



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC & NBA (Under Tier - I), ISO 9001:2015 Certified Institution

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

REPORT

on

ATAL Sponsored Faculty Development Program

on

“Cyber Security”

(08th – 12th November 2021)



Lakireddy Bali Reddy College of Engineering (A) has organized ATAL Sponsored Faculty Development Program on “Cyber Security” from 08th – 12th November 2021. This FDP received an overwhelming response with more than 110 participants (*In-house Participants i.e., LBRCE – 13 (CSE-09, IT-01, AI&DS-02, EEE-01) and Outside Participants – 97*) from various institutes/colleges approved by AICTE and affiliated to various Universities across the arena of India.

Date: 08/11/2021

Inauguration:

FDP was inaugurated on 08/11/2021 by **Dr. B. Ramesh Babu, MNIT Jaipur**, along with **Dr. K. Appa Rao, Principal, LBRCE (A)**, **Dr. E.V. Krishna Rao, Dean R&D**, **Dr. M. Srinivasa Rao, Dean Academics**, **Dr. D Veeraiah, Professor & HOD, Department of CSE and Convener & Coordinator of FDP and Co-Coordinator of the FDP** **Dr. M. Sitha Ram, Mr. G.V. Suresh, Mr. Shaik Johny Basha.**

Mr. Shaik Johny Basha has welcomed all the dignitaries and delegates. In his welcome speech, he highlighted the importance and objectives of organizing this faculty development programme. Then he said “Cyber security is the application of technologies, processes, and controls to protect systems, networks, programs, devices and data from cyber-attacks. Cyber security focuses on protecting computer systems from unauthorised access or being otherwise damaged or made inaccessible.”

Our HOD and Convener & Coordinator of FDP, Dr. D. Veeraiah, has thanked all the participants who have registered from the 11 states of the country. He then thanked all the Resource Persons **Dr. B. Ramesh Babu, Dr. E. Suresh Babu, Dr. Bhawana Rudra, Mr. Sai Satish**, etc. for accepting our request. He also added that everyone must know what Cyber

Security is, Cyber Range, how security is provided, what are the Cyber Laws, etc. At the end, he thanked ATAL Academy for accepting our proposal for conducting the FDP.

In his Inaugural Speech, **Dr. E.V. Krishna Rao, Dean R&D**, thanked ATAL Academy for choosing our college and providing the fund to conduct FDP. He added that the Cyber Security is one of the thrust areas in Computer Science and Engineering to conduct research and requested participants to identify research area in Cyber Security.

Dr. M. Srinivasa Rao, Dean Academics, congratulated Dr. D. Veeraiah, Convener & Coordinator of FDP for organizing the FDP on Cyber Security. While telling about FDP, he added that “A Right Program in the Right Time”. He thanked all the Resource Persons for accepting our request to act as Resource Person in our FDP. In the end, he said that usage of Internet has raised in non-linear manner which is more prone to the cyber-attacks.

In his inaugural speech, worthy **Principal, Dr. K. Appa Rao** thanked the AICTE for selecting LBRCE (A) and sanctioning the amount to conduct the Faculty Development Programme on “**Cyber Security**”. He gave insight regarding the importance of Cyber Security and added a point that “Cyber Security is the protection of computer systems and networks from information disclosure, theft of or damage to their hardware, software, or electronic data, as well as from the disruption or misdirection of the services they provide”.

Resource Person **Dr. B. Ramesh Babu, MNIT Jaipur**, in his inaugural speech conveyed thanks to Principal and Convener of this FDP for giving this opportunity to act as a Resource Person. In his speech, he highlighted the how operating systems are corrupting, how they are vulnerable, how they are exploiting the data, and about the malwares that are created by the hackers for crypto currency.



The banner features a blue and white background with a circuit-like pattern. At the top, it displays the college name and accreditation logos. The central text is in bold, announcing the inauguration of an ATAL Academy sponsored FDP on Cyber Security. The dates are listed as 08th to 12th November 2021. At the bottom, the roles and names of the Co-Coordinators, Convener & Coordinator, and Principal are listed.

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Department of Computer Science and Engineering

Welcome to Inauguration
of
ATAL Academy Sponsored Faculty Development Program (FDP)
on
Cyber Security
(08th – 12th November 2021)

Date: 08/11/2021
Time: 09.30 AM

Co-Coordinators:
1) Dr. M. Sitha Ram
2) Mr. G.V. Suresh
3) Mr. Sk. Johny Basha

Convener & Coordinator:
Dr. D. Veeraiah

Principal:
Dr. K. Appa Rao

Fig. 1: 08/11/2021 – Inauguration Banner of FDP



Fig. 2: 08/11/2021 - Inaugural Speech by our HOD & Convener of FDP Dr. D. Veeraiah

