G20
Azadi Ka Amrit Mahotsav

K R MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION
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Report on

Training Program on Cloud and Network Security Fundamentals

Date: Tuesday, 7th, Nov, 2023

Venue: Block A, Room No. 213

Event Type: Activity under MOU

Mode of Activity: Offline

Target Group: First and Second Year Engineering Students

Students Coordinators: Mr. Harsh Sharma

Faculty Coordinator: Ms. Tanu Gupta, Assistant Professor, CSE department SOET
Dr. Owais Shah, Assistant Professor, CSE department SOET

Organized by: School of Engineering and Technology

Number of Participants: 162

Attendance of SOET participants: Annexure I

Certificate: Annexure II

Objective:

The primary objectives of the training program on Cloud Security Fundamentals were as follows:

a) To provide participants, particularly first and second-year engineering students, with a thorough and comprehensive understanding of the fundamental principles and concepts related to cloud and network security.

b) To expose participants to real-world insights and case studies, allowing them to explore successful implementations and learn from practical examples.

c) To foster collaboration and networking between students and industry professionals, particularly with experts from InteNexus (Techintelliverse Pvt. Ltd).

Event Description:

Embark on a transformative learning journey with the training program on Cloud Security Fundamentals, presented by The School of Engineering & Technologies on behalf of K R Mangalam University (KRMU) in collaboration with InteNexus (Techintelliverse Pvt. Ltd). This exclusive program, tailored for first and second-year engineering students, unfolds on the 7th of November 2023, at room A213, starting at 1:30 pm.

This program is crafted to unravel the intricacies of Cloud and Network Security Fundamentals, guided by industry experts from InteNexus. Participants will delve into the core principles,

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gaining a holistic understanding of cloud computing, security challenges, network essentials, and best practices for fortifying digital infrastructures. The two major topuics of discussion under this training program were network security and cloud security. The specific topic of this report is the cloud security fundamentals. The journey doesn't end with theory. Immerse yourself in real-world insights and case studies, exploring successful implementations that bridge the gap between theoretical knowledge and practical application. Our distinguished speakers, including Mr. Piyush Pandey and Mr. Praveen Kumar, CEO of InternNexus bring a wealth of experience to enrich your learning experience.

Project Details:

The basic projects on cloud security were allocated to students under university faculty guidance; the details are given in table below:

S.No	Student Name	Course	Project Name
1	Gyandeep	MCA	Configuration Of Route53 In AWS
2	Vansh Chaudhary	B.Sc. (Cyber Security)	Configuration Of Amazon Virtual Private Cloud

Project 1: Configuration Of Route53 In AWS

The project titled "Configuring Amazon Route 53" focuses on the implementation and optimization of Amazon Route 53, a scalable and highly available Domain Name System (DNS) web service. With the increasing complexity of modern web applications and the critical role of DNS in ensuring seamless user experiences, efficient domain management becomes paramount. This project aims to provide a comprehensive guide to configuring Amazon Route 53 for optimal performance, reliability, and scalability. The project begins by introducing the key features of Amazon Route 53, emphasizing its role in translating user-friendly domain names into IP addresses and distributing incoming traffic across multiple resources. It delves into the step-by-step process of setting up and configuring Route 53, addressing key considerations such as domain registration, creating hosted zones, and configuring DNS records. An integral aspect of the project involves exploring advanced routing policies offered by Amazon Route 53, enabling users to implement traffic flow strategies based on geographic locations, latency, or health checks. The project also discusses the integration of Route 53 with other Amazon Web Services (AWS) tools, such as Amazon S3 for static website hosting and AWS Certificate Manager for securing connections with SSL/TLS certificates.

