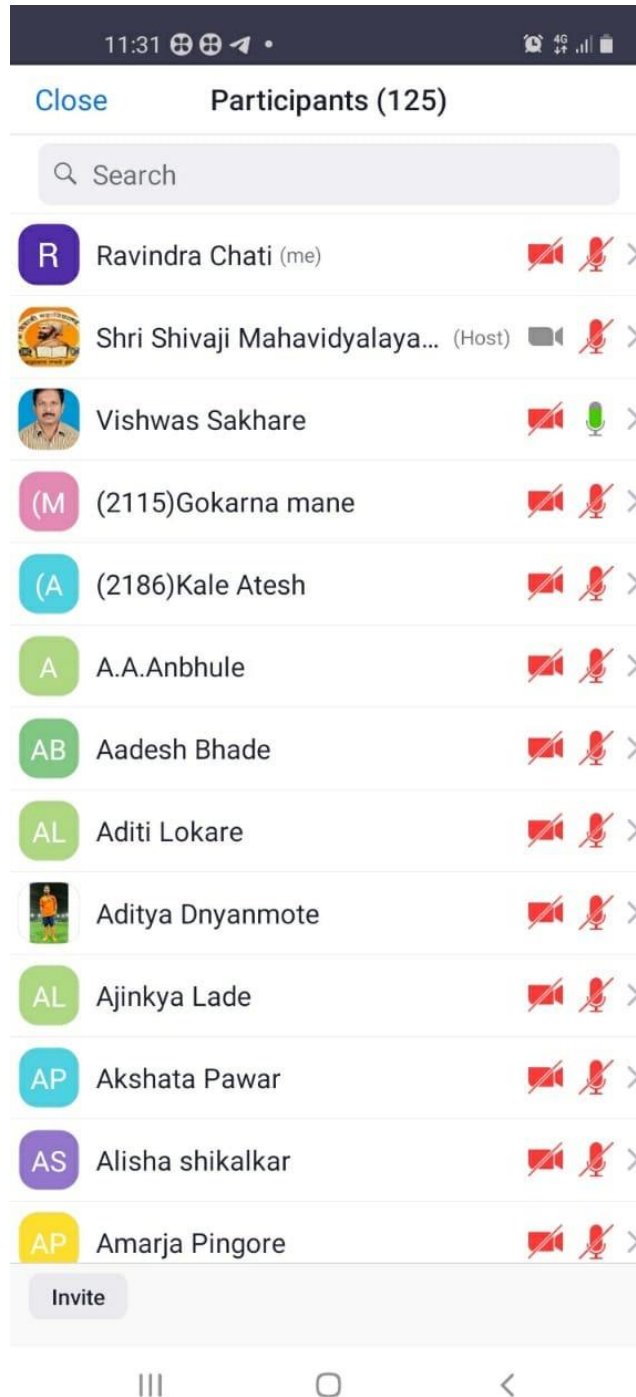
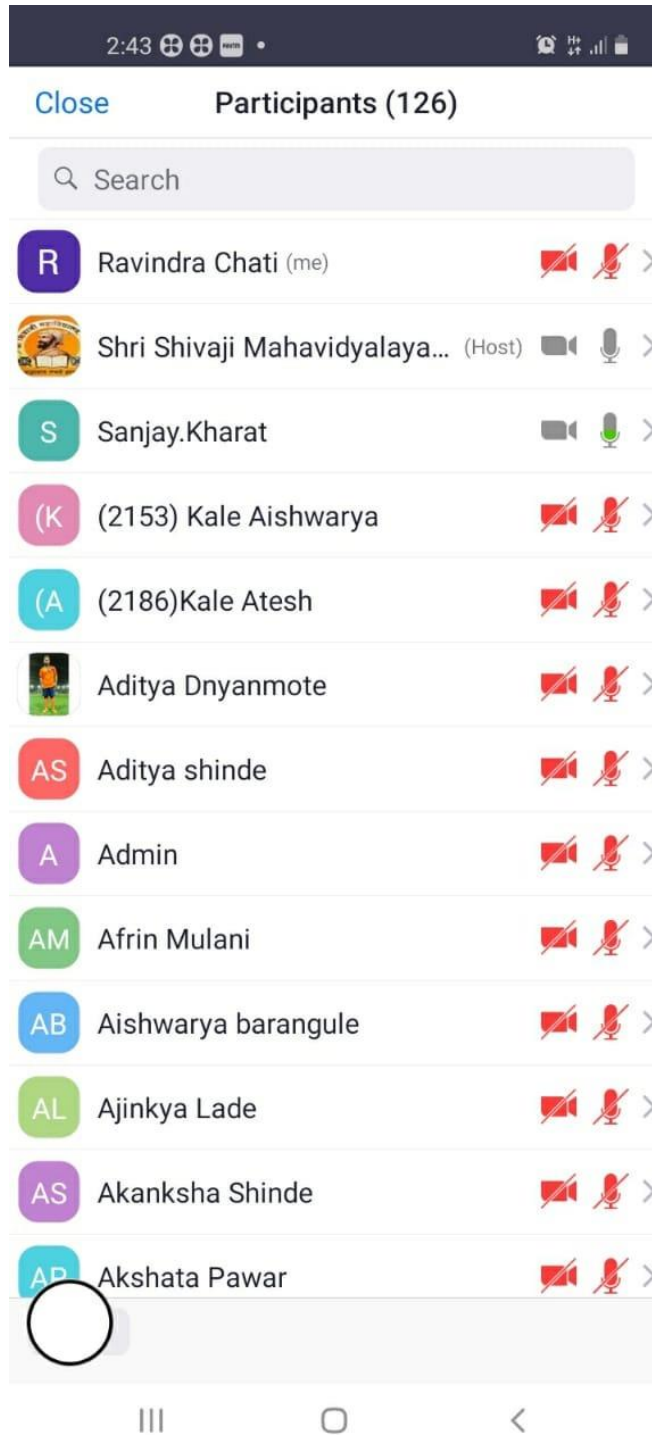


