



Report
Guest Lecture
On
“Innovation in IT Operations & Linux”
Organised by
Department of Electrical & Electronics Engineering
Date: 08.02.2025
Time: 2.30 PM
Venue: Virtual

Organized in association with: IIC, MITS-Madanapalle

Submitted by: Mr. M. Venkatesh, Assistant Professor, Dept. of EEE

Co-Coordinator: Dr. Satish Kamar Ramoji, Assistant Professor, Dept. of EEE

Attendance: 45 participants including faculty.

Faculty attended:

- | | |
|----------------------------|---------------------------|
| 1. Dr A V Pavan Kumar | - HoD/EEE |
| 2. Mr. M. Venkatesh | - Assistant Professor/EEE |
| 3. Dr. Satish Kamar Ramoji | - Assistant Professor/EEE |
| 4. Dr.R.SaravanaKumar | - Assistant Professor/EEE |
| 5. Mr.N.Sridhar | - Assistant Professor/EEE |

Students Attended: EEE: 40

Venue: Virtual

The program commenced at **2:30 PM** with a warm **welcome address** to all the participants and the resource person, **Mr. R. Anand, Senior Cloud Operations Engineer at Oracle Corporation, Bengaluru**, delivered by **Mr. M. Venkatesh**, from the Department of EEE, MITS, Madanapalle.

Following this, **Mr. M. Venkatesh, AP/EEE** introduced the resource person and invited **Dr. A. V. Pavan Kumar, HoD/EEE**, to share a few words about the event. He emphasized the importance of Linux in modern industries and encouraged students to focus on updating their knowledge in this domain. Subsequently, the session was handed over to **Mr. R. Anand, Senior Cloud Operations Engineer at Oracle Corporation, Bengaluru**.

Mr. R. Anand began his session by expressing his gratitude to the participants, organizing members, HoD, Principal, and the Management of MITS, Madanapalle for the opportunity to share his expertise on **“IT Operations & Linux.”**

Session Highlights

The session covered career opportunities in the software industry, focusing on IT Operations & Linux, and provided insights into the skills required to enter and sustain in the field. The discussion progressed from fundamental job requirements in the software industry to advanced strategies for career growth.



During the session, the following topics were discussed to help students enhance their skill sets and meet corporate industry requirements:

1. Role of IT operations in modern industries
2. Importance of Linux in engineering and IT sectors
3. Comparison of Linux with other operating systems
4. Linux architecture and file system
5. Basic Linux commands and shell scripting
6. Package management and software installation
7. Linux in embedded system design (Raspberry Pi, BeagleBone)
8. Role of Linux in industrial automation
9. Real-time Linux for control applications
10. Linux in cloud platforms (AWS, Azure, Google Cloud)
11. Virtualization technologies (Docker, Kubernetes)
12. Linux-based server management for distributed computing
13. Open-source simulation tools (PSCAD, GNU Octave, Qucs)
14. Using Linux for MATLAB/Simulink and SciPy applications
15. Power electronics simulation using Linux platforms

Key Takeaways

By the end of the session, students were able to:

1. Recognize the significance of Linux in IT operations and industrial automation.
2. Understand how Linux is utilized in power systems, embedded systems, and smart grids.
3. Develop familiarity with Linux commands, file system structure, and package management.
4. Gain hands-on experience in terminal-based operations for engineering applications.
5. Explore the role of Linux in cloud computing (AWS, Azure, Google Cloud).
6. Learn about containerization (Docker, Kubernetes) and virtual machines in IT operations.
7. Enhance technical skills relevant to Linux-based IT infrastructure and industrial automation.
8. Prepare for career opportunities in IT operations, embedded system design, and cloud computing.
9. Understand the importance of cybersecurity principles for critical electrical infrastructure.

Conclusion

The session concluded with a vote of thanks delivered by **Dr. Satish Kamar Ramoji, Assistant Professor, Dept. of EEE**. He extended his gratitude to the Management, Principal, Vice-Principals, HoD, and all contributors who played a role in organizing this successful event.