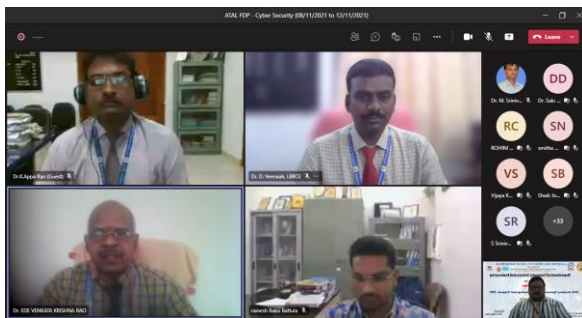


Fig. 3: 08/11/2021 - Inaugural Speech by Dean R&D Dr. E.V. Krishna Rao



Fig. 4: 08/11/2021 - Inaugural Speech by Dean Academics Dr. M. Srinivasa Rao

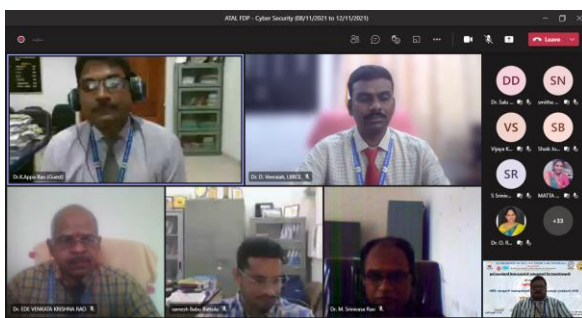


Fig. 5: 08/11/2021 - Inaugural Speech by Principal Dr. K. Appa Rao

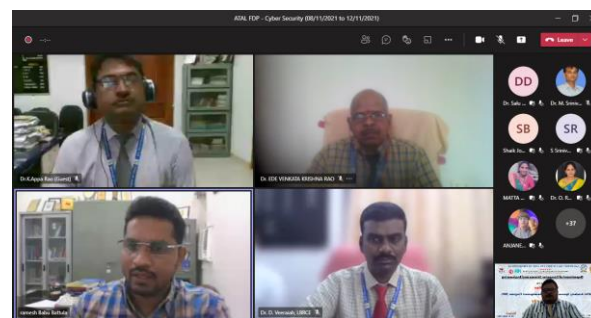


Fig. 6: 08/11/2021 - Inaugural Speech by Resource Person Dr. B. Ramesh Babu

Day 1: 08/11/2021

Session: 01

Topics: Introduction - The commonality of Cyber Space, Digital Perimeters

Resource Person: Dr. B. Ramesh Babu, MNIT Jaipur

Our Resource Person, **Dr. B. Ramesh Babu**, started his lecture by giving clear insights on what is cyber security, how the security helps in real life, computer security problem, various vulnerable applications being exploited, financial malware, marketplace for vulnerabilities, etc.

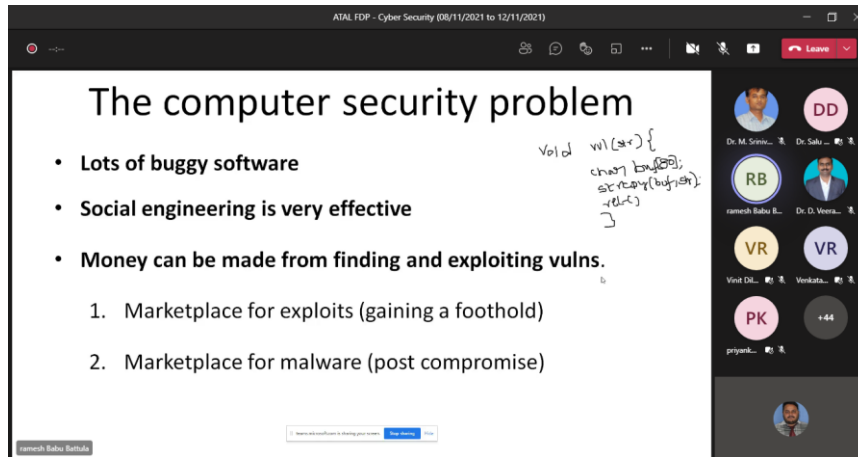


Fig. 7: 08/11/2021 – Session 01 by Dr. Ramesh Babu on Cyber Space and Digital Perimeters

Session: 02

Topics: Protocols, Systems, Tools and Techniques - TCP/IP, RTSP, Apple, Microsoft, Linux, BSD, Google, Cisco, and others

Resource Person: Dr. B. Ramesh Babu, MNIT Jaipur

Our Resource Person, **Dr. B. Ramesh Babu**, started his lecture by giving clear insights on different threats such as Web Threat Models, Browser security mechanism, Bad input problems, Example path hijack, etc.

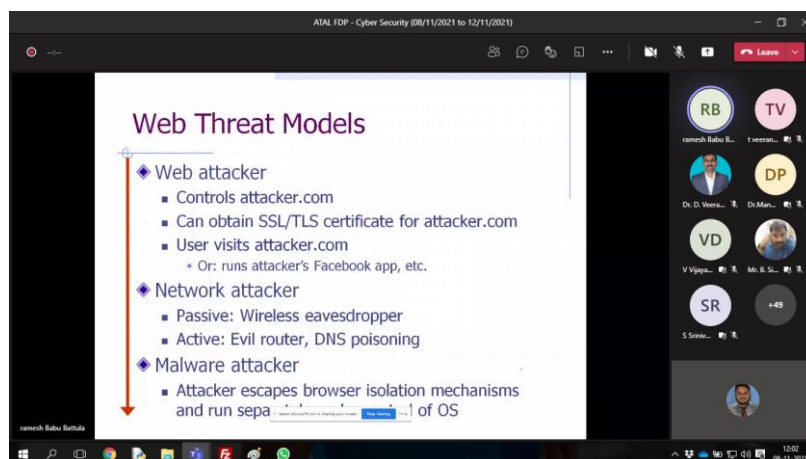


Fig. 8: 08/11/2021 – Session 02 by Dr. Ramesh Babu on Threats, Tools and Techniques

Session: 03

Topics: Case Studies and Demonstrations - Introductory Case of Target hack and Bangladesh Bank Hack

Resource Person: Dr. E. Suresh Babu, NIT Warangal

Session note was presented by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE(A). After that, Our Resource Person, **Dr. E. Suresh Babu**, gave an overview on the role of cyber security in industry 4.0, role of cyber security in technologies, and various framework functions of cyber security.



Fig. 9: 08/11/2021 – Session 03 by Dr. Suresh Babu on Role of Cyber Security in Technologies

