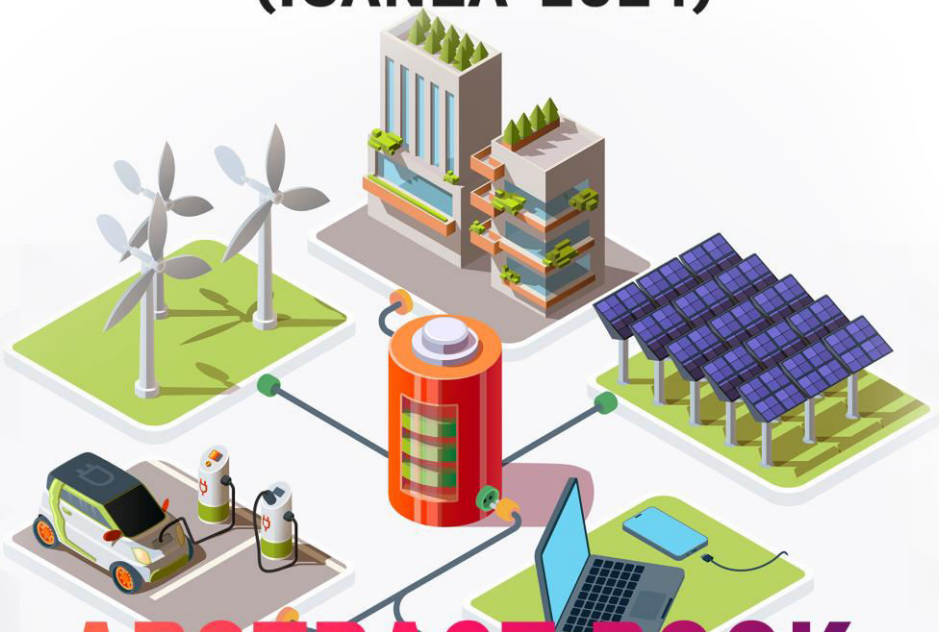
INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)



ABSTRACT BOOK

ISBN-9789362853837

Organized by

Department Of Physics

KONERU LAKSHMAIAH EDUCATION FOUNDATION

(Deemed to be University)

Green Fields, Vaddeswaram, Guntur, Andhra Pradesh-522302

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

Abstract Book of 5 th International Conference on Advanced Nanomaterials for Energy Storage Applications (ICANEA-2024)

9th–12thDecember2024

Edited by

Dr. K. Swapna – HOD
Conference Chairman - General Chair

Dr. S. Shanmugan
Convener Program Chair

Published by

KONERU LAKSHMAIAH EDUCATIONAL FOUNDATION

Deemed to be University Accredited by NAAC with A++ Grade

Green Fields, Vaddeswaram, Guntur dist, Vijayawada, Andhra Pradesh, 522502.

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

Co Convenors

Dr.G.Sunita Sundari

Dr.M.Gnana Kiran

Dr.A.Venkateswara Rao

ISBN-9789362853837

KONERU LAKSHMAIAH EDUCATION FOUNDATION

The Koneru Lakshmaiah Charity was established as a trust in the year 1980 with its official address is at Museum Road, Governerpet, Guntur District, Andhra Pradesh, India. It was started as KL College of Engineering in the Academic year 1980-81. KLEF was established in 1980-81, as KL College of Engineering, which was upgraded to KL College of Engineering Autonomous in 2006 by UGC and was declared as a Deemed to be University in 2009 by UGC, MHRD Govt. of India.NAAC assessed the University and accredited for a period of five years from 2018 to 2023 with CGPA of 3.57 with A++grade. In 2019 UGC, MHRD declared this intuition as Category 1 status. Research has taken a quantum step towards quality improvement through publishing in Scopus / SCI Indexed journals building an h-Index of 52 at the moment. KLEF has established an ecosystem to promote innovations including a center for Innovation, Incubation and Entrepreneurship development leading to start-ups in different disciplines. The university was also ranked 22 under NIRF 2024.

About the Department of Physics

The Department of Physics was established in the year 1980. The department offers M.Sc. Physics and NanoScience and Technology, and Ph.D. programs. The department is functioning with 12 Doctoral Faculty Members. Research work in the department is being carried out in various fields like

Material Science, Solar Energy, Nanotechnology, Space & Atmospheric Science, Theoretical and Computational Physics and Ultrasonics. The department had 3 fully equipped research labs worth Rs. 3. crore. The department is recognized as a DST-FIST Level 1 department with a grant of Rs.107 lakhs by the Department of Science and Technology, Govt. of India, New Delhi. The department also has a good number of sponsored research projects worth Rs. 3 crores under the DST woman scientist scheme, young scientist scheme, Early career research award and SERB-Start up research grant. Faculty members of our department have published more than 300 research publications in highly reputed international journals with high impact factor I am pleased to pen a few words to share the joy with the Department of Physics, Koneru Lakshmaiah Education Foundation (Deemed To be University) as they are organizing 5th International Conference on Advanced Nanomaterials for Energy Storage Applications (ICANEA2024)

.

As I understand it is a humble step towards a noble goal, to be an acknowledged global forum for researchers working in materials science. This may facilitate researchers coming together with their ever-inquistive minds, bring together their vast experiences and share their expertise. This is to be appreciated and acknowledged because the matter of science is collaboration for the betterment of this universe and everyone and everything in it. Creation of a better world and its progress require teamwork, partnerships and collaboration. Isaac Newton gladly accredited the assistance he received and said “If I have seen further, it is by standing on the shoulders of giants.” “Coming together is a beginning, staying together is progress, and working together is success,” says Henry Ford. Let us come together, think together and work together. Hope and pray that the small seed sown now may bloom and our dreams blossom.

From what I gather, it's a modest first step toward a commendable objective: becoming a recognized worldwide platform for materials science experts. This could make it easier for researchers to pool their wide experiences, exchange their expertise, and get together with open minds. This is something that should be recognized and valued because science is about working

together to improve the universe and all living things inside it. Progress toward a better society requires cooperation, partnerships, and teamwork. With pleasure, Einstein acknowledged that Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.

5th International Conference on Advanced Nanomaterials for Energy Storage Applications (ICANEA2024) has been organized by Department of Physics, Koneru Lakshmaiah Education Foundation (Deemed To be University) a prestigious institution in Andhra Pradesh. There has been overwhelming response to the conference from all over the world. ICANEA2024 offers a platform to the researchers and scientists for exchanging the latest research outputs and sharing the most modern research methods as well. Over the course of the conference, internationally – renowned speakers will enlighten the researchers with their wisdom and experience related to the contemporary challenges in the field of material science. ICANEA2024 intends to foster avenues to collaborative interdisciplinary research in materials science and it s applications. The conference has brought together number of experts, scientists and professionals to share not only their knowledge, but also their findings in the development of material science, properties and applications. I would like to congratulate the organizers, the Research and Post graduate Department of Physics and I wish great success to the event.

Advances in materials research are key to the rapid technological advances that the world has endured over the last two centuries. Our knowledge and understanding of materials is being updated every moment through the work of thousands of materials scientists and engineers in academia, research organizations and industry.

The scope of materials research is very broad in which can perhaps categorise it based on state, properties, applications and form or type. In this conference we aim to bring together researchers to present and discuss latest research and innovations in selected applications areas of materials such as Renewable energy conversion technology, Sustainable materials for energy efficiency, Hybrid energy storage and thin film technologies, Energy policy and Climate Impacts on Energy,Environment Sustainable materials for fuel cells, Sustainable materials for supercapacitors.

Over the last two years, our world has experienced difficulties of a pandemic which our generation never imagined. This has led to new challenges for the world in terms of sustainability, energy, the environment, and healthcare. Materials play an important role in current and future

needs for sustainable development. It has also changed the way we meet, interact and share our thoughts and opinions.