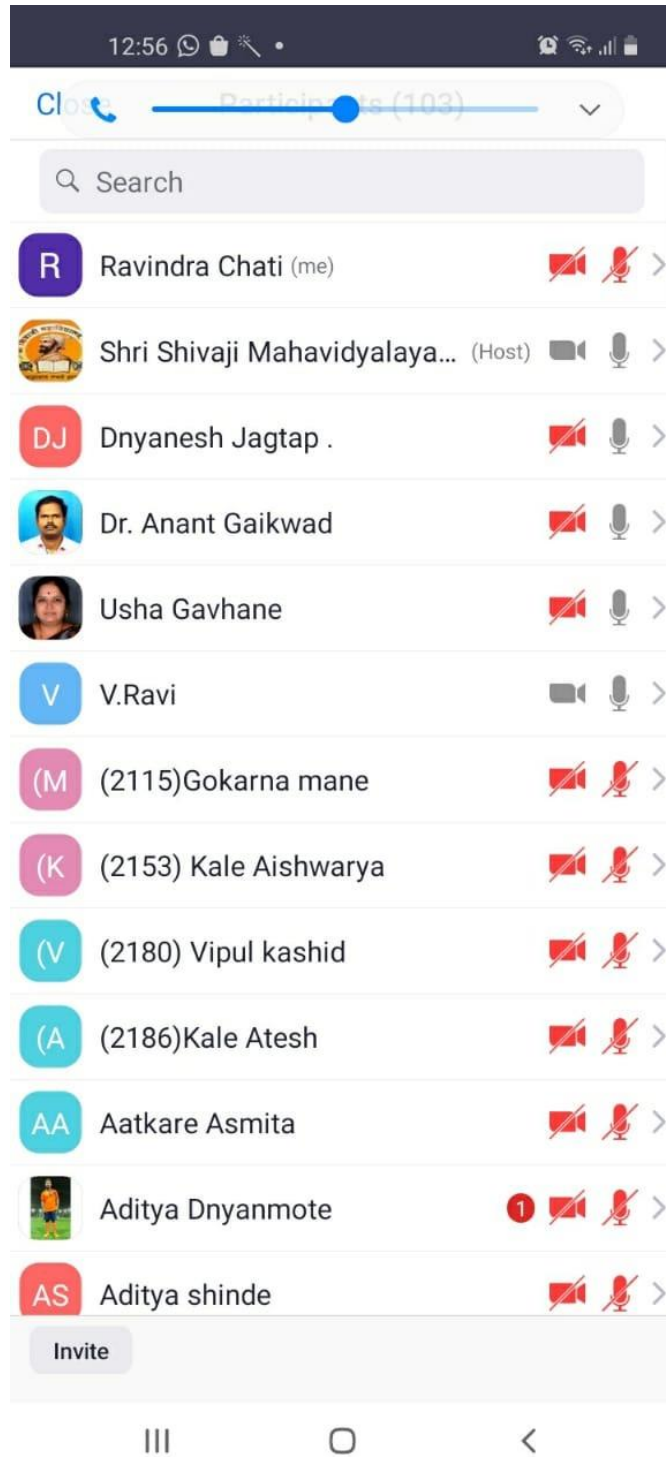
Attendance of Guest lecture delivered by Dr. M. P Bhilave on the topic “Prawn culture agro based industry”



Attendance of Guest lecture delivered by Dr. V. B. Sakhare on the topic “Scope of Inland fishery”

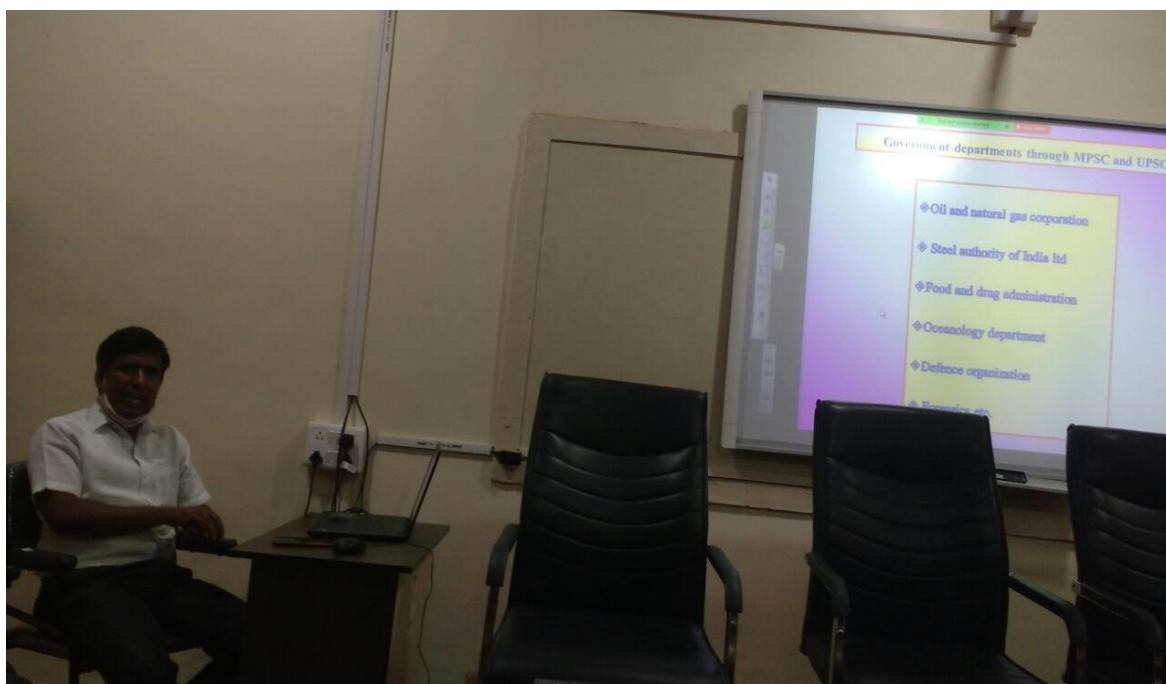


Attendance of Guest lecture delivered by Dr. S. H Kharat on the topic “Fisheries: Challenges and opportunities”