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Photos:

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC - AUTONOMOUS INSTITUTION)
Madanapalle - 517325, Annamayya Dist., Andhra Pradesh, India

Guest Lecture
ON
"Innovation in IT Operations and Linux"
Organized by
Department of Electrical & Electronics Engineering
in Association with Industry institute interaction cell (IIC)

Resource Person
Mr. R. Anand
Senior Cloud Operations Engineer
Oracle Corporation, Bengaluru.

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Chief Patron Dr. N. Vijaya Bhaskar Choudhary Secretary & Correspondent	Patron Mrs. Kesrthi Pasidella Executive Director	Program Chair Dr. C. Yasraj Principal	Chief Convener Dr. A.V. Parvan Kumar Professor, IIT of EEE	IIC Coordinator Dr. Swapneel S. Jalwal Sr. Asst. Professor
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Convener: Mr. M. Venkatesh, Asst. prof. EEE
Co-Convener: Dr. Satish Kumar Ramoji, Asst. prof. EEE
www.mits.ac.in

Zoom Meeting: Satish Kumar Ramoji (You, presenting)

Slide: **What make linux great**

- **Open Source Nature** - Free to use, modify, and distribute.
- **Stability & Reliability** - Ideal for servers and critical systems.
- **Security** - Strong community support and minimal vulnerabilities.
- **Performance & Flexibility** - Tailor it for speed and resource management.
- **Reliability** - Works on various devices from servers to embedded devices.
- **Powerful Command Line** - Enables automation and advanced system management.
- **Community Support** - A vast global community for troubleshooting and knowledge.
- **Customization** - Choose from various distributions (Ubuntu, CentOS, Debian, etc.).
- **Compatibility** - Supports a wide-range of applications and hardware.
- **Containerization & DevOps** - A preferred OS for Docker, Kubernetes, and CI/CD.

Zoom Meeting: Satish Kumar Ramoji (You, presenting)

Slide: **Key Technologies & Tools**

- Linux & Windows Server Administrations
- Virtualization (VMware, Hyper-V)
- Cloud Platforms (AWS, Azure, GCP)
- Monitoring (Nagios, Zabbix, Prometheus)
- Automation (Ansible, Terraform, PowerShell)

Zoom Meeting: Satish Kumar Ramoji (You, presenting)

Slide: **Automation & Optimization**

- Configuration management (Ansible, Puppet)
- Scripting for automation (Bash, Python)
- Cloud automation (Terraform, AWS Lambda)
- Log analysis & proactive monitoring

Zoom Meeting: Anand Rajendran (You, presenting)

Software: **WORKSTATION PRO 17**

Buttons: Create New Virtual Machine, Import a Virtual Machine, Connect to a Remote Server

