

**MAR BASELIOS CHRISTIAN COLLEGE OF
ENGINEERING AND TECHNOLOGY,
PEERMADE**

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS
ENGINEERING**

REPORT ON

WEBINAR

INSPECTION AND QUALITY CHECK STABILITY

ABOUT THE SESSION

Organized By: Electrical and Electronics Department

Date: 26-April-2024

Venue: Google Meet

Attendees: Students of Electrical and Electronics Engineering

INTRODUCTION

The **Department of Electrical and Electronics Engineering** organized an insightful webinar on the topic “**Inspection and Quality Check Stability**”, presented by **Er. Elbin Sabu M**, a renowned expert in the field of electrical system standards and quality assurance. The webinar aimed to provide students with an in-depth understanding of the importance of inspection processes and quality control measures in ensuring the stability and reliability of electrical systems and components.

In the current industrial landscape, maintaining high standards of quality is critical for safety, performance, and long-term sustainability. The session focused on key topics such as standard inspection techniques, testing procedures, equipment calibration, defect detection, and quality certification standards. Er. Elbin Sabu M also emphasized the role of quality checks in minimizing system failures and maintaining compliance with industry norms.

This session helped bridge the gap between academic knowledge and practical industrial practices, offering participants a deeper perspective on the value of precision, consistency, and accountability in electrical engineering projects. The webinar also encouraged students to consider quality assurance as a core responsibility of professional engineering practice.

SYNOPSIS OF THE PROGRAM

The Department of Electrical and Electronics Engineering organized a webinar on the topic “**Inspection and Quality Check Stability**”, conducted by **Er. Elbin Sabu M**, an experienced professional in the field of electrical quality assurance and industrial standards. The webinar aimed to introduce students to the essential principles and practices involved in the inspection and quality control processes used across electrical and electronics industries.

The session focused on various aspects such as quality assurance procedures, types of inspections (visual, functional, and performance-based), standard testing methodologies, equipment calibration, fault detection techniques, and compliance with national and international standards like ISO and IEC. Emphasis was also placed on how stability in quality checks directly contributes to the reliability and safety of electrical systems and infrastructure.

By combining theoretical concepts with real-world examples, the webinar provided a clear understanding of the role that inspection and quality assurance play in engineering practice. It also highlighted how electrical engineers are expected to uphold high standards of precision and accountability in professional environments. The program successfully encouraged students to explore career opportunities and responsibilities in quality control and testing domains.

PO JUSTIFICATIONS:

- **PO1 – Engineering Knowledge**

Application of electrical engineering concepts in quality assessment and inspection of systems and components.

- **PO2 – Problem Analysis**

Identifying and analyzing defects, failures, and non-conformities in electrical systems through inspection processes.

- **PO3 – Design/Development of Solutions**

Understanding how quality checks influence design improvements and system modifications.

- **PO4 – Conduct Investigations**

Involves practical exposure to testing methods, data analysis, and decision-making based on inspection results.

- **PO5 – Modern Tool Usage**

Use of instruments, diagnostic tools, and software in quality testing and system evaluation.

- **PO6 – The Engineer and Society**

Understanding the responsibility of engineers to deliver safe, reliable, and high-quality systems for public use.

- **PO8 – Ethics**

Emphasis on ethical practices in testing, inspection reporting, and compliance with industry standards.

- **PO10 – Communication**

Effective communication of inspection findings, reports, and technical documentation.

- **PO12 – Life-Long Learning**

Encourages continual learning about evolving quality standards, tools, and industry best practices.

PSO JUSTIFICATIONS:

- **PSO1 – Design, Analyze, and Test Electrical Systems**

→ Directly aligned with quality inspection and stability analysis of components and systems using hardware and software tools.

