



Dr. Ambedkar College,

Deekshabhoomi, Nagpur

Department of Physics

Session: 2023-24

REPORT ON CERTIFICATE COURSE ON BIOMEDICAL INSTRUMENTATION

Department of Physics had organized one week certificate course on Biomedical Instrumentation with the objectives:

- 1) To study the biomedical instrumentation.
- 2) To give exposure to students regarding role of Physics in biomedical sciences.
- 3) To create awareness among students about career opportunities in biomedical sciences.

The 30 hours plan was executed as per following schedule:

Inauguration Ceremony:

Date: February 12, 2024 **Time:** 12:30 PM **Venue:** Adv. Kumbhare Hall, Dr. Ambedkar College, Nagpur

The one-week certificate course on Biomedical Instrumentation commenced with an inspiring inauguration ceremony on February 12, 2024. The ceremony marked the beginning of an enlightening journey into the world of biomedical instrumentation.

Chief Guest and Resource Person:

Dr. Smita Pakhmode, from N K P Salwe Institute of Medical Science and Research, Nagpur, graced the occasion as the Chief Guest and Resource Person for the inaugural session. Her presentation on the role of physics in basic diagnostic instrumentation received high praise from the audience, effectively bridging the gap between physics and medical sciences.

Distinguished Presence:

Dr. B. A. Mehare, Principal of Dr. Ambedkar College, added further prestige to the event with her esteemed presence. Dr. Mehare articulated the importance of the certificate course in Biomedical Instrumentation, underlining its significance in modern healthcare practices.

Event Hosts and Contributors:

The inauguration was hosted by the course Coordinator, Dr. Namrata Pradnyakar, Assistant Professor in the Department of Physics. Dr. Pranita Deshpande, the Co-coordinator of the course, delivered the preamble, setting the stage for the upcoming sessions. Dr. Amit Bansod expressed heartfelt gratitude in the vote of thanks, acknowledging the contributions of all participants and contributors.





Day 2: February 13, 2024

Dr. Pranita Deshpande conducted Session 2, focusing on recent trends in Biophysics. Dr. Amit Bansod provided hands-on experience in handling basic diagnostic instruments such as digital glucometers, manual and digital blood pressure apparatus, thermometers, etc. Dr. Bansod also shed light on biophysics and the department's involvement in related research, enriching participants' understanding.



Day 3: February 14, 2024

Participants engaged in a poster-making activity, exploring innovative ideas in biophysics and biomedical instrumentation. Dr. Vaijayanti Asolkar, Professor of Lady Amrutabai Daga College, Nagpur, shared her expertise and personal experiences, enabling participants to relate and gain additional insights into the field.



Day 4: February 15, 2024

The session focused on understanding the role of physics in X-ray, CT scan & MRI, efficiently delivered by Dr. Umesh Palikundwar with valid examples and real images, enhancing participants' comprehension.



Day 5: February 16, 2024

Dr. Bharati Mahindrakar, Associate Professor & Medical Physicist from Mahatma Gandhi Institute of Medical Sciences, Sevagram, district Wardha, enlightened participants on the role of physics in cancer care and career opportunities in Biophysics, providing detailed information about relevant courses and institutions.



Day 6: February 17, 2024

The concluding day featured a session on ECG, EEG, EEM by Dr. Subhash Kondawar, Chairman of the Board of Studies, RTMNU, Nagpur, followed by the distribution of certificates and study materials to all participants. Refreshments were provided for all staff and participants in the physics department corridor.



Day 7: February 18, 2024

A field visit was arranged to a scan lab where technicians and practitioners provided live demonstrations of Sonography, X-ray, CT scan & MRI.

The one-week certificate course on Biomedical Instrumentation concluded on a high note, leaving participants enriched with knowledge and practical insights into the field.

Dr. Pranita Deshpande
Co-Coordinator

Dr. Namrata Pradnyakar
Coordinator

Dr. Aarti Wazalwar
Head, Dept. of Physics