Therefore, this conference is organized as a webinar to provide an opportunity for young researchers and graduate students to listen to leading scientists in the form of a number of invited and plenary talks. It will also provide for young researchers to present their research as oral and poster presentations. We are determined to provide a great opportunity for participants and presenters to share the latest research in their respective fields of materials science and engineering. We are thankful to all plenary and invited speakers for accepting our invitation to present at this conference. As chairs we take this opportunity to thank all those who are serving as members of different committees, conference proceedings editorial board and in particular the conference convenor and organizers for their efforts to make ICANEA2024 a success.

About the Conference

Energy is a part of science in which materials and Technology plays an important role as Advanced Nanomaterials to meet the needs of the future environment. The increasing ecological problems such as energy storage, generation and conservation are the major drivers of Nanomaterials and Technology. There is a need of developing sustainable energy production and consumption to achieve the socio-economic and environmental targets. The major significance of Energy sources helps in strengthening the research and advancement of materials towards sustainable development and relevant applications. The universal emphasis on energy is to develop materials for energy generation, low energy processing, energy conservation and conversion to meet the increasing energy demand of the country. Advanced Functional Materials provides a wide range of applications that discourse the current innovations and novel approaches for the expansion of energy materials to meet global desires. ICANEA2024 covers major interdisciplinary subjects such as Nanomaterials and devices, Fuel cells, Organic and inorganic Solar Energy, Batteries

storage devices, Glass Science and Technology, Photocatalytic methods, Green energy, Photonic devices and Environmental sustainability.

We assure that, this conference will provide a platform to Academicians, Researchers, Industrialists, Scholars and students to interact with distinguished and eminent Scientists all around the globe of diverse fields. The conference also aimed to understand the latest developments in the field of advanced functional materials through hybrid mode. It also aims at kindling interest in the minds of young students to pursue research as higher career. It is anticipated to widen the scope of interdisciplinary research among academicians and researchers.

Interested researchers are invited to submit their original research contributions in the following themes related to the primary thematic research areas of ICANEA2024 for Oral and Poster presentations. We also provide space for Institutes and companies to present their innovative products, services, and research results.

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

Organizing Committee Members

Full Time Research Scholars

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

Chief Guests

Chief Guests

Chair

Padma Jyoti Dr G S Ayyappan
Senior Principal Scientist, Professor – AcSIR,
CSIR-CSIO Chennai, Energy Management Technologies
(Chennai Centre), Tamil Nadu

Education:
Doctor of Philosophy (PhD) at Academia of Scientific & Innovative Research, CECRI, Karaikudi.

Experience:
Worked as Juniro Technical Assistant at CSIR-Central Scientific Instruments Organisation Worked as Scientist at Research and Development on Energy Management Instrumentation & Energy Efficiency Systems, Chennai. Sr. Scientist at Research and Development on Energy Management Instrumentation & Energy Efficiency Systems, Chennai. Working as a Senior Principal Scientist & Professor – AcSIR, CSIR-CSIO Chennai, Energy Management Technologies (Chennai Centre), Tamil Nadu.

Chief Guests

Chair

Dr. D. Pamu
Professor, Department of Physics, Indian Institute of Technology, Guwahati, (IIT Guwahati)

Education:
Doctor of Philosophy (PhD) at University of Hyderabad, Hyderabad, India.

Experience:
Working as Professor in Department of Physics at Indian Insitute of Technology, Guwahati (IIT Guwahati).

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

LIST OF SPEAKERS PRESENTED

International Speakers

Dr. K. Chinnaiah

Post-doctoral fellow, Arieal University, Isreal

Education

Post-doctoral fellow, Arieal University, Isreal

Experience:

Working as Post-doctoral fellow at Arieal University, Isreal.

Dr. Prasad Jaladi

Social Entrepreneur, Foundation and Chief Facilitator of Suraksha based in Austin, Texas, USA

Education

Master's degree in organic chemistry from Bhavnagar University Gujarat, India.

Experience:

Prasad has worked in pharmaceutical industry, managed QA, R&D, pilot, commercial manufacturing and consulting for the manufacturing of bulk active pharmaceutical ingredients. He obtained professional training in ERP and CRM. Prasad managed IT consulting and bio-IT businesses from Silicon Valley and Texas. He has executive experience in life sciences and IT, including emerging technology.

Dr. Mohammad Nasir

Research Fellow, Department of Physics, Dankook University, South Korea

Education

Doctor of Philosophy (PhD) at Indian Institute of Technology, Indore (IIT Indore).

Experience:

Working as a Post-doctoral researcher at Dankook University, South Korea.

Dr. Mohammed Al-Buraihi

Assistant Professor, Department of Physics, Sakarya University, Sakarya, Turkey.

Education

Doctor of Philosophy

Experience:

Working as Assistant Professor at Dpeartment of Physics in Sakarya University, Sakarya, Turkey.

Dr. Karthik Kannan

Professor, ACSDRI, Adelaide SA, 5000, Australia & Department of Mechanical Engineering, Advanced Institute of Manufacturing with High-Tech Innovations, National Chung Cheng University, Chia-Yi, 621301, Taiwan.

Education

Doctor of Philosophy (PhD), Physics at Bharathidasan University, Thiruchirapally

Experience:

Worked as Postdoctoral Researcher at Kumoh National Institute of Technology, South Korea.Working as Postdoctoral Scientist at Ariel University, Isreal.

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

National Speakers

Dr. D. Pamu

Professor, Department of Physics, Indian Institute of Technology, Guwahati, (IIT Guwahati)

Education

Doctor of Philosophy (PhD) at University of Hyderabad, Hyderabad, India.

Experience:

Working as Professor in Department of Physics at Indian Insitute of Technology, Guwahati (IIT Guwahati).Working as Assistant Professor at Indian Institute of Technology, Jammu, Jammu & Kashmir, India.

Dr. Suryanarayana Jammalakada

Professor, Indian Institute of Technology, Hyderabad, (IIT Hyderabad)

Education

Doctor of Philosophy (PhD) at Indian Institute of Technology Madras (IIT Madras), Chennai

Experience:

Working as a Professor at Indian Institute of Technology, Hyderabad (IIT Hyderabad).

Dr. Arunkumar Jayakumar

Associate Professor,Department of EEE, St. Peter Institute of Higher Education and Research, Avadi,Chennai

Education

Obtained M.S. Energy engineering at Anna University, Chennai.
Doctor of Philosophy at Auckland University of Technology, New Zealand.

Experience:

Worked as Research Scientist at GasHub Technology, Pte Ltd.
Worked as Research Scientist at ZECA POWERS.
Worked as Associate Professor at Chennai Institute of Technology.
Worked as Research Fellow at Auckland University of Technology, New Zealand.
Founder of 3D-4S Systems. Working as Associate Professor at St.Peter Institute of Higher Education and Research, Chennai.

Dr. Ravindra Kumar Jha

Assistant Professor, Depratment of EEE,
Indian Institute of Technology, Guwahati, (IIT Guwahati)

Education

Doctor of Philosophy (PhD) at Indian Institute of Technology, Kharagpur

Experience:

Worked as Trainee at National Physical Laboratory, New Delhi.
Scientist, CSIR-Ministry of Science & Technology, Govt. of India.
Working as Assistant Professor, at Indian Institute of Technology, Guwahati, India.

Dr. P. Selvaraju

Professor, Department of Computer Science and Engineering, SIMATS, Chennai, Tamil Nadu.

Education

Doctor of Philosophy (PhD) at Anna University

Experience:

Worked as Seniro Lecturer at Jerusalem Engineering College,
Worked as Professor at SSN College of Engineering, Chennai,
Worked as Professor at Vel Tech Multi Tech Dr. Rangarajan Dr. Sakuntala Engineering College,
Working as Professor at SIMATS, Chennai, Tamil Nadu

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

National Speakers

Dr. V. Chithambaram

Professor, Dean Research, Department of Physics, Dhanalakshmi College of Engineering, Manimangalam, Chennai, Tamil Nadu.

