

# Andhra Christian college

(Day, Evening and PG)

## NOTICE

Date: 18-09-2019

This is to inform you that there will be a seminar on “**RAMAN EFFECT**” tomorrow, i.e., on 19-09-2019 to be conducted by the department of physics, at 11 AM. N. Linga Rao, Lecturer Department of Physics, R.V.V.N College, Dharani Kota Will be address the seminar.

All the students of III B.Sc. are instructed to attend the programme without fail.



A handwritten signature in blue ink, appearing to read "A. Anand Kumar".

PRINCIPAL  
ANDHRA CHRISTIAN COLLEGE  
GUNTUR

Principal

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ANDHRA CHRISTIAN COLLEGE  
(Day, Evening & P.G)  
GUNTUR

Copy to:

1. The coordinator, IQAC, Andhra Christian College
2. The office manager, Andhra Christian College

# Andhra Christian College::Guntur

## Department of Physics

### Seminar Report on "Raman Effect"

**Organized by:**

Department of Physics, A. C. College, Guntur

**Date:**

19th September 2019

**Time:**

11:00 a.m.

**Venue:**

Department of Physics, A. C. College, Guntur

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## 1. Introduction

The Department of Physics, A. C. College, Guntur, organized a seminar on the "Raman Effect" on the 19th of September, 2019. The seminar aimed to delve into the discovery, principles, and applications of the Raman Effect, a significant phenomenon in the field of spectroscopy. The session was attended by the faculty members of the Department of Physics along with students who have an interest in this area of study.

Mr. N. Linga Rao, a distinguished lecturer from the Department of Physics at R. V. V. N. College, Dharanikota, Amaravathi, was the resource person for this seminar. He is well-versed in modern spectroscopy and its applications in physics and material science.

## 2. Objectives of the Seminar

The seminar was organized with the following key objectives:

- 1. To introduce the concept of the Raman Effect:**  
Explain the fundamental principles underlying the Raman Effect and its historical significance.
- 2. To discuss the experimental discovery by C. V. Raman:**  
Detail the experiment conducted by Sir C. V. Raman, which led to the discovery of this phenomenon and earned him the Nobel Prize in Physics.
- 3. To explore the applications of the Raman Effect in modern science:**  
Highlight the diverse applications of the Raman Effect in fields such as chemistry, physics, material science, and biology.
- 4. To enhance the participants' understanding of spectroscopy techniques:**  
Provide insights into how the Raman Effect is utilized in various spectroscopic techniques and the benefits these techniques offer in scientific research.

### 3. Seminar Proceedings

The seminar began at 3:00 p.m. with an introductory speech by the Head of the Department of Physics, A. C. College, who welcomed the participants and introduced the resource person, Mr. N. Linga Rao.

#### 3.1 Lecture by Mr. N. Linga Rao

Mr. N. Linga Rao presented an in-depth lecture, covering the following topics:

- **Historical Background of the Raman Effect:**  
Mr. Linga Rao began by discussing the background of the Raman Effect, emphasizing its discovery by Sir C. V. Raman in 1928. He explained how Raman's curiosity about the scattering of light in liquids led to this groundbreaking discovery.
- **Principles of the Raman Effect:**  
The seminar provided a detailed explanation of the Raman Effect, where Mr. Rao described how the scattering of light by molecules results in a shift in the wavelength, which is characteristic of the molecular vibrations. This effect is now known as Raman scattering.
- **Raman Spectroscopy:**  
Mr. Rao elaborated on Raman spectroscopy, a technique that leverages the Raman Effect to study the vibrational, rotational, and other low-frequency modes in a system. He explained how Raman spectroscopy is a powerful tool in identifying molecular structures and compositions.
- **Applications of the Raman Effect:**  
The seminar highlighted the wide-ranging applications of the Raman Effect in various fields, including:
  - **Material Science:** Identifying materials and studying their properties.
  - **Chemistry:** Characterizing chemical compounds and reactions.
  - **Biology:** Investigating biological samples and detecting pathogens.
  - **Nanotechnology:** Analyzing nanomaterials and their properties.

#### 3.2 Interactive Session

Following the lecture, an interactive session was conducted, where participants posed questions and engaged in discussions with Mr. Rao. The questions ranged from basic principles to advanced applications of the Raman Effect. Mr. Rao provided comprehensive answers, helping to clarify the doubts and enhance the participants' understanding.

### 4. Outcomes of the Seminar

The seminar achieved its objectives, resulting in the following outcomes:

1. **Enhanced Understanding of the Raman Effect:**  
Participants gained a deep understanding of the Raman Effect, including its principles, discovery, and significance in the field of physics.
2. **Knowledge of Raman Spectroscopy:**  
The seminar provided valuable insights into Raman spectroscopy, equipping participants with knowledge about its practical applications in research and industry.

