



**P.K.R ARTS COLLEGE FOR WOMEN**  
**(Re-Accredited with 'A' Grade by NAAC)**  
**Autonomous Institution-Affiliated to Bharathiar University**  
**Gobichettipalayam-638476**

**Invitation**



**P.K.R. ARTS COLLEGE FOR WOMEN**

(Re-Accredited with 'A' Grade by NAAC)  
Autonomous Institution - Affiliated to Bharathiar University  
Gobichettipalayam

**DEPARTMENT OF PHYSICS**

**organize a webinar on**

**Perspectives on Sustainable Solutions to Global  
Issues**

**FACILITATOR**

**Dr. V. Ganesh**

Senior Principal Scientist  
Electrodics and Electrocatalysis (EEC) Division  
CSIR - CECRI, Karaikudi



Platform: Google Meet

Date: 19.12.2025

Time: 11.00 a.m.

**Gmeet link:**

**<https://meet.google.com/usy-dkgw-pur>**

**All are invited...**

# Photos

**Perspectives on Sustainable Solutions to Global Issues**

**V. GANESH**

Electrodes and Electrocatalysis (EEC) Division  
CSIR – Central Electrochemical Research Institute (CECRI)  
Karaikudi, Tamilnadu, India  
E-mail: [vganesh.cecri@csir.res.in](mailto:vganesh.cecri@csir.res.in) (or) [ganelectro@gmail.com](mailto:ganelectro@gmail.com)

**Webinar Series**

Department of Physics, P.K.R. Arts College for Women, Gobichettipalayam.

19<sup>th</sup> December, 2025

**CECRI**

Central Electrochemical Research Institute

- Constituent lab of CSIR
- 2 Sub-units
- 300 Employees
- 100 Scientists
- 6 Major Divisions

All facets of Electrochemical Science and Technology

- Fundamental aspects
- Material design
- Instrument/Device Fabrication
- Functional Applications
- Multidisciplinary Subjects
- Analytical Facilities

Bachelor of Technology (B. Tech) course in  
Chemical & Electrochemical Engineering

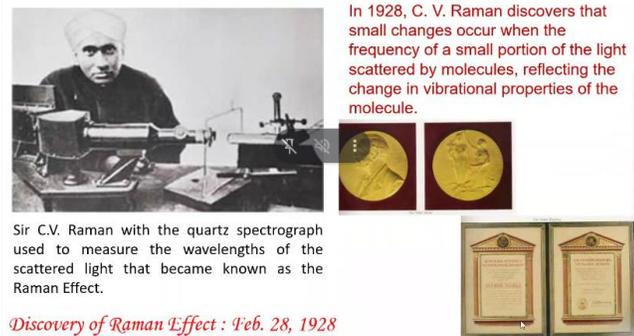
[www.cecri.res.in](http://www.cecri.res.in)

Foundation stone was laid in 1948

Declared open in 1953

V. GANESH CECRI (Presenting)

# Why Science Day?



In 1928, C. V. Raman discovers that small changes occur when the frequency of a small portion of the light scattered by molecules, reflecting the change in vibrational properties of the molecule.

Sir C.V. Raman with the quartz spectrograph used to measure the wavelengths of the scattered light that became known as the Raman Effect.

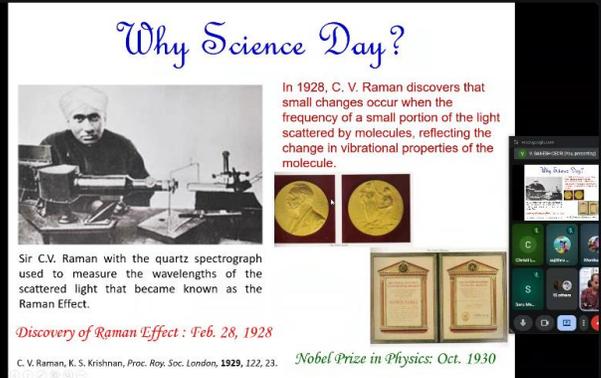
*Discovery of Raman Effect : Feb. 28, 1928*

C. V. Raman, K. S. Krishnan, *Proc. Roy. Soc. London, 1929, 122, 23.* *Nobel Prize in Physics: Oct. 1930*

11:19 AM | usy-dkgw-pur

V. GANESH CECRI (Presenting)

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11:19 AM | usy-dkgw-pur

People

Search for people

IN THE MEETING

Contributors 21

- ARULJOTHI C (You)
- Abarna
- Aishwarya Venkatesan
- Christi Libiya
- E C. Asvina
- Euchrist mary Meeting host
- Harini Kathir