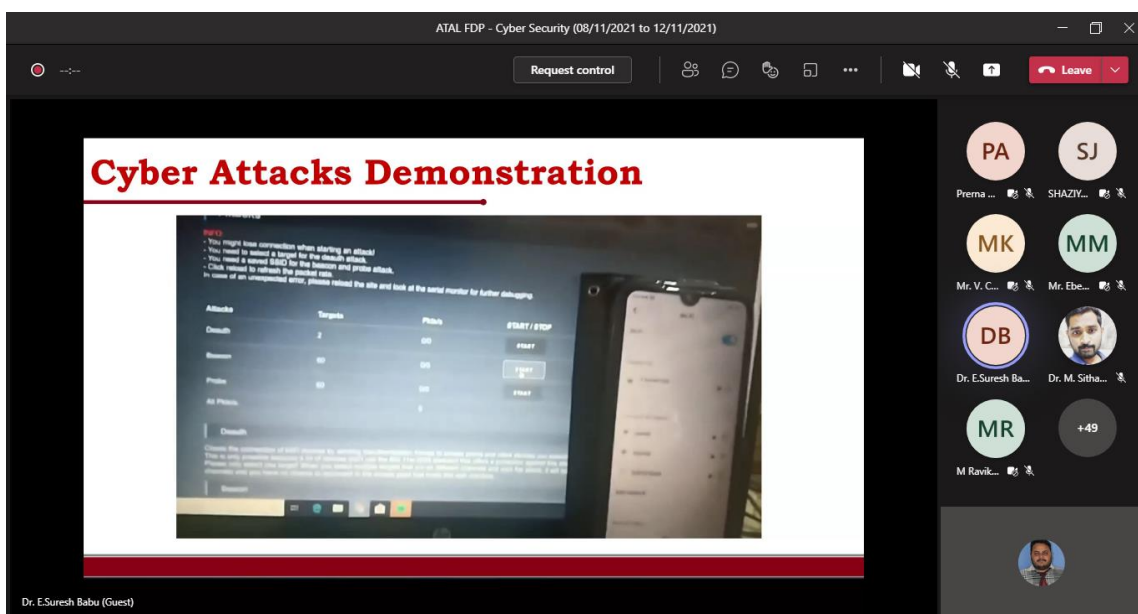


Fig. 10: 08/11/2021 – Session 03 by Dr. Suresh Babu on Demonstration of Cyber Attacks

Day 2: 09/11/2021

Session: 04

Topics: Security - Internet and Social Media, Internet of Things, Endpoints

Resource Person: Dr. E. Suresh Babu, NIT Warangal

Our Resource Person, **Dr. E. Suresh Babu**, started his lecture by giving clear insights on role of blockchain in cyber security, how blockchain is ready for business, private and public key cryptography mechanisms, example on one way hash function, etc. The session was ended with the vote of thanks given by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE (A).

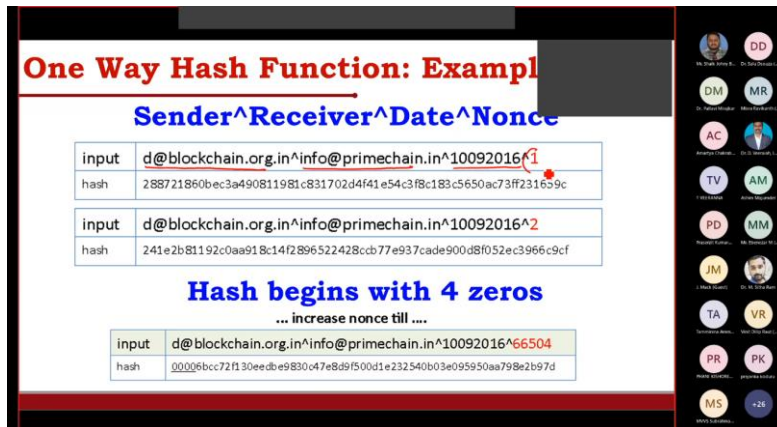


Fig. 11: 09/11/2021 – Session 04 by Dr. Suresh Babu on Security in IoT and Blockchain

Session: 05

Topics: Introduction to Cyber Security and Ethical Hacking, Social Engineering, SQL Injection, Online Frauds and Cyber Threats, Ransomware attacks

Resource Person: Mr. Nitesh Bhatia, CTO, Gratia Technology

Session note was presented by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE(A). After that, Our Resource Person, **Mr. Nitesh Bhatia**, started the session by giving a brief introduction about type of hackers, what is hacking, google darks, concepts of SQL Injections and shown some live examples of how phishing mails sent.

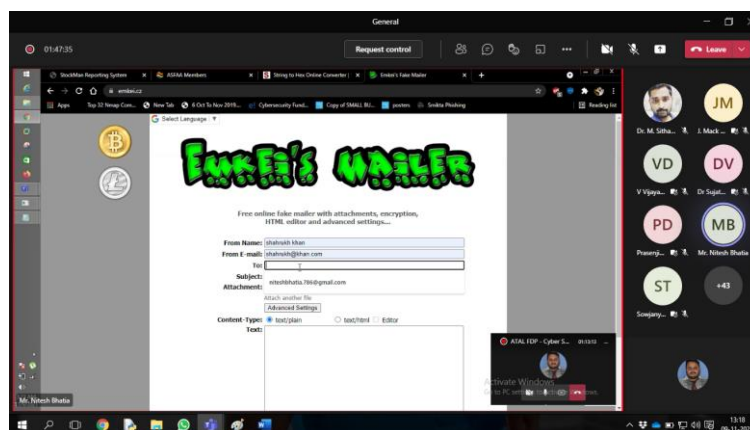


Fig. 12: 09/11/2021 – Session 05 by Mr. Nitesh Bhatia on Hacking and Attacks

Session: 06

Topics: Hands-on on Network and Cloud Security

Resource Person: Dr. B. Ramesh Babu, MNIT Jaipur

Our Resource Person, **Dr. B. Ramesh Babu**, started his lecture by giving brief insights about different tools used for performing network route tracing, how the security is provided to our network, and shown live demonstration of IP Tracing using WireShark App, Network Security, etc. The session was ended with the vote of thanks given by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE (A).