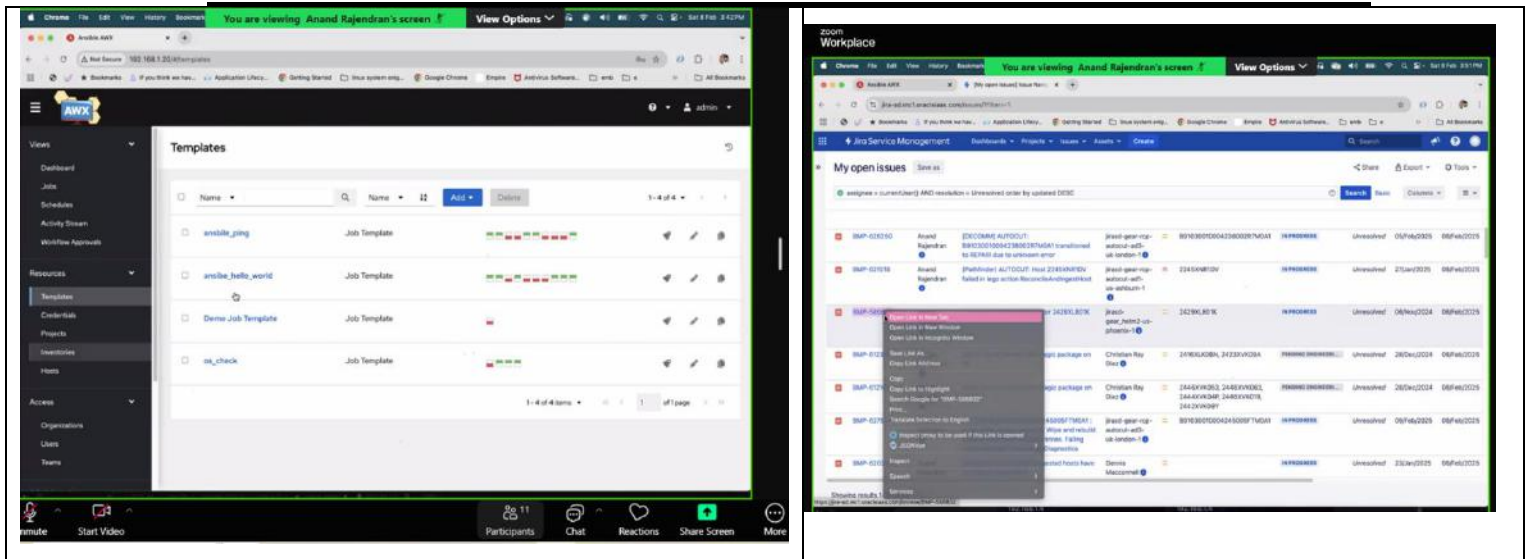
Zoom Meeting: Anand Rajendran (You, presenting)

System Configuration Window: Hardware Type, Installation, Subsystem



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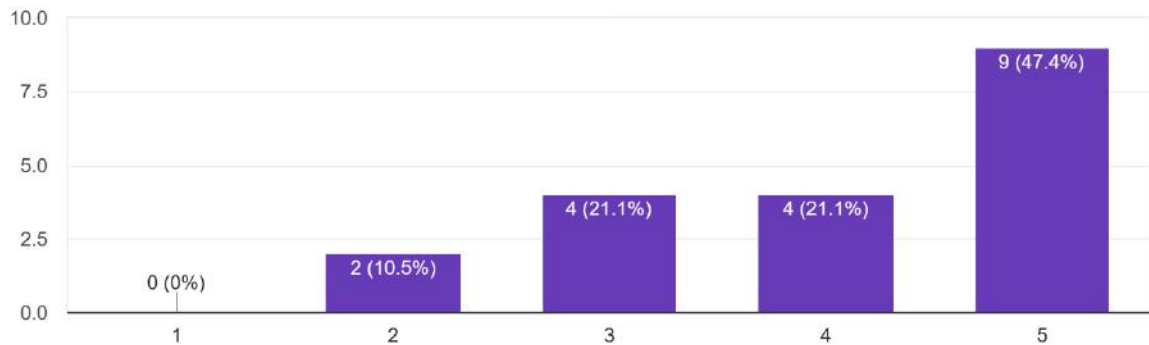
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Feedback:

