

DEPARTMENT OF PHYSICS

K L E F, VADDESWAREM

Brief Report

on

Two day National Conference on Current Developments in Functional Materials and their Applications (NCDFMA-2017) - 22nd & 23rd December 2017

Department of Physics is organized a National Conference on Current Developments in Functional Materials and their Applications (NCDFMA-2017) on 22nd – 23rd December 2017. The conference aims to explore the developments in multi- functional materials research to integrate lab research for the applications into industry. This conference includes plenary speeches, invited presentations and contributed presentations (Oral and Poster). Also **NCDFMA-2017** brings the opportunity to interact and exchange the thoughts of research through various speakers and workshop – exhibition sessions.

Conference Topics includes Glasses, Glass Ceramics & Phosphors , Photonic materials