O Outlook

MITS Communication/Report on Workshop/Department of MCA/29.01.2025-30.01.2025.

From Vice Principal Administration <viceprincipaladministration@mits.ac.in>
Date Tue 2/4/2025 4:13 PM

A Report on
Two-day Workshop on
"The Role of NS3 in Enhancing Cybersecurity through Cloud based Innovations"
Organised by
Department of Computer Applications
in association with ISTE, MITS
29.01.2025

Report Submitted by Mr. Suganya. S, Assistant Professor, Department of Computer Applications.
Resource Person Details: Mr. S. Sivagnanam, Director, HIIQ Software Solutions Pvt. Ltd., Adyar, Chennai, Tamil Nadu; Dr. V. C. Dinesh, Department of Electrical and Electronics Engineering, Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Coimbatore, Tamil Nadu.
Participants: I Year MCA (118 ISTE membership students)
Mode of Conduct: Offline
Venue: Seminar Hall C, MITS
Report Received on 03.02.2025.

A two-day workshop titled **"The Role of NS3 in Enhancing Cybersecurity through Cloud-Based Innovations"** was successfully conducted on **29th and 30th January 2025**. The workshop featured two distinguished speakers who shared their expertise in cloud computing and the NS3 simulation framework for cybersecurity enhancements.

Objectives:

1. To provide participants with comprehensive insights into the role of cloud computing in enhancing cybersecurity strategies.
2. To introduce the architecture and functionalities of NS3 for network simulations in cybersecurity research.
3. To explore practical applications and case studies for securing cloud environments against emerging threats.
4. To enable participants to understand and implement NS3 simulation models for identifying and mitigating security vulnerabilities.
5. To foster interactive discussions and hands-on learning for practical problem-solving in cybersecurity innovations.
6.
7. **Program Details:**
8.
9. **Day 1: 29th January 2025**
10.
11. The program started with a welcome address by our beloved Dr. N. Naveen Kumar, Head, Department of Computer Applications, MITS, followed by introduction about the resource person to the audience by Mrs. Suganya.S, Assistant Professor, Department of Computer Applications, MITS. She has given a short note on resource person Mr. S. Sivagnanam, Director, HIIQ Software Solutions Pvt. Ltd., Adyar, Chennai, Tamil Nadu, India. He started giving the hands-on workshop on the topic Enhancing Cybersecurity Through Cloud Computing. He delivered an insightful session on the importance of cloud computing in modern cybersecurity practices.


12.
13.
14. **He highlighted the following points:**
15.

- The key security challenges faced in cloud environments.
- Advanced solutions for securing cloud infrastructure.
- Case studies demonstrating successful implementations of cloud-based cybersecurity strategies.

-
- The session provided attendees with actionable insights into safeguarding sensitive data and optimizing cloud security protocols.

Day 2: 30th January 2025

The program started with a welcome address followed by the introduction about the resource person to the audience by Mr. Suganya. S, Assistant Professor, Department of Computer Applications, MITS. She has given a short note on the resource person Dr. V. C. Dinesh, Department of Electrical and Electronics Engineering, Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Coimbatore, Tamil Nadu. He started giving the training on the topic NS3 and Its Applications in Cybersecurity. Dr. V. C. Dinesh conducted an in-depth session on NS3 (Network Simulator 3), emphasizing its applications in cybersecurity research and cloud-based network simulations.
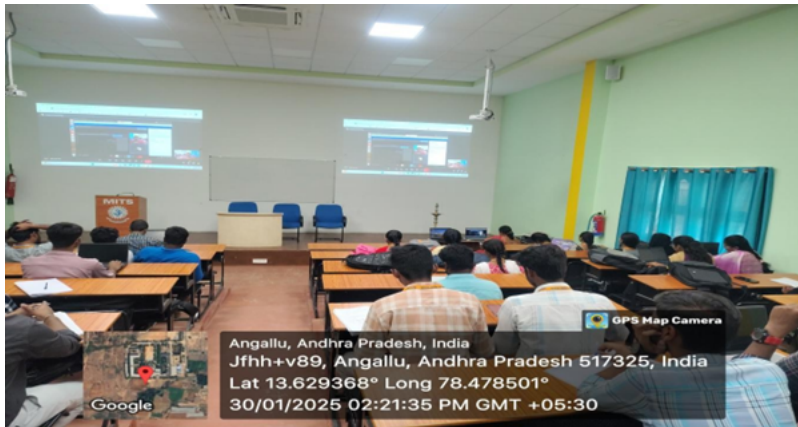
Key points included:

- The architecture and functionalities of NS3.
- Use cases for network simulation in identifying security vulnerabilities.
- Live demonstrations of NS3-based simulation models.

- Participants were highly engaged and appreciated the practical approach of the session.

- **Workshop Outcomes:**

    1. Participants gained practical knowledge of cloud-based cybersecurity strategies and their implementation to safeguard sensitive data.
    2. Attendees developed a clear understanding of the NS3 simulation framework and its applications in network security research.
    3. The workshop fostered interactive discussions and enhanced participants' ability to simulate, identify, and mitigate network vulnerabilities using advanced tools and techniques.

4.
5.
6. **Concluding speech:** The concluding session and the vote of thanks given by Dr. Mohd Sakib, Assistant Professor, Department of Computer Applications, MITS.

With regards,
Dr. C. Kamal Basha, **M.E., Ph.D.**
Vice Principal - Administration,
Madanapalle Institute of Technology & Science
Madanapalle - 517 325, A.P.
viceprincipaladministration@mits.ac.in