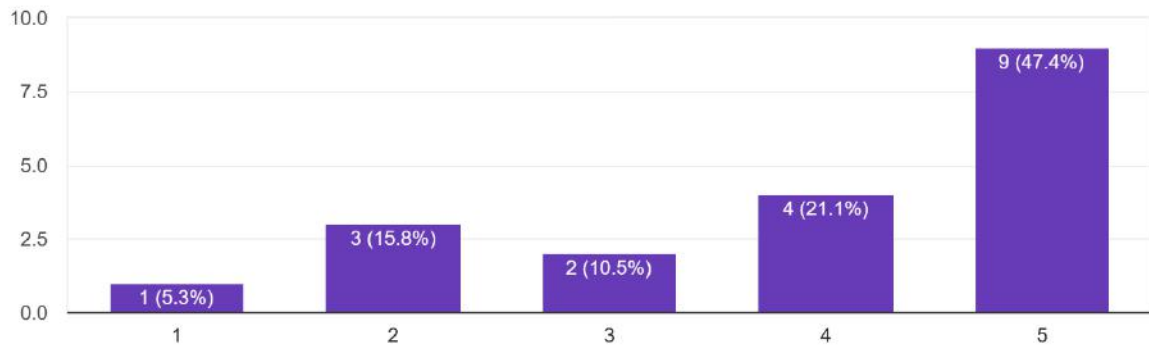
1. The interactive session was scheduled at a suitable time

19 responses



2. The interaction was useful and resource person explanation.

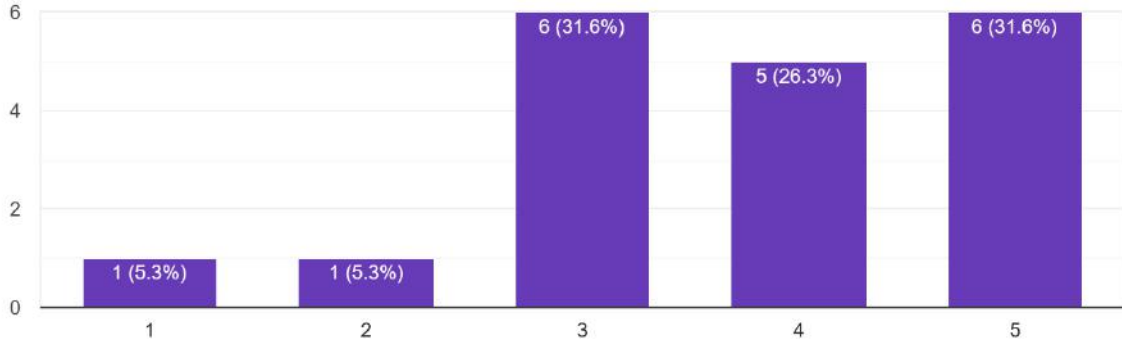
19 responses





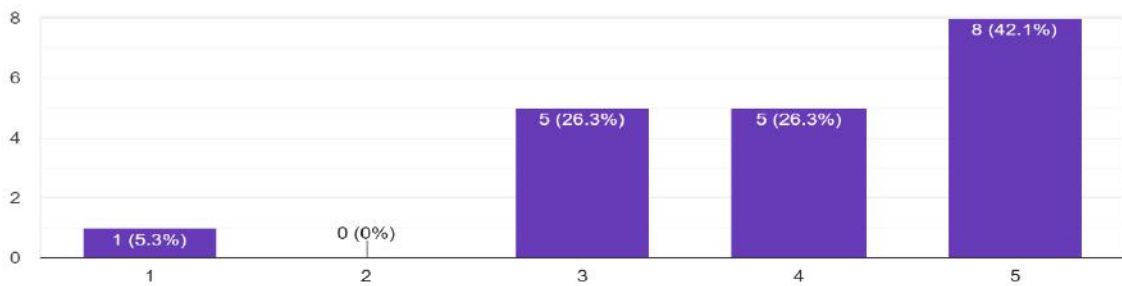
3. The information in the interaction was presented in a clear and organized manner.

