

Sri Vidya Mandir Arts & Science College (Autonomous)

(Affiliated to Periyar University, Salem)

(Recognized under Status 2(f) & 12(B) of the UGC Act, 1956)

(Accredited by NAAC with 'A' Grade [CGPA = 3.27])

Katteri – 636 902, Uthangarai, Krishnagiri, Tamil Nadu, India



21 – 22 February, 2024

International Conference on Research in Emerging Advanced Materials and Spectroscopy (ICREAMS – 2024)

In commemoration of National Science Day

Organised by

PG & Research Department of Physics



In association with

Indian SpectroPhysics Association (ISPA)
Chennai, India

A Grand Welcome to All

PG & Research Department of Physics
Sri Vidya Mandir Arts & Science College (Autonomous)

Katteri – 636 902, Uthangarai, Krishnagiri, Tamil Nadu, India

In association with

Indian SpectroPhysics Association (ISPA)

Chennai, India



Cordially invite you for the
International Conference on Research in Emerging
Advanced Materials and Spectroscopy
(ICREAMS – 2024)



In commemoration of National Science Day



21 – 22 February, 2024

Time: 10:00 a.m.

Venue: SVMC Auditorium

Inaugural Session
21st February 2024

Inaugural Address

Prof. Irena Kostova, Ph.D., D.Sc.
Faculty of Pharmacy, Medical University
Sofia, Bulgaria

Presidential Address

Thiru. V. Chandrasekaran
Founder, SVM Group of Educational Institutions
Chief Patron, ICREAMS 2024

Keynote Address

Prof. M.N. Ponnusamy, Ph.D., D.Sc.
Emeritus Professor, CAS in Crystallography and
Biophysics, University of Madras, Chennai

Address by President ISPA

Prof. S. Gunasekaran, Ph.D., D.Sc.
Founder President, ISPA
Conference President, ICREAMS 2024

Special Address

Prof. C. K. Jayasankar, Ph.D.
Emeritus Professor, Department of Physics
Sri Venkateshwara University, Tirupati

Dr. N. Gunasekaran, Ph.D.
Principal

Dr. D. Kavitha, Ph.D.
Vice Principal

Dr. R. Arivuselvi, Ph.D.
Convenor, ICREAMS 2024

Programme Schedule

Day 1 (21.02.2024)

Inauguration

- 10: 00 a.m. *Invocation*
- 10: 05 a.m. *Welcome Address*
Dr. R. Arivuselvi, Ph.D.
Convener, ICREAMS 2024
- 10: 10 a.m. *Paramountcy of the Conference*
Prof. S. Gunasekaran, Ph.D., D.Sc.,
Founder-President, ISPA
- 10: 15 a.m. *Presidential Address*
Thiru. V. Chandrasekaran
Founder, Sri Vidya Mandir Group of Educational Institutions
- 10: 20 a.m. *Unveiling the Portrait of Sir CV Raman*
- 10: 25 a.m. *Inaugural Address*
Prof. Irena Kostova, Ph.D., D.Sc.
Faculty of Pharmacy, Sofia Medical University, Bulgaria
- 10: 35 a.m. *Release of Conference Proceedings*
- 10: 40 a.m. *Conferring ISPA Awards*

ISPA Veteran Scientist Award

Prof. Irena Kostova, Ph.D., D.Sc.
Faculty of Pharmacy, Department of Chemistry
Medical University, Sofia, Bulgaria

ISPA Life Time Achievement Award

Prof. A. T. Ravichandran, Ph.D.
Associate Professor, Department of Physics
National College, Tiruchirappalli

ISPA Ariviyal Mudhumunaivar Sethu. Gunasekaran Award

Prof. Deva Prasad Raju, Ph.D.
Professor & Head, Department of Physics
Sri Venkateswara University, Tirupati

Dr. K. Vijaya Babu, Ph.D.
Assistant Professor, Department of Optometry
Centurion University, Vizianagaram, Andhra Pradesh

- 10: 50 a.m. *Special Address*
Prof. C. K. Jayasankar, Ph.D., F.N.A.Sc.
Emeritus Professor, Department of Physics
Sri Venkateswara University, Tirupati
- 10: 55 a.m. *Felicitation Address*
Dr. N. Gunasekaran, Ph.D.
Principal, SVMC
Dr. D. Kavitha, Ph.D.
Vice-Principal, SVMC
- 11: 00 a.m. *Keynote Address*
Prof. M.N. Ponnusamy, Ph.D., D.Sc.
Emeritus Professor, CAS in Crystallography & Biophysics,
University of Madras, Guindy Campus, Chennai
- 11: 10 a.m. *Vote of Thanks*
Dr. K. Venkatesan, Ph.D.
Organising Secretary, ICREAMS 2024
- 11: 15 a.m. *High Tea*

Technical Sessions

Day 1 (21.02.2024)

Technical Session – I

Chair Person: Prof. A. T. Ravichandran

11:30 a.m. – 12:10 p.m.

Prof. Irena Kostova, Ph.D., D.Sc.

Professor, Faculty of Pharmacy Medical University, Sofia Bulgaria

Density Functional Theory and Spectral Investigations of Reactive Sites, Molecular and Electronic Structures of Coumarins, Uracils and Their Bioactive Ln(III) Complexes

12:10 p.m. – 12:50 p.m.

Prof. M. N. Ponnusamy, Ph.D., D.Sc.

Emeritus Professor, CAS in Crystallography and Biophysics, University of Madras, Chennai
Crystallography and Biophysics for Drug Design

Lunch: 12:50 p.m. – 01:45 p.m.

Technical Session – II

Chair Person: Prof. Deva Prasad Raju

01:45 p.m. – 02:25 p.m.