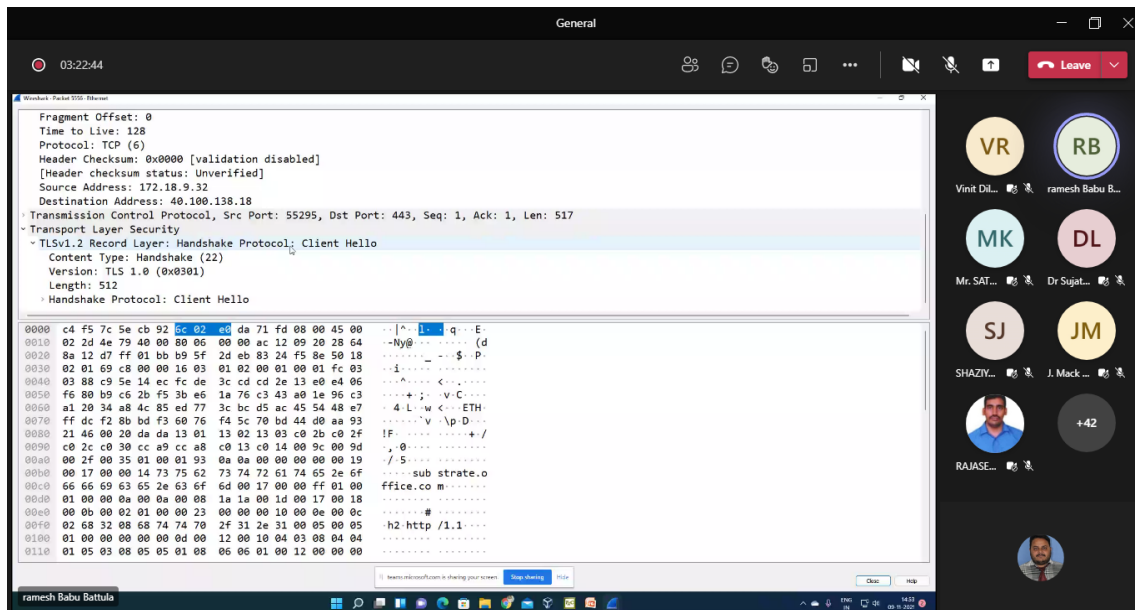


Fig. 13: 09/11/2021 – Session 06 by Dr. B. Ramesh Babu on IP Tracing using WireShark

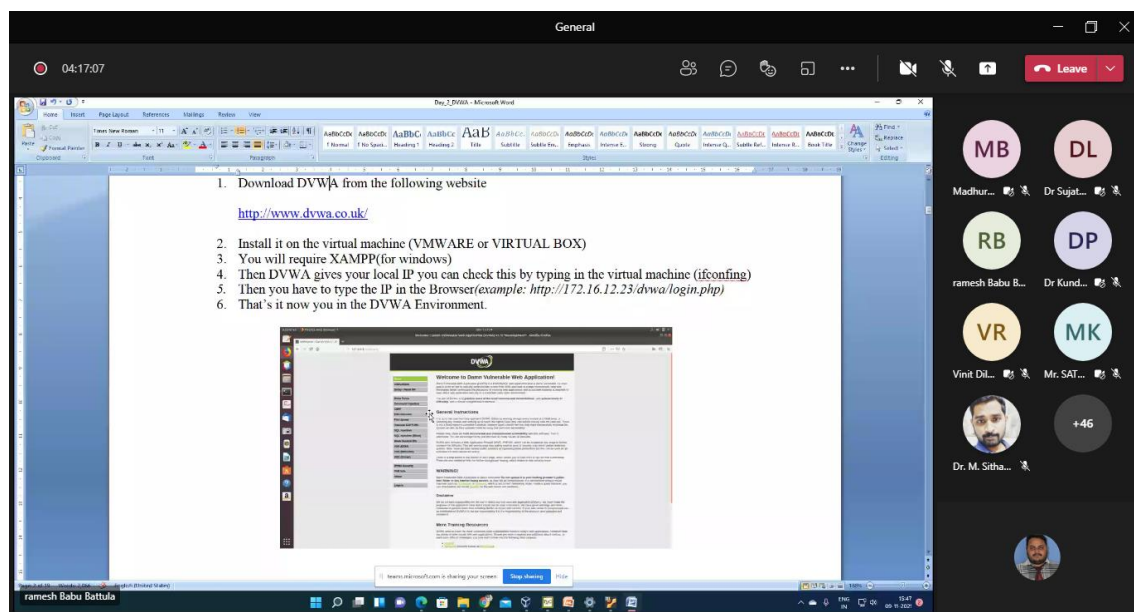


Fig. 14: 09/11/2021 – Session 06 by Dr. B. Ramesh Babu on VMWare and Installation of OS using VMWare

Day 3: 10/11/2021

Session: 07

Topics: Network Security - Firewall, UTM, Honeypots, Endpoint Security, Web Security, IoT Security

Resource Person: Dr. E. Suresh Babu, NIT Warangal

Our Resource Person, **Dr. E. Suresh Babu**, started his lecture by giving clear insights on applications of blockchain in cyber security and gave a brief demonstration of REMME. Then has shown the live demonstration of Blockchain Creation, how hash will be generated, public and private key pairs, signatures, and performed a sample transaction. After that, he has given a brief explanation on IoT Security. The session was ended with the vote of thanks given by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE (A).

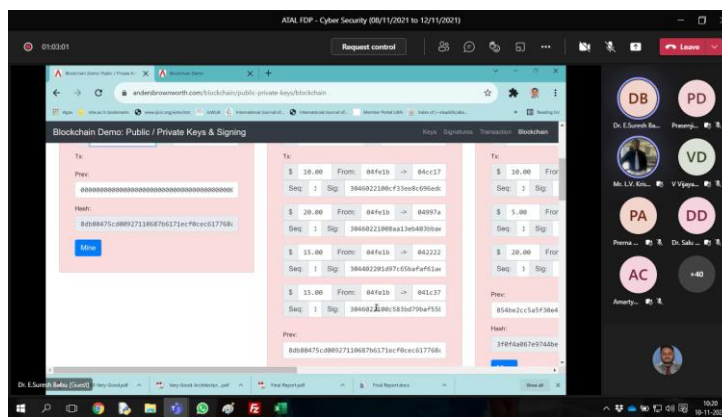


Fig. 15: 10/11/2021 – Session 07 by Dr. E. Suresh Babu on Blockchain Creation

Session: 08

Topics: Critical Infrastructure Security, Corporate Cyber Espionage, Measurement, Encryption and Data Protection

Resource Person: Mr. Varun Pathak, Chief Security Expert, Gratia Technology

Session note was presented by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE(A). After that, Our Resource Person, **Mr. Varun Pathak**, started his session by giving an overview on Trojan, Worm and Malware. Then he has started the live demonstration of attack on another machine.

