



**KLEF**  
**Department of PHYSICS**  
**Report of International Workshop organized on the Eve of**  
**National Science Day Celebrations-2026**  
**by the Dept. of Physics on 28.02.2026**  
**(10.00 AM IST)**

DATE: 28.02.2026

Information communicated on 28/02/2026 to get registrations from the participants and the same was shared with the colleague groups.

The Department of Physics (DST-FIST Sponsored), KLEF, Vijayawada is organizing *An International Workshop on "Surface-enhanced Raman Spectroscopy: From Fundamental Physics to AI-Assisted Medical Diagnosis"* in association with MRSI.

The details are as follows.

Date: 28<sup>th</sup> February 2026 (Saturday)

Time: 10.00 AM (IST) (Re-scheduled the time of Guest Lecture as per the request of Speaker)

Platform: Online Meeting link:

<https://meet.google.com/vmj-dqzm-xbm>

## Resource Speakers:

### **Dr. Raju Botta**

Researcher

Opto-Electrochemical Sensing Research Team (OEC),  
Spectroscopic Sensing and Devices Research Group (SSDRG),  
National Electronics and Computer Technology Center (NECTEC),  
National Science and Technology Development Agency (NSTDA), Thailand.

Hyderabad, Telangana Registration is free and the link to register is given below:

<https://forms.gle/HyzFEapNgkgvqvLH6>

For any queries on the workshop, the following are contacted. Dr. Sk. Mahamuda, Assoc. Prof., Dept. of Physics,

Email: [mahamuda.ss@kluniversity.in](mailto:mahamuda.ss@kluniversity.in), Mobile:

990842265. Dr. K. Swapna, Assoc. Prof., Dept. of Physics,

Email: [swapnakon@kluniversity.in](mailto:swapnakon@kluniversity.in), Mobile: 9652163632.



# Koneru Lakshmaiah Education Foundation

(Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

◆ Recognised as Category 1 University by UGC ◆ Approved by AICTE ◆ ISO 21001:2018 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. +91 8645 - 350 200; www.kluniversity.in

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Brochure:



Department of Physics

CATEGORY 1 UNIVERSITY BY UGC 45 YEARS OF EDUCATIONAL EXCELLENCE  
nirf NATIONAL RANKING 2025 RANKED 28 AMONG ALL UNIVERSITIES



## NATIONAL SCIENCE DAY CELEBRATIONS-2026

ON 28<sup>TH</sup> FEBRUARY 2026

(LIGHT, MATTER, AND THE FUTURE:  
THE CONTINUING LAGACY OF C.V. RAMAN)

AN INTERNATIONAL WORKSHOP ON  
"SURFACE-ENHANCED RAMAN SPECTROSCOPY:  
FROM FUNDAMENTAL PHYSICS TO  
AI-ASSISTED MEDICAL DIAGNOSIS"



**Dr. Raju Botta**

Researcher

Opto-Electrochemical Sensing Research Team (OEC),  
Spectroscopic Sensing and Devices Research Group (SSDRG),  
National Electronics and Computer Technology Center (NECTEC),  
National Science and Technology Development Agency (NSTDA), Thailand.

Resource Person

**28<sup>th</sup>**  
**Feb 2026**  
**Time:**  
**10.00 AM**

Convener:

**Dr. Sk. Mahamuda,**  
RPAC & Associate Professor, KLEF

**Chair: Dr. K. Swapna,**  
HoD-Physics & Associate Professor, KLEF

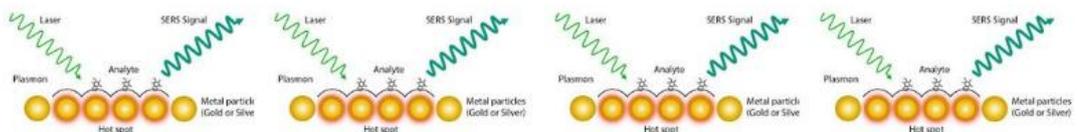
**No Registration Fee**

**Registration Link:**

<https://forms.gle/HyzFEapNgkqvqLH6>

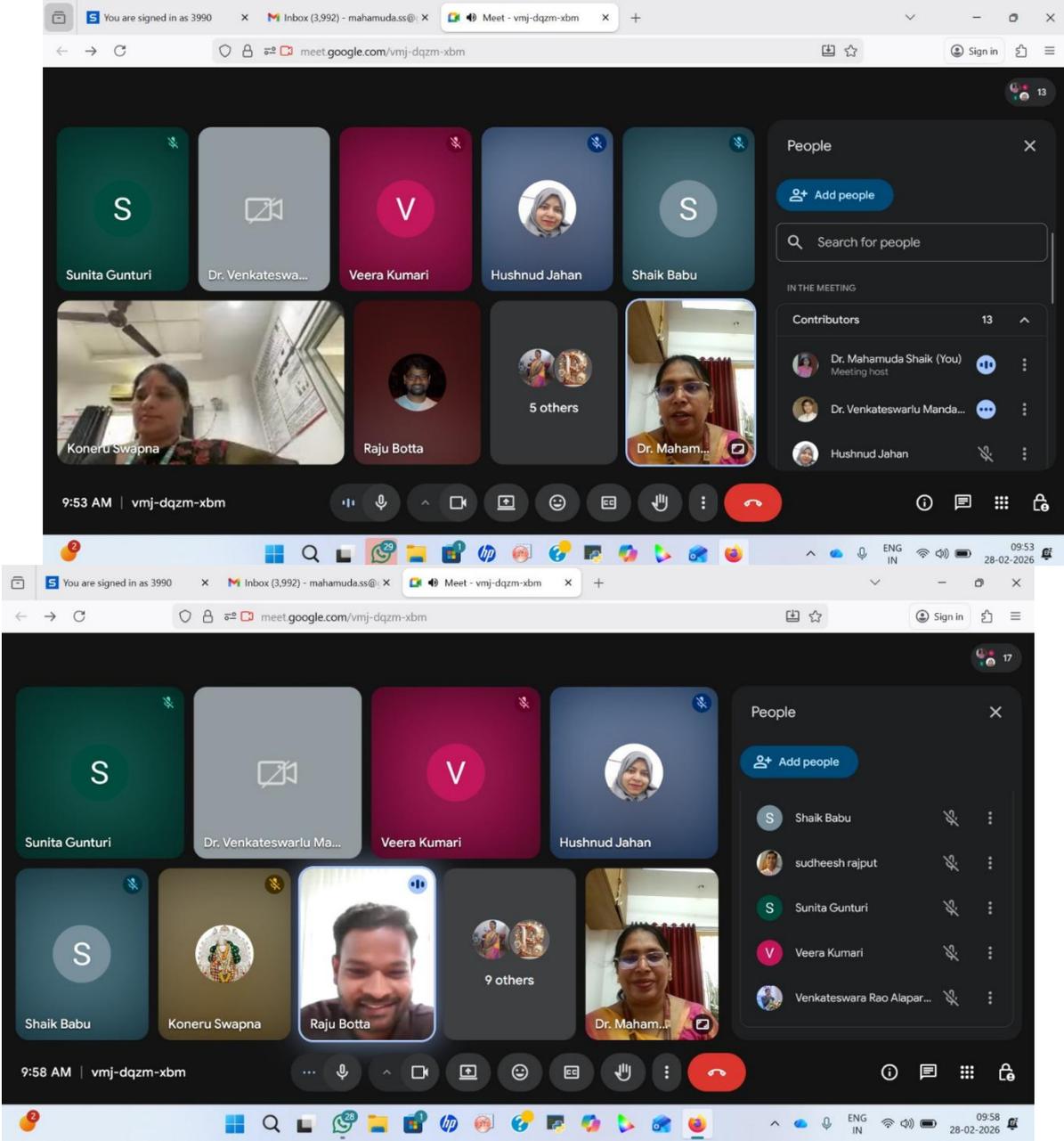
**Meeting Link:**

<https://meet.google.com/vmj-dqzm-xbm>





### Screenshots of Workshop





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Browser tabs: You are signed in as 3990 | Inbox (3,992) - mahamuda.ss@... | Meet - vmj-dqzm-xbm

Address bar: meet.google.com/vmj-dqzm-xbm

Meeting title: Raju Botta (Presenting)

Slide content: **Light, Matter, and the Future: The Continuing Legacy of C.V. Raman**  
**Surface-enhanced Raman Spectroscopy: From Fundamental Physics to AI-Assisted Medical Diagnosis**  
 Raju Botta, Ph.D.  
 Qyto Electronics & Sensing Research Team (QES), Spectroscopic and Sensing Devices Research Group (SSRD), National Electronics and Computer Technology Center (NECTEC), National Science and Technology Development Agency (NSTDA), Thailand.  
 E-mail: raju.botta@nectec.or.th or rajubotta@gmail.com  
 Venue: Department of Physics, KL University, Guntur, Andhra Pradesh, India. Feb 28<sup>th</sup>, 2026.

