

## **Brief Report of INSA's Lecture Workshop at ALC.**

Andhra Loyola College (ALC), Vijayawada,

Press Release dated 2-3-2024

INSA's Lecture Workshop at ALC.

Department of Physics at Andhra Loyola College (ALC), Vijayawada, is set to host a significant Three-day Lecture Workshop on "Biomedical Materials Properties and Novel Applications" from March 4 to March 6, 2024. The workshop is sponsored by the Indian Academy of Sciences and sanctioned with a grant of Rs 3.0 lakhs.

This workshop is specifically designed to benefit students and teachers at the undergraduate, graduate, and research levels. The content covers subjects relevant to both graduate and undergraduate programs, with additional topics aimed at the research level.

The esteemed resource persons who will inspire the participants with the latest developments in sciences include Former Scientist from RRCAT, Indore Dr. P.K. Gupta, Senior Scientist from Bhabha Atomic Research Centre (BARC) Dr G P Kothiyal, Professor from Indian Institute of Science, Bangalore, Prof. Srinivasa Natarajan, Research Director of ALC, Prof. N. Veeraiah, Senior Scientist from Indira Gandhi Centre for Atomic Research, Kalpakkam Dr. John Philip, Professor from K L Deemed to be University Dr. B T P Madhav, Professor of S.V. Univesity Prof. C.K. Jayasankar and Professor of K.L. Univeristy Dr. Burra V L S Prasad .

The three day workshop is open to all interested students, scholars, and staff of sciences, and there is no registration fee. They can directly come to Andhra Loyola College on the morning on Monday, 4th March. They can also contact Dr. Johnson at 9963052701 or Dr. Ch Srinivasa Rao at 7981312970 for more details.

The poster for the workshop was officially released today at Andhra Loyola College in the presence of Principal Fr Kishore, Director of Research Prof N. Veeraiah, coordinator Dr Ch. Srinivasa Rao, HoD Srinivasa Sastry, Senior Faculty member Dr G Sahaya Baskaran, and other dignitaries.



# ANDHRA LOYOLA COLLEGE (AUTONOMOUS)

Vijayawada – 520008, A.P.

Accredited with A<sup>+</sup> Grade with a CGPA of 3.66/4.00 in III Cycle by NAAC

**A Three-day Indian National Science Academies'  
Lecture Workshop On  
“Biomedical Materials Properties and Novel Applications”  
on 4<sup>th</sup> - 6<sup>th</sup> March 2024  
Organized by  
Department of Physics**

## INAUGURAL FUNCTION

Venue: PG Seminar Hall

Time: 9.30 AM on 04-03-2024

### Programme

1. Prayer Song by **DP Students**
2. Inviting Dignitaries on to the Dias by **Lahari** and **Ankitha**
3. Lighting the lamp by **dignitaries on the dais.**
4. Welcome address & Theme of the seminar : **Dr. C.K. Jayasankar Convener**
5. Greetings and Blessings by : **Rev Fr. Dr. GAP. Kishore S.J.,  
Principal**
6. Motivational Message by : **Rev. Fr. Dr. M. Sahaya raj S.J.,  
Correspondent,**
7. Introduction to the chief guest (Dr. P. K. Gupta) : **Sri P. Srinivasa Sastry, HOD**
8. Chief Guests Message. : **Dr. P. K. Gupta**
9. Introduction to the Guest of honour (Dr G P Kothiyal) : **Dr M.C. Rao**
10. Message by Guest of honour : **Dr G P Kothiyal**
11. Vote of thanks : **Dr. Ch Srinivasa Rao, Coordinator**