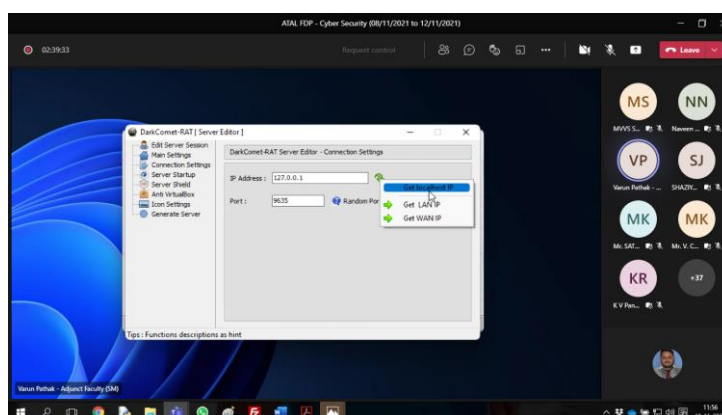


Fig. 16: 10/11/2021 – Session 08 by Mr. Varun Pathak on Cyber Espionage and Attacks

Session: 09

Topics: Introduction to Cyber Range

Resource Person: Dr. Bhawana Rudra, NITK Surathkal

Session note was presented by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE(A). After that, Our Resource Person, **Dr. Bhawana Rudra**, started her session by giving a brief introduction about Cyber Range. Then she discussed the various topics such as learning, management, teaming, monitoring, scenario, and environment in Cyber Range. She discussed the overall classification of the above said tasks done from 2002 to 2019, National Cyber Security Index, Test Bed Support by NCR, Cyber Security Test and Evaluation Mapped to the Acquisition Life Cycle.

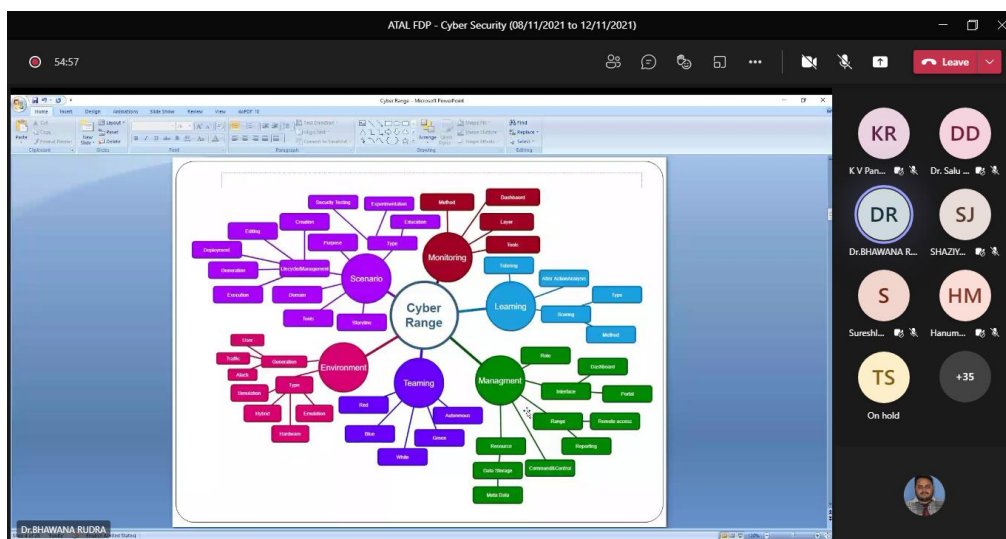


Fig. 17: 10/11/2021 – Session 09 by Dr. Bhawana Rudra on Cyber Range

Test Bed Support by NCR

- The NCR consists of a collection of testbeds that can conduct independent tests, or be integrated into one or more larger testbeds, according to specific testing needs.
- The NCR will test technologies such as host security systems, and local and wide area network (LAN and WAN) security tools and suites by integrating, replicating or simulating the technologies.
- The NCR will provide a large-scale Global Information Grid (GIG) infrastructure, where technologies and systems can be analyzed and tested under real world conditions in current and future environments.

Fig. 18: 10/11/2021 – Session 09 by Dr. Bhawana Rudra on Cyber Range – Test Bed Support by NCR

Day 4: 11/11/2021

Session: 10

Topics: Cyber laws, Data Privacy, and digital protection when Phishing, MITM, Banking frauds, identity theft, FB phishing attacks

Resource Person: Dr. Bhawana Rudra, NITK Surathkal

Our Resource Person, **Dr. Bhawana Rudra**, started her lecture by giving clear insights on Cyber Law. Then she spoke about the need of cyber law, when cyber law was introduced in India, what is privacy and different dimensions of privacy. Also, she discussed how the phishing is happening in online, how bank frauds are done, etc. The session was ended with the vote of thanks given by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE (A).

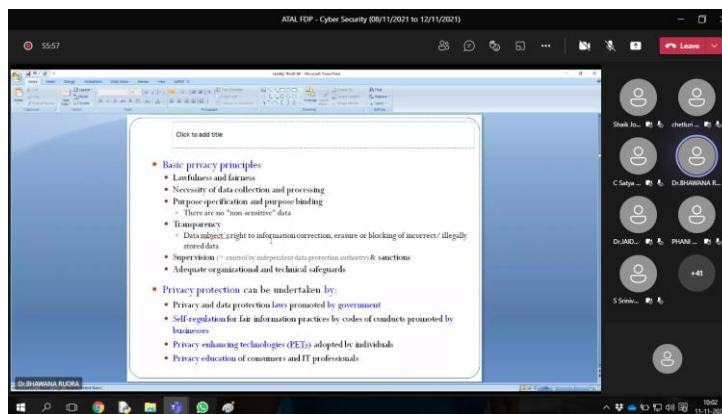


Fig. 19: 11/11/2021 – Session 10 by Dr. Bhawana Rudra on Cyber Laws, Privacy and Frauds

Session: 11

Topics: Demonstration on Email Security and Mobile Security

Resource Person: Mr. Sai Satish, CEO, India Servers

Session note was presented by Mr. Shaik Johny Basha, Sr. Assistant Professor, LBRCE(A). After that, Our Resource Person, **Mr. Sai Satish**, started his session by giving a brief introduction about mail and mobile security. Then he has shown the live demonstration of how keyloggers work, phishing attack on facebook and paypal etc. Also, he gave the insights of swishing through mobile.

