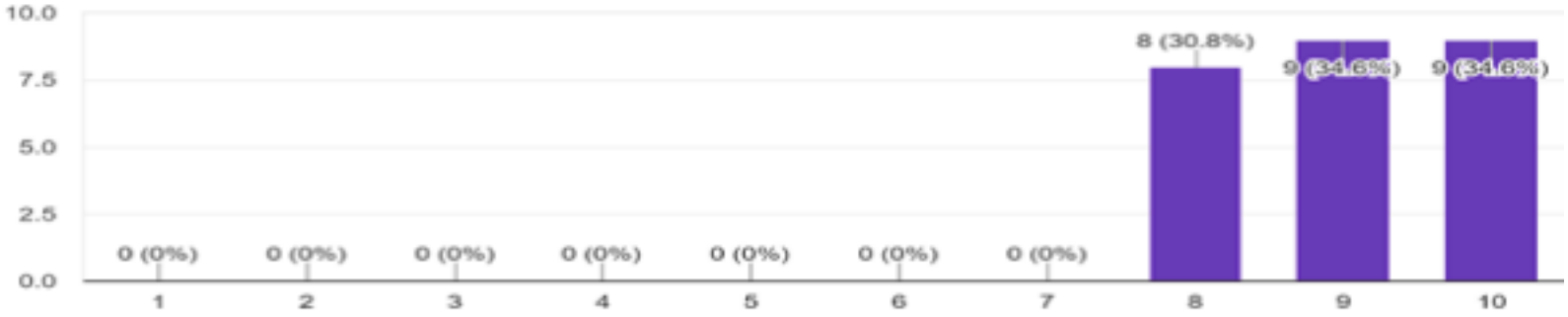
Day 8

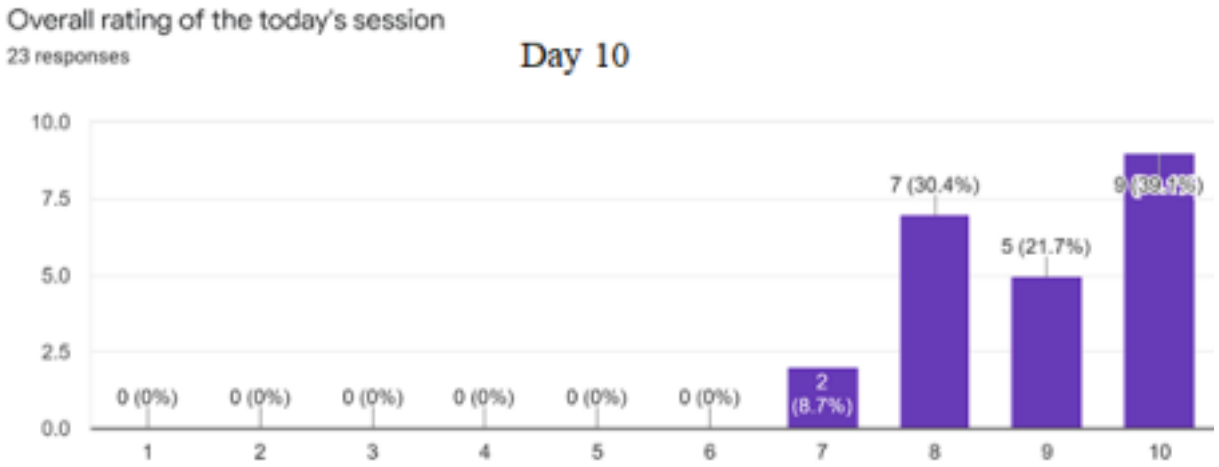


Overall rating of the today's session

26 responses

Day 9





Detailed daywise feedback is also attached as separate excel document in the same mail.