## Programme Schedule

<b>Day1</b>	<b>04-03-2024</b>	9.30 am-11.00 am	<b>T E A</b>	11.30am-01.00 pm	<b>L U N C H</b>	2.00pm-3.30pm	<b>T E A</b>	3.45pm-5.00pm
	TS-1 Dr.P.K.Gupta	TS-2 Dr G P Kothiyal		TS-3 Dr G P Kothiyal		TS-4 Dr.P.K.Gupta		
<b>Day 2</b>	<b>05-03-2024</b>	9.30 am-11.00 am	<b>T E A</b>	11.30am-01.00 pm	<b>L U N C H</b>	2.00pm-3.30pm	<b>T E A</b>	3.45pm-5.00pm
	TS-5 Dr. Srinivasa Natarajan	TS-6 Dr. Srinivasa Natarajan		TS-7 Dr. BTP Madhav		TS-8 Dr. C.K. Jayasankar		
<b>Day 3</b>	<b>06-03-2024</b>	9.30 am-11.00 am	<b>T E A</b>	11.30am-01.00 pm	<b>L U N C H</b>	2.00pm-3.30pm	<b>T E A</b>	3.45pm-5.00pm
	TS-9 Dr. John Philip (Online Mode)	TS-10 Dr. Burra V L S Prasad		TS-11 Dr. C.K. Jayasankar		TS-12 Dr. N. Veeraiah		

## RESOURCE PERSONS

RP: 01



**Dr. P.K. Gupta, FASc, FNASc**

Head, Laser Materials Development & Devices Division and Laser Bio-medical Applications & Instrumentation Division Formerly RRCAT, Indore

RP: 02



**Dr. Srinivasa Natarajan, FNA, FAS, FNASc**

Solid State and Structural Chemistry Unit Indian Institute of Science, Bangalore

RP: 03



**Dr. John Philip FNASc.**

Professor, Homi-Bhabha National Institute (HBNI), Indira Gandhi Centre for Atomic Research, Kalpakkam-603 102, T.N.,

RP: 04



**Dr. C.K. Jayasankar FNASc.**

Formerly professor, UGC-BSR Faculty fellow, Department of Physics, Sri Venkateswara University, Tirupati

**RP: 05**



**Dr. G P Kothiyal**

Formerly Head, Glass and Advanced Ceramics Division, Bhabha Atomic Research Centre (BARC), Mumbai.

**RP: 06**



**Dr. N. Veeraiah**

Research Director of ALC, Vijayawada , Formerly Professor of Department of Physics, UGC-BSR Faculty Fellow, Acharya Nagarjuna University, Nagarjunanagar, A.P.,

**RP: 07**



**Dr. B T P Madhav**

Professor & Associate Dean (Research), Department of ECE, K L Deemed to be University, Andhra Pradesh, India

**RP: 08**



**Dr. Burra V L S Prasad**

Professor ,Department of Biotechnology ,K L Deemed to be University, Andhra Pradesh, India

***"Unlocking the potential of biomedical materials is not just a scientific endeavour; it is a profound journey toward enhancing life, where properties meet innovation to sculpt a healthier tomorrow."***

Andhra Loyola College, Vijayawada.

## DAY 1

A three-day National workshop on "Biomedical Materials' properties and their Novel Applications"

Press release, 4th March, 2024

A three-day National workshop was commenced in Andhra Loyola college by the department of physics. The program was graced by the esteemed guests, Dr. P.K. Gupta, former Director of Raja Ramanna centre for Advanced technology (RRCAT) and an expert in Lazer technology and visiting professor at Indian Institute of science and research, Bhopal and Dr. G.P. Kothiyal, Scientist H and a former head of the Division of glasses and ceramics at Bhabha Atomic Research Centre(BARC), Mumbai and is specialised in Bioceramics.

Dr. C.K. Jayasankar, the convener, welcomed the gathering and initiated the discussions on the theme : "Biomedical Materials' properties and their Novel Applications".

The chief guest, Dr. P.K. Gupta , in his introductory words, spoke on the crucial contribution of Biomaterials and Laser to the medical field. Continuing further, he said" as the population of the world keeps increasing, the health related issues and problems too keep piling up and become major concerns but the recent advancements in Biomedical Materials helped us to address the complex health problems and assure of enhanced Life."

