



M.E.S. ASMABI COLLEGE

Re-accredited by NAAC with 'B++' Grade

**P.Vemballur, P.O. -
680671, Kodungallur,
Thrissur Dt.**

**Email:
principal.mesasmabi@gmail.com
Web.www.mesasmabicollege.org**

NATIONAL WEBINAR REPORT

Title: X-RAY DIFFRACTION – GOOD ANALYSIS PRACTICE

Date: 29th July 2021

In collaboration with the Internal Quality Assurance Cell (IQAC) of M E S Asmabi College, the PG Department of Physics organized a National Webinar on the topic "X-RAY DIFFRACTION – GOOD ANALYSIS PRACTICE." The event took place on the 29th of July 2021. The key speaker for this informative session was Dr. Shibu Eapen, a distinguished Scientist from the Sophisticated Test and Instrumentation Centre (STIC) at Cochin University of Science and Technology (CUSAT), Kochi.

Schedule of the Webinar:

The event commenced with a solemn prayer at 10:30 AM. The formal welcome address was delivered by Dr. Sheeba N H, a faculty member, and the coordinator of the webinar. During her welcome address, Dr. Sheeba introduced the esteemed resource person, Dr. Shibu Eapen, highlighting his extensive experience and contribution to the field of X-ray diffraction analysis over the past twenty-five years.

Since 2013, with the introduction of the undergraduate Physics program at the college, students have been regular visitors to STIC, where Dr. Shibu Eapen conducts his work. Unfortunately, the Principal, Dr. Biju A., was unable to attend the event, so Dr. Sheena P A, the Head of the Department, presided over the function and delivered the presidential address.

The keynote address by Dr. Shibu Eapen began at 10:45 AM.

Key Highlights of the Webinar:

During the webinar, Dr. Shibu Eapen provided a comprehensive overview of X-ray diffraction techniques. He started by introducing the fundamentals of X-ray diffraction and then explained commonly employed techniques such as the determination of 'd' values, crystallize size, and strain using X-ray diffractometer data. He also discussed identification techniques for materials using X-rays, whether they are crystalline or amorphous, and highlighted the potential studies that can be conducted on amorphous materials.

Furthermore, Dr. Eapen delved into more sophisticated techniques, including the impact of surface background on diffraction peaks and the use of scanning and transmission electron microscopy (STEM and TEM) in X-ray diffraction studies.

The insightful talk lasted for two hours, concluding at 12:45 PM.

Audience and Interaction:

The webinar witnessed active participation from nearly 120 attendees representing various institutions in and around the state. During the interactive session, the response from the participants was overwhelming. Many of them used this platform to seek clarification and insights into measurements and analysis using X-ray diffraction methods, further enriching their understanding of the subject.

Vote of Thanks:

Following the interactive session, a vote of thanks was proposed by Mr. Mohammed Areej E M, the head of the IQAC criterion. The Department of Physics expressed their sincere gratitude to Dr. Shafeer P S, the IQAC Coordinator, for his excellent organization of the event, as well as to Dr. Amitha for her effective coordination and anchoring. Most importantly, they extended their appreciation to the participants, whose active involvement contributed to the success of this enlightening webinar.

The National Webinar on "X-RAY DIFFRACTION – GOOD ANALYSIS PRACTICE" proved to be a valuable and informative event, bringing together experts, students, and enthusiasts in the field of X-ray diffraction, and fostering a rich exchange of knowledge and insights. It was a testament to the commitment of M E S Asmabi College in promoting scientific education and research.

Programme Brochure and Photo:

INTERNAL QUALITY ASSURANCE CELL & POST GRADUATE DEPARTMENTS

MES ASMABI COLLEGE
P. VEEDULLUR, KODIMALUR, THIRUVARUR, KERALA

In Collaboration With
PG DEPARTMENT OF PHYSICS

NATIONAL WEBINAR SERIES ON
FROM RESEARCH TO PUBLICATION

SPEAKER
Dr. Shibu Eapen
Scientist, Sophisticated Test and Instrumentation Centre, CUSAT, Kochi, Kerala

TOPIC
X-RAY DIFFRACTION - GOOD ANALYSIS PRACTICE

29 | JULY | 2021
@ 10.30 AM

Registration Link: <https://forms.gle/Y9X3H9wzFPPm8eg78>

To join Telegram group of this webinar series
<https://t.me/joinchat/43XwK1qKAcvMNZ1>

Principal: Dr. A. Biju | IQAC Coordinator: Dr. Shafeer P.S. Mob: 9847258464
H.O.D: Dr. Sheena P.A. | Coordinator: Dr. Sheeba N.H. Mob: 94967 54255

