

Government Engineering College, Gandhinagar

Biomedical Department

Alumni Meet Report

1. Title of the Programme: **Alumni Meet/Expert Talk 2022**
2. Category: **Alumni meeting and Expert Talk**
3. Date and Duration: **26th April, 2022 11.00 to 1.00PM**
4. Venue: **Biomedical Department and Google Meet**
5. Alumni speaker / Expert: **Mr. Mandar Mehta & Ms. Yatha Mehta**

Total no. of participants: **112**

6. Program summary:

The Department of Biomedical Engineering had organized an alumni meeting for all batches on 26th April, 2022 at Biomedical Department and For Alumni on Google meet. The meeting started at 11.00 a.m. with a prayer. Prof. Ghanshyam Parmar, head of BM Department welcomed the gathering. He handed over session to Prof. Rutu Nayak. She compered the program.

Expert talk on mentioned Topic was delivered by alumni expert. Total 112 participants including alumni, current students and teachers participated in the event. Students and staff shared the memories, most of them volunteered to render services for the benefit of the current students of BM departments. The event was stimulating and enjoyable and simultaneously profitable as all insights came up.

At the end, Prof. Piyush Patel sincerely expressed gratitude to the principal, Head of BM Department for their guidance and support to make this event a grand success and thanked to all Students, Faculties and Alumni for attending the meeting and contributing towards making it such an unforgettable day.

7. Links:

- 1. Alumni Registration Link:**

<https://forms.gle/P6Grk8eNxTYM8AjJA>

- 2. Alumni Responses Link:**

https://docs.google.com/spreadsheets/d/1Rot5wRcDSya_2O7ve3KtMZ1Qk14_MYyWI-MVlksXn3A/edit?resourcekey#gid=1578825372