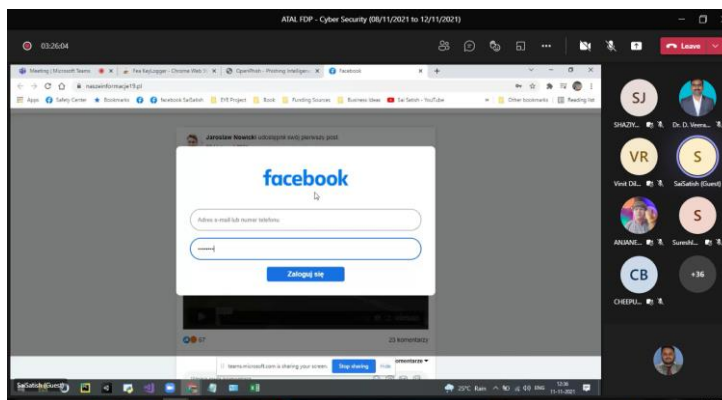


Fig. 20: 11/11/2021 – Session 11 by Mr. Sai Satish on Email and Mobile Security

Session: 12

Topics: Open-Source Intelligence for Cyber Security

Resource Person: Mr. Sai Satish, CEO, India Servers

Our Resource Person, **Mr. Sai Satish**, started his lecture by giving clear insights on various websites for getting the mail id of different persons. Then he gave a brief overview on OSINT framework focused on gathering information from free tools or resources. After that, he has discussed about open-source intelligence websites such as zoomeye.com and malshare.com. He gave brief demonstration about how malwares have been created and made available on the internet.

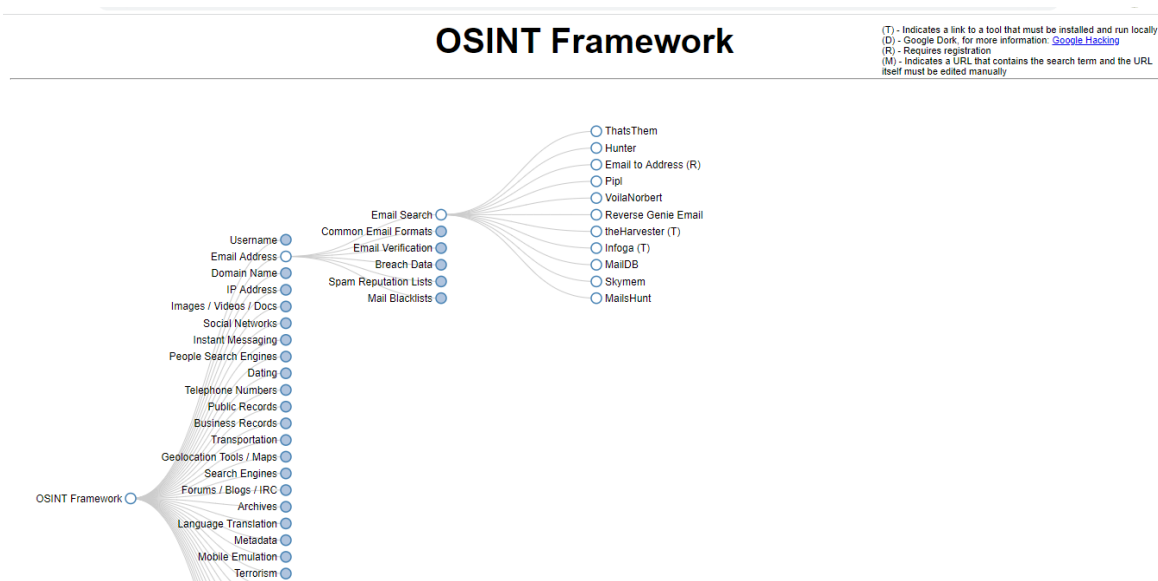


Fig. 21: 11/11/2021 – Session 12 by Mr. Sai Satish on OSINT Framework for Open-Source Intelligence

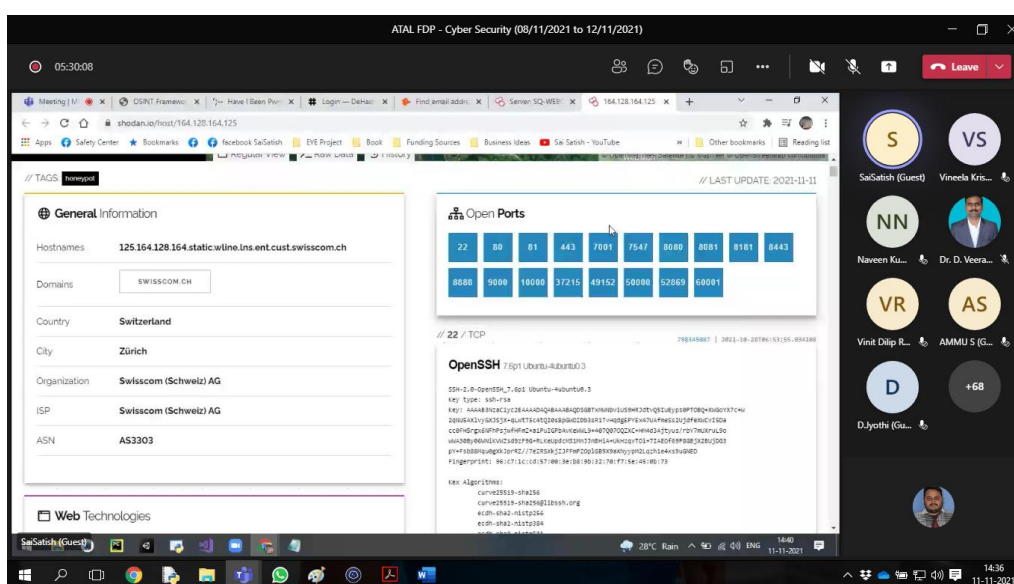


Fig. 21: 11/11/2021 – Session 12 by Mr. Sai Satish on Open-Source Intelligence Websites

Day 5: 12/11/2021

Session: 13

Topics: Malware Analysis Mechanism, Cyber Incident response

Resource Person: Mr. Sai Satish, CEO, India Servers

Our Resource Person, **Mr. Nitesh Bhatia**, started his lecture by giving clear insights on what is keyloggers, trojans, worms, virus, and rootkit. Then he discussed about the basics of malware and how to analyze the malware in our system. After that, he has shown the various tools such as RootkitRevealer, WireShark, etc. and have given the live demonstration of how the trojan will be infect our system and how it is going to look like in the system.