19 responses



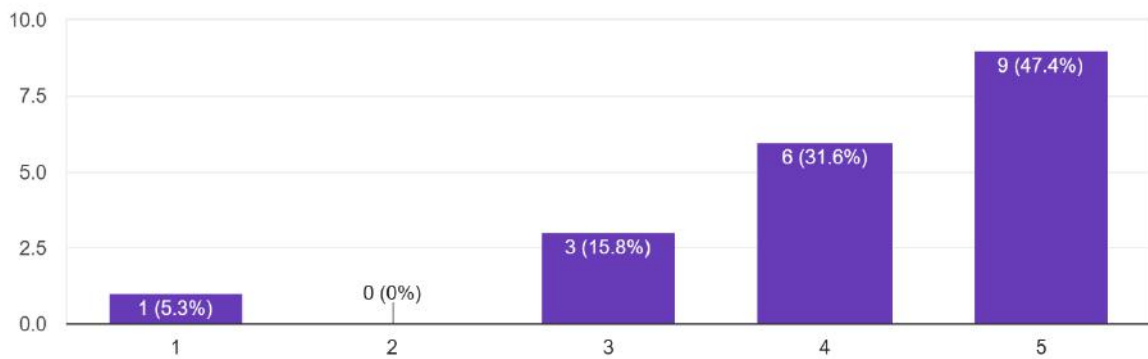
4. The presenter responded to questions in an informative, appropriate and satisfactory manner.

19 responses



5. your impression of facilities provided by the institute for interaction.

19 responses





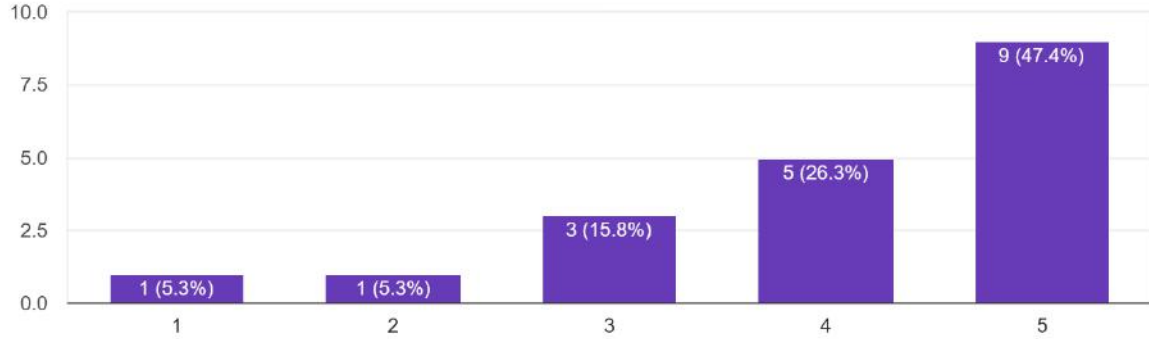
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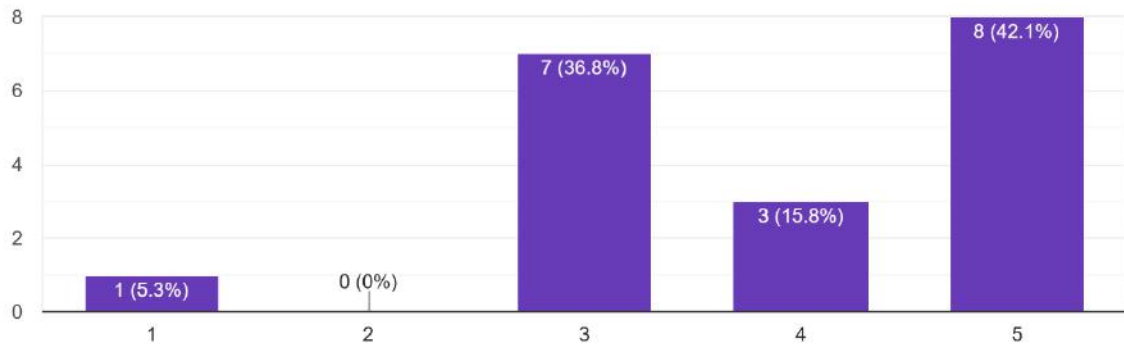
6. Overall, the session was informative and valuable.

19 responses



7. In what ways could this interaction have been improved to better suit your needs?

19 responses



Signature of the Coordinator

Signature of HoD, EEE