



Shiv Chhatrapati Shikshan Sanstha's

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Chemistry & Analytical Chemistry

A) A SUMMARY REPORT

1) Title of Programme:		Organized One Day Webinar “ Nanotechnology Awareness Program-2022 ” in celebration of " Nanotechnology Day (9th October) "		
2) Name of Organizing Department/Unit:		Department of Chemistry & Analytical Chemistry.		
3) Name of the Coordinator(s)/ Convener(s)/ Organizer(s) of the Programme:		Chairperson: Mr. Dhananjay Palke Coordinator: Mr. M.S. Sudewad		
4) Date(s) of the Programme:		14 th October 2022		
5) Venue/Mode		Online: On Google Meet		
6) Target Group:		Teachers & Students		
7) Number of Participants: 63		Male	Female	Total
A separate list with signatures be maintained in the department/Unit)	Teaching	06	02	08
	Students	22	33	55
	Total	28	35	63
8) Name(s) and details of Resource Person(s), if any:		Dr. K. C. Tayade, Assistant Professor, Department of Chemistry & Analytical Chemistry, RSM, Latur		
9) Total Expenditure for the Programme:		NA		
10) Source of Funding:		NA		

B) A Report

i. Title: Organized One Day Webinar "Nanotechnology Awareness Program-2022" in celebration of "Nanotechnology Day" (9th October)

ii. Introduction: Organized One Day Webinar "Nanotechnology Awareness Program-2022" in celebration of "Nanotechnology Day" (9th October)

The Resource Person of the program was Dr. Kundan C. Tayade , Assistant Professor, Department of Chemistry & Analytical Chemistry, RSM, Latur.

Objectives of the Programme/ issues addressed

- To spread awareness of Nanotechnology.
- To make participants familiar with Nanotechnology

iv. Details of Participants

No. of Participants: 63 (Male: 28 & Female: 35)

Sex Ratio: 1:1

Geographical representation: Latur

v. Brief Summary of Events/ Sessions

The 9th October Celebrated as "Nanotechnology day", on that occasion, Department of Chemistry & Analytical Chemistry organized webinar on "Nanotechnology Awareness Program-2022" Dated 14th October 2022.

The Program was virtually inaugurated by Prof. D. G. Palke (HoD), Dr. K. C. Tayade Delivered Lecture on "Nanotechnology" with the help of presentation. at this occasion Prof. M. S. Sudewad, Prof. A.A. Bhandare & Prof. V. M. Dhumal. Was virtually present in the program. About 70 students participated in the program using Google Meet platform. Introductory speech was given by Prof. M. S. Sudewad; Program was conducted by Prof. M. S. Sudewad. The conclusive remark was given by Chairperson Prof. D. G. Palke (HoD), Workshop ended with vote of thanks delivered by Dr. K. I. Momin.

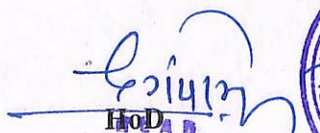
vi. Conclusion, with Feedback on the Programme:

The Program was successful with our 63 participants (Teachers and students).

Students involve in program actively and learned Basics of Nanotechnology and familiar with Nanotechnology. All students are satisfied by this important program.

vii. Any Appendix if Necessary: Nil


Convener


HoD,
Department of Chemistry,
Rajarshi Shahu Mahavidyalaya,
Latur-413512




Principal
PRINCIPAL
Rajarshi Shahu Mahavidyalaya, Latur
(Autonomous)

C) Geotagged Photographs/ Screenshots

The screenshot shows a Google Meet window with a presentation slide titled "Tools & Technology". The slide lists several modern developments in nanotechnology:

- There are several important modern developments.
 - The **atomic force microscope (AFM)**.
 - The **Scanning Tunneling Microscope (STM)** are scanning probes that launched nanotechnology.
- Various techniques of **nanolithography** such as:
 - optical lithography.
 - X-ray lithography.
 - Dip pen nanolithography**
 - Electron beam lithography (inkjet printer)** were also developed.

A diagram on the right side of the slide illustrates the lithography process, showing a laser beam, a mask, and a sample stage. Below the diagram, it states: "Lithography in MEMS context is typically the transfer of a pattern into a photosensitive exposure to a..."