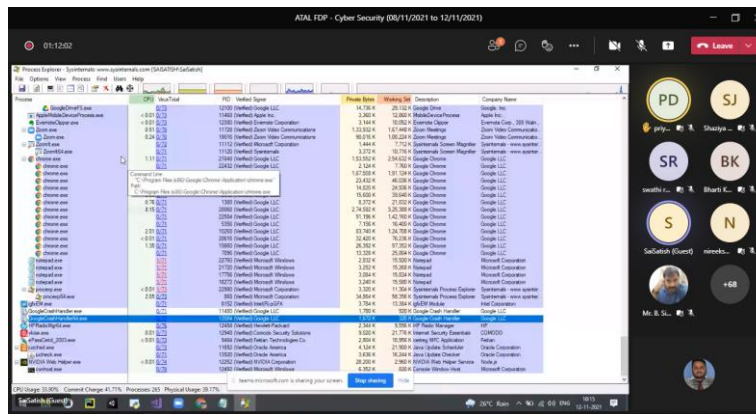


Fig. 22: 12/11/2021 – Session 13 by Mr. Sai Satish on Malware Detection and Analysis

Session: 14

Topics: Tool exposure - Red Team/Blue Team, Black Hat / White Hat

Resource Person: Mr. Sai Satish, CEO, India Servers

Our Resource Person, **Mr. Nitesh Bhatia**, started his lecture by giving introduction about various tools available for getting the system secured. He discussed the various tools useful for performing/developing tests such as Netcat, nmap, and solar winds. Also, he has explained how the attacks have been happening and happened through solar winds. Then he discussed the concepts of Red Team and Black Team, who is good and bad.

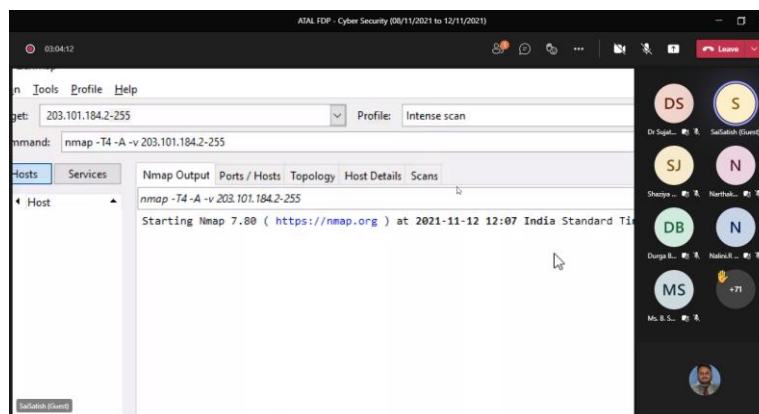


Fig. 23: 12/11/2021 – Session 14 by Mr. Sai Satish on Tools for Red Team/Black Team

Date: 12/11/2021

Valedictory Session:

On the Valedictory Session, **our Principal, Dr. K. Appa Rao and Dean Academics Dr. M. Srinivasa Rao**, joined the session as Chief Guests along with **Dr. D Veeraiah, Professor & HOD, Department of CSE and Convener & Coordinator of FDP, Co- Coordinators of the FDP Dr. M. Sitha Ram, Mr. G.V. Suresh, Mr. Shaik Johny Basha.**

Dr. D Veeraiah, Professor & HOD, Department of CSE and Convener & Coordinator of FDP, in his valedictory speech thanked ATAL Academy for sanctioning the FDP to our Department. Then he thanked the Resource Persons Dr. B. Ramesh Babu, Dr. E. Suresh Babu, Dr. Bhawana Rudra, Mr. Nitesh Bhatia, Mr. Varun Pathak, and Mr. Sai Satish. After that, he thanked all the faculty members and staff of the department for cooperating him to conduct the FDP in a smooth and successful manner.

Dr. K. Appa Rao, Principal, LBRCE(A), in his valedictory addressing, thanked every participant of FDP and he thanked our Resource Persons, for taking their valuable time to our FDP and congratulated the Convener & Coordinator of the FDP Dr. D. Veeraiah and Co-coordinators Dr. M. Sitha Ram, Mr. G.V. Suresh, Mr. Shaik Johny Basha for organizing the FDP in a successful manner. He requested the trained faculty to make use of these topics and do research in them. Further, he appreciated all the Teaching and Non-Teaching Staff Members of CSE Department for promoting such kind of development programme for the faculty members.

At the end of the valedictory session, vote of thanks was given by **Mr. Shaik Johny Basha, Co-Coordinator of the FDP** in which he has been paid his gratitude towards all the participants who has spared their valuable time for attending this FDP. He also expressed the gratitude to the Resource Persons, Principal, Head of the Department and Management for giving this valuable opportunity for our participants and sharing their knowledge to them.