Education

Obtained Master's degree at Vellore Institute of Technology, Vellore, India.
Doctor of Philosophy (PhD) at AMET University, Chennai.

Experience:

Worked as Associate Professor at Sri Krishna Engineering College.
Worked as Professor, Head/R&D at PERI Institute of Technology.
Working as Professor at Karpaga Vinayaga College of Engineering and Technology, Chennai.

Dr. D. Amaranatha Reddy

Associate Professor, Department of Physics, IIITDM, Kurnool

Education

Doctor of Philosophy (PhD) at Sri Venkateswara University, Tripathi, Andhra Pradesh, India.

Experience:

Worked as Post-doctoral Researcher at Hankuk University of foreign studies, Yongin, South Korea,
Worked as Post-doctoral fellow at Pusan National University, South Korea,
Worked as Researcher at University-Industry Foundation, Yonsei University, South Korea,
Worked as Inspire faculty at IIITDM, Kurnool, Andhra Pradesh, India,

Dr. M. Mamata Kumari

Assistant Professor, Department of Physics, Yogi Vemana University, Kadapa, Andhra Pradesh.

Education

Doctor of Philosophy (PhD) in Department of Mtallurgical and Materials Engineering, Indian Institute of Technology Madras.

Experience:

Worked as Assistant Professor in Department of Materials Science and Nanotechnology, Yogi Vemana University, Kadapa. Working as Associate Professor in Department of Materials Science and Nanotechnology, Yogi Vemana University, Kadapa

Dr. B . Kishore Babu

Associate Professor, Department of Physics,
Andhra University, Andhra Pradesh.

Education

Doctor of Philosophy (PhD) at University of Hyderabad

Experience:

Worked as Assistant Professor in Department of Engineering Chemistry, Andhra University.
Working as Associate Professor in Department of Engineering Chemistry, Andhra University.

Dr. D. Kalyani

Professor and Head, Department of Biochemistry, Adikavi Nannaya University, Rajamundry ,Andhra Pradesh.

Education

Doctor of Philosophy (PhD) at Adikavi Nannaya University.

Experience:

Working as Professor at Adikavi Nannaya University, Rajamundry, Andhra Pradesh

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

Internal Speakers

Dr. Mahamuda Shaik

Associate Professor, Depratment of Physics, Koneru Lakshmaiah Education Foundation (Deemed to be University), Guntur, Andhra Pradesh, India

Education

Doctor of Philosophy (PhD) at Koneru Lakshmaiah Education Foundation (Deemed to be University), Guntur, Andhra Pradesh, India

Experience:

Working as Associate Professor at Depratment of Physics, Koneru Lakshmaiah Education Foundation (Deemed to be University), Guntur, Andhra Pradesh, India

Dr. M. Venkateswarlu

Assistant Professor, Depratment of Physics, Koneru Lakshmaiah Education Foundation (Deemed to be University), Guntur, Andhra Pradesh, India

Education

Doctor of Philosophy (PhD) at Koneru Lakshmaiah Education Foundation (Deemed to be University), Guntur, Andhra Pradesh, India

Experience:

Working as Assistant Professor at Depratment of Physics, Koneru Lakshmaiah Education Foundation (Deemed to be University), Guntur, Andhra Pradesh, India

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

Oral Presentation Chair

Day-1 (19-12-2024) 4.30-5.30 PM

Session-1 Renewable energy conversion technology

Chair

Dr G. S. Ayyappan
Dr. D. Pamu
Dr. V. Chithambaram

Co-Chair

Dr. K. Swapna
Dr. N.S.M.P. Latha Devi
Dr. S. Shanmugan, .

Session-2 Sustainable materials for energy efficiency

Chair

Dr. D. Kalyani
Dr. P. Selvaraju
Dr. K. Chinnaiah

Co-Chair

Dr. Sk. Mahamuda,
Dr. A. Venkateswara Rao

Day-2 (20-12-2024) 3.00-5.30 PM

Session-3 Hybrid energy storage and thin film technologies

Chair

Dr. Ravindra Kumar Jha
Dr. Arunkumar Jayakumar

Co-Chair

Dr. K. Raghavendra Kumar,
Dr. Hushund Jahan

Session-4 Energy policy and Climate Impacts on Energy

Chair

Dr. M. Mamata Kumari
Dr. P. Selvaraj

Co-Chair

Dr. M.V.V.K. Srinivas Prasad,
Dr. Sonali Biswas
Dr. N.S.M.P. Latha Devi

Day-3 (21-12-2024) 3.00-5.30 PM

Session-5 Environment Sustainable materials for fuel cells

Chair

Dr. D. Amaranatha Reddy
Dr. Suryanarayana Jammalamadaka

Co-Chair

Dr. M. Venkateswarlu,
Dr. Shaik Babu

Session-6 Sustainable materials for supercapacitors

Chair

Dr. B. Kishore Babu
Dr. Arunkumar Jayakumar

Co-Chair

Dr. M. Gnana Kiran,
Dr. G. Sunita Sundari

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Manufacturing Lead, Front End,
Engineer-in-Training, Edmonton, Alberta, Canada.

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Army Institute of Technology, Maharashtra.

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Division of Research & Development,
Lovely Professional University, Punjab

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Professor in CSE,
Koneru Lakshmaiah Education Foundation,
Andhra Pradesh.

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Professor in Physics,
Government Arts and Science College,
Tamil Nadu.

Dr. S. Ravichandran,
Professor in Chemistry,
Lovely Professional University,
Phagwara, Punjab.

Dr. V. Chithambaram,
Professor in Physics, KVCET,
Tamil Nadu.

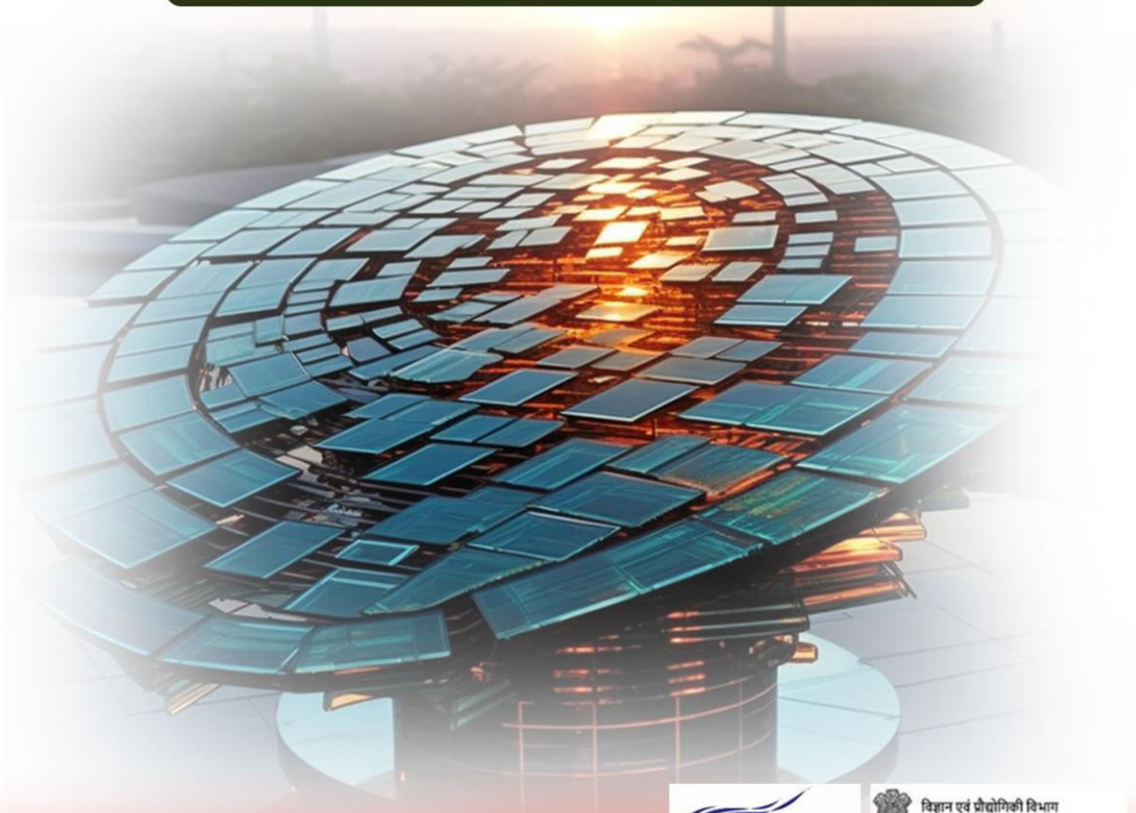
Dr. P. Selvaraju,
Dean R&D and Professor in Mathematics,
RIT, Tamil Nadu.