V. GANESH CECRI (Presenting)

### Global Issues

**Humanity's Top Ten Problems for next 50 years**

1. ENERGY
2. WATER
3. FOOD
4. ENVIRONMENT
5. POVERTY
6. TERRORISM & WAR
7. DISEASE
8. EDUCATION
9. DEMOCRACY
10. POPULATION



2012 → 6 Billion People  
2050 → 8-10 Billion People

A step towards.....**Self Reliant INDIA**

Source: Richard Smalley - Energy & Nanotechnology Conference  
Rice University, Houston May 3, 2012

**People**

Search for people

IN THE MEETING

Contributors 21

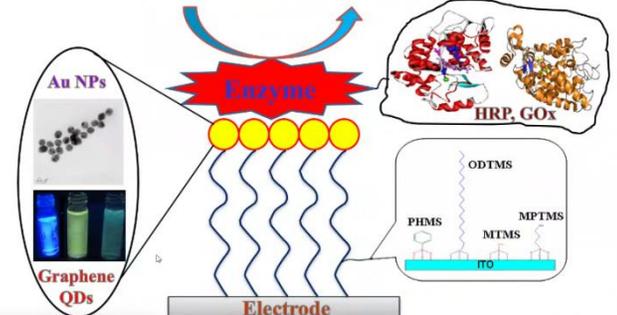
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- Abarna
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- Christi Libiya
- E. C. Asviha
- Euchrist mary Meeting host
- Harini Kathir

11:24 AM | usy-dkgw-pur

V. GANESH CECRI (Presenting)

### Enzymatic Kinetics – Biosensors for Enzyme

**Substrate**      **Product**



kaviya sri kaviya sri has left the meeting

**People**

Search for people

IN THE MEETING

Contributors 21

- C Christi Libiya
- Monika Selv...
- sujithra suji
- Saru Mathi
- Aishwarya V...
- Abarna
- 12 others
- ARULJOTHI...

11:57 AM | usy-dkgw-pur

Inbox (307) - physicsfaculty2011 X Course AI in Physics | Swayam X Inbox (838) - aruljothic@pkrrat: X Meet - usy-dkgw-pur PLAYING Microsoft Word - MSCPH501 MATH- X +

https://meet.google.com/usy-dkgw-pur?authuser=1&pli=1

V. GANESH CECRI (Presenting)

### Microbial Fuel Cells (MFCs)

The diagram illustrates the working principle of a microbial fuel cell. It consists of two half-cells separated by a porous membrane. The left half-cell is under anaerobic conditions and contains a growth medium with *Rhodospirillum rubrum* bacteria. These bacteria oxidize  $Fe^{2+}$  to  $Fe^{3+}$ , releasing electrons ( $e^-$ ). The right half-cell is under aerobic conditions and contains oxygen ( $O_2$ ), which is reduced to water ( $H_2O$ ) at the cathode. The electrons flow from the anode to the cathode through an external circuit, as indicated by the voltmeter (V) and the arrows showing  $e^-$  flow.

Working principle of a microbial fuel cell

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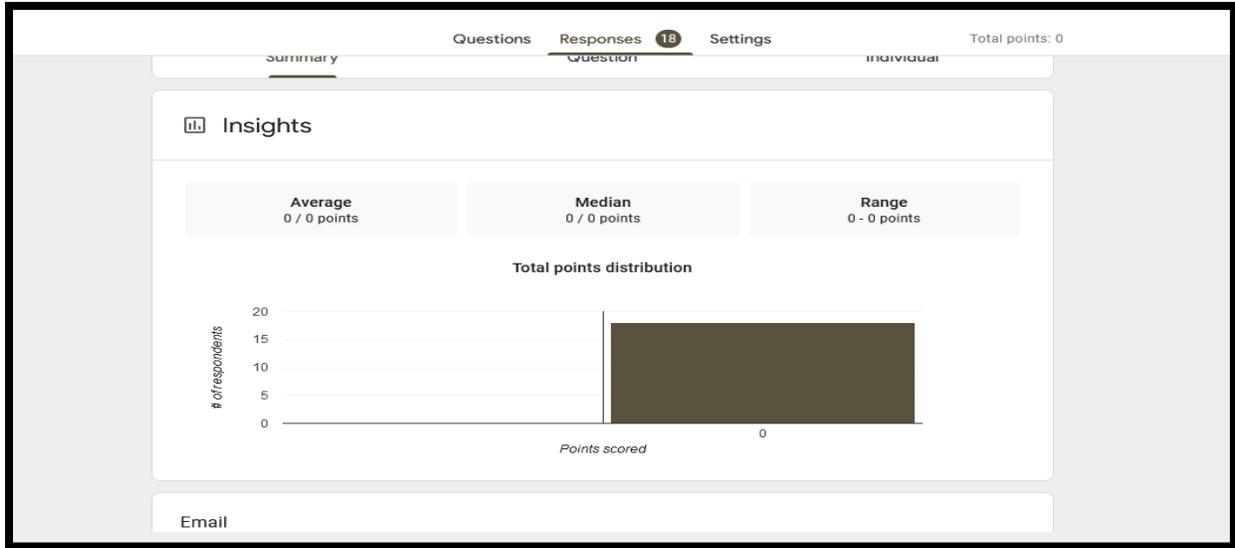
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The Hunger Games: S... 12:05 19-12-2025

## Attendance & Feedback

Form_Responses									
1	Timestamp	Score	Email	Full Name (in BLOCI)	Department	Designation/ class (eg. Assistant Professor of)	How would you rate the content?	How useful was the content?	Suggestion for improvement (if any)
2	12/19/2025 12:47:11		saru91300@cc	SARUMATHI S	PHYSICS	I-M.Sc Physics	Excellent	Very useful	
3	12/19/2025 12:52:11		22mythili05@	MYTHILI M	PHYSICS	1st M.Sc PHYSICS	Excellent	Very useful	
4	12/19/2025 12:58:11		ramyarajendh	RAMYA.R	PHYSICS	III-B.Sc Physics	Excellent	Very useful	
5	12/19/2025 12:59:11		kaviyasrikaviy	KAVIYA SRI K	PHYSICS	III B.SC PHYSICS	Good	Very useful	
6	12/19/2025 13:04:11		harinikathir00	HARINI K	PHYSICS	I M.Sc Physics	Excellent	Useful	
7	12/19/2025 13:10:11		yazhinidya@g	YAZHINI M	PHYSICS	M.Sc.Physics	Excellent	Very useful	
8	12/19/2025 13:12:11		Christilibiya@	CHRISTI LIBIY	PHYSICS	Assistant Professor of physics	Excellent	Very useful	
9	12/19/2025 13:18:11		sowmiyasrisc	A.SOWMIYA	PHYSICS	M.sc Physics	Good	Useful	
10	12/19/2025 13:18:11		monikaselvar	MONIKA.S	PHYSICS	II - M.Sc physics	Good	Useful	
11	12/19/2025 13:20:11		shobanamyth	MYTHILI.N	PHYSICS	II M.Sc Physics	Excellent	Very useful	
12	12/19/2025 16:14:11		abinagulanab	ABARNA S	PHYSICS	Student, I M.Sc Physics	Excellent	Very useful	
13	12/19/2025 16:28:11		sujithrasuji27	SUJITHRA.V	PHYSICS	III B.Sc Physics	Good	Useful	

Form_Responses									
1	Timestamp	Score	Email	Full Name (in BLOCI)	Department	Designation/ class (eg. Assistant Professor of)	How would you rate the content?	How useful was the content?	Suggestion for improvement (if any)
14	12/19/2025 18:34:11		nithikaruna46	K.NANTHITHA	PHYSICS	III- BSc physics	Good	Very useful	
15	2/10/2026 15:23:11		priyankap@pl	PRIYANKA P	PHYSICS	Assistant Professor of Physics	Good	Very useful	
16	2/11/2026 11:33:00		aruljothic@pk	ARULJOTHI C	PHYSICS	Assistant Professor in Physics	Excellent	Useful	
17	2/11/2026 11:51:00		manisunther5	M.DIVYA	PHYSICS	III BSC PHYSICS	Good	Very useful	
18	12/19/2026 11:59:11		asviha231200	Asviha ec	PHYSICS	B.Sc.physics	Excellent	Very useful	
19	2/11/2026 16:17:51		keerthiravise1	Keerthika	PHYSICS	B. Sc. Physics	Excellent	Useful	Yes
20	12/19/2025 16:14:11		keerthiga @g	KEERTHIGA	PHYSICS	III B .sc PHYSICS	excellent	Very useful	
21	12/19/2025 16:28:11		subha@gmail	SUBHA	PHYSICS	III B .sc PHYSICS	excellent	Very useful	
22	12/19/2025 18:34:11		Divya@gmail.	Divya	PHYSICS	III B .sc PHYSICS	excellent	Very useful	
23	2/11/2026 11:33:00		Euchristimary	Euchristimary	PHYSICS	Assistant Professor of Physics	Excellent	Very useful	



Questions Responses **18** Settings

**Email**  
18 responses

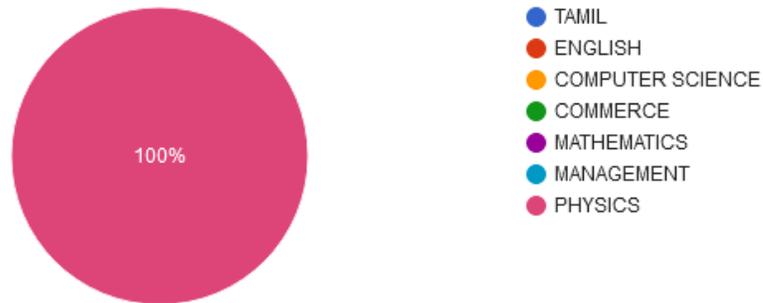
Christilibiya2002@gmail.com
manisunther5@gmail.com
priyankap@pkrarts.org
kaviyasrikaviya12@gmail.com
saru91300@gmail.com
sowmiasrisowmiya15@gmail.com
monikaselvam2003@gmail.com
harinikathir00@gmail.com
nithikaruna464@gmail.com

abinagulanabinagulan@gmail.com
yazhinidya@gmail.com
22mythili05@gmail.com
shobanamythili093@gmail.com
ramyarajendhiran25@gmail.com
keerthiraviselvam@gamil.com
aruljothic@pkrarts.org
sujithrasuji2704@gmail.com
asviha2312006@gmail.com

### Department

18 responses

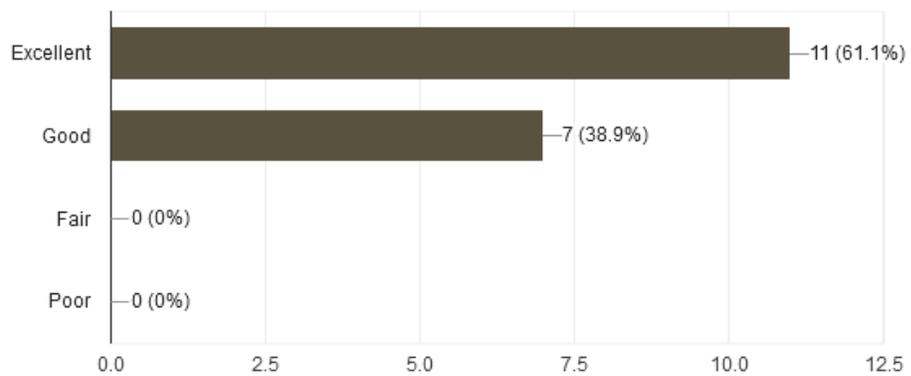
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### How would you rate the overall session?

18 responses

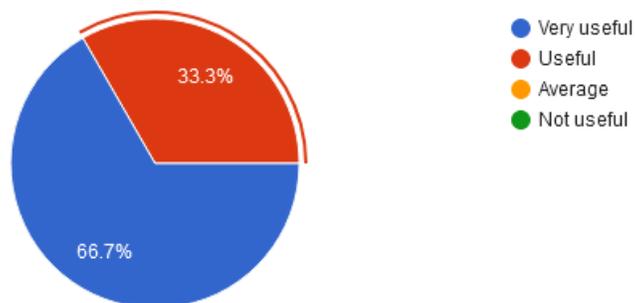
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### How useful was this session?

18 responses

[Copy chart](#)



Suggestion for improvement  
(if any)

12 responses

No

No suggestion

Yes

Nil

Good

## Report



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### DEPARTMENT OF PHYSICS

**Name of the Program** : Webinar on “Perspectives on Sustainable Solutions to Global Issues”  
**Date** : 19.12.2025  
**Platform** : Google Meet ( <https://meet.google.com/usy-dkgw-pur> )  
**Time** : 11.00 AM

**Objective of the Programme:**

- To create awareness about global issues and the role of science in sustainable development.
- To highlight scientific and technological solutions with emphasis on research, innovation, and self-reliance.

The Department of Physics organized a webinar on “Perspectives on Sustainable Solutions to Global Issues” through Google Meet. The session was facilitated by Dr. V. Ganesh, Senior Principal Scientist, EEC Division, CSIR–CECRI, Karaikudi. The resource person highlighted major global challenges and explained the role of electrochemical science and advanced research in developing sustainable solutions. He also shared insights on research opportunities at CSIR–CECRI, motivating students to pursue scientific research. The webinar concluded with an interactive session where students clarified their queries on global issues and career pathways.

The webinar concluded with an interactive session, during which students actively participated and clarified their queries related to global issues, research pathways, and career opportunities in science and technology.

**No. of Participants:** 17 Students & 4 faculty members

**Outcome of the Programme:**

The programme enhanced students’ understanding of global sustainability challenges and the role of science in addressing them. It also created awareness about research opportunities and motivated students to pursue higher education and research for sustainable development.

**Organizing Secretary:** Dr. C. Aruljothi

*GP 19/12/25*

Signature of the HOD

*<C. ARULJOITHI>*

Head,  
Department of Physics,  
P.K.R. Arts College for Women,  
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