Fig. 24: 12/11/2021 – Valedictory Banner of FDP

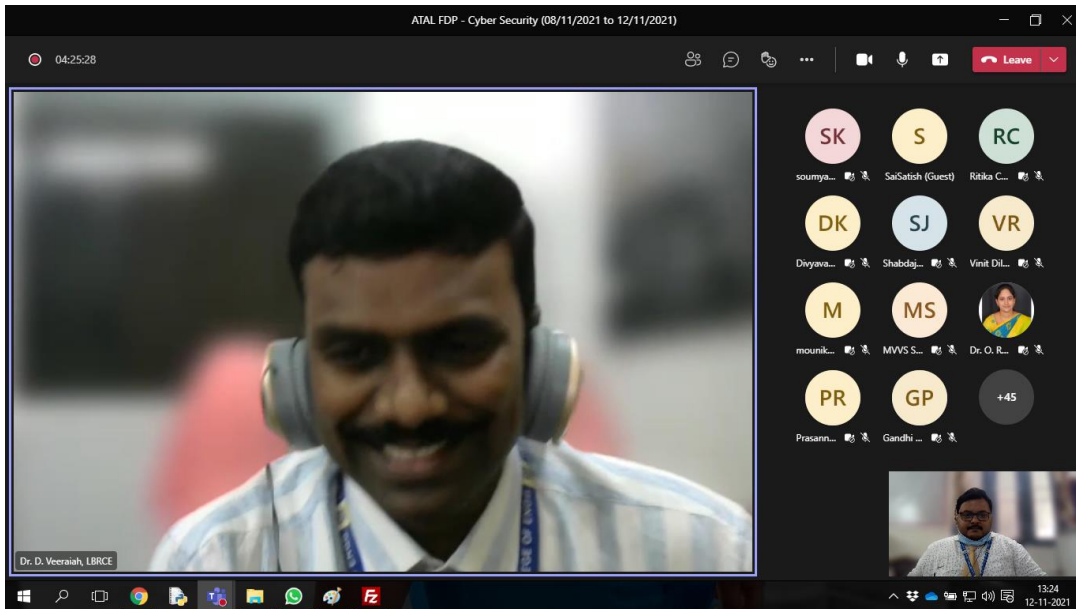


Fig. 25: 12/11/2021 – Dr. D. Veeraiah – Speech in Valedictory Session

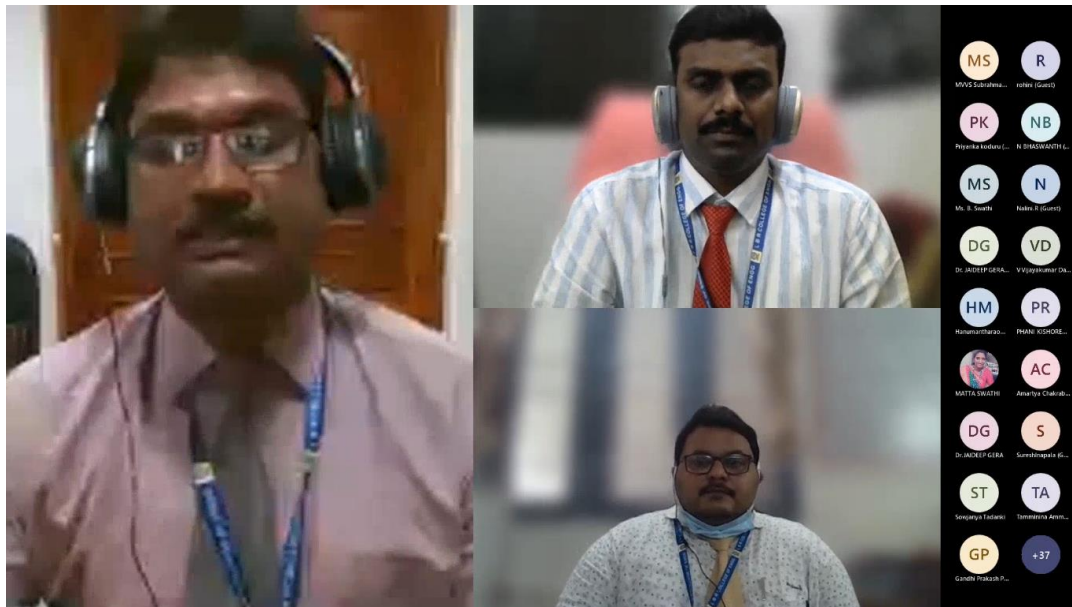


Fig. 26: 12/11/2021 – Dr. K. Appa Rao – Speech in Valedictory Session

D. Veeraiah
Convener & Coordinator
(Dr. D. Veeraiah)

K. Appa Rao
Principal
(Dr. K. Appa Rao)

About Inauguration:

Link: <https://epaper.sakshi.com/3282506/Krishna-Constituencies/09-11-2021#nuzvid/1/3>

**ఉపద్రవాల నుంచి కాపాడటమే
సైబర్ సెక్యూరిటీ**


మైలవరం: ఉపద్రవాల నుంచి కాపాడటమే సైబర్ సెక్యూరిటీ అని ప్రిన్సిపాల్ డాక్టర్ కె.అప్పారావు తెలిపారు. మైలవరం లకిరెడ్డి బాలిరెడ్డి ఇంజనీరింగ్ కళాశాలలో ఏఐసీటీఈ-అటల్ అకాడమీ సహకారంతో కంప్యూటర్ సైన్స్ విభాగం ఆధ్వర్యంలో సైబర్ సెక్యూరిటీపై అధ్యాపకులకు శిక్షణ కార్యక్రమాన్ని సోమవారం ప్రారంభించారు. సైబర్ సెక్యూరిటీ లేని పక్షంలో అంతర్జాలంలో ఎటువంటి నష్టాలు జరుగుతాయో వివరించారు. డీన్ అకడమిక్స్ డాక్టర్ ఎం.శ్రీనివాసరావు మాట్లాడుతూ ప్రస్తుత టెక్నాలజీలో మోసాలను అరికట్టడానికి అంతర్జాలంలో భద్రత చాలా అవసరమన్నారు. ఈ శిక్షణ కార్యక్రమం 12వ తేదీ వరకు కొనసాగుతుంది. కార్యక్రమంలో కన్వీనర్, సీఎస్ఈ విభాగాధిపతి డాక్టర్ వీరయ్య, కోఆర్డినేటర్లు డాక్టర్ ఎం.సీతారామ్, జీవీ సురేష్, షేక్ జానీ బాషా, కళాశాల అధ్యాపకులు, దేశంలోని వివిధ కళాశాలల అధ్యాపకులు పాల్గొన్నారు.

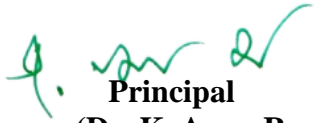
About Closing of FDP:

Link: <https://epaper.sakshi.com/3286842/Krishna-Constituencies/13-11-2021#nuzvid/1/3>

విద్యార్థులతో ప్రాజెక్టులు చేయించాలి..

మైలవరం: పది రోజులుగా కళాశాలలో అధ్యాపకులకు నిర్వహించిన శిక్షణా కార్యక్రమంతో విద్యార్థులతో ప్రాజెక్టు రిపోర్టులు చేయించాలని ప్రిన్సిపాల్ డాక్టర్ కె. అప్పారావు తెలిపారు. మైలవరం లకిరెడ్డి బాలిరెడ్డి ఇంజనీరింగ్ కళాశాలలో ఈనెల 8 నుంచి అధ్యాపకులకు నిర్వహించిన శిక్షణా కార్యక్రమం శుక్రవారంతో ముగిసింది.


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