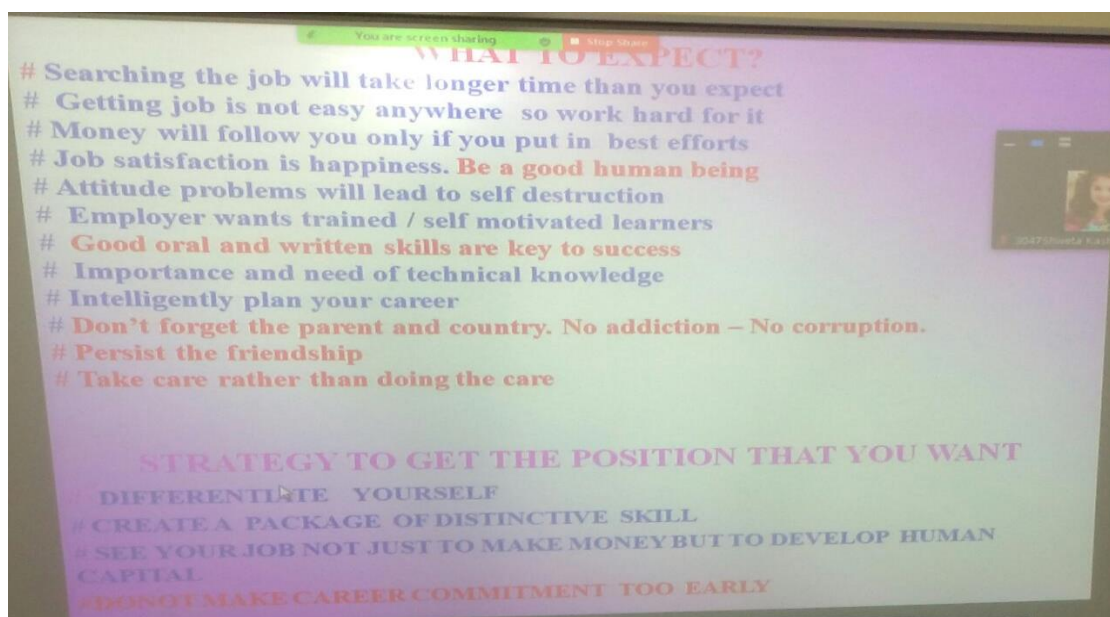


Attendance of Guest lecture delivered by Dr. V. Ravi on the topic “Marine Biodiversity”

SHRI SHIVAJI MAHAVIDYALAYA, BARSHI
DEPARTMENT OF CHEMISTRY
Online Guest Lecture Series
Under DBT Star College Scheme



Dr. V. M. Gurame (Resource Person): Online guest lecture on Carrier in Chemistry (24/2/2021)

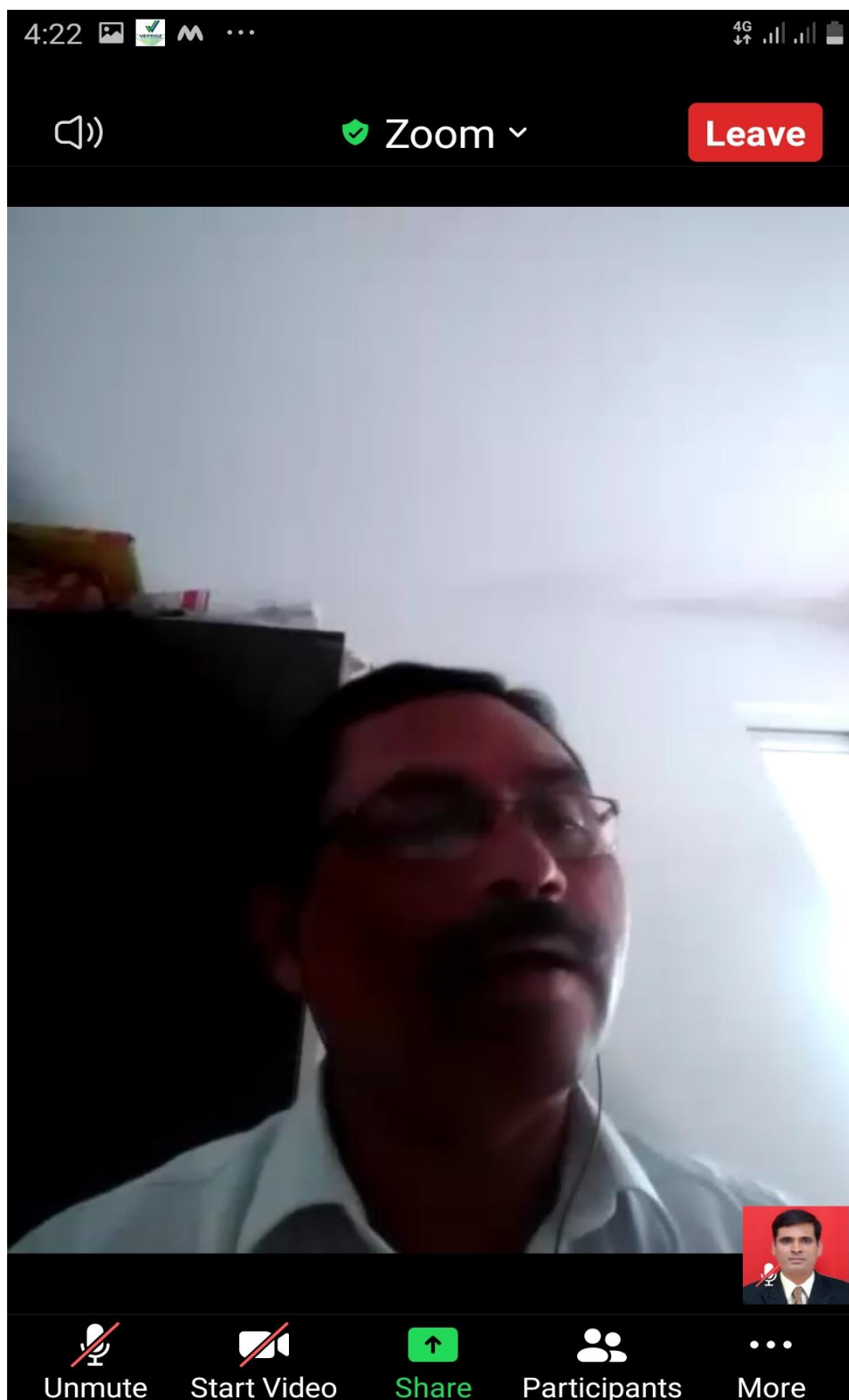


**Dr. V. M. Gurame, Shri Shivaji Mahavidyalaya, Barshi (Resource Person):
Online guest lecture on Carrier in Chemistry (24/2/2021)**



Prof. S. H. Gaikwad, Department of Chemistry SSMB:

Introductory speech for online guest lecture of Mr. Arjum Balgude (18/3/2021)



**Mr. Arjum Balgude, DGM, QC, Drogen Pharma, Goa (Resource Person):
Online guest lecture on Quality Control in Pharmaceuticals (18/3/2021)**



**Prof. T. N. Lokhande, Head, Depat. of Chemistry SSMB:
Expressing vote of thanks for Online guest lecture (18/3/2021)**



**Dr. G. S. Rashinkar, Professor, Shivaji University, Kolhapur, (Resource Person):
Online guest lecture on Employability Skills for Career in Chemistry (25/3/2021)**

10:17 4G

Zoom Leave

Why should you study Advanced Chemistry?

