



GURU NANAK COLLEGE (AUTONOMOUS)

Affiliated to University of Madras and Re-Accredited at "A" Grade by NAAC

Guru Nanak Salai, Velachery, Chennai – 600042.

School of Sciences

PG & Research Department of Advanced Zoology and Biotechnology

Event Title	National Webinar on “Science Makes you Curious”	
Category	UG/PG Students, School Students, Research Scholars and Faculty	
Date	From : 11.07.2020	To : 11.07.2020
No. of Resource Person	1	
No. of Participants	307	

(1) Report Description

The PG and Research Department of Advanced Zoology and Biotechnology of Guru Nanak College (Autonomous), Guru Nanak Salai, Velachery, Chennai – 42 organized a one-day National Webinar on “Science Makes You Curious” on 11.07.2020.

(2) Report

The Head of P.G and Research Department of Advanced Zoology and Biotechnology Dr J .Jayanthi organized a National Webinar on “Science Makes you Curious” on 11.7.2020 at 11.00 am through Google meet . Dr. Veena Gayathri, Assistant Professor, Department of Biotechnology, Stella Maris College (Autonomous) Chennai, was the Resource Person. Dr L.R.S Kalanathi , Vice Principal delivered the welcome address followed by the introduction of Chief Guest by Mr .Senthil Vairavan . Around 307 participants across the country participated in the webinar.

Science makes you Curious - Science is simply the word we use to describe a method of organizing our curiosity, the perceptual curiosity and the degree of curiosity. In today's world Science is the incorporation of physical, chemical, biological sciences which is linked with technology. Science and technology together provides the solution to difficult problems, which have the potential to become major bottlenecks to the overall growth of the country.

Frugal Innovation:

Process of reducing the complexity and cost of a good and its production was explained. Under Frugal Innovation, Dry Bath, Foldscope and Spectacles were explained.

Foldscope microscope:

This field microscope is affordable, durable and easily carried. Further the demonstration was explained in various steps. This informative session was ended by vote of thanks by Dr. J. Sivakumar, Assistant Professor, Department of advanced Zoology and Biotechnology.

(3) Invitation



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Post Graduate and Research Department of
Advanced Zoology and Biotechnology

National Webinar
on
"SCIENCE MAKES YOU CURIOUS"



Supported by DBT Star College Scheme
Govt. of India



Resource Person
Dr. K. VEENA GAYATHRI
Assistant Professor
Department of Biotechnology
Stella Maris College (Autonomous), Chennai

Saturday **11 July** *11 am*
2020

Mode
Google meet

Click on the  link to register
<https://forms.gle/XswcUnzQnZ9wKPKZA>

 Link will be shared with registered participants through email



Dr. M.G. Ragunathan
Principal



Sardar Manjit Singh Nayar
General Secretary & Correspondent

(4) Photos

The screenshot shows a Google Meet window with a presentation slide. The slide has a yellow header with the text "SCIENCE MAKES YOU CURIOUS". Below the header, it identifies the presenter as "Dr. K. Veena Gayathri, Assistant Professor, Department of Biotechnology, Stella Maris College (Autonomous), Chennai-600083". A quote from Tim Minchin is displayed: "Science is simply the word we use to describe a method of organising our curiosity- Tim Minchin". The slide also features an illustration of a person looking through a telescope. The meeting interface includes a "Meeting details" panel on the right with a list of 232 participants, including Shermila Sankar, AAR vlogs, Aashbeen Saba, Abisha Prince, ADWITYA CHAUDHURI, AK 101Z, AKI Jacco, Akshada Dhanave, Akshara Akshara, and Akshay Kumar. The presenter's name, Veena gayathri Krishnaswamy, is visible at the bottom of the meeting controls.

This screenshot is similar to the one above, showing the same Google Meet session. The presentation slide is identical. However, a chat window is now open over the slide, displaying two messages: "DR. SUJAN KUMAR SOU, Myself Gourav Sou, Green Point Academy, Kult, Paschim Bardhaman, West Bengal" and "Fakir Ismail, F Mahmoodea, IX Standard, MEASI Matric School, Chennai. I am very interested to learn Science ...". The meeting details panel on the right remains the same, listing 232 participants. The presenter's name, Veena gayathri Krishnaswamy, is still visible at the bottom of the meeting controls.