People: Add people, Search for people, IN THE MEETING, Contributors: 20 (Dr. Mahamuda Shaik (You), Ade Ramesh, Dr. Venkateswarlu Manda...)

9:59 AM | vmj-dqzm-xbm

Browser tabs: You are signed in as 3990 | Inbox (3,992) - mahamuda.ss@... | Meet - vmj-dqzm-xbm

Address bar: meet.google.com/vmj-dqzm-xbm

Meeting title: Raju Botta (Presenting)

Slide content: **Quantum theory of Raman Scattering**  
 NECTEC  
 Virtual energy states  $P_S$   
 Stokes Anti-Stokes  
 Vibrational energy states  $\nu_{ex} - \nu_v$   $\nu_{ex}$   $\nu_{ex} + \nu_v$   
 Stokes  $E_{ex} = \hbar\nu_{ex} - \hbar(\nu_{ex} - \nu_v)$   $\nu = 1$   
 Anti-Stokes  $E_{ex} = \hbar\nu_{ex} + \hbar\nu_v$   $\nu = 0$

People: Add people, Search for people, IN THE MEETING, Contributors: 28 (Dr. Mahamuda Shaik (You), Ade Ramesh, Ajeet Kumar)

10:10 AM | vmj-dqzm-xbm



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Browser tabs: You are signed in as 3990 | Inbox (3,992) - mahamuda.ss@... | Meet - vmj-dqzm-xbm

Address bar: meet.google.com/vmj-dqzm-xbm

Meeting controls: Raju Botta (Presenting) | Admit 2 guests | 28

### Surface Enhanced Raman Scattering (SERS)

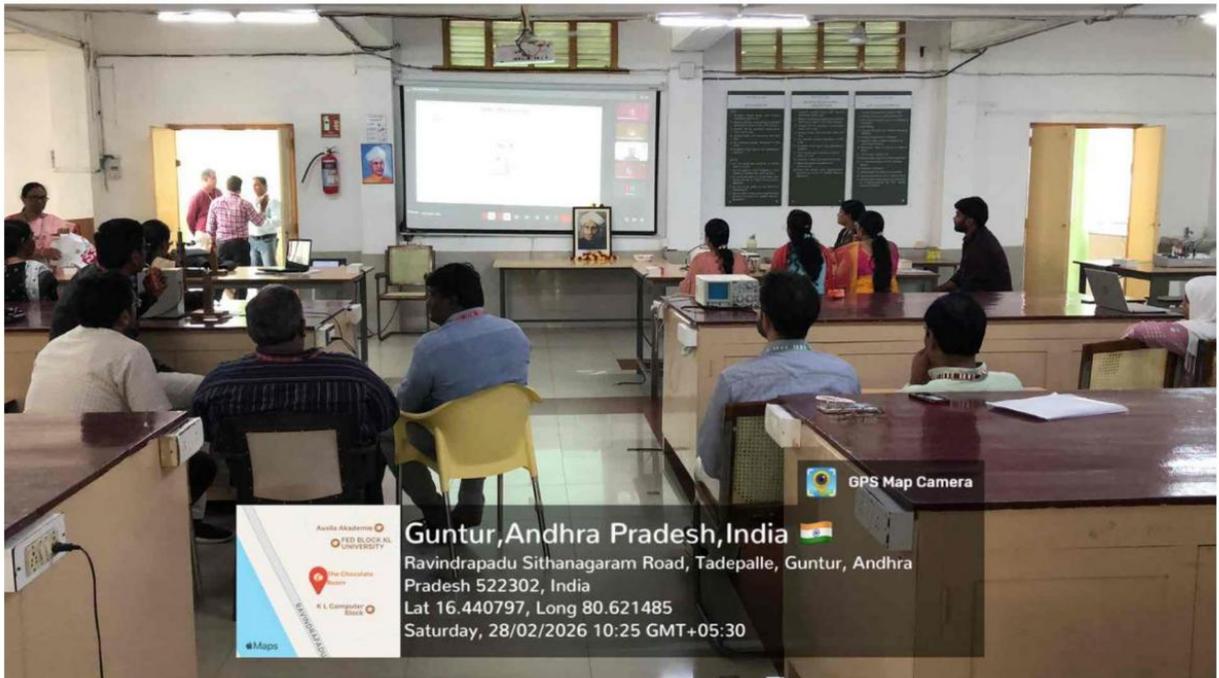
NECTEC

Enhanced more than 1 million times Molecular Fingerprinting

Intensity (a.u.) vs Raman shift (cm<sup>-1</sup>)

Participant avatars: Raju Botta, Veera Kumari, Koneru Swapna, Dr. Venkateswarl..., 22 others, Dr. Mahamuda S...