1990-Onwards

Optical and Electron Microscopes → Imaging Techniques

Revaluation in Science: Seeing is Believing

Genetic Medicines: DNA/mRNA/Viral Capsid technology for COVID-19 infection treatments

Example...

IJMR Indian Journal of Medical Research

Indian J Med Res. 2020 Feb-Mar; 151(2-3): 241-243.
doi: 10.4103/ijmr.IJMR_577_20

Transmission electron microscopy imaging of SARS-CoV-2

Sharda Prasad,¹ Varsha Poddar,⁴ Sarah Cherian,² Priva Abraham,¹ Alanu Basu,^{3,*} and ICMR CO

Author information Copyright and License information Disclaimer

Samples Collected From 1st Patient in India

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COVISHIELD
COVAXIN

Unmute Start Video Share Participants More

























Prof. Manickam Jaykannan, Dept of Chemistry, IISER, Pune (Resource Person):

Online guest lecture on The Role of Chemistry in Cancer Treatment (29/3/2021)

10:22 4G

Close **Participants (268)**

Search

| | | |
|---|----------------------------------|---|
|  | Dr. D. K. Jamale (me) |   > |
|  | Shri Shivaji Mahavidya... (Host) |   > |
| MM | Meenakshi Manickam Jaya... |   > |
| (A) | (2154)kajale Aishwarya |   > |
| (S) | (3040) Samarth kale |   > |
| (S) | (3073) Sonali Phule |   > |
| 1K | 116 Kshirsagar vikram |   > |
| 3K | 3043 karkar komal |   > |
| 3D | 3060 Dhiraj Mulik |   > |
| AG | Aditya Gund |   > |
| AK | Aditva katkar |   > |

Invite

**Participants for online guest lecture of Prof. Manickam Jaykannan, IISER, Pune
on The Role of Chemistry in Cancer Treatment (29/3/2021)**

11:54 4G

Zoom Leave

Innovations Around Us



- Hair Oil
- Vegetables
- Cars

31 Mar 2021 Shivaji College Barshi

Unmute Start Video Share Participants More 5

Dr. Sharad Pasale, S. M. Joshi College, Hadapsar, Pune (Resource Person):

Online guest lecture on Innovations and Entrepreneurships (31/3/2021)

12:59 4G

Shri Shivaji Shikshan Prasarak Mandal, Barshi's
SHRI SHIVAJI MAHAVIDYALAYA, BARSHI
 DBT, MST, INDIA, APPROVED STAR COLLEGE STATUS
DEPARTMENT OF CHEMISTRY
ONLINE GUEST LECTURE-VI
 Under DBT Star College Scheme

Topic: Research & Career Opportunities in India & Abroad
 Date: 05-04-2021 Time: 01.30 PM

Guest: Dr. Pradip Pachfule, Postdoctorate Research Fellow, Technische Universität Berlin, Germany.
 President : Prof. Dr. P. R. Thorat Principal, S. S. M., Barshi

Invitation link: <https://us02web.zoom.us/j/88594778362?pwd=Y8zWExmb2pmb1lyNTVlZlZlZU3R0F1UT09>

ORGANIZING COMMITTEE
 Mrs. R. S. Jangale Dr. V. M. Gurame Dr. D. K. Jamale Mr. S. H. Patil
 Prof. Dr. S. H. Gaikwad Prof. Dr. A. B. Shaikh Prof. Dr. T. N. Lokhande


































Shri Shivaji Mahavidyalaya Barshi's screen

Dr. Pradip Pachfule, Postdoctorate Research Fellow, Technische Universität Berlin, Germany (Resource Person): Online guest lecture on Research & Career Opportunities in India & Abroad (5/4/2021)

1:07 4G

Close **Participants (282)**

Search

| | | |
|---|----------------------------------|---|
|  | Dr. D. K. Jamale (me) |   > |
|  | Shri Shivaji Mahavidya... (Host) |   > |
|  | Pradip Pachfule |   > |
|  | SHASHIKANT GAIKWAD |   > |
|  | (3026) Rajashree Ghodake |   > |
|  | (3044) karkar Shital |   > |
|  | 3031-Aditya Gund |   > |
|  | 3046 Mayuri Kashid |   > |
|  | 3060 Dhiraj Mulik |   > |
|  | 3093 Krishna Waghmare |   > |
|  | Abhishek Chobe 3017 |   > |

Invite

Participants for online guest lecture of Dr. Pradip Pachfule, Postdoctorate Research Fellow, Technische Universität Berlin, Germany (5/4/2021)

Nuclear Energy for Sustainable Development
&
Environment

Dr. Gulshan Relhan
Ex-Scientist, BARC & Programme
Officer, BRNS and EX-Scientific Advisor,
Embassy of India, VIENNA, AUSTRIA

Kiran Relhan's screen

**Dr. Gulshan Relhan, Ex Scientist, BARK, Mumbai (Resource Person):
Online guest lecture on Nuclear and Radiation Chemistry (22/4/2021)**

GENERAL CONCEPTS OF RADIATION AND RADIOACTIVITY (The Beginning of Nuclear Sciences)

Man has always been living in the presence of radiation----Cosmic radiation or background radiation or spontaneous radiation

Radioactive Polonium (Po) is found in our bones, Our muscles contain radioactive isotopes like tritium are present in our bodies.

We are continuously being irradiated by radiation from space.

Until the invention of X-ray, the existence of natural radioactivity was not known.

In 1896, natural radioactivity was discovered

It is only in 1934 the first artificial radioactive materials were produced.

Since then, radioisotopes have utilized for the benefit of society, in science, research, agriculture, industries, medicines and health care etc.

Participants (109)

Find a participant

- SSM BARSHI (Host, me)
- Kiran Relhan (Co-host)
- SHASHIKANT GAIKWAD (Co-host)
- Dr Abdulraheman Shaikh
- (2336)Parmeshwar Gatkul

Invite Mute All

SSM BARSHI

Kiran Relhan

3031-Aditya Gund

**Dr. Gulshan Relhan, Ex Scientist, BARK, Mumbai (Resource Person):
Online guest lecture on Nuclear and Radiation Chemistry (22/4/2021)**

Zoom Meeting

Kiran Relhan SSM BARSHI Anjali dhale 3029 Swapnil... Onkar Shinde Waghmode Dip...