- 3. Alumni Meet Joining link:**

<https://meet.google.com/jes-yghv-udy?hs=224>

8. Event Poster:

ALUMNI EXPERT TALK

Biomedical Department, GEC Gandhinagar Organize





Mr. Mandar Mehta

Advances in Radiation and
Medical Physics & Scope of BME
in Germany

APRIL 26TH 11.00-12.00

Ms. Yatha Mehta

Role of BME in Radiation Services
and Regulation

APRIL 26TH 12.00-1.00PM

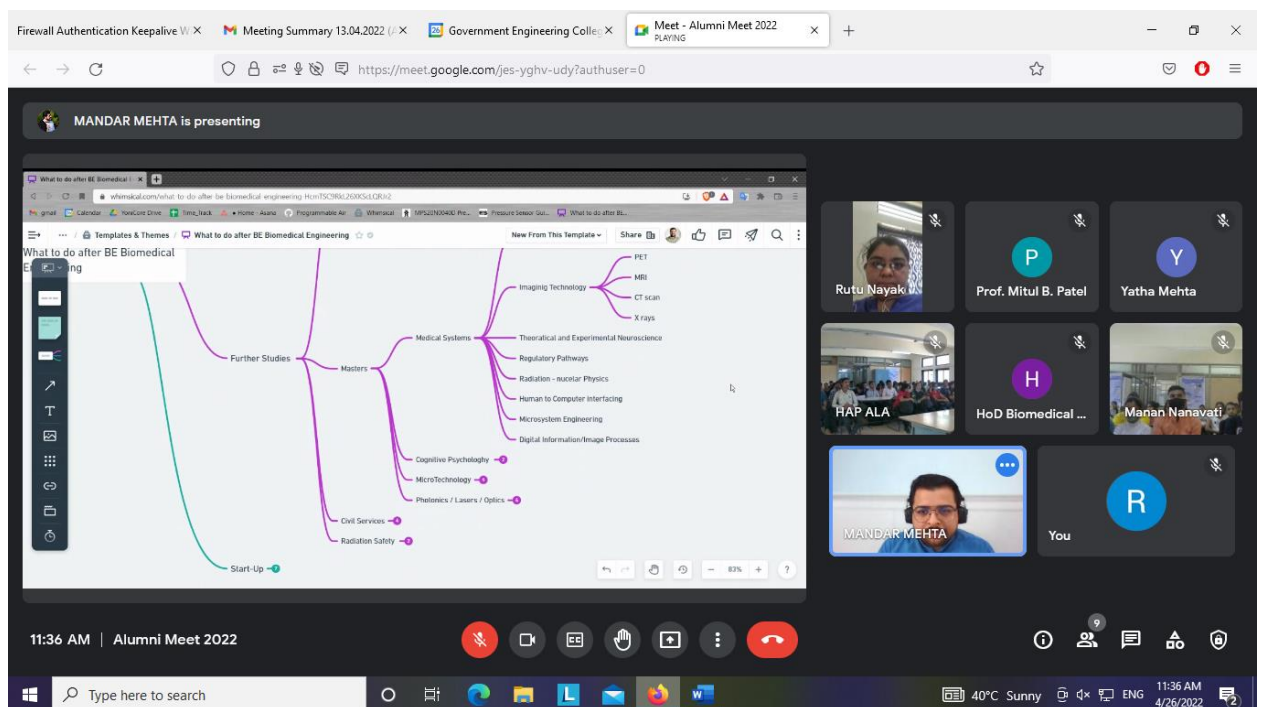
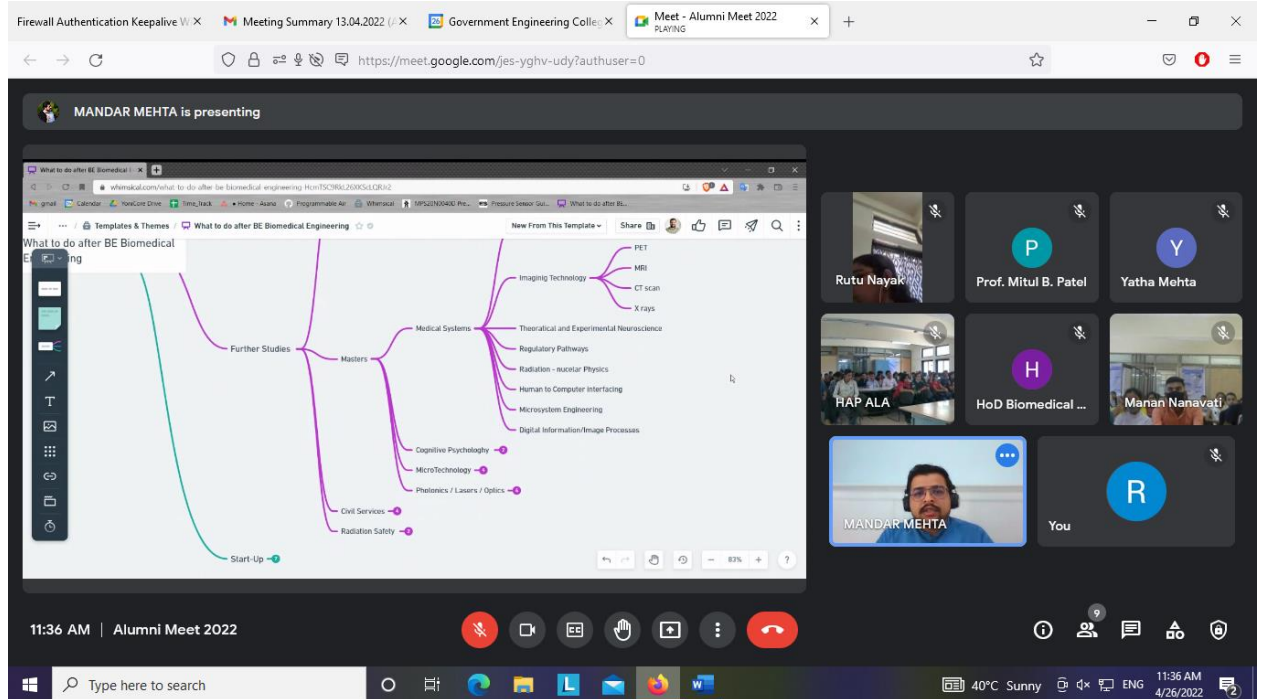


Patron: Dr. Sweta P. Dave,
Principal, GEC Gandhinagar



Chairman: Dr. I.B. Dave, Alumni
Association, GEC
Convener:
Prof. Ghanshyam Parmar
Faculty Co-ordinator:
Prof. Rutu Nayak


9. Photographs of the online event:



Yatha Mehta is presenting

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Gujarat Radiation Services



"A Step towards Radiation Protection"

- We have 30+ years of experience in Diagnostic Radiology field
- Leading QA agency in India

What we do ?