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

International Conference on Advanced Nanomaterials for Energy Storage Applications (ICANEA-2024)

19th – 21st December 2024

PROGRAMME SCHEDULE



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Vaddeswaram,AndhraPradesh522502.

Conference Website Link: https://www.kluniversity.in/physics/icanea-2024/

31 DAYS

International Conference on Advanced Nanomaterials for Energy Storage Applications (ICANEA-2024)

19th–21st December 2024

Organized by
Department of Physics,
KLEF–VZA.

Conference Website Link: https://www.kluniversity.in/physics/icanea-2024/

India Time is 9.30 AM to 5.30 PM

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

INAUGURATION - ICANEA-2024

TIME	NAME	TALK
9.45AM–9.50AM	DR. M.V.V.K. SRINIVAS PRASAD	WELCOME ADDRESS & PRAYER SONG

LAMP LIGHTING CEREMONY

9.50AM–9.55AM	Dr. K. Swapna (HOD)	Introduction for Department of physics
9.55AM– 10.05AM	Dr.S.Shanmugan(Convener)	Themes Of Conference
10.05AM– 10.10AM	Dr. G. Sunita Sundari	Introduction about ICANEA 2024 International Keynote Speakers
10.10AM– 10.15AM	Dr. M. Gnana Kiran	Introduction about ICANEA 2024 national Keynote Speakers
10.15AM-10.20AM	Dr. Shaik Mahamuda (RPAC)	R&DThemes
10.20 AM-10.35AM	KLEF-CHIEFPATRON	VC, Pro VC, Registrar, FED Director, Vice Principal of FED, Principal MHS, Dean R&D, Director MHS, IRD HOD, etc.,
10.35 AM -10.50 AM	Committee Members Dr. V. Vivekananthan Dr. S. Arunmetha Dr. Hushnud Jahan Dr. Sonali Biswas Dr. N. S. M. P. Latha Devi Dr. M Venkateswarlu Dr. Shaik Babu Dr. K. Raghavandra Kumar	 PURSE, Media and Publicity Chair Registration chair Hospitality chair Arrangement Chair
10.50 AM -11.15 AM	Address by Chief Guest Padma Jyoti Dr G. S. Ayyappan	Senior Principal Scientist,Professor, AcSIR, CSIR-CSIO CHENNAI, Energy Management Technologies (Chennai Centre) Tamil Nadu.
11.15 AM – 11.30 AM	Address by Chief Guest Dr. D. Pamu	Professor, Indian Institute of Technology Guwahati, India
11.30 AM – 11.35AM	Dr. A. Venkateswara Rao (Co-Convener)	Vote of Thanks

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DEPARTMENT OF SCIENCE & TECHNOLOGY
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INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

ICANEA-2024

DAY-1
(19-12-2024)

Incharge Dr.G.Sunita Sundari

Introduction Dr. M Venkateswarlu Vote of thanks: Mr. V. Parthiban

11.50 AM - 12:30 AM — **Dr. D. Pamu**
Professor,
Indian Institute of Technology Guwahati, India

(12:30 PM TO 1:30 PM) LUNCH BREAK

Introduction Dr. Mahamuda Shaik Vote of thanks: Ms. G. Dedeepya

1:30 PM - 2:00 PM — **Dr. K. Chinnaiah**
Post-Doctoral Fellow,
Department of Physics Ariel University, Israel.

Introduction Dr. Sonali Biswas Vote of thanks: Ms. D. Naga Prasuna

2.10 PM – 2.40 PM — **Dr. P. Selvaraju**
Professor, Department of Computer Science and Engineering, SIMATS, Chennai, Tamil Nadu.

Introduction Dr. A. Venkateswara Rao Vote of thanks: Mr. M. Mahivardhan

2.50 PM – 3.30 PM — **Dr. V. Chithambaram**
Dean Research, Department of Physics,
Dhanalakshmi College of Engineering,
Manimangalam, Chennai, Tamil Nadu.

Introduction Dr. Shaik Babu Vote of thanks: : Ms. A. Sangeetha

3:40 PM - 4:30 PM — **Dr. D. Kalyani**
Professor and Head, Department of Biochemistry,
Adikavi Nannaya University, Rajamundry.
Andhrapradesh.

PAPER PRESENTATIONS 4.30 PM – 6.00 PM
Incharge Dr.M.V.V.K.Srinivas Prasad

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INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

DAY-2
(20-12-2024)

Incharge -Dr.M.Gnanakiran, Dr.ShaikBabu

Introduction Dr. M.V.V.K. S. Prasad; Vote of thanks: Ms. G. Dedeepya

9. 30 AM -10.15AM — **Dr. Arunkumar Jayakumar**
Associate Professor, Department of EEE,
St. Peter's Institute of Higher Education and Research, Avadi, Chennai.

Introduction Dr. M Venkateswarlu Vote of thanks: Mr. M. Mahivardhan

10:15AM -11.00 PM — **Dr. Ravindra Kumar Jha**
Assistant Professor, Department of EEE,
Indian Institute of Technology Guwahati, India.

BREAK (11:15 AM to 11:30 AM)

Introduction Dr. K. Swapna Vote of thanks: Ms. T. Lakshmi

11.30 PM – 12.15 PM — **Dr. M. Mamata Kumari**
Assistant Professor, Department of Physics,
Yogi Vemana University, Kadapa, Andhra Pradesh.

Introduction Dr. N.S.M.P. Latha Devi ,Dr. Hushnud Jahan Vote of thanks: Mr. D. Naga Prasuna

12.15 PM – 1.00 PM — **Dr. Mahamuda Shaik**
Associate Professor,
Department of Physic, KLEF.

(1.00 PM TO 1.45 PM) LUNCH BREAK

Introduction Dr. K. Raghavendra Kumar Vote of thanks: : Mr. Bharath Surya

1:45 PM - 2:15 PM — **Dr. Prasad Jaladi**
Social Entrepreneur,
Foundation and Chief Facilitator of Suraksha based in Austin, Texas, USA.

Introduction Dr. G. Sunita Sundari Vote of thanks: Mr. P. Parthiban

2:15 PM – 3.00 PM — **Dr. Mohammad Nasir**
Research Fellow, Department of Physics,
Dankook University, South Korea.

PAPER PRESENTATIONS 3.00 PM –6.00 PM
In charge – Dr. M. Venkateswarlu, Dr. Sonali Biswas and Dr. Hushnud Jahan

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

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Valedictory Ceremony:

In charge – Dr. K. Raghavendra Kumar

Conclude :

- **Dr.K.Swapna,(HOD)**
  (Few words about – ICANEA - 2024)
- **Dr. M. Gnana Kiran, (Co-Convener)**
  (Few words about feature research ideas - ICANEA - 2024)
- **Dr. G. Sunita Sundari, (Co-Convener)**
  (Highlights – ICANEA - 2024)
- **Chief Guest Address**
  (Speakers – ICANEA - 2024)
- **DST PURSE & ICANEA Organizing Committee Members**
  (Highlights of Delivery – ICANEA - 2024).
- **Dr. S Shanmugan, (Convener)**
  (Future themes of ICANEA - 2024)
- **Dr. A. Venkateswara Rao, (Co-Convener)**
  (Vote of thanks for ICANEA - 2024).