Participants (35)

Find a participant

SSM BARSHI (Host, me)

Kiran Relhan (Co-host)

SHASHIKANT GAIKWAD (Co-host)

102 Pravin Biradar

105 Dhanke Samarth

109 Gurav Mansi

113Vishal Kale

115 katmore swapnali

119 Mali Amol

3015 Chaudhari akshara

3018 Abhichak Chaudhari

Invite Mute All

52 Fundamentals of Radiochemistry

Table 4.1 - Half-lives and decay constant of some radioisotopes

| Nuclide | Half-life | Decay constant s^{-1} | Specific activity dps/mg |
|------------|-----------------------|-------------------------|--------------------------|
| ^{32}P | 14.262 d | 5.61×10^{-7} | 1.06×10^{16} |
| ^{99m}Tc | 65.94 h | 2.92×10^{-6} | 1.77×10^{16} |
| ^{131}I | 8.0207 d | 9.97×10^{-7} | 4.58×10^7 |
| ^{235}U | 7.038×10^8 y | 3.12×10^{-17} | 7.90×10^{-2} |
| ^{239}Pu | 1.5 s | 0.462 | 1.45×10^{15} |

two, three and four half-lives would be 1000, 500 and 250 dps, respectively. Half-life of the radioisotope is determined from the activity profile (Fig. 4.1)

Taking logarithms of eqn. 4.12,

$$\log A = \log A_0 - \lambda t \quad (4.14)$$

A straight line is obtained when $\log A$ is plotted as a function of time on a semilog paper as shown in Fig. 4.2. The slope of this line gives the decay constant from which half-life of the radioactive nuclide is obtained. Half-life can also be determined from Fig. 4.2, by locating the time coordinate corresponding to 2000 dps (as the original activity is 4000 dps). Time corresponding to the activity of 1000 dps is equal to two half-lives as shown in Fig. 4.2.

Half-lives of different radioisotopes can vary from as low as microseconds to billions of years. Half-lives and decay constants of a few radioisotopes are given in Table 4.1. Column 4 in this table gives specific activity of these isotopes. Specific activity is defined as the activity per unit mass.

Statistical Aspects of Radioactive Decay

In 1905, E. Von Schweidler formulated exponential law for radioactive decay in terms of disintegration probabilities. Two assumptions were made. (i) The probability of decay λ is same for all the atoms of the species and (ii) λ is independent of the age of a particular atom. Therefore, the probability p of a radioactive atom disintegrating in a very small time interval Δt is independent of the past history and the present circumstances of the atom, but depends only on Δt .

$$p \propto \Delta t$$

$$p = \lambda \Delta t \quad (4.15)$$

Dr. Gulshan Relhan, BARK, Mumbai (Resource Person): Online guest lecture on Nuclear Fission, Fusion and Nuclear Power Reactors in India (23/4/2021)

Shri Shivaji Mahavidyalaya, Barshi.

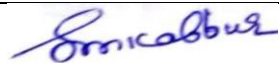
Department of Physics

List of students

Certificate Course in Electrocardiogram Basics

Under DBT Star College Scheme

| SR.No. | NAME OF STUDENTS |
|--------|------------------------------|
| 1 | GHAWATE DAYANAND CHANDRAKANT |
| 2 | KSHIRSAGAR SNEHAL SURYAKANT |
| 3 | ZOMBADE AMBARISH AJINATH |
| 4 | DAHIBHATE AMRUTA HANUMANT |
| 5 | JADHAV RAMESHWAR SANTOSH |
| 6 | SALGUDE VISHAL PRAKASH |
| 7 | LONDHE PARSHURAM VIJAY |
| 8 | SHIRAL SAYALI KAMALAKAR |
| 9 | KAZI SARVAT ATIK |
| 10 | PATIL PAYAL KRISHNA |
| 11 | GANACHARYA ABHILASHA DIPAK |
| 12 | GARAD PRANITA ADESH |
| 13 | BOKADE SHRAWANI VITTHAL |
| 14 | THORAT VIJAY DAGADU |
| 15 | THORAT SHRINIWAS SUKHADEV |
| 16 | HAJARE ABHISHEK LAHU |
| 17 | AWATE SAKSHI NANDKUMAR |
| 18 | MHETRE AISHWARYA GURUSHANT |
| 19 | JADHAV RUTUJA VISHNU |
| 20 | PADULE HARSHADA SOUDAGAR |
| 21 | HUKE KOMAL NARAYAN |
| 22 | JADHAV ABHAY VIKAS |
| 23 | WAGHMARE VIDYA VISHNU |
| 24 | YADAV MONIKA MAHESH |
| 25 | PAYGHAN UTKARSHA UMAKANT |
| 26 | UMAP BABASAHEB SHAHAJI |
| 27 | DHOKALE DIPALI SAMBHAJI |
| 28 | ANDHARE PRIYA SUDAM |
| 29 | JAMDAR AJAY ADESH |
| 30 | PATIL VAISHNAVI ANANTRAO |
| 31 | MASKE KRANTI NARHARI |



Head of physics dept

Department of Botany (DBT Star College Lecture Series)

Day:1 Dilip Jagdale (236)

A screenshot of a Zoom meeting grid for Day 1. The grid shows 236 participants in a 6x6 layout. The participants' names and initials are visible, including Prakash Patil, Shri Shivaji Ma..., Chavan Sonali P..., Nita supekar(21..., Shelke Prerna, Rutuja jagad..., Abhinav Gavhane, Anil shegar, Asmita Tate, Ashok Barate, Priyanka Sabar, Somanath Pa..., Prashant Bhale..., onkar jadhav, Pawar Akash, kadam pratiksha, Raut vaishnavi(..., Dilip Jagdale, Ramjan Mulani, Mahek Tamboli, S G Jadhav, Bar..., Dr. Subhash U S..., Asharani and Pr..., Prapti sirs..., Nikita Muthal, Rutuja kadam, Vaishnavi Raut, More Dipti, Sonali Ramgude..., Rutuja Kan..., Shenmare Sujat..., Ankita Thite, Surabhi tambile, Gore priyanka, Waghmare dny..., Kalpana Barble..., Laxmi Kolekar, Chaitanya kamble, Omkar Gondil, Pratik Agalave, Bhagyashri Wag..., and Ashwini Pat...