At the bottom of the slide, a notification reads: "Azroddin Bagan has left the meeting".

The Meet interface shows a grid of participants on the right, including RSML Chemistry, Dr Kundan Tayade, Ishita Hare, Prajakta Jadhav, Rahul Ghatke, Rushikesh Dha..., Vaishnavi Kulkarni, 56 others, and You. The bottom status bar indicates the time is 4:45 PM on 15/10/2022.

Dr. Kundan Tayade Sir Delivering Lecture on Nanotechnology

The screenshot shows a Google Meet window with a presentation slide titled "Carbon Nanotube". The slide lists the following information:

- Carbon nanotubes are allotropes of carbon with a cylindrical nanostructure.
- They have length-to-diameter ratio of upto 132,000,000:1.
- Nanotubes are members of the fullerene structural family. Their name is derived from their long, hollow structure with the walls formed by one-atom-thick sheets of carbon, called graphene.
- Properties**
 - Highest strength to weight ratio, helps in creating light weight spacecrafts.
 - Easily penetrate membranes such as cell walls. Helps in cancer treatment.

Two images are shown: a 3D model of a carbon nanotube and a microscopic image of a nanotube. At the bottom of the slide, a notification reads: "meet.google.com is sharing your screen".

The Meet interface shows a grid of participants on the right, including RSML Chemistry, Dr Kundan Tay..., Ishita Hare, Prajakta Jadhav, Rahul Ghatke, Rushikesh Dha..., Vaishnavi Kulk..., 54 others, and You. The bottom status bar indicates the time is 4:47 PM on 15/10/2022.

Nanotechnology awareness Prog X Meet - axt-wiyk-dgw

meet.google.com/axt-wiyk-dgw

Dr Kundan Tayade is presenting

Carbon Nanotube

- Carbon nanotubes are allotropes of carbon with a cylindrical nanostructure.
- They have length-to-diameter ratio of upto 132,000,000:1.
- Nanotubes are members of the fullerene structural family. Their name is derived from their **long, hollow structure** with the walls formed by **one-atom-thick sheets of carbon, called graphene**.
- Properties**
 - Highest strength to weight ratio, helps in creating **light weight spacecrafts**.
 - Easily penetrate membranes such as cell walls. Helps in **cancer treatment**.

changes significantly when other molecules attach on atoms. Helps in developing **sensors** that can detect chemical vapours.

axt-wiyk-dgw

Participants: RSML Chemistry, Dr Kundan Tayade, Ishita Hare, Prajakta Jadhav, Rahul Ghatke, Rushikesh Dha..., Vaishnavi Kulk..., 54 others, You

Windows taskbar: Type here to search, 4:47 PM, 15/10/2022

Nanotechnology awareness Prog X Meet - axt-wiyk-dgw

meet.google.com/axt-wiyk-dgw

Dr Kundan Tayade is presenting

Timeline

1st: Passive nanostructures (1st generation products)
 a. Dispersed and contact nanostructures. Ex: aerosols, colloids
 b. Products incorporating nanostructures. Ex: coatings, nanoparticle reinforced composites, nanostructured metals, polymers, ceramics

2nd: Active nanostructures
 a. Bio-active, health effects. Ex: targeted drugs, bio devices
 b. Physico-chemical active. Ex: 3D transistors, amplifiers, actuators, adaptive structures

3rd: Systems of nanosystems
 Ex: guided assembling, 3D networking and new hierarchical architectures, robotics, evolutionary