Prof. Byru Venkatram Reddy, Ph.D.

Professor, Department of Physics, Kakatiya University, Warangal

DFT - A tool for the study of structure, vibrational analysis and molecular parameters in conjunction with experimental spectroscopic techniques: The case of monohalogenated methyl- and methoxy-benzoic acids

02:25 p.m. – 03:05 p.m.

Prof. C K Jayasankar, Ph.D., F.N.A.Sc.

Emeritus Professor, Department of Physics, Sri Venkateswara University, Tirupati

Research and Developments in Emerging Advanced Materials: Spectroscopy of Rare Earth Doped Glasses

Tea Break: 03:05 p.m. – 03:20 p.m.

Technical Session III

Chair Person: Prof. K. Vijaya Babu

03:20 p.m. – 04:00 p.m.

Prof. S. Kumaresan, Ph.D.

Associate Professor, Department of Physics, Arignar Anna Government Arts College, Cheyyar

Spectroscopic and structural investigations on structural isomers of two and three hydroxyl benzenes: An attempt on traditional medicinal plants

04:00 p.m. – 04:40 p.m.

Dr. P. Janani, Ph.D.

Instructional Designer Head (Academics), Ectian Contents Private Limited, Mumbai

Continuous monitoring of hypothyroid disorder using blood in an adult woman patient using FTIR-ATR spectroscopic technique

Oral & Poster Presentation
(21.02.2024)

Chairpersons: Dr. A. Prakasam and Dr. S. Vijayakumar

Oral Session I 01:45 p.m. – 04:30 p.m.

Chairpersons: Prof. S. Thambidurai and Dr. M. Revathi

Poster Session I 01:45 p.m. – 04:30 p.m.

Technical Session – IV

Chair Person: Prof. M. N. Ponnusamy

09:00 a.m. – 09:40 a.m.

Prof. Jiban Podder, Ph.D., F.B.A.S

Professor, Department of Physics, Bangladesh University of Engineering and Technology, Bangladesh
Functional Metal Oxide Thin Films via a Simple Chemical Route for Energy Storage Applications

09:40 a.m. – 10:20 a.m.

Prof. S. Gunasekaran, Ph.D., D.Sc.

Dean (R&D), St. Peter's Institute of Higher Education and Research, Chennai
Tribute to Light Legendary – Sir C V Raman

Technical Session – V

Chair Person: Dr. S. Srinivasan

10:20 a.m. – 11:00 a.m.

Dr. Lozan Todorov, Ph.D.

Faculty of Pharmacy, Medical University, Sofia, Bulgaria
In Vitro Free Radical Scavenging Assays – A Brief Introduction

Tea Break: 11:00 a.m. – 11:15 a.m.

11:15 a.m. – 11:55 a.m.

Prof. Abhijit Chakraborty, Ph.D.,

Professor, Department of Physics, University of Burdwan, Golapbag, West Bengal
Conformational Landscape in Tetrahydronaphthalene Derivatives and Their Clusters with Water and Ammonia

Technical Session VI

Chair Person: Dr. R. Robert

11:55 a.m. – 12:35 p.m.

Prof. M. Selvapandiyan, Ph.D.

Professor, Department of Physics, Periyar University Centre for PG & Research Studies, Dharmapuri
Activated Carbon Derived from Biomass for High Performance Electrode Materials

12:35 p.m. – 01:15 p.m.

Dr. S. Srinivasan, Ph.D.

Associate Professor, Department of Physics, Presidency College, Chennai
Simulation Study on Some Perovskite Solar Cells using SCAPS 1D Software

Lunch: 01:15 p.m. – 02:00 p.m.

Technical Session – VII

Chair Person: Prof. M. Selvapandiyan

02:00 p.m. – 02:40 p.m.

Dr. N. Pugazhenthiran, Ph.D.

Assistant Professor, Department of Chemistry, Universidad Técnica Federico Santa María, Valparaíso, Chile
Photocatalytic Nanomaterials: Sustainable Innovations in Water Treatment for a Cleaner Future

Oral & Poster Presentation
(22.02.2024)

Chairpersons: Dr. R. Robert and Dr. S. Jayaseelan

Oral Session II 10:30 a.m. – 12:00 noon

Chairpersons: Dr. P. Ramesh Babu and Dr. Sivanesan

Poster Session II 10:30 a.m. – 12:00 noon

Tea Break: 02:40 p.m. – 03:00 p.m.

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Valedictory Function

Day 2 (22.02.2024)

03: 00 p.m.

Welcome Address

Dr. K. Venkatesan, Ph.D.
Organising Secretary, ICREAMS 2024

03: 05 p.m.

Presidential Address

Thiru. V. Chandrasekaran
Founder, Sri Vidya Mandir Group of Educational Institutions

03:10 p.m.

Report of the Conference

Dr. K. M. Prabu, Ph.D.
Organising Secretary, ICREAMS 2024

03:15 p.m.

Address by ISPA President

Prof. S. Gunasekaran, Ph.D., D.Sc.
Founder-President, ISPA

03:20 p.m.

Valedictory Address

Prof. Abhijit Chakraborty, Ph.D.
Department of Physics, University of Burdwan, West Bengal

03:30 p.m.

Felicitation

Dr. N. Gunasekaran, Ph.D.
Principal, SVMC
Dr. D. Kavitha, Ph.D.
Vice Principal, SVMC

03:35 p.m.

Prize Distribution & Feedback

03:40 p.m.

Vote of Thanks

Dr. R. Arivuselvi, Ph.D.
Convenor, ICREAMS 2024

03:45 p.m.

National Anthem