Day 2: Dr. Ramajan Mulani (310)

9:54 AM

Close Participants (310)

Search

- Shri Shivaji Mahavidy... (Host, me)
- Ramjan Mulani
- (M) (2115)Gokarna mane
- (V) (2180) Vipul kashid
- AB Aadesh Bhade
- Aakash Mali
- AA Aatkare Asmita
- AL Aditi Lokare
- AM Afrin Mulani
- AL Ajinkya Lade
- AJ Akanksha Jadhav

Invite Mute All

Day 3: Dr. Shrikant Bhosale (198)

10:45 AM

[Close](#) Participants (198)

Search

- Shri Shivaji Mah... (Host, me)
- Dr. Shrikant bhosale
- Aadesh Bhade
- Abhijeet kharade
- Abhinav Gavhane
- Aditya shinde
- Admin
- Afrin Mulani
- Ajay Aher
- Ajinkya Lade
- ajit jadhav

[Invite](#) [Mute All](#) [...](#)

Day 4: Dr. Rajendra Suryavanshi (243)

10:12 AM

[Close](#) Participants (243)

Search

- Shri Shivaji Mahavid... (Host, me)
- Dr. Suryavanshi R. S.
- (2094)SAURABH KHANDARE
- (2180) Vipul kashid
- Aditi Lokare
- Ajay Aher
- Ajinkya Lade
- Ajitkumar Tale
- Akanksha pokale
- Akshata Raut
- Altaf Shaikh

[Invite](#) [Mute All](#) [...](#)

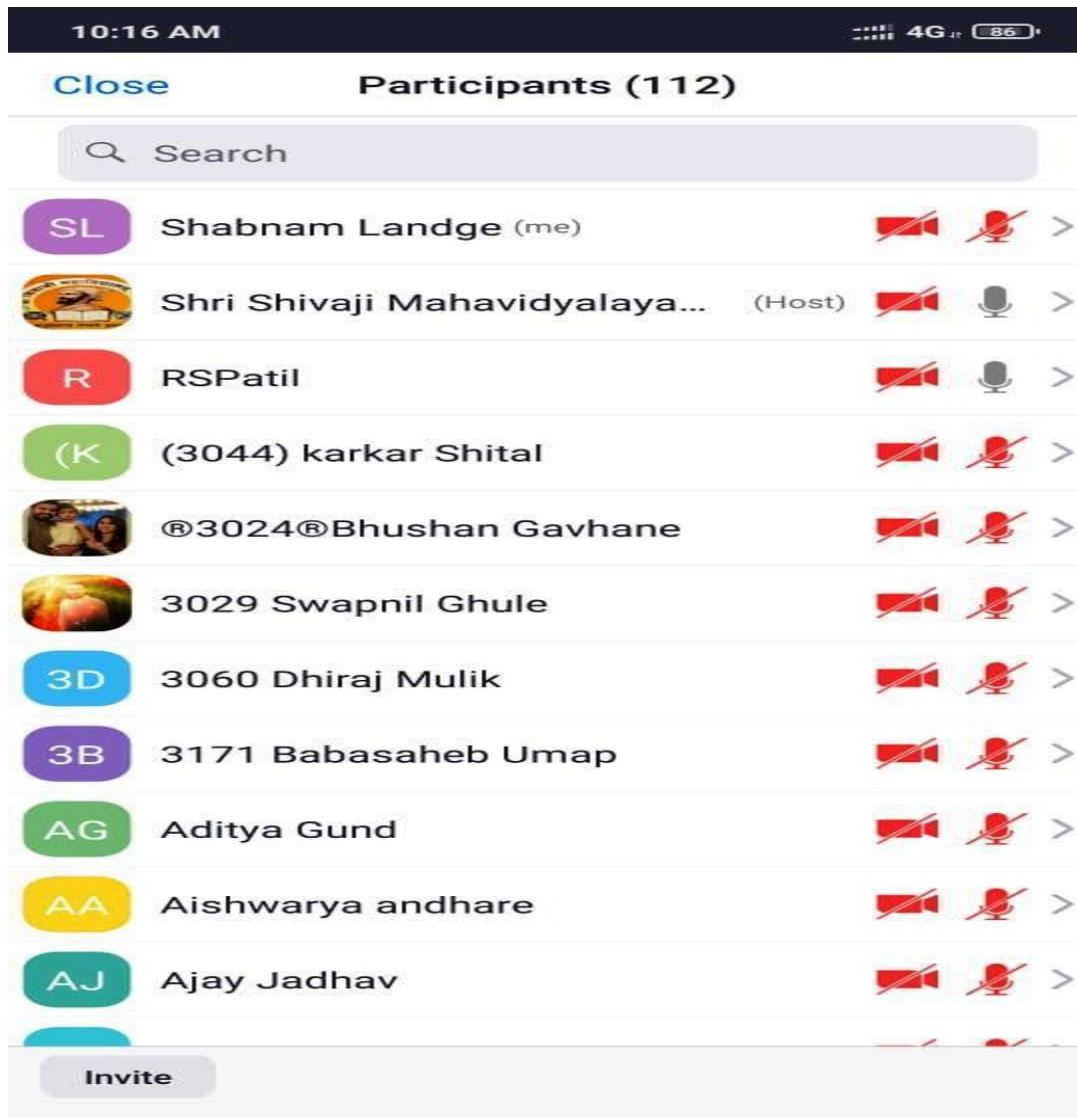
Day 5: Dr. Vinay Dikshit (144)

Participant 144

The screenshot shows a Zoom meeting in progress. On the left, a participant list is visible with names like Vinay Dikshit, (2094)SAURABH KHANDARE, (2115)Golama mane, (2150) Kale Ashwarya, (2154)Rajale Ashwarya, (2180) Vipul Kashid, Aadesh Bhade, Aatfare Asmita, Abubakkar Shaikh, Abhinav Gokhane, and Aditi Lokare. The main screen displays a presentation titled "Remote Sensing" with a diagram of a satellite emitting waves towards Earth. Below the diagram, it says "ACTIVE" and lists "•SAR: Synthetic Aperture Radars" and "•Lidar: Light Detection and Ranging". To the right, there are diagrams of "Remote Sensing Systems Used to Collect Aerial Photography" including "Analog Frame Camera with Film Sensor" and "Digital Frame Camera Area Array". A video thumbnail of Dr. Vinay Dikshit is visible on the right side of the screen. The bottom right corner shows the date and time: "2021/3/31 09:55".