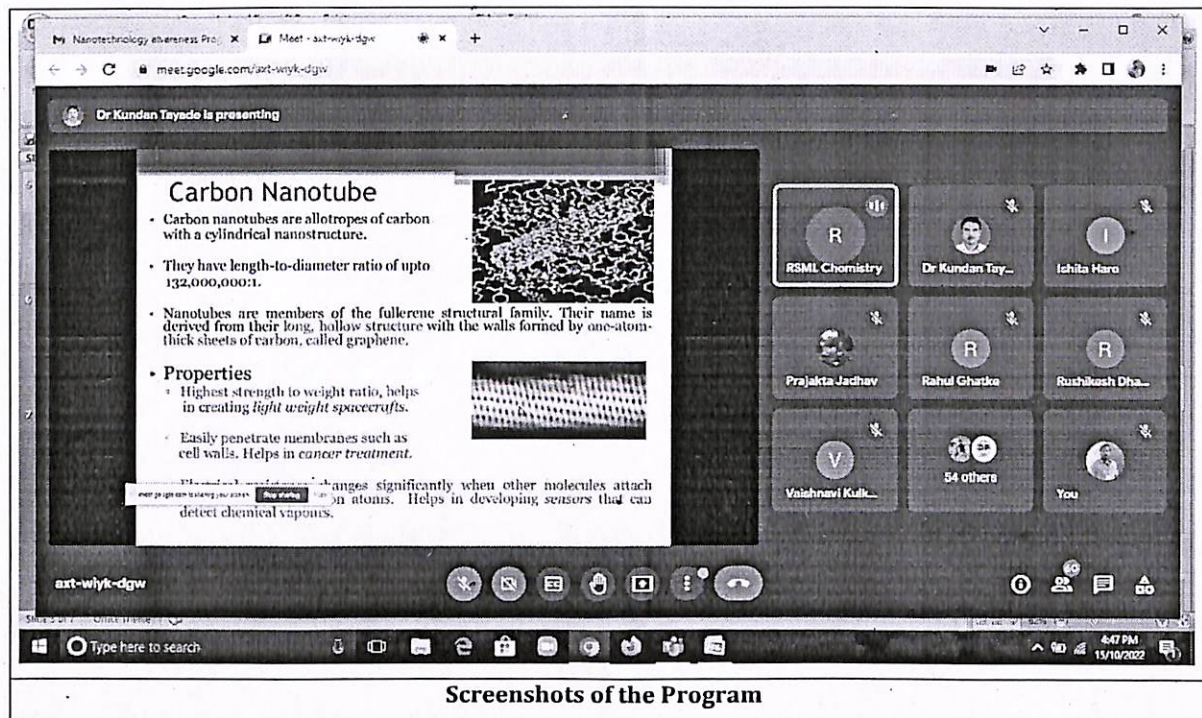
4th: Molecular nanosystems
 Ex: molecular devices by design, molecular machines, molecular logic functions

Timeline markers: ~1980, ~2000, ~2005, ~2010, 2020

axt-wiyk-dgw

Participants: RSML Chemistry, Dr Kundan Tayade, Ishita Hare, Prajakta Jadhav, Rahul Ghatke, Rushikesh Dhaygude, Vaishnavi Kulkarni, 50 others, You

Windows taskbar: Type here to search, 4:42 PM, 15/10/2022



Screenshots of the Program

E) Copies of Brochure Prepared for the Programme:



Shiv Chhatrapati Shikshan Sanstha's
Rajarshi Shahu Mahavidyalaya (Autonomous), Latur
Department of Chemistry & Analytical Chemistry

Organized One Day Webinar
on

"Nanotechnology Awareness Program-2022"

in celebration of "Nanotechnology Day" (9th October)

Dr. Mahadev Gavhane
Chairperson & Principal

Prof. Sadashiv Shinde
Vice-Principal

Dr. Dhananjay Palke
HoD, Department of Chemistry &
Ana. Chemistry

Recourse Person
Dr. Kundan Tayade
Assistant Professor,
Analytical Chemistry,

*Organizing Committee *

- Dr. Kalimoddin Momin
- Mr. Akshay Bhandare
- Mr. Maheshkumar Jadhav
- Miss Heena Sayyed

- Mr. Maroti Sudewad (Coordinator)
- Mr. Vasant Dhumal
- Mrs. Vidya Aiwle
- Miss. Pratiksha Jagtap



14/10/2022 at 4.00 PM

Google Meet joining link: meet.google.com/axt-wiyk-dgw

Convener

HoD
HEAD:
Department of Chemistry,
Rajarshi Shahu Mahavidyalaya,
Latur-413517



Principal
PRINCIPAL
Rajarshi Shahu Mahavidyalaya, Latur
(Autonomous)