

ISPA has an enviable record of having organized 9 International Conferences and 14 National Conferences. ISPA also has organized 16 State Level Technical Seminars in Physical Sciences for PG and M.Phil. Students, since 1999. Indian Spectrophysics Association (ISPA) finds its place in encouraging renowned and young scientists by honoring them with ISPA Awards in the recognition of the research findings of the scientists. Veteran scientists are honored with Life Time Achievement Award and ISPA Award. ISPA Dr. S.Gunasekaran Award is given to researchers who have made excellent contributions in the field of Research, during Conferences / Seminars organized by ISPA.

### ABOUT THE CONFERENCE

National Conference on Advanced Materials and Applications NCAMA - 2020 is organised by the Department of Physics in collaboration with ISPA for the first time. The conference aims to proclaim knowledge and share new ideas amongst the professionals and students from research areas of Spectroscopy, Crystallography, Biophysics, Medical Physics, Molecular Dynamics, Materials Science and Nanotechnology to Share their research experiences and indulge in interactive discussions and technical sessions at the event. The Conference will also have a space for Colleges / Institutions to present their services, products, innovations and research results. The Conference would create a platform for the Scientists to interact with research scholars on the latest findings in their respective fields. The research papers of the Conference intend to throw light on the application oriented innovative research in their respective fields.

### CALL FOR ABSTRACTS

The authors intending to participate in this Conference are requested to send their abstracts of their research findings within 250 - 300 words (MSWord, 12pts, Times New Roman with 1.5 line spacing) on all topics related to Material science and Technologies to [ncamatrichy@gmail.com](mailto:ncamatrichy@gmail.com) on or before 10th February 2020. The technical committee shall duly inform the oral / poster presentation to the authors of the selected abstracts. Proceedings shall contain the selected abstracts of oral and poster presentations and invited talks of delegates.

### FOCUSSED AREAS

- |                            |                             |
|----------------------------|-----------------------------|
| - Spectroscopy             | - Molecular Dynamics        |
| - Crystal Growth           | - MEMS Design               |
| - Crystallography          | - Nanotechnology            |
| - Characterization Methods | - Nonlinear Optics          |
| - Bio Physics              | - Optoelectric Devices      |
| - Medical Physics          | - Photocatalysts            |
| - Ceramic Materials        | - Polymer Composites        |
| - Drug Design              | - Surface Engineering       |
| - DFT Analysis             | - Sensor & Smart Materials  |
| - Materials Science        | - Superconducting Materials |
| - Theoretical Physics      | - Semiconductor Materials   |
| - Instrumentation          | - Solar Technology          |
| - Luminescent Materials    | - Transport Properties      |
| - Magnetic Materials       | - Thin Film Technology      |
| - Modelling & Simulation   |                             |

### K.N.T Travels & Tours

KPN Complex, First Floor, Mele Chinthamani, Trichy - 2

97866 89636, 86680 13126, 75502 60822, 94425 29696

(For Comfortable Educational  
Tours / Industrial Visits)



## NATIONAL CONFERENCE ON ADVANCED MATERIALS AND APPLICATIONS (NCAMA-2020)

( 27, 28 FEBRUARY 2020 )



Organized by Department of Physics  
In Commemoration of National Science Day



In Association with  
INDIAN SPECTROPHYSICS ASSOCIATION (ISPA)



## URUMU DHANALAKSHMI COLLEGE

( Reaccredited at A Grade by NAAC )

Thiruchirappalli - 620019, TamilNadu, INDIA.

[www.udc.ac.in](http://www.udc.ac.in)

### ABOUT THE INSTITUTION

Urumu Dhanalakshmi College, Tiruchirappalli was established in the year 1970, and now it is a Centre of Excellence for higher learning for both Men and Women at Graduate, Post Graduate and Doctoral levels. The College has been a forerunner amongst the Colleges of Bharathidasan University since inception securing many numbers of Ranks in academic performance. In Sports too, the College has excelled at the State, National and International Levels. The Founder of the College Shri. Seshachalam Chettiar, hailed from a small village called "Urumu" - in Andhra Pradesh, dedicated his life for serving the underprivileged and the marginalized sections of the Society. At present 3000 Students are pursuing their studies in both Aided and Non-Aided courses with the staff strength of 150 rendering quality education within the realms of Bharathidasan University. The College offers 17 Under Graduate, 15 Post Graduate, 8 M.Phil. and 8 Ph.D. Programmes in various disciplines to help the students to learn the subject of their choice to build better Human Resources for ourCountry. This academic year is the Golden Jubilee year of this great Institution.

### ABOUT ISPA

"Indian Spectro Physics Association (ISPA)" is a brain child of Veteran Professor and Scientist Dr.S.Gunasekaran. ISPA was started on April 23, 1998, it is a registered society under whose auspices, Conferences, Workshops and Seminars are organized. ISPA is the peak of a strong belief that enlightening young minds and empowering them to pursue research through Spectroscopy.