Meeting bar: 10:21 AM | vmj-dqzm-xbm





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Kolanukonda, Andhra Pradesh, India 🇮🇳

Green Fields, Vaddeswaram, K L University, Kolanukonda,  
Andhra Pradesh 522501, India

Lat 16.440865° Long 80.621552°

Saturday, 28/02/2026 10:14 AM GMT +05:30

Google



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Kolanukonda, Andhra Pradesh, India

Green Fields, Vaddeswaram, K L University, Kolanukonda,  
Andhra Pradesh 522501, India

Lat 16.44086° Long 80.621559°

Saturday, 28/02/2026 10:14 AM GMT +05:30

You are signed in as 3990 | Inbox (3,992) - mahamuda.ss@ | Meet - vmj-dqzm-xbm

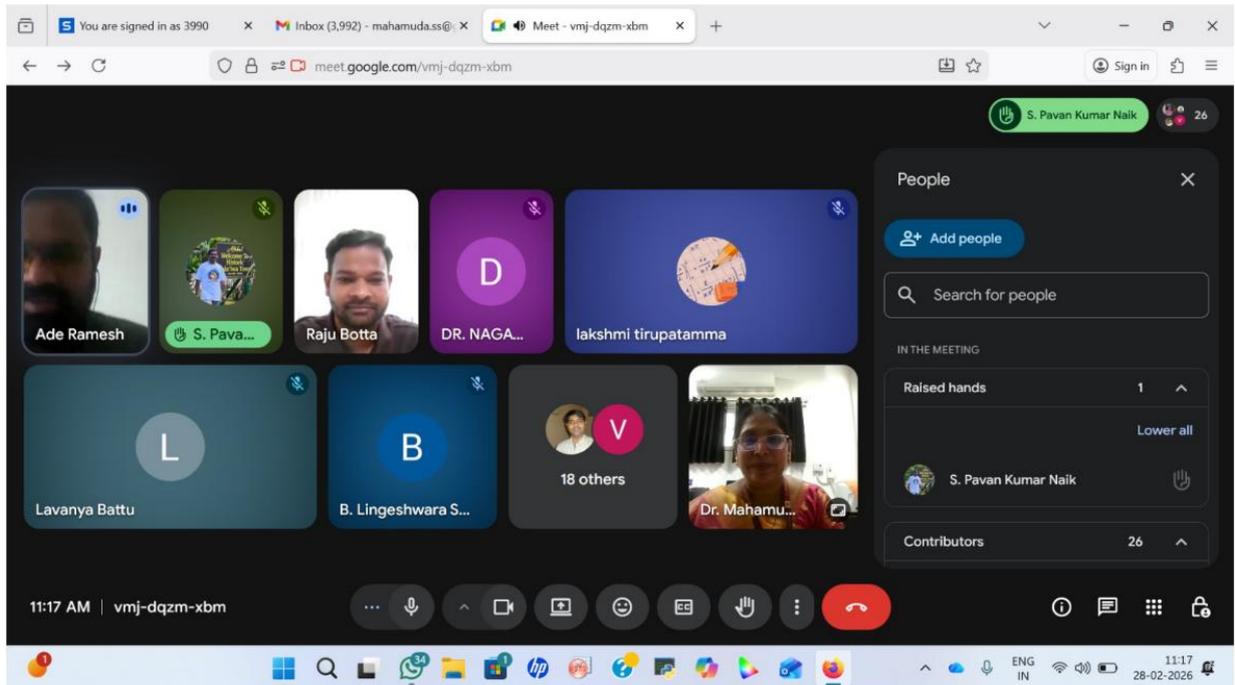
meet.google.com/vmj-dqzm-xbm

Raju Botta (Presenting) | S. Pavan Kumar Naik 32

THANK YOU  
Indian National Science Day

11:04 AM | vmj-dqzm-xbm

ENG IN | 28-02-2026



The International workshop conducted successfully, and the participants actively interacted with the resource person and get clarified their queries regarding the Raman Spectroscopy applications.

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