- QA of medical diagnostic X-ray Equipment
- Consultancy service for
 - AERB Licence
 - Industrial AERB
 - Type Approvals

26-04-2022 5

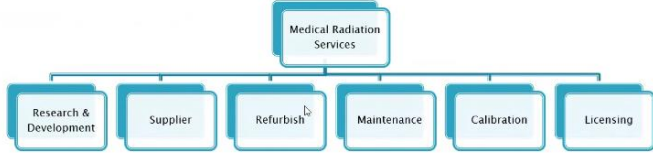
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Yatha Mehta, Rutu Nayak, MANDAR MEHTA, Manan Nanavati, HAP ALA, Prof. Mitul B. Patel, HoD Biomedical Dep..., You

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Career opportunity in Radiation Services



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graph TD
    A[Medical Radiation Services] --> B[Research & Development]
    A --> C[Supplier]
    A --> D[Refurbish]
    A --> E[Maintenance]
    A --> F[Calibration]
    A --> G[Licensing]
  
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12:35 PM | Alumni Meet 2022

Yatha Mehta, Rutu Nayak, MANDAR MEHTA, Manan Nanavati, HAP ALA, Prof. Mitul B. Patel, Pin HoD Biomedical Department to your main screen, You

Type here to search

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Y Yatha Mehta is presenting

Career opportunity in Radiation Services

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Y Yatha Mehta is presenting

Radiation ?

TYPES OF RADIATION

Alpha Rays: 2 Protons and 2 Neutrons, High Penetration, Stopped by Paper.

Beta Rays: High Energy Electrons, High Penetration, Stopped by Thin Aluminum.

Gamma Rays: High Energy Gamma Radiation, High Penetration, Stopped by Thick Lead.

X-Rays: High Energy X-Radiation, High Penetration, Stopped by Thick Lead.

Neutron Rays: Free Neutrons, High Penetration, Stopped by Water or Concrete.

How Penetrating?

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Yatha Mehta is presenting

Radiation ?

RADIATION EFFECTS
Measurements in millisieverts (mSv). Exposure is cumulative.

- Potentially fatal radiation sickness. Much higher risk of cancer later in life.**
 - 10,000 mSv: Fatal within days.
 - 5,000 mSv: Would kill half of those exposed within one month.
 - 2,000 mSv: Acute radiation sickness.
- No immediate symptoms. Increased risk of serious illness later in life.**
 - 1,000 mSv: 5% higher chance of cancer.
 - 400 mSv: Highest hourly radiation recorded at Fukushima. Four hour exposure would cause radiation sickness.
 - 100 mSv: Level at which higher risk of cancer is first noticeable
- No symptoms. No detectable increased risk of cancer.**
 - 20 mSv: Yearly limit for nuclear workers.
 - 10 mSv: Average dose from a full body CT scan
 - 9 mSv: Yearly dose for airline crews.
 - 3 mSv: Single mammogram
 - 2 mSv: Average yearly background radiation dose in UK
 - 0.1 mSv: Single chest x-ray

ORGANS AT RISK:

- EYES** High doses can trigger cataracts months later.
- THYROID** Hormone glands vulnerable to cancer. Radioactive iodine builds up in thyroid. Children most at risk.
- LUNGS** Vulnerable to DNA damage when radioactive material is breathed in.
- STOMACH** Vulnerable if radioactive material is swallowed.
- REPRODUCTIVE ORGANS** High doses can cause sterility.
- SKIN** High doses cause redness and burning.
- BONE MARROW** Produces red and white blood cells. Radiation can lead to leukaemia and other immune system diseases.

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Yatha Mehta, Rutu Nayak, MANDAR MEHTA, Manan Nanavati, HAP ALA, Prof. Mitul B. Patel, HoD Biomedical Department, You

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Yatha Mehta is presenting

List of RSO training conducted by BARC

- RSO Certification for Industrial and Research Radiation Facilities (RSO-IRF)
- RSO Certification for Nuclear Medicine Facilities (RSO-NM)
- **RSO Certification for Service Engineers/QA Service providers in Diagnostic Radiology (RSO-DR)**
- Radiation Safety Certification for Radiotherapy Technologists (RS-RTT)
- Radiation Safety Certification for Service Engineers of Radiotherapy Equipment (RS-SRE)
- RSO Certification for Gamma Irradiation Chamber (Category-I Irradiator) (RSO-GIC)
- **RSO Certification for Ionising Radiation Gauging Devices (IRGDs)/Nucleonic Gauges (RSO-IRGD/NG)**
- RSO Certification for Radiological Calibration Laboratories (RSO-RCL) (Radiation Monitoring Instruments and Personnel Monitoring Badges)

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Faculty Co-ordinator

Head Of Department

Prof. Rutu Nayak

Prof. Ghanshyam Parmar