Lecture 1 @3 : The first session was unfolded with the talk of Dr. P.K. Gupta. He dealt with the Laser technology that was used in the treatment and elaborated the versatile usage of laser in the medical field. Speaking about the profound invention of laser technology, he commented that the challenge posed by the increasing health problems was made easy to deal with the the Laser technology

Lecture 2 @4 The session was continued with the second talk delivered by Dr. Kothiyal who drew the attention of the gathering towards Bioglasses and ceramics.He threw light on the kinds of glasses and ceramics, its applications and primarily the evolution of glasses and ceramics to Bioglassceramics. He enlightened the students with his insights of ceramics that enhanced Life and increased life quality.

Vice principal Fr Prabhudas,Coordinator Dr. Ch. Srinivasa Rao, HoD Srinivasa Sastry, secretary

Dr. Johnson, 150 students from various colleges participated

## DAY 2

Andhra Loyola College, Vijayawada.- Department of physics Day-2 (05/03/2024) work shop on Bio medical materials and novel applications sponsored by INSA(Indian National science academy):-

On the second day (05/03/2024) the workshop was inaugurated on the second day (05/03/2024) under the auspices of the Department of Physics of Andhra Loyola College, "Technology is strange and education is more new".

Eminent professors from various IITs gave lectures to the students about the advanced developments in new bio-materials and new developments in bio-medical technology.

1. Dr.. Srinivasa Natarajan from IISc Bangalore (professor and researcher)
2. Dr.B.T.P. Madhavan KL University AP (Guntur) to (Professor and Additional Dean)
3. Dr. CK Jaya Shankar from SVU University Tirupati. Participated as prominent speakers.

Notable speech details:-

Lecture 1 & 2 :-

Srinivasa Natarajan (IISc Bangalore, professor and researcher) gave a detailed explanation about X-rays being used to study the structure of atoms, the principle of generation of x-rays (rays) and applications. Describe the role of monochromator in X-ray diffraction, explaining constructive interference and destructive interference.

Lecture 3-

Every field and every device must require antenna (every field and every device must require antenna) said Dr. B.T.P. Madhav (professor and researcher in KL University) explained about the importance of antenna and explained the construction principle and necessity of antenna. It is explained that in today's competitive world where the fastest 5G network is used, antennas will take a form in the future. He explained the uniqueness of antenna that there will be no smart devices in the future without antenna

Lecture 4:- Dr.C.K Jaya Shankar (SVU University professor and researcher) said "Creativity and imagination are the real characteristics of a student" and explained about the working principle in them starting from the atomic principle to the plane flying in the sky. He explained in detail about satellites and space research centers to make students interested in space research.

Head of Physics Department in this program. P. Srinivasa Shastri, Dr.MC Rao, Dr.Johnson, Dr.G. Murali Krishna, Dr. Sudhakar and other teachers of physics department as well as students of various colleges, a total of 150 students participated in the programme.

DAY 3

Andhra Loyola College - Department of Physics Day-3 (06/03/2024) Workshop on Biomedical Materials and Novel Applications Sponsored by INSA (Indian National Science Academy):

VALEDICTORY PROGRAMME:

The third day (06/03/2024) of the workshop commenced under the supervision of the physics department faculty at Andhra Loyola College with the theme "Learning technology innovatively and more freshly." Distinguished professors from leading institutions like IITs and IISc delivered lectures on advancements in biomedical materials and bio-medical technology.

Lecture 1: Dr. John Philip emphasized the revolutionary impact of computer technology in the world, shedding light on how it enhances human understanding of the world through scientific advancements.

Lecture 2: Dr. V.L.S. Prasad from KL University, Guntur, delved into the importance of preventive measures over cure, focusing on principles behind drug delivery and vaccination.

Lecture 3: Dr. N. Veerayya elaborated on characterization of anti-bioactive materials and the necessity of studies on their antibacterial properties.