Google Meet Link - National W... Meet - tue-ymsm-roa

https://meet.google.com/tue-ymsm-roa

REC Veena gayathri Krishnaswamy is presenting

Perceptual curiosity- love of knowledge and wanting to learn new things

- Curiosity is a fundamental human trait.
- Everyone is curious, but the object and degree of that curiosity is different depending on the **person** and the **situation**.
- Curiosity has several kinds or flavors, not driven by the same things



Meeting details

People (231) Chat (4)

Sharmila Sankar (You)

AAR vlogs

Aabshreen Saba

Abhis abhis

Abisha Prince

ADWITYA CHAUDHURI

AK 1012

Akil Jacob

Akshada Ehanave

Akshara Akshara

Akshay Kumar

amala jothi

Turn on captions

Veena gayathri Krishnaswamy is presenting

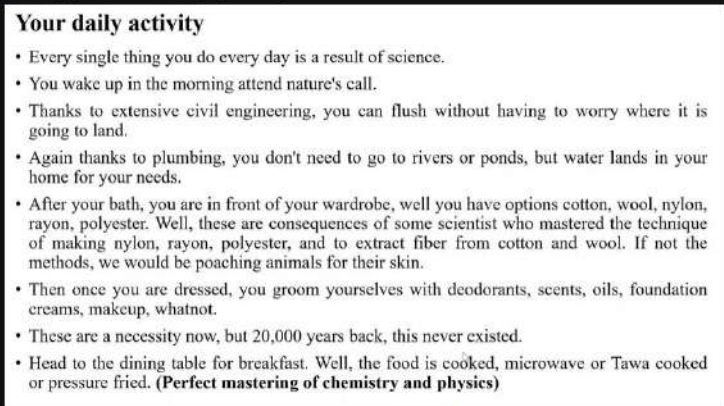
Google Meet Link - National W... Meet - tue-ymsm-roa

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REC Veena gayathri Krishnaswamy is presenting

Your daily activity

- Every single thing you do every day is a result of science.
- You wake up in the morning attend nature's call.
- Thanks to extensive civil engineering, you can flush without having to worry where it is going to land.
- Again thanks to plumbing, you don't need to go to rivers or ponds, but water lands in your home for your needs.
- After your bath, you are in front of your wardrobe, well you have options cotton, wool, nylon, rayon, polyester. Well, these are consequences of some scientist who mastered the technique of making nylon, rayon, polyester, and to extract fiber from cotton and wool. If not the methods, we would be poaching animals for their skin.
- Then once you are dressed, you groom yourselves with deodorants, scents, oils, foundation creams, makeup, whatnot.
- These are a necessity now, but 20,000 years back, this never existed.
- Head to the dining table for breakfast. Well, the food is cooked, microwave or Tawa cooked or pressure fried. **(Perfect mastering of chemistry and physics)**



Meeting details

People (227) Chat

Sharmila Sankar (You)

Abhis abhis

Abisha Prince

ADWITYA CHAUDHURI

AK 1012

Akil Jacob

Akshada Ehanave

Akshara Akshara

Akshay Kumar

amala jothi

Amala Lourburaj

Turn on captions

Veena gayathri Krishnaswamy is presenting

Google Meet Link - National W... Meet - tue-ymsm-roa

https://meet.google.com/tue-ymsm-roa

REC Veena gayathri Krishnaswamy is presenting

1 There are **10 times more bacterial cells** in your body than **body cells**.

Over the course of the day, trillions of greeny-yellow bacteria invade your body from the food you eat, germs left floating in the air, and other surfaces, staying for two to 72 hours in its natural world. In the meantime, you can feel it much as 25 new teeth.

2 Human bone has a support strength that's four times that of concrete. A block of bone the size of a marble can support 8 metric tons.

3 Gravity, which is responsible for most of the weight we feel, is 10 times weaker in space. Astronauts can actually jump up to 2 meters in height.

4 While scientists initially thought the other 97% was "junk" DNA, they found that this noncoding DNA controls gene activity, turning genes on/off and programming other compounds.

Meeting details

Turn on captions Veena gayathri Krishnaswamy is presenting

Meeting details

People (223)

Chat

- Sherrilla Sankar (You)
- Abhis abhis
- Abisha Prince
- ADWITYA CHAUDHURI
- AK 1012
- AKI Jacco
- Akshada Dhanave
- Akshara Akshara
- Akshay kumar
- amala jothi
- Amala Lourthraj

Type here to search

11:21 11-07-2020

Google Meet Link - National W... Meet - tue-ymsm-roa



https://meet.google.com/tue-ymsm-roa

REC Veena gayathri Krishnaswamy is presenting

Spectacle Revolution

Joshua Silver

- Professor **Joshua D. Silver** is a UK physicist whose discoveries have included a new way to change the curvature of lenses, with significant application for the low-cost manufacture of corrective lenses and adjustable spectacles, especially in low-income countries.
- Professor **Silver** is currently the chief executive of the **Centre for Vision in the Developing World**.

Meeting details

Turn on captions Veena gayathri Krishnaswamy is presenting

Meeting details

People (221)

Chat (15)

- Sherrilla Sankar (You)
- A&R vlogs
- Abhis abhis
- Abisha Prince
- ADWITYA CHAUDHURI
- AK 1012
- AKI Jacco
- Akshara Akshara
- Akshay kumar
- amala jothi
- Amala Lourthraj

Type here to search

11:20 11-07-2020

Google Meet Link - National W... Meet - tue-ymsm-roa

https://meet.google.com/tue-ymsm-roa

REC Veena gayathri Krishnaswamy is presenting

Spectacles Revolution

- Joshua Silver is liaising with the World Bank on a revolutionary project to distribute spectacles to 200 million children in developing countries.
- *"All users have to do is look at a reading chart and adjust the glasses until they can see letters clearly," said Professor Joshua Silver,*
- *We can send them to schools where teachers can direct pupils to set their spectacles to suit each one's vision. It is as simple as that."*

Selva Bharathy N has left the meeting

Meeting details

Turn on captions Veena gayathri Krishnaswamy is presenting

Meeting details

People (22)

Chat (16)

Shermila Saniker (You)

AAR vlogs

Abhis abhis

Abisha Prince

ADWITYA CHAUDHURI

AK 101Z

Akii Jacco

Akshara Akshara

Akshay kumar

amala jothi

Amala Lourthuri

AMRITHA VASUNDHARA

Google Meet Link - National W... Meet - tue-ymsm-roa

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REC Veena gayathri Krishnaswamy is presenting

'Waterless Bath'

- Ludwick Marishane hails originally Motetema on the border of Limpopo and Mpumalanga, a town located not too far from the small Kwaggavoetpad Nature Reserve.
- His product, called DryBath, is a clear germicidal and moisturising gel that's applied to skin in the manner of waterless hand cleaners, although it has a sweet aroma rather than the distinctive alcohol smell of the latter.

Meeting details

Turn on captions Veena gayathri Krishnaswamy is presenting

Meeting details

People (22)

Chat (18)

Indhu mathi

Ishrat Bagwan biotechnology

Jabeena Begum

Janani Madhusudan

Janarthanan Chandrababu

Janhavi kadam Biotechnology

Jaswant Kumar

Jaya Rajan

Jayu Vardhini

Jayamanagan Murugan

Jayuprakash Jayanthi

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REC Veena gayathri Krishnaswamy is presenting

One 20ml DryBath sachet can do the work of one bath, and Marishane claims it saves about 80 litres of water on average with every use.

'Doing the work of soap and water'

- DryBath does the work of water and soap and it earned Marishane the 2011 Global Student Entrepreneur of the Year Award, with a US\$10 000 (about R86 000 then) prize to boot.

Meeting details

People (220) Chat (18)

- Indhu mathi
- Ishrat Bagwan biotechnology
- Jabeena Begum
- Janani Madhusudan
- Janarthanan Chandrababu
- Janhavi Kadam Biotechnology
- Jaswant Kumar
- Jaya Rajan
- Jaya Vardhini
- Jayamurugan Murugan
- Jayaprakash Jayanthi

Meeting details

Turn on captions Veena gayathri Krishnaswamy is presenting

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REC Veena gayathri Krishnaswamy is presenting

OPEN ACCESS freely available online

PLOS ONE

Foldscope: Origami-Based Paper Microscope

James S. Cybulski¹, James Clements², Manu Prakash^{1*}

¹Department of Mechanical Engineering, Stanford University, Stanford, California, United States of America, ²Department of Bioengineering, Stanford University, Stanford, California, United States of America

Abstract

Here we describe an ultra-low-cost origami-based approach for large-scale manufacturing of microscopes, specifically demonstrating longfield, darkfield, and fluorescence microscopes. Merging principles of optical design with origami enables high-volume fabrication of microscopes from 2D models. Research mechanisms centered on folding enable a flat compact design. Structural kinks in folded paper provide mechanical constraints as a means for passive self-alignment. The light, rugged instrument can survive harsh field conditions while providing a diversity of imaging capabilities, thus serving wide-ranging applications for cost-effective, portable microscopes in science and education.

Citation: Cybulski JS, Clements J, Prakash M (2016) Foldscope: Origami-Based Paper Microscope. PLOS ONE 11(6): e0157117. doi:10.1371/journal.pone.0157117

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Competing Interests: This work is licensed under a Creative Commons Attribution License (CC BY) license (http://creativecommons.org/licenses/by/4.0/). The authors have nothing to disclose.

* Email: manuprakash@stanford.edu

Meeting details

People (227) Chat

chatbox

- Taqdees Shaikh 11:02 AM
OK mam
- Shaikh Abeda Faruk 11:32 AM
OK mam
- shenmuga priya 11:32 AM
OK mam
- Srinidhi V 11:33 AM
OK mam
- Kamalesh Kamal 11:33 AM
OK mam
- seetha J 11:34 AM
OK mam
- Swati Anand 11:37 AM
OK mam
- Jinitashore Kangabam 11:38 AM
OK mam

Send a message to everyone

Meeting details

Turn on captions Veena gayathri Krishnaswamy is presenting

Esther Angel has left the meeting

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REC Veena gayathri Krishnaswamy is presenting

Timeline of milestones:

- 2010: First Foldscope prototypes
- 2012: Foldscope presentation at TEDGlobal
- 2014: Published in PLoS One
- 2016: Foldscope Instruments Founded
- 2016: Featured in New Yorker
- 2016: 10,000 Microscope Beta Trial
- 2018: Foldscopes Broadly Available
- 2020: 1,000,000 Foldscopes Distributed!

PAPER TO INSTRUMENT - MADE POSSIBLE BY FRUGAL SCIENCE

Meeting details

People (227) Chat

chatbox

Taqdees Shaikh 11:32 AM
OK maam

Shaikh Abeda Faruk 11:32 AM
OK maam

shenmuga priya 11:32 AM
OK maam

Srinidhi V 11:32 AM
OK maam

Kamelesh Kamal 11:33 AM
OK maam

seetha J 11:34 AM
OK maam

Swati Anand 11:37 AM
K maam

Jinithore Kangabam 11:38 AM
OK maam

Send a message to everyone

Meeting details

Turn on captions

Veena gayathri Krishnaswamy is presenting

Google Meet Link - National W... Meet - tue-ymsm-roa

https://meet.google.com/tue-ymsm-roa

REC Veena gayathri Krishnaswamy is presenting

STEPS INVOLVED....

```

graph TD
    ASSEMBLING[ASSEMBLING THE FOLDSCOPE] --> PREP[SAMPLE PREPARATION]
    DRY[DRY SAMPLE] --> PREP
    WET[WET SAMPLE] --> PREP
    PREP --> VIEWING[VIEWING IN FOLDSCOPE]
    VIEWING --> RECORD[RECORD IMAGES AND VIDEOS]
  
```

Meeting details

People (227) Chat

Ilakkiya Vijayakumar

Indhu mathi

Ishrat Begum biotechnology

Jabeena Begum

Janani Madhusudan

Janarthanan Chandrababu

Janhavi kadam Biotechnology

Jaswant Kumar

Jaya Rajan

Jaya Vandhini

Jayamanujan Murugan

Meeting details

Turn on captions

Veena gayathri Krishnaswamy is presenting

(5) Certificate Copy