ASSESSMENT DONE:

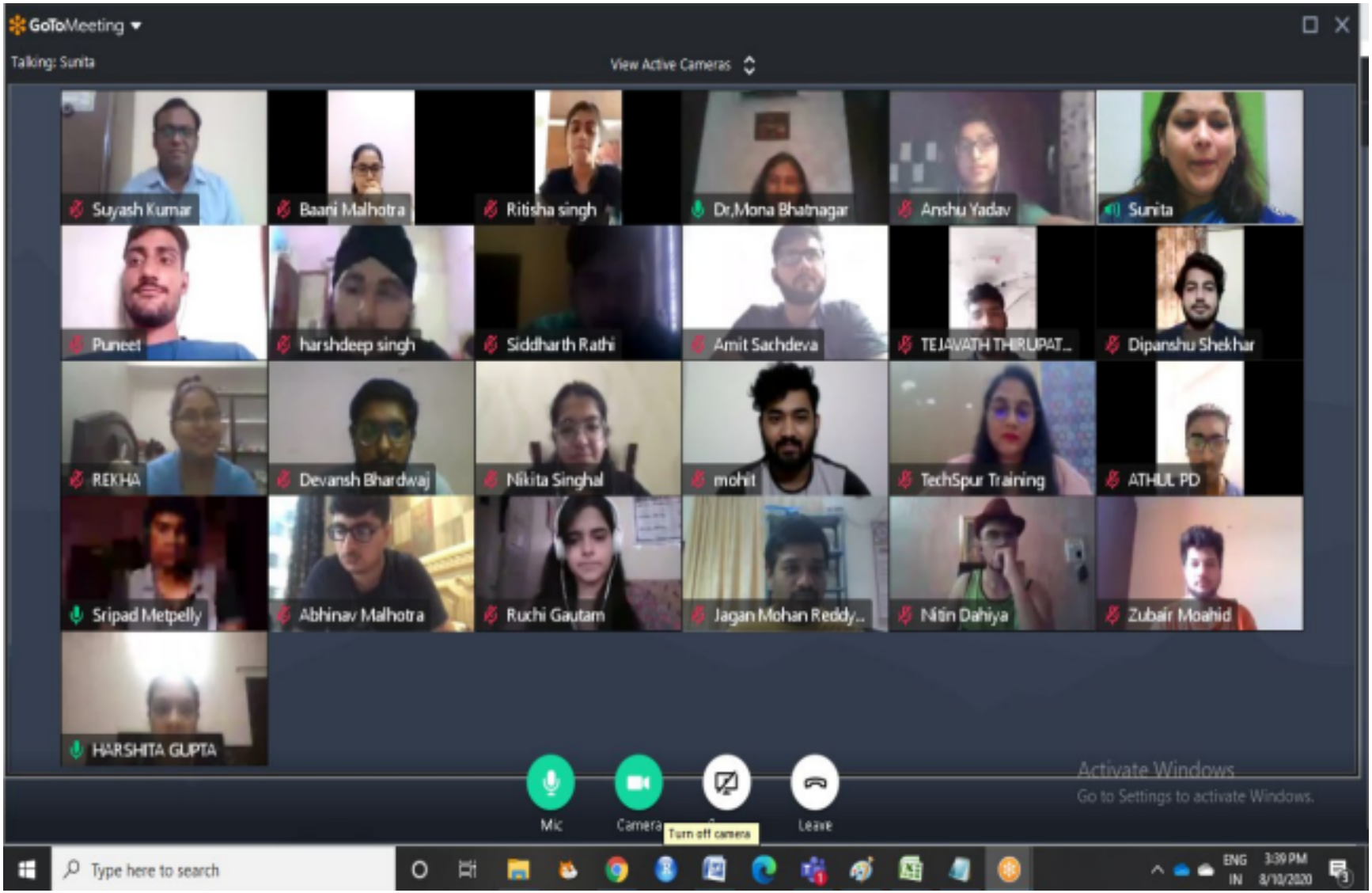
For the assessment of students, they were given 3 quizzes and one assignment. The assignment was aimed at testing the hands-on expertise of students in the field of scanning and hacking tools.

The result was prepared on the basis of best 2 scores achieved by the students. The detailed quizzes in the form of excel sheet is attached with the mail.

ATTENDANCE & MARKS SCORED

The attendance and marks details are also attached as separate document with the mail.

GALLERY



Picture of Inauguration session of the SLC_05

Pictures of participants during quiz-3

Glimpse from the course session