### 3. **Appreciation of Historical Contributions:**

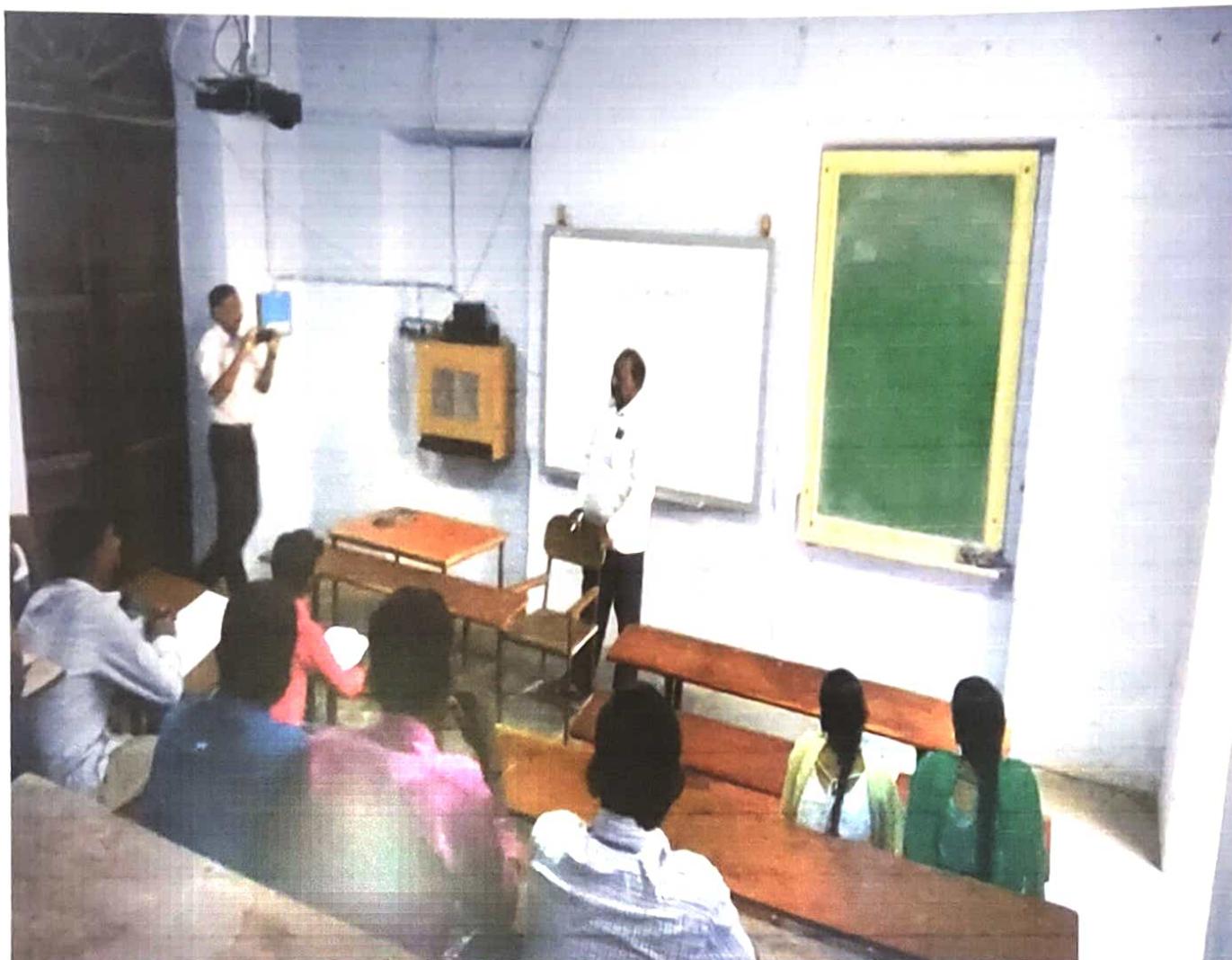
The seminar highlighted the contributions of Sir C. V. Raman, inspiring participants to appreciate the history of scientific discoveries and their impact on modern science.

### 4. **Increased Interest in Spectroscopy Techniques:**

The detailed discussion on spectroscopy sparked interest among students and faculty to further explore and possibly specialize in this field.

## 5. **Conclusion**

The seminar on "Raman Effect" was a great success, fulfilling its objectives of educating and inspiring the participants. Mr. N. Linga Rao's expertise and engaging presentation style made the session informative and enjoyable. The Department of Physics, A. C. College, Guntur, looks forward to organizing more such seminars to continue fostering a deep understanding of fundamental and advanced topics in physics.



# Andhra Christian College, Guntur

## Department of Physics

List of Students Attended for SEMINAR CLASS

TOPIC: Raman effect

Date: 19.09.2019

Class: III<sup>rd</sup> B.Sc

S. No.	Class No	Name of the Students	Signature
1.	601	T. Divya Bharathi	T. Divya Bharathi
2.	602	S.k. Shakeena	S.k. Shakeena
3.	603	D. Priya geeta Reddy	D. Priya geeta Reddy
4.	604	M. Anusha	M. Anusha
5.	605	M. Nakshatram	M. Nakshatram
6.	606	D. Kiran Bedi	D. Kiran Bedi
7.	607	B. Sharoni	B. Sharoni
8.	608	K. Saibabu	K. Saibabu
9.	609	K. Srikanth	K. Srikanth
10.	610	K. Siva Sankar	K. Siva Sankar
11.	611	I. Devasahayam	I. Devasahayam
12.	612	D. Sunny kumar	D. Sunny kumar
13.	613	P. Anil	P. Anil
14.	614	D. Prasanth kumar	D. Prasanth kumar
15.	615	J. Buji	J. Buji
16.	616	D. Satish babu	D. Satish babu
17.	617	G. Siva	G. Siva
18.	618	T. Bharath	T. Bharath
19.	619	D. Badri	D. Badri
20.	620	V. Revanth kumar	V. Revanth kumar
21.	621	M. Pitechiaiah	M. Pitechiaiah
22.	622	D. Nageswara rao	D. Nageswara rao
23.	623	B. Raju	B. Raju
24.	624	B. Pavan kumar	B. Pavan kumar
25.	625	K. Ramesh	K. Ramesh
26.	626	P. joji babu	P. joji babu
27.	627	Ch. Vinod kumar	Ch. Vinod kumar
28.	628	J. Venkateswarlu	J. Venkateswarlu
29.	629	K. Gopi krishna	K. Gopi krishna
30.	630	D. Mark babu	D. Mark babu



*[Signature]*  
 Department of Physics  
 A.C. College, Guntur.