The participants from various institutions expressed their gratitude for the knowledge gained during the workshop and expressed their eagerness to pursue research in their respective fields. The organizers honored each speaker and conveyed their heartfelt appreciation for their contributions to the event.

Rev. Father Prabhu Das and Rev. Father Kiran graced the occasion as chief guests, distributing participation certificates to all successful attendees, acknowledging their active participation and encouraging them to strive for academic excellence.

The Department Head of Physics, Mr. P. Srinivas Shastri, along with Dr. M.C. Rao, Dr. Johnson, Dr. G. Murali Krishna, Dr. Sudhakar, Dr. Ch. Srinivasa Rao, Dr. Sahaya Bhaskaran, and other faculty members from physics and chemistry departments, as well as Dr. M. Arokya Swamy from the Mathematics department, attended the event, making it a grand

success. The program concluded with the national anthem, marking the successful completion the workshop.



Release Of INSA WORKSHOP POSTER



Dr PK Gupta, former director of Raja Ramanna Centre for Advanced Technology, scientist Dr GP Kothiyal, convener of workshop Dr CK Jayasankar and others inaugurating the workshop on biomaterial at Andhra Loyola College in Vijayawada on Monday

## Biomaterials contribute a lot to medical field: Expert

M V SYAM SUNDAR  
VIJAYAWADA

DR PK Gupta, former director of Raja Ramanna Centre for Advanced Technology (RRCAT), underlined the crucial contribution of biomaterials and laser to the medical field while addressing the three-day national workshop as chief guest on 'Biomedical Material properties and their Novel Applications' organised by the Department of Physics at Andhra Loyola College here on Monday.

Continuing further, he said that as the population of the world keeps increasing, the health-related issues and problems, too, keep piling up and become major concerns but the recent advance-

ments in Biomedical Materials helped us to address the complex health problems and assure enhanced life.

Scientist Dr GP Kothiyal and former head of the Division of glasses and ceramics at Bhabha Atomic Research Centre (BARC), Mumbai and is specialised in Bioceramics, threw light on the kinds of glasses and ceramics, its applications and primarily the evolution of glasses and ceramics to Bioglass ceramics.

Earlier, convener Dr C K Jayasankar welcomed the gathering. Vice-Principal Fr Prabhudas, coordinator Dr Ch Srinivasa Rao, HoD Srinivasa Sastry, secretary Dr Johnson and 150 students from various colleges participated in the workshop.



Inaugural session of three-day workshop at Andhra Loyola College | EXPRESS

## Experts explain utility of biomedical materials

EXPRESS NEWS SERVICE

@ Vijayawada

OBSERVING that health concerns across the world spike with rising population, former director of Raja Ramanna Centre for Advanced Technology (RRCAT) Dr PK Gupta said advancements in biomedical materials has helped in addressing complex health problems and ensured an enhanced life for people.

Dr Gupta, who is an expert in laser technology and visiting professor at the Indian Institute of Science and Research in Bhopal, attended the inaugural session of the three-day workshop on 'Biomedical Material Properties' organised by the Department of Physics in Andhra Loyola College on Monday.

Former head of the Division of Glasses and Ceramics at Bhabha Atomic Research Centre (BARC) in Mumbai Dr GP Kothiyal, who specialises in Bioceramics, also addressed the gathering. Dr Gupta elaborated on laser technology that is used in medical treatments.

Further, Dr Kothiyal spoke about bioglass and ceramics. He shed light on the kinds of glasses and ceramics, their applications and primarily the evolution of glasses and ceramics to bioglass ceramics.

Vice-principal Fr Prabhudas, coordinator Dr Ch Srinivasa Rao, HoD Srinivasa Sastry, secretary Dr Johnson, convener Dr CK Jayasankar and 150 students from various colleges participated.



Vijayawada, Andhra Pradesh, India  
GM66+MFW, Arul Nagar, Vijayawada, Andhra Pradesh 520008, India  
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GPS Map Camera



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