Dr. Pramila Battase (220)

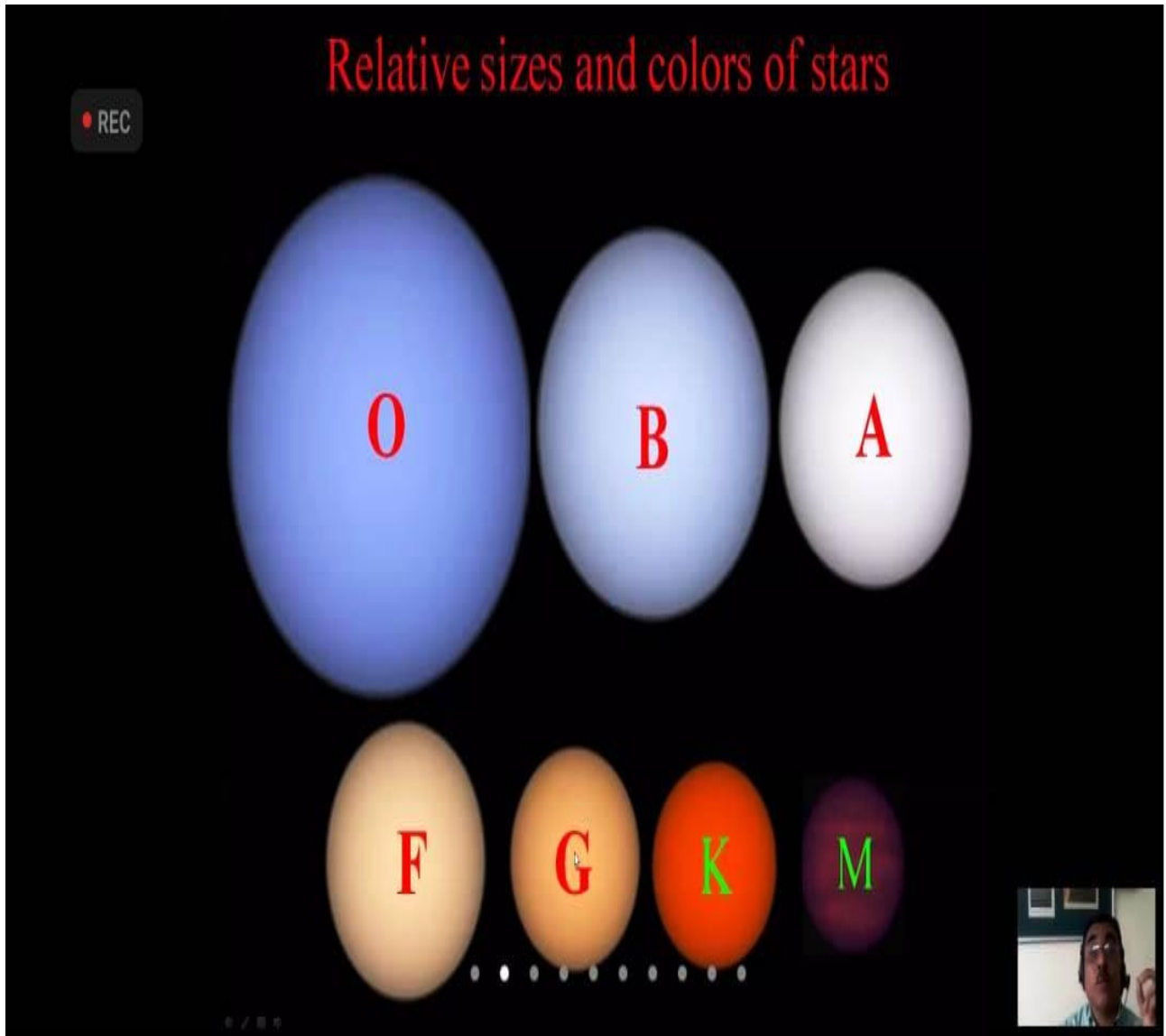
The screenshot shows a Zoom meeting interface displaying a list of 220 participants. At the top, it says "Close Participants (220)". Below this is a search bar. The list includes the following participants: Shri Shivaji Mahavid... (Host, me), Pramila Battase, (2180) Vipul Kashid, Aadesh Bhade, Abubakkar Shaikh, Abhishek khote, Aditi Lokare, Aditya Dnyanmote (2095), Admin, Afrin Mulani, and Ajay Lomate. At the bottom of the list, there are buttons for "Invite", "Mute All", and a three-dot menu icon. The top status bar shows the time as 11:18 AM and a battery level of 69%.



Dr. R. S . Patil delivering lecture on “ Scientific attitude and value education – I



Dr. R. S. Patil delivering lecture on “ Scientific attitude and value education – II



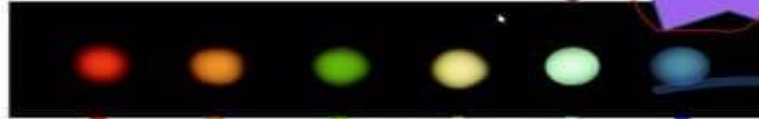
Dr. M. K. Patil giving the lecture on "World of stars"



Dr. M. K. Patil delivering lecture on "World of Stars"

Optical Properties Are Directly Dependent on Size

EXAMPLE: Gold and silver nanoparticles
Cut to 1000nm the color would be golden color.
Cut to 700nm the color would be red.
Cut to 600nm the color would be orange.
The color changes because each color has a specific wavelength.