Head&Department of Physics,

Dr.K.Swapna

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కెఎల్ యులో ముగిసిన భౌతిక శాస్త్రం అంతర్జాతీయ సదస్సు

సూర్య ప్రతినిధి మంగళగిరి: కెఎల్ డీమ్డ్ యూనివర్సిటీలో భౌతిక శాస్త్ర విభాగం అధ్వర్యంలో నిర్వహించిన అంతర్జాతీయ సదస్సు సోమవారం ఘనంగా ముగిసింది. ఈ సదస్సుకు ప్రపంచవ్యాప్తంగా ఉన్న ప్రముఖ భౌతిక శాస్త్రవేత్తలు, పరిశోధకులు, పరిశ్రమ నిపుణులు పెద్ద సంఖ్యలో పాల్గొన్నారు. ఈ సదస్సులో నానో మెటీరియల్స్‌లో తాజా పరిణామాలను మరియు ఇంధన నిల్వ వ్యవస్థల భవిష్యత్తును రూపొందించడంలో వాటి కీలక పాత్రను ప్రదర్శించినట్లు భౌతిక శాస్త్ర విభాగాధిపతి డాక్టర్ కె.స్వప్న తెలిపారు. కన్వీనర్ డాక్టర్ ఎస్.షణముగన్ మాట్లాడుతూ అత్యాధునిక పరిశోధనలు, అభివృద్ధి చెందుతున్న పోకడలు, ఇంధన నిల్వలో సాంకేతిక ఆవిష్కరణలపై చర్చలు, నెట్‌వర్కింగ్ తదితర విలువైన అంశాలను విద్యార్థులు తెలుసుకునేందుకు ఈ అంతర్జాతీయ సదస్సు వేదికగా ఉపయోగపడిందని అన్నారు. ఈ కార్యక్రమంలో వైస్ చాన్సలర్ డాక్టర్ జి.పార్థసారథివర్మ, ప్రో చాన్సలర్ డాక్టర్ కెవిస్.జగన్నాథరావు, ప్రో వైస్ చాన్సలర్లు డాక్టర్ ఎవిఎస్. ప్రసాద్, డాక్టర్ ఎన్.వెంకట్ రామ్, కెఎల్ కాలేజ్ ఆఫ్ సైన్సెస్

ప్రిన్సిపల్ డాక్టర్ కె.సుబ్రమణ్యం, ఎఫ్ ఇడి ప్రిన్సిపల్ డాక్టర్ కృష్ణారెడ్డి, ఆర్ అండ్ డి డీన్ బిటిపి.మాధవ్, భౌతిక శాస్త్ర విభాగాధిపతి డాక్టర్ కె.స్వప్న, కన్వీనర్ డాక్టర్ ఎస్.షణ్ముగన్ తదితరులు పాల్గొన్నారు.

సాక్షి

కేఎల్‌యూలో ముగిసిన అంతర్జాతీయ సదస్సు

భౌతిక శాస్త్ర అంతర్జాతీయ సదస్సులో పాల్గొన్న శాస్త్రవేత్తలు, పరిశోధకులు డాక్టర్ బి.వి. అప్పారావు

తాడేపల్లి రూరల్: కేఎల్ యూనివర్సిటీలో భౌతిక శాస్త్ర విభాగం ఆధ్వర్యంలో నిర్వహించిన అంతర్జాతీయ సదస్సు సోమవారం ముగిసింది. ఈ సందర్భంగా భౌతిక శాస్త్ర విభాగాధిపతి కె. స్వప్న మాట్లాడుతూ ఈ సదస్సులో ప్రపంచవ్యాప్తంగా వున్న ప్రముఖ భౌతిక శాస్త్రవేత్తలు, పరిశోధకులు, పరిశ్రమ నిపుణులు పెద్ద సంఖ్యలో పాల్గొన్నారన్నారు. నానో మెటీరియల్స్‌లో తాజా పరిణామాలు, ఇంధన నిల్వ వ్యవస్థల భవిష్యత్తును రూపొందించడంలో వాటి కీలక పాత్రను ప్రదర్శించారని తెలిపారు. కన్వీనర్ ఎస్. షణ్ముగన్ మాట్లాడుతూ అత్యాధునిక పరిశోధనలు, అభివృద్ధి చెందుతున్న పోకడలు, ఇంధన నిల్వలో సాంకేతిక ఆవిష్కరణలపై చర్చలు, నెట్ వర్కింగ్ తదితర విలువైన అంశాలను విద్యార్థులు తెలుసుకునేందుకు ఈ అంతర్జాతీయ సదస్సు వేదికగా నిలిచిందని అన్నారు. కార్యక్రమంలో యూనివర్సిటీ వైస్ చాన్సలర్ జి. పార్థసారథివర్మ, ప్రో చాన్సలర్ కె.ఎస్. జగన్నాధరావు, ప్రో వైస్ చాన్సలర్లు ఎ.వి.ఎస్. ప్రసాద్, ఎన్. వెంకటరామ్, కేఎల్ కాలేజ్ ఆఫ్ సైన్సెస్ ప్రిన్సిపాల్ కె. సుబ్రహ్మణ్యం,ఎఫ్ఈడీ ప్రిన్సిపల్ కృష్ణారెడ్డి, ఆర్ అండ్ డీ డీన్ బి.టి.పి. మాధవ్ పాల్గొన్నారు.

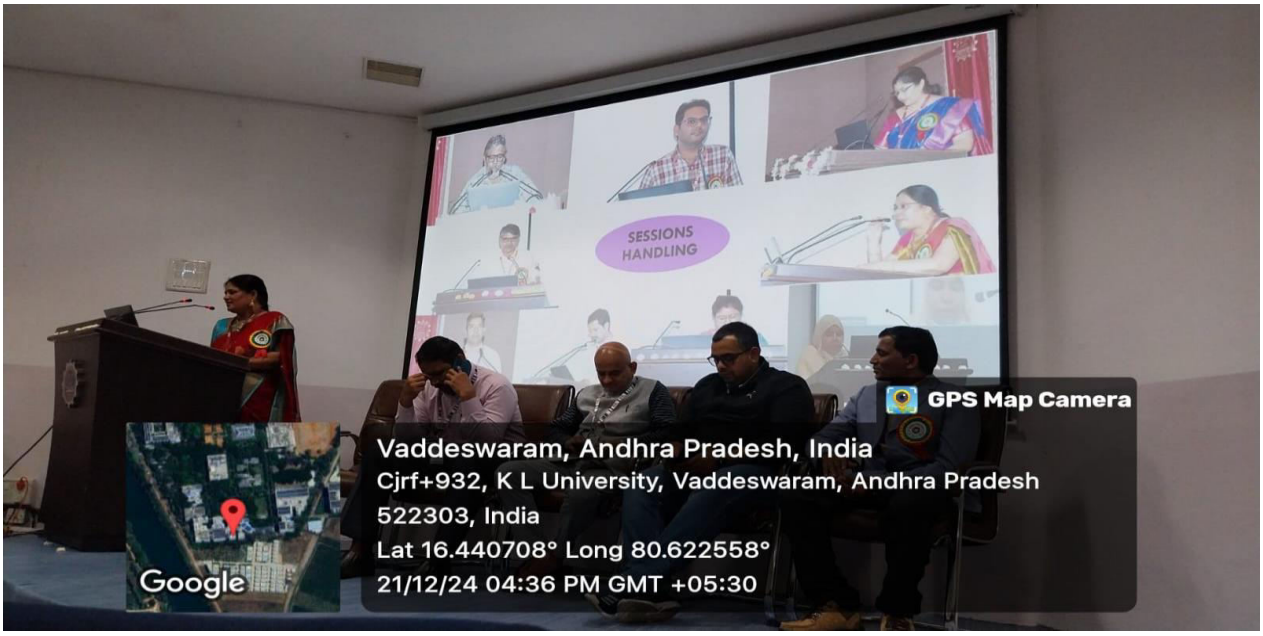
సున్నాను కనిపెట్టింది భారతీయులే..