**NATIONAL CONFERENCE ON ADVANCED MATERIALS  
AND APPLICATIONS (NCAMA-2020)**  
**URUMU DHANALAKSHMI COLLEGE, TRICHY**  
**INAUGURAL SESSION**  
(Honouring the Awardees, Releasing the Souvenir / CD, Signing of MoU)  
**PLENARY SESSIONS**

INVITED SPEAKER	TITLE
<b>Dr. C.K. JAYASANKAR</b> Professor of Physics, UGC-BSR Faculty Fellow Sri Venkateswara University, Tiruchel	Recent advances, developments and future challenges of rare earth doped materials for societal applications
<b>Dr. S. ARUMUGAM</b> Professor of Physics & Director, Centre for High Pressure Research, Bharathidasan University, Trichy	Facilities of the Centre for High Pressure Research and remarkable results on various already synthesized materials
<b>Dr. S. GANESAN</b> Professor, Department of Medical Physics, Anna University, Chennai	Study on the metabolic changes in the cells using multiphoton confocal fluorescence imaging
<b>Dr. ARUNA PRAKASARAO</b> Professor, Department of Medical Physics, Anna University, Chennai	Metabonomics in cancer diagnosis using autofluorescence
<b>Dr. SURESH SAGADEVAN</b> Senior Research Fellow, Nanotechnology & Catalysis Research Centre, University of Malaya, 68002 Kuala Lumpur, Malaysia	Overview on Nanostructured Materials and their Potential Applications
<b>Dr. C. SEKAR</b> Dean-Research, Director-Centre for International Relations, Professor & Head Dept of Bioelectronics & Biosensors, Azhagappa University, Karaikal	Nanostructured Metal Oxides for Chemo-Bio-Sensor Applications
<b>Dr. G. HIRANIKUMAR</b> Associate Professor of Physics, Vivekananda College Mysapore, Chennai.	Recent development of new materials for energy storage
<b>Prof. S. JITHANNA</b> UGC-BSR Faculty Fellow, Department of Physics, Sri Venkateswara University, Tirupathi.	Solar cell materials and their preparation technologies
<b>Dr. S. GUNASEKARAN</b> Dean (R&D), St. Peter's Institute of Higher Education & Research, Avadi, Chennai.	Father of Indian Science
<b>Dr. S. KUMARESAN</b> Assistant Professor in Physics, A A Govt. Arts College, Choyyar.	Rapid synthesis, characterization and antibacterial activities of Ag-NPs derived from Marula quadrifolia
<b>Dr. G. ANBALAGAN</b> Professor, Department of Nuclear Physics University of Madras.	Recent advances in Thermoelectric Materials

<b>Dr. M. SELVAPANDIYAN</b> Associate Professor of Physics, Periyar University PG Extension Centre, Dharmapuri	Structural, optical, mechanical, thermal and third order nonlinear optical studies of sulphamic acid single crystals
<b>Dr. S. SRINIVASAN</b> Associate Professor of Physics Presidency College, Chennai.	Studies on thermophysical properties of metal oxide nanoribbons
<b>Dr. MUTHU SENTHIL PANDIAN</b> Research Scientist, Photovoltaic Devices Laboratory, SSN Research Centre, SSN Institutions, Kalavakkam.	Development of device quality 6-Nitrophenol derivative nonlinear optical single crystals and fabrications of type-I & type-II SHG elements
<b>Dr. S. JAYAKUMAR</b> Associate Professor of Physics Vivekananda College, Mysapore, Chennai.	Nanomaterials and Nanotechnology
<b>Lalji Dixit</b> Retd. Scientist CSIR-IP, Dehradun, Uttarakhand	On the Polarizabilities of Adamantane and Fullerenes

**VALEDICTORY SESSION**

**LIFE TIME ACHIEVEMENT AWARD**

- (1) **Dr. C.K. JAYASANKAR**  
Professor of Physics, UGC-BSR Faculty Fellow  
Sri Venkateswara University
- (2) **Dr. S. GANESAN**  
Professor, Department of Medical Physics, Anna University

**ISPA Dr. S. GUNASEKARAN AWARD**

- (1) **Dr. ARUNA PRAKASARAO**  
Professor, Department of Medical Physics, Anna University
- (2) **Dr. S. ARUMUGAM**  
Professor & Director,  
Centre for High Pressure Research, Bharathidasan University
- (3) **Dr. C. SEKAR**  
Dean-Research, Director-Centre for International Relations, Professor & Head Dept. of Bioelectronics & Biosensors, Azhagappa University, Karaikal
- (4) **Dr. S. JAYAKUMAR**  
Associate Professor of Physics  
Vivekananda College, Mysapore, Chennai.

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Foster President, ISPA,  
Dean (R & D), St. Peter's Institute of Higher Education & Research, Avadi, Chennai - 600 054.

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HOD of Physics, Urumu Dhanalakshmi College

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Associate Professor, Urumu Dhanalakshmi College

**Dr. S. Jayakumar**

Associate Professor, Vivekananda College, Chennai

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**Dr. R. Jayachitra** Assistant Professor  
**Mr. S. Kumaravelan** Assistant Professor  
**Mr. K. Surendar** Assistant Professor  
**Dr. M. Prakash** Assistant Professor

**ABOUT THE PHYSICS DEPARTMENT**

The Department today is an active beehive of research being carried out in a wide variety of frontier areas as well as high quality Post Graduate and Doctoral Programmes. The Research Programmes cover a number of areas like Spectroscopy, Materials Science, Theoretical Physics, Non-linear Optics, Thin Films, Nuclear Physics, Ultrasonics, Crystallography and Nano Science etc.

**NATIONAL ADVISORY  
COMMITTEE**

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<b>Dr. S. GANESAN</b> Chennai	<b>Dr. K. VENKATRAMANAN</b> Kanchipuram

**Registration Fees**

PG Students : Rs. 300/- | Faculty Members : Rs. 600/-  
Research Scholars : Rs. 400/- | Industry Participants : Rs. 1000/-

Submission of Abstracts : 10.02.2020

Acceptance Notification : 10.02.2020

... Address for Communication ...

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