Ag Nanoprisms -100 nm Au Sphere -100 nm Au Sphere -50 nm Ag Sphere -120 nm Ag Spheres -80 nm Ag Spheres -40 nm

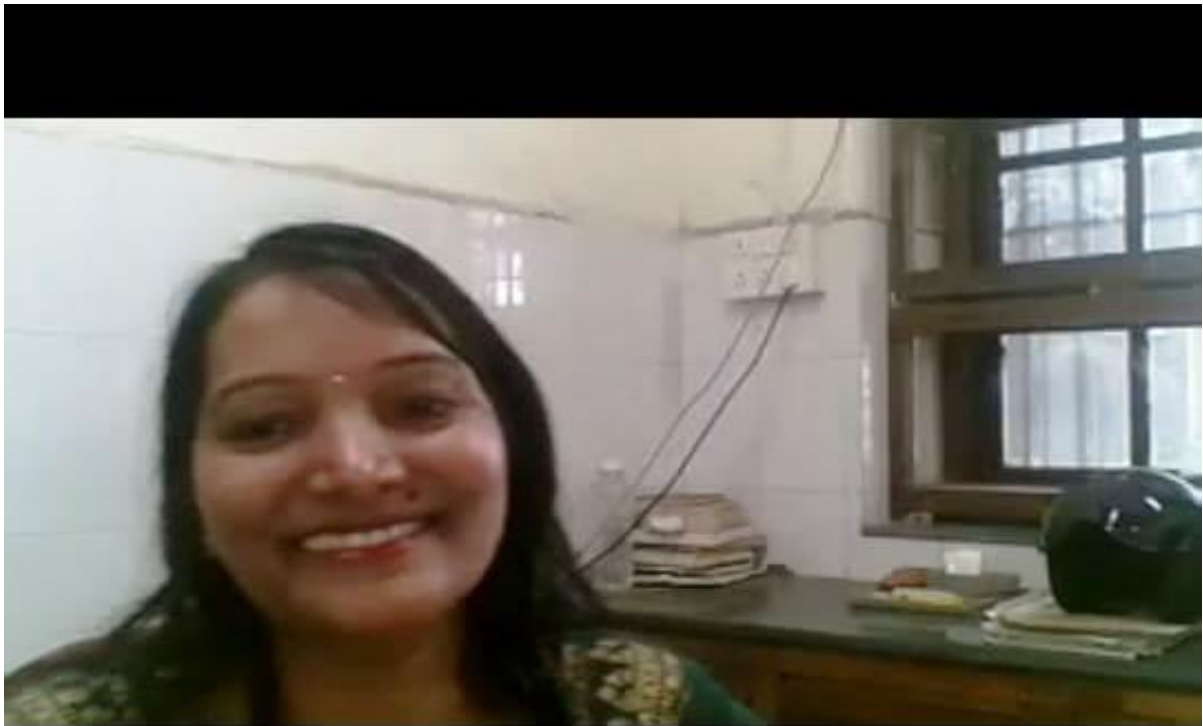
http://www.nanohub.org/resource_files/2006/02/01023/2006.02.13-ratner-nano201.pdf



Anamika Kadam's screen



Dr. Anamika Kadam delivering lecture on “Nanoperspective in Science and technology”

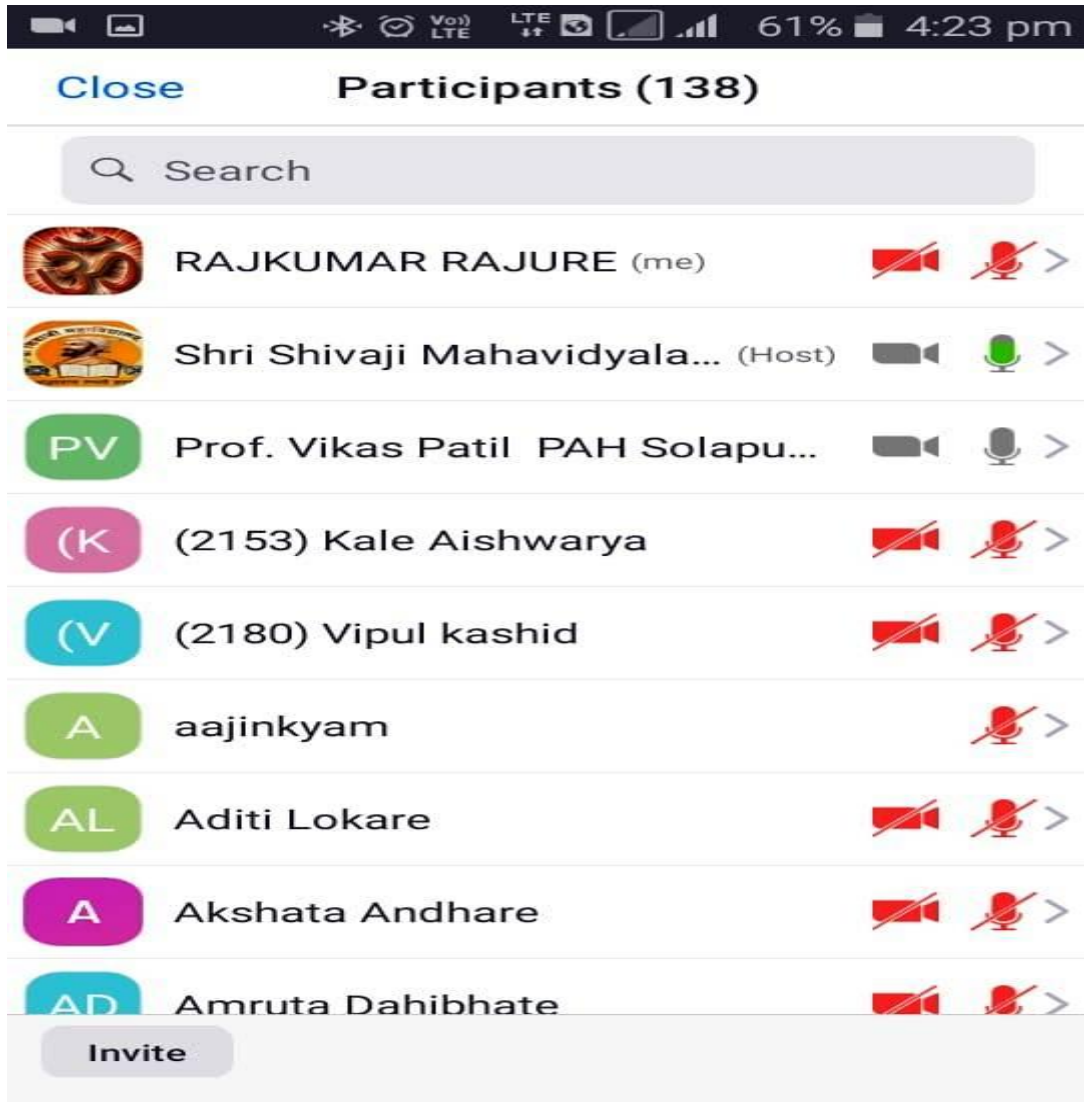


From Vaibhav andhare to Everyone
nice lecture mam

 Anamika Kadam



Dr. Anamika Kadam delivering lecture on “Nanoperspective in Science and technology”



Dr. V. B. Patil delivering lecture on “Research opportunities in physics”