

Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College, Karad
(An Autonomous College, Affiliated to Shivaji University)

Department of Physics

A REPORT

ON

**“One Day Workshop on Beneficial Effects of Radiation Technology
and Indian Nuclear Energy Programme”**

Organized by

Department of Physics, S. G. M. College, Karad

In association with

INDIAN ASSOCIATION FOR RADIATION PROTECTION

Date: 30-04-2022

One Day Workshop on ‘**Beneficial Effects of Radiation Technology and Indian Nuclear Energy Programme**’ was held at Sadguru Gadage Maharaj College, Karad, Maharashtra, India, on 30-04-2022. This workshop was jointly organized by Department of Physics, S.G.M. College, Karad and **Indian Association for Radiation Protection, BARC Mumbai**. There were about 216 participants (students and teachers) registered from various Colleges. Besides the Department of Physics, S. G. M. College, Karad colleges participated in workshop were Balawant College, Vita, Dr. Patangrao Kadam College Ramanandnagar . The aims of the organization of this workshop are to provide a platform for sharing the knowledge on beneficial effect of Radiation Technology and to create awareness about Indian nuclear energy program. A primary goal of the radiation protection program is to reduce radiation doses, and reducing the health risk and therefore, reliable protection devices are provided to prevent or minimise the effects of an incident. Workshop also aims to get information of devices which provides protection. The program of action includes interactive technical sessions, practicals and demonstrations covering the thrust areas by the invited talks and contributed lectures delivered by the experts who have expertise in the field of radiation protection. This workshop also offers innovative ideas for researchers in the field radiation protection. The expert team explained forth coming plans organized by BARC.

Under the valuable guidance of **Dr. J. B. Thorat**, Head of Physics Department (Co-ordinator of workshop), four speakers namely **Dr. S. Murli**, convenor IARP workshop, **Smt. Rupali Karpe**, BARC Mumbai, **Shri Tejram Meena**, BARC Mumbai **Shri Sanjay Patil** BARC Mumbai were invited as recourse person for workshop.

Inaugural Function

The inaugural function was held in presence of Prof. (Dr.) S. T. Salunkhe, Principal Dahiwadi college, Dahiwadi as a chief guest, Prof. (Dr.) S. Murli, Scientific officer, BARC, Mumbai, Dr. M. M. Rajmane, Principal, S.G.M. College, Karad, Prof. (Dr.) J. B. Thorat, Head & Co-ordinator of workshop, Dr. S. H. Pisal, Dept. of Physics, SGM, College, Karad. Dr. J. B. Thorat sir introduced the chief guest of workshop (Dr.) S. T. Salunkhe, Principal Dahiwadi college, Dahiwadi and Dr. S. Murli. As a chief guest of inaugural function Prof. (Dr.) S. T. Salunkhe delivered inaugural talk and shared his ideas on recent developments in the field of radiation protection. The president for said Conference was Hon. Principal Dr. M. M. Rajmane, Principal, SGM College Karad. In his presidential speech he put forth development index of college. He appreciated organization of such workshop and emphasizing the need of such interesting and important topic. At the end of inaugural session, Dr. N. S. Harale, presented vote of thanks of all dignitaries and delegates.

Immediately after inaugural function technical session were started.

Technical Session –I

Talk I: Resource person- Smt. Rupali Karpe, BARC Mumbai

Topic: Radiation quantities, Units and Effects

Smt. Rupali Karpe madam in her speech explained atomic structure, subatomic particles, clear the concept of α , β and γ radiations. She also explained units associated to radiations.

Talk II: Resource person- Shri Tejram Meena, BARC Mumbai

Topic: Principle of radiation detection

Shri Tejram Meena explained Principle of radiation detection, different types of radiation detector and how detector used to diagnosis radiation type and concentration of radiation.

Talk III: Resource person- Shri Sanjay Patil, BARC Mumbai

Topic: Radiation Protection and Monitoring

Shri Sanjay Patil, explained, three basic protective measures in radiation safety: time, distance, and shielding. With help of videos, he explained dose limit ranges according to gender, age and physical condition of human.

Talk IV: Resource person- Dr. S. Murali

Topic: Nuclear energy programme, Application of radiation technology and Beneficial Effects of Radiation Technology

Dr. S. Murali explained India's three-stage nuclear power programme which was formulated by Homi Bhabha, in the 1950s to secure the country's long-term energy independence, through the use of uranium and thorium reserves found in the monazite sands of coastal regions of South India. Dr. S. Murali throw light on radiation technology that covers a range of industrial applications including radiography, gamma scanning.

Technical Session –II

Technical Session II based on practicals and Demonstrations. This session covered topics such as Gamma Spectroscopy, Half Life activity estimation, Radiation Monitoring Kits, Personnel Protective Gears and Video Models on radiation/ Reactor Aspects of Safety Features.

Technical Session –III

In this technical session Dr. S. Murli delivered excellent speech on Scientific career opportunities.

Valedictory Function

After the last technical session valedictory function was conducted in the presence of Prof. B. J. Nalawade, Chief-guest of valedictory function and President Prin. Dr. M. M. Rajmane. Prof. B. J. Nalawade, in his valedictory speech gave valuable remarks regarding workshop and opportunities in subject physics. He congratulating the organizers of the workshop, he said, “This is a forum where, physics fraternity can interact and share their ideas”. He concluded with the inspiring words for the students, “Nothing is difficult, if you make up your mind anything can be done successfully. Three delegates put the feedback remarks regarding the workshop. Sampada Nalawade one of delegates, in her feedback remark said workshop was a really nice one, truly well organized, maintaining time schedule and informative. She also added that we are now free from unnecessary fear of radiation.

At the end, on behalf of physics department S.G. M. College Karad Dr. N. S. Harale, presented vote of thanks.

Dr. J. B. Thorat
Head, Department of Physics,
SGM College, Karad



Inaugural Speech by Prin. (Dr.) M. M. Rajmane



Felicitation of chief guest- Prin. S. T. Salunkhe



Laboratory visit of IARP team



Feedback remark from students



Valedictory function- speech by B. J. Nalawade



Certificate distribution