Project 2: Configuration Of Amazon Virtual Private Cloud

This project delves into the intricacies of establishing and optimizing a secure and scalable virtual network environment within the Amazon Web Services (AWS) ecosystem. Amazon VPC serves as the cornerstone for hosting applications, providing a private and isolated network space that seamlessly integrates with AWS services. This comprehensive project encompasses a step-by-step configuration process and an in-depth analysis of key components. The project initiates with an exploration of VPC fundamentals, covering the creation of subnets, route tables, and the assignment of elastic IP addresses to ensure efficient resource allocation. Emphasis is placed on network segmentation to enhance security and meet specific application requirements. The configuration of custom route tables and Network Access Control Lists (NACLs) enables fine-grained control over inbound and outbound traffic, contributing to a robust security posture. In addition, the project scrutinizes the implementation of VPC peering and Virtual Private Network (VPN) connections, providing a comprehensive understanding of interconnecting VPCs for seamless communication and extending on-premises networks securely into the cloud. This multi-faceted approach addresses the diverse needs of organizations seeking to establish hybrid cloud architectures or connect geographically distributed resources.

Outcome:

The Training Program on Cloud and Network Security Fundamentals is meticulously designed to yield profound outcomes; ensuring participants emerge well-versed and proficient in the dynamic realm of cybersecurity. Attendees can expect to develop a foundational understanding of cloud and network security principles, providing them with a comprehensive grasp of essential concepts. The exploration of real-world insights and successful case studies bridges the theoretical-practical divide, offering valuable insights that participants can leverage in their professional pursuits. Networking opportunities with industry experts, including those from InteNexus, will not only enrich participants' perspectives but also provide a gateway to potential career paths. Ultimately, the program is designed to enhance problem-solving skills, future-proofing participants by keeping them abreast of the latest trends and best practices in cloud and network security. As attendees navigate through this program, they are poised to emerge as adept and forward-thinking professionals ready to tackle the challenges of the cybersecurity landscape.
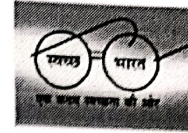
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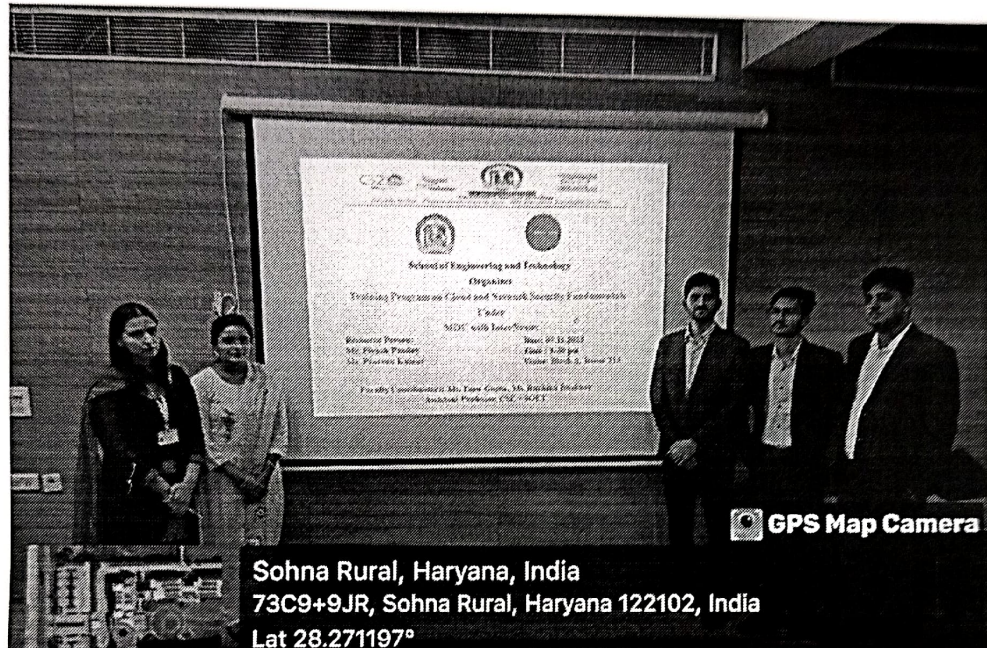
Photos:

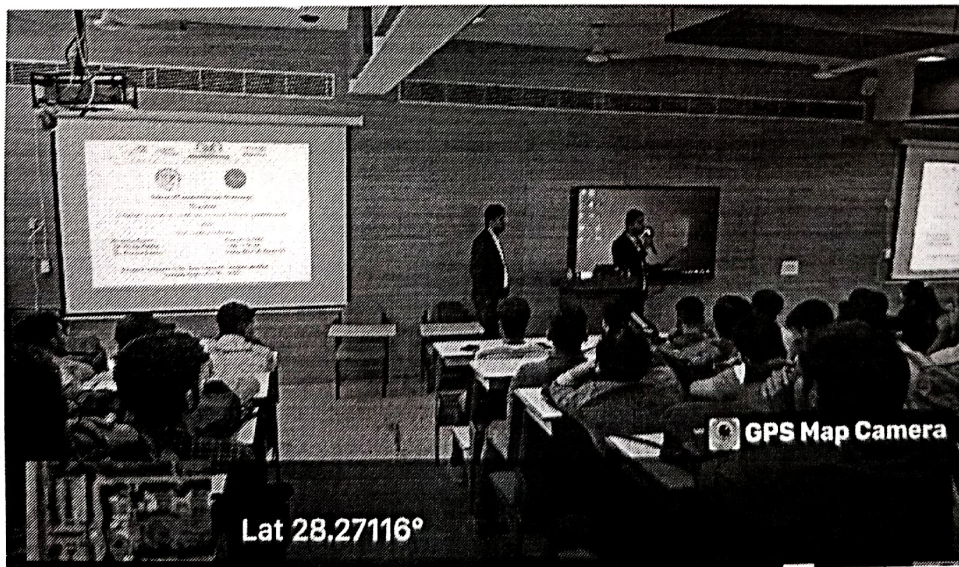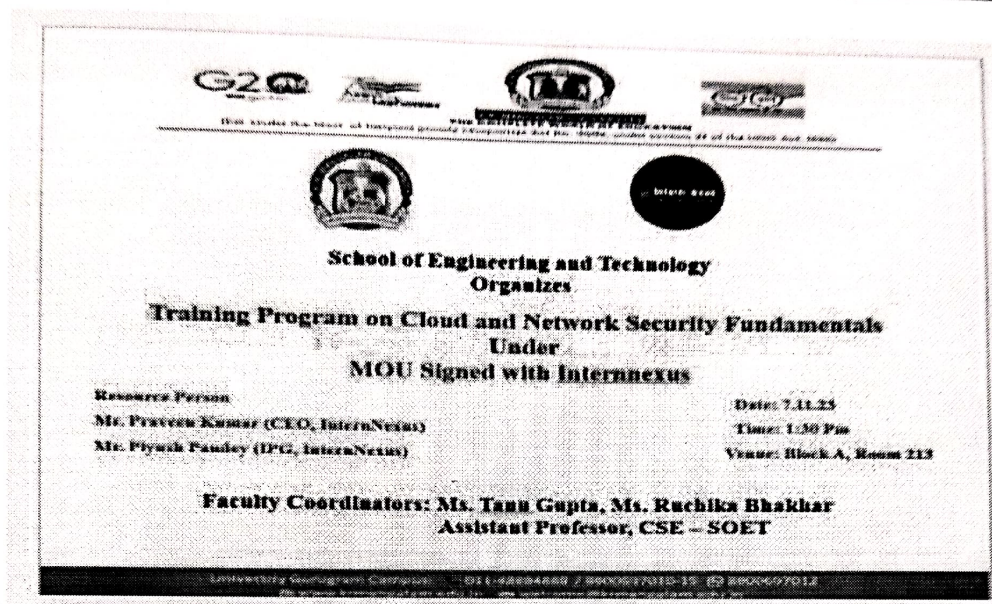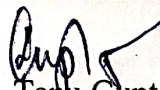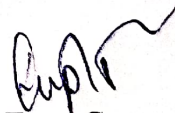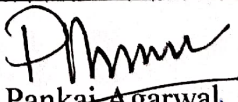**Photo1: Glimpse of Faculty Coordinators and Resource Person**

Photo 2: Resource person during session

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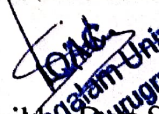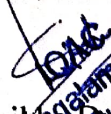
Photo 3: Banner of the training program