తాడేపల్లి రూరల్: సున్నాను కనిపెట్టి భారతీయులు ప్రపంచ గణిత శాస్త్రానికి అద్భుత కానుక ఇచ్చారని కుఎల్‌యూ గణిత విభాగాధిపతి బి.వి. అప్పారావు అన్నారు. సోమవారం కేఎల్

రామానుజన్ చిత్రపటానికి నివాళులర్పిస్తున్న గణిత విభాగాధిపతి అప్పారావు

యూనివర్సిటీలో గణిత మేధావి శ్రీనివాస రామానుజన్ జయంతి వేడుకలను ఘనంగా నిర్వహించారు. ముందుగా శ్రీనివాస రామానుజన్ చిత్రపటానికి పూలమాల వేసి నివాళులర్పించారు. ఈ సందర్భంగా బి.వి. అప్పారావు మాట్లాడుతూ గణిత శాస్త్రానికి దిశానిర్దేశం చేసిన శాస్త్రవత్తేలు మన దేశంలో చాలామంది ఉన్నారన్నారు. వారిలో ప్రథమంగా ఆర్యభట్ట, మహావీర, బ్రహ్మగుప్త, శ్రీనివాస రామానుజన్ వంటి వారు గణిత శాస్త్రంలో చేసిన పరిశోధనలు అసాధ్యమని తెలిపారు. రామాజున్ మ్యాథ్స్ జీనియస్‌గా చరిత్రలో నిలిచిపోయారని తెలిపారు. కార్యక్రమంలో వర్సిటీ వైస్ చాన్సలర్ జి. పార్థసారథివర్మ, ప్రో వైస్ చాన్సలర్లు ఎ.వి.ఎస్. ప్రసాద్, విద్యార్థి సంక్షేమ విభాగాధిపతి కె.ఆర్.ఎస్. ప్రసాద్, భగవాన్, గణిత విభాగ ఆచార్యులు పాల్గొన్నారు.

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)



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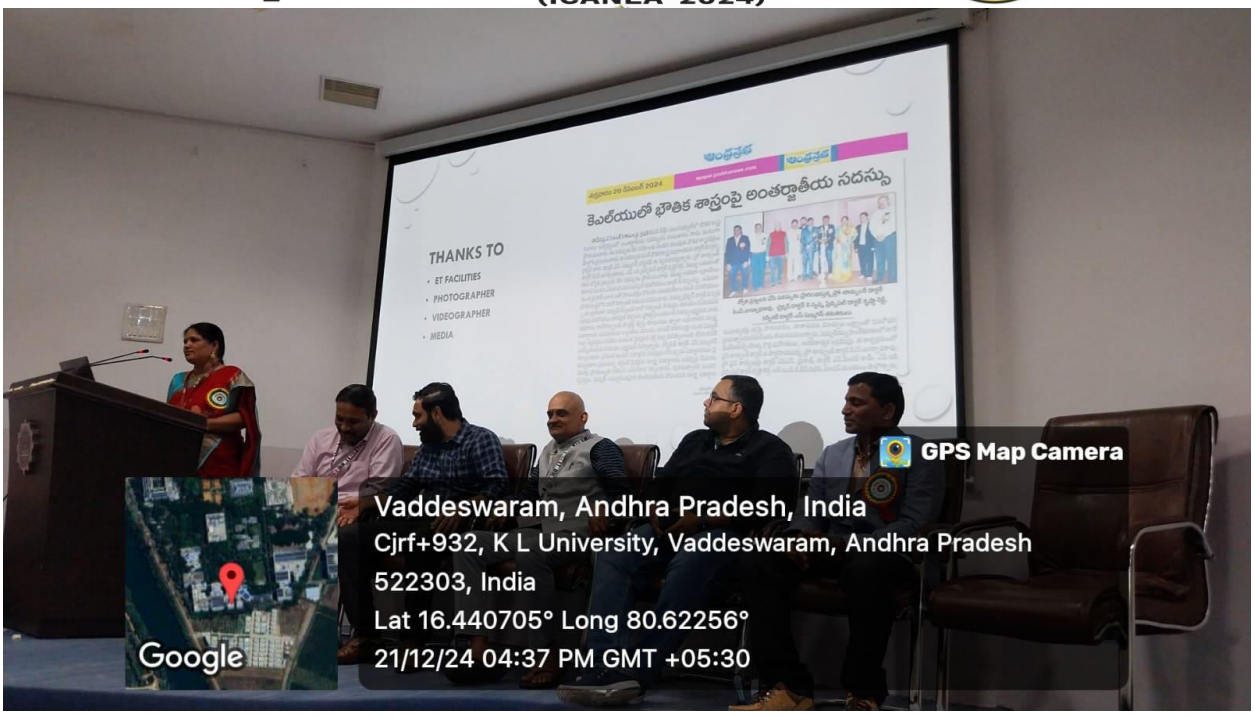

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CERTIFICATE

OF APPRECIATION

This certificate is presented to

Dr.K.Thiruppathi

Faculty, Dept of Phtsics, SRM Valliammai Engineering College, Chennai

For your active participation in an **Oral presentation** with the Title: **A Sustainable Future: Leveraging Activated Carbon Thin-Film Composites for Environmental Remediation & Paper ID: ICANEA 2024 – 79** in "Advanced Nanomaterials for Energy Storage Applications" (ICANEA-2024) **from 19th – 21st December 2024 organized by the Department of Physics, Koneru Lakshmaiah Education Foundation (Deemed to be University), Guntur, Andhra Pradesh, India, Sponsored by ANUSANDHAN NATIONAL RESEARCH FOUNDATION (SERB) & DST-PURSE, India**

Dr. S. Shanmugan	Dr. Swapna	Dr. V. Krishna Reddy	Prof. K. Subramanyam	Prof . A. Jagadeesh
Convenor	HoD & Conference Chair, KLEF	Principal – FED	Principal – Sciences	Director – FED
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CERTIFICATE

of APPRECIATION

This certificate is presented to

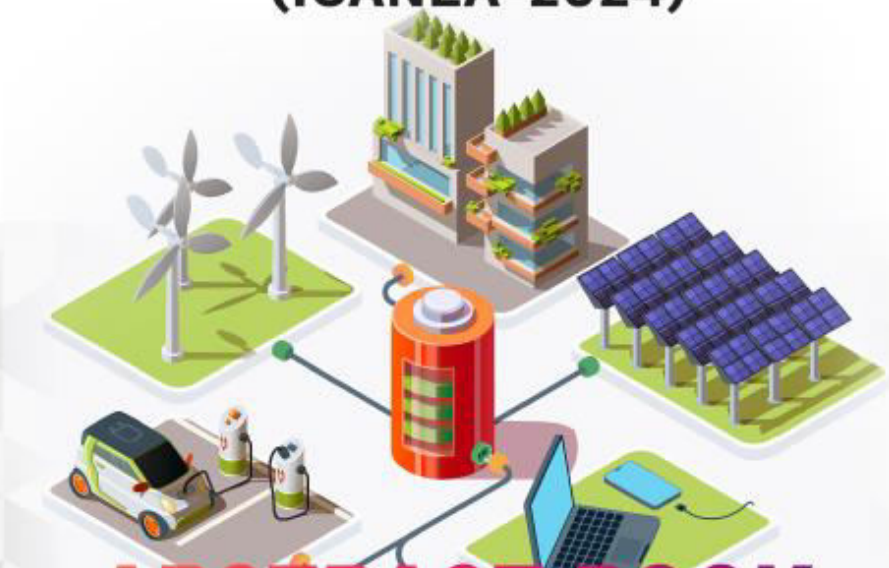
Dr. Arunkumar Jayakumar

Associate Professor, Department of EEE, St. Peter's Institute of Higher Education and Research, Avadi, Chennai.