- **PSO2 – Control, Analog, and Digital System Functions**

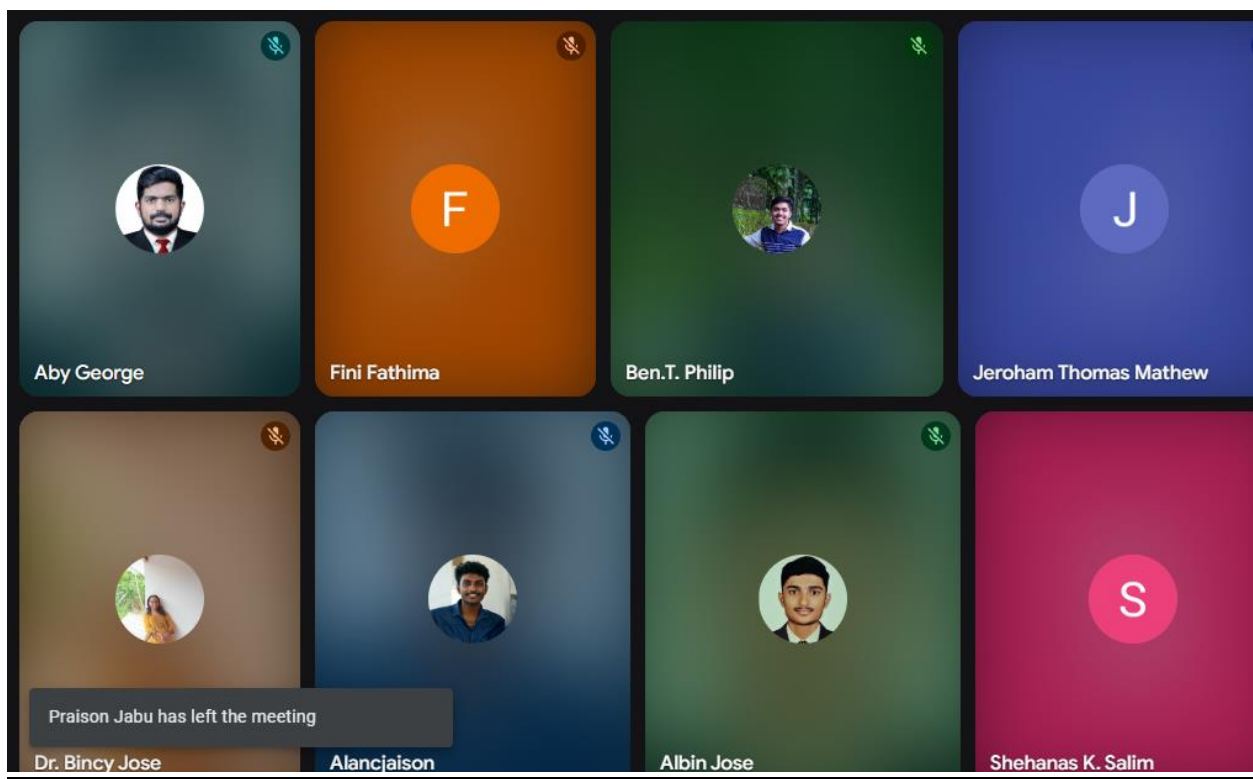
→ Applicable when assessing the performance and reliability of control systems and electronic circuits during inspection.

OUTCOME:


After attending the webinar on “**Inspection and Quality Check Stability**”, the participants were able to:

1. **Understand the fundamental concepts** of inspection and quality control in electrical engineering systems and components.
2. **Identify various types of inspections and testing procedures** used in industries to ensure system stability and product reliability.
3. **Recognize the importance of quality standards** such as ISO, IEC, and BIS in ensuring safety, compliance, and performance in electrical systems.
4. **Familiarize themselves with defect detection techniques**, equipment calibration methods, and quality documentation processes.
5. **Realize the significance of quality checks** in minimizing system failures and maintaining customer trust in products and services.
6. **Gain insight into industrial practices** and the role of electrical engineers in quality assurance and control departments.
7. **Enhance awareness of professional responsibilities**, including accuracy, accountability, and adherence to technical standards in engineering practice.
8. **Develop a broader perspective** on career opportunities in testing, inspection, and quality control domains.

PHOTOS:



POSTER:



MAR BASELIOS CHRISTIAN
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WEBINAR

INSPECTION AND QUALITY CHECK STABILITY

**MATERIAL THAT WILL
BE DISCUSSED**

Introduction to Quality Assurance in Electrical Engineering




Inspection Techniques and Procedures

SPEAKER :

ELBIN SABU M

26 April
2024

**08.00 - PM
09:30**



CONCLUSION:

The webinar on “**Inspection and Quality Check Stability**” delivered by **Er. Elbin Sabu M** was highly informative and relevant to the academic and professional development of electrical engineering students. The session provided valuable insights into the critical role of inspection and quality assurance in ensuring the safety, performance, and reliability of electrical systems.

Through the discussion of standard procedures, real-world practices, and industrial benchmarks, students gained a practical understanding of how quality checks are conducted and why they are essential in every stage of engineering—from design and production to maintenance and compliance. The resource person effectively bridged the gap between theoretical learning and its real-time industrial applications.

Overall, the session enriched the participants’ knowledge and encouraged them to adopt a mindset of precision, responsibility, and continuous improvement—core attributes of a successful professional in the field of electrical and electronics engineering.