Report prepared by	Ms. Tanu Gupta/ Dr. Owais Shah
Report verified by Event Coordinator	Ms. Tanu Gupta
Report verified by Dean / Club Coordinator / Activity Coordinator/ Registrar	Dr. Pankaj Agarwal
Report Seen by IQAC Office	Dr. Shikha Dutt Sharma
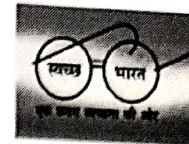
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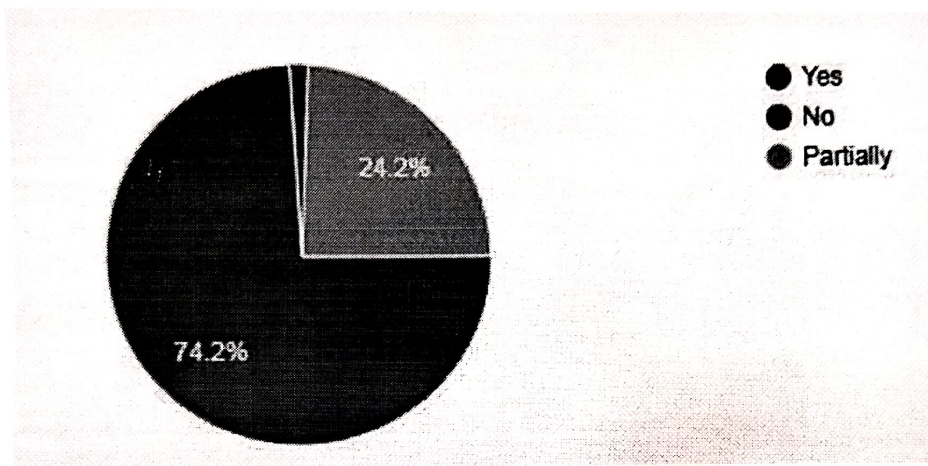![G20 India 2023 logo] ![Azadi Ka Amrit Mahotsav logo] ![K.R. Mangalam University logo]

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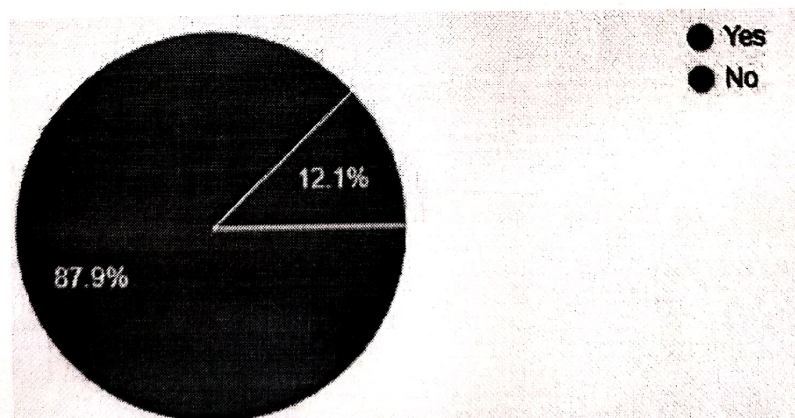(Est. Under the Govt. of Haryana private Universities Act No. 2006, under section 2f of the UGC Act, 1956)

Feedback Analysis

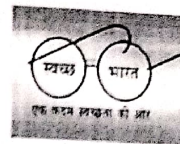## Training Program on Cloud and Network Security Fundamentals

1. Did the event meet your expectations regarding Cloud and network security fundamentals?

2. Did you find the training material and examples provided throughout inclusive to all backgrounds?

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Annexure II

CERTIFICATE *Of* PARTICIPATION

Yashwant Singh

is thanked for their phenomenal participation on

TRAINING PROGRAM ON CLOUD AND NETWORK SECURITY FUNDAMENTALS

InternNexus
Learn, Implement & Innovate

PRESENTED BY: *Mr. Piyush Pandey and Mr. Praveen Kumar*

ON THIS DAY: **7/11/2023**

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