For your active participation as **INTERNATIONAL SPEAKER** in "Advanced Nanomaterials for Energy Storage Applications" (ICANEA-2024) **19th – 21st December 2024, organized by the Department of Physics, Koneru Lakshmaiah Education Foundation (Deemed to be University), Vaddeswaram, Guntur-522302, Andhra Pradesh, Sponsored by ANUSANDHAN NATIONAL RESEARCH FOUNDATION (SERB) & DST-PURSE, India**

Dr. S. Shanmugan	Dr. K. Swapna	Prof. V. Krishna reddy	Prof. K. Subrahmanyam	Prof. A. Jagadeesh
Convener	HoD & Conference chair	Principal- FED	Principal – Sciences	Director, FED
KLEF	KLEF	KLEF	KLEF	KLEF

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)



ABSTRACT BOOK

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INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

ICANEA-2024-11

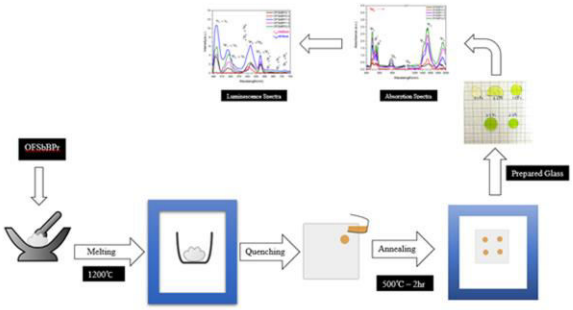
Investigation of structural, optical and mechanical parameters of Pr3+ -doped Oxyfluoro Antimony borate glasses

Ch. Pravallika1, K. Swapna1
1Department of Physics, Koneru Lakshmaiah Education Foundation, Vaddeswaram, Andhra Pradesh, India.

ABSTRACT

This study examines the physical, structural, optical, and mechanical properties of Oxyfluoroantimony borate (OFSbB) glasses doped with Pr^{3+} ions, emphasizing their suitability for optical applications. X-ray diffraction (XRD), Transmission Electron Microscopy (TEM), and Energy Dispersive X-ray (EDX) analysis confirm the amorphous nature and precise glass composition. Optical absorption spectra reveal electronic transitions associated with Pr^{3+} ions, supporting Judd-Ofelt parameter analysis and bonding characterization, which indicate ionic bonding in the glasses. Fluorescence studies highlight emission transitions at 484 nm ($^3P_0 \rightarrow {}^3H_4$) and 610 nm ($^1D_2 \rightarrow {}^3H_4$), showcasing potential for laser applications. Vickers microhardness tests reveal enhanced hardness and rigidity with increased Pr^{3+} doping. Among the samples, OFSbBPr1.0 glass shows exceptional promise as a laser host material due to its optimal optical and mechanical properties.

Graphical Abstract



Research & Methodology

• Material Preparation: OFSbB glasses were synthesized using a melt-quenching technique with varying concentrations of Pr^{3+} ions.

• Structural Analysis: XRD confirmed the amorphous nature, while TEM provided detailed structural morphology. EDX was used to verify glass composition.

• Optical Characterization: UV-Vis-NIR spectroscopy analyzed electronic transitions. Fluorescence spectroscopy identified emission bands and potential laser wavelengths.

• Mechanical Testing: Vickers microhardness tests assessed hardness and elastic moduli, reflecting the structural integrity of the glasses.

• Judd-Ofelt Analysis: Optical absorption data were used to calculate bonding parameters and elucidate ionic nature in the glasses.

INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

ICANEA-2024-2

A Sustainable Approach to Solar Distillation: Self-Regulating Double-Slope U-Shaped Still with Activated Carbon Nanocomposites for Extended Water Production

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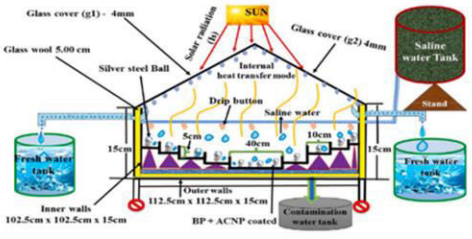
ABSTRACT

Addressing water scarcity in remote areas, solar stills offer a promising solution despite limitations in productivity. This proposal investigates the thermal performance of a DUSD design employing a soft-coated Zinc Oxide (ZnO) nanocomposite blended with varying concentrations (5 - 30 wt %) of Activated Carbon (AC) nanoparticles derived from Zea Mays (ZZM). The impact of these ACZZM coatings on the DUSD's thermal efficiency was evaluated. Additionally, the influence of using standalone AC within the DUSD was assessed. Experimental results revealed that a 30 wt% ACZZM coating achieved the optimal DUSD performance, with a 24% increase in water temperature

Graphical Abstract:



INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

To study the photoluminescence effects of Samarium Doped Bismuth Antimony Fluoroborate Glasses

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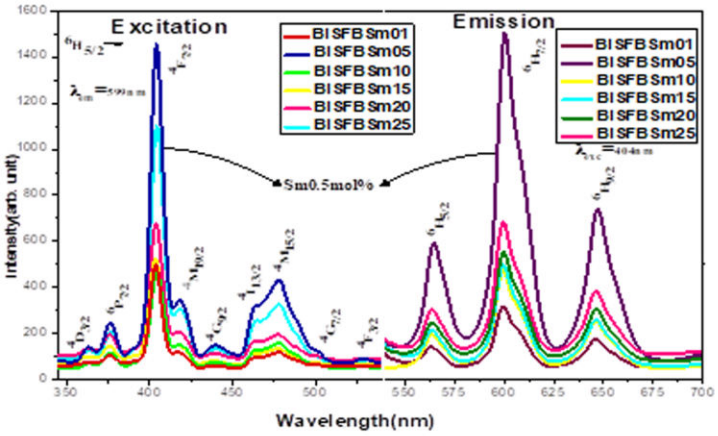
ABSTRACT

The traditional melt-quenching method was employed to synthesize Bismuth-Antimony-Fluoroborate (BISFB) glasses doped with varying concentrations of trivalent samarium ions. Various physical properties of the prepared glasses were systematically evaluated. Structural and photoluminescence characterizations were performed, with X-ray diffraction (XRD) confirming the amorphous nature of the glasses. From absorption spectra Judd-Ofelt (JO) intensity parameters Ω2, Ω4 and Ω6 are evaluated. The photoluminescence (PL) spectra exhibit three distinct emission bands, corresponding to transitions from the 4G5/2 excited state to the 6H5/2, 6H7/2, and 6H9/2 states, which are located in the yellow, orange, and reddish-orange regions, respectively. Effective bandwidths and stimulated emission cross-sections (σp) for these bands have been determined. The decay curves of the 4G5/2 level were analyzed for different concentrations of Sm^{3+} in BiSFB glasses to study the nature of the emission process. Additionally, CIE color coordinates were measured, confirming the reddish-orange emission characteristic of these glasses. Based on their luminescent properties, these glasses show potential for applications in optoelectronic devices and laser technology.

Graphical Abstract:



INTERNATIONAL CONFERENCE ON ADVANCED NANOMATERIALS FOR ENERGY STORAGE APPLICATIONS (ICANEA-2024)

EV Charging Prospects & Reactive Power Support with Grid Integration

KRISHNA NAG ARASAVALLI

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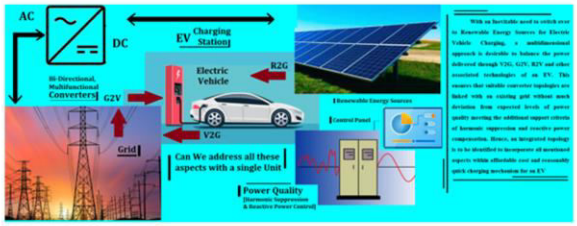
ABSTRACT

Advent of Electrical Vehicles (EVs) gave better scope to use Renewable Energy Sources (RES) and paved way to innovate for interactive vehicles that can fulfill the stability and reactive power needs of a Smart Grid (SG). Plug-In EVs (PEVs) and advanced charging stations (CS) led to the ease of bidirectional EV operation. This paper attempts to review the emerging charging topologies of an Electric Vehicle along with existing operating schemes for reactive power compensation under vehicle to grid (V2G) technology. It is evident that previous work on V2G strategies have opened up vast research scope, but application of advanced control and optimization techniques would imply extensive use of V2G reactive power support.



Research & Methodology

Electric Vehicle behaves as a consumer in G2V mode while charging and a prosumer in V2G mode during discharging or at times as energy back up for home appliances inV2H mode but has the following challenges:

- Distribution System Operators must maintain coordinated EV charging in suitable PQ quadrant, setting dynamic cutoff limit on active power & extract reactive support to save total EV cost

- Discharging units are to be incorporated in the grid with fuzzy control at PCC

- Need to coordinate fly wheel energy storage by supervisory control for preserved battery life

- It is challenging to manage charging by EV aggregators with electronic remote control to modulate rate of charging or turn OFF/ON remotely with visual interfacing for adapting to the load & market conditions.

- Though researchers used hierarchical control headed by aggregator to incorporate active management system grouping all charging requests & controlling EV charging rate, the limitation in the distance that could be covered with a single recharge and the rate of recharge still persist.

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KONERU LAKSHMAIAH EDUCATION FOUNDATION

The Koneru Lakshmaiah Charity was established as a trust in the year 1980 with its official address is at Museum Road, Governerpet, Guntur District, Andhra Pradesh, India. It was started as KL College of Engineering in the Academic year 1980-81. KLEF was established in 1980-81, as KL College of Engineering, which was upgraded to KL College of Engineering Autonomous in 2006 by UGC and was declared as a Deemed to be University in 2009 by UGC, MHRD Govt. of India. NAAC assessed the University and accredited for a period of five years from 2018 to 2023 with CGPA of 3.57 with A++grade. In 2019 UGC, MHRD declared this intuition as Category 1 status. Research has taken a quantum step towards quality improvement through publishing in Scopus / SCI Indexed journals building an h-Index of 52 at the moment. KLEF has established an ecosystem to promote innovations including a center for Innovation, Incubation and Entrepreneurship development leading to start-ups in different disciplines. The university was also ranked 22 under NIRF 2024.

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The Department of Physics was established in the year 1980. The department offers M.Sc Physics and M.Sc Nano Science & Technology, and Ph.D. program in interdisciplinary research areas. The department is functioning with 13 highly experienced and qualified doctoral faculty. Faculty are also having post-doctoral research experience from different countries. Research work in the department is being carried out in various fields like Materials Science, Solar renewable energy, Nanotechnology, Space and Atmospheric Science, Theoretical and Computational Physics, Ultrasonic's and chemical thermodynamics. The department has 4 fully equipped sophisticated research labs of worth Rs. 3.5 crores. The department is recognized as DST-FIST Level 1 department with grant of Rs.107 lakhs funded by the Department of Science and Technology, Govt. of India, New Delhi. The department also has good number of sponsored research projects of worth Rs. 3 crores under different schemes such as DST woman scientist scheme, young scientist scheme, early career research award, SERB-Start up research grant, Core research grant and international travel support. Recently, the department of Physics and ECE bagged with a sponsored research project worth of Rs. 7 crores under DST-PURSE scheme to enhance infrastructure and research facilities in the university. The department has more than 350 research publications in highly reputed international journals with high impact factor. The department faculty have published 17 patents and book chapters. Faculty from the department awarded with **Associate Fellow of A.P Academy of Sciences, Amaravathi. The department faculty recognized as Top 2% renowned scientist in the world awarded by the Stanford University, California, USA**

IMPORTANCE AND SCOPE OF THE CONFERENCE

OBJECTIVE

(i) **Enhance Energy Storage Systems: The conference aims to promote research and discussions on improving the efficiency, capacity, and performance of energy storage systems like batteries and supercapacitors using advanced nanomaterials. By focusing on the role of nanotechnology, the objective is to drive innovations that contribute to more sustainable energy storage solutions.**

(ii) Foster Interdisciplinary Research: One of the main goals is to bring together scientists, engineers, and industry professionals from various fields to facilitate interdisciplinary collaborations. By integrating knowledge from diverse disciplines, the conference seeks to explore new advancements and practical applications of nanomaterials in energy storage technologies.

(iii) Promote Sustainable Energy Solutions: The conference strives to highlight the importance of developing sustainable nanomaterials that minimize environmental impact while addressing global energy challenges. The objective is to align research efforts with climate change goals, focusing on the potential of nanomaterials to contribute to renewable energy systems and energy-efficient technologies.

CALL FOR PAPERS

ICANEA -2024 invites full-length original research articles from faculty, scientist, research scholars, and industry professionals from across the world. Research articles and review papers not exceeding twelve pages in a single column format shall be submitted. The manuscripts should not have been published or under review in any of the journals or conference proceedings. Further, the manuscript should contain the name, e-mail id of the corresponding author and affiliation of co-authors. The organizing committee of the conference invites research manuscripts on the following areas and related topics

THEMES:

- Energy Storage and Conversion
- Functional Materials
- Bio- and Healthcare Materials
- Sensors and Actuators
- Optical Materials
- Computational and Simulation Methods
- Advances in nanostructured materials for batteries and supercapacitors
- Nanocomposites for enhanced energy density and charge cycles
- Green and eco-friendly nanomaterials for energy storage
- Recycling and reusability of nanomaterials in batteries
- Nanotechnology for lithium-ion, lithium-sulfur, and solid-state batteries
- Role of nanomaterials in hydrogen energy storage systems
- Modelling energy storage mechanisms at the nanoscale
- Nanomaterials in wearable, portable, and flexible electronics
- Integration of nanomaterials for energy harvesting and storage devices
- Storage solutions for solar, wind, and hybrid renewable energy systems
- Graphene, MXenes, and transition metal dichalcogenides (TMDs)
- Quantum dot applications for energy storage and conversion

PUBLICATION

All the accepted papers will be published in conference proceedings with International Standard Book Number (ISBN) and selected papers will be published in Springer and Elsevier (SCI -Journal) and SCOPUS indexed journals.

ABSTRACT SUBMISSION

Perspective authors are encouraged to present their original, unpublished research work, and the selected abstracts will be called for Oral presentations. Abstract up to 300 words in Times New Roman with font size 12pts, 1.5 line spacing may be submitted in .doc/.docx file with the author's name (presenting author name to be underlined), affiliation and corresponding author email ID, by 1st December 2024.

Submit your abstract to: icanea2024@kluniversity.in

REGISTRATION FEE INCLUDES:

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- Participation and presentation (poster/oral) certificates.
- Nominal accommodation charges will be paid by participants; however, Lunch will be catered by conference organizers.

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	National	International
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Is to unite researchers, scientists, academicians and industry experts to share knowledge, showcase advancement and explore the latest trends in nanomaterials and energy storage technologies.

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(After the completion of Payment, register for the program through the given link with payment proof)

IMPORTANT DATES

Last date for abstract submission:	01, December 2024
Last date for paper submission:	10, December 2024
Last date for acceptance:	15, December 2024
Early bird Registration:	01, December 2024
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Camera ready paper submission:	18, December 2024
Conference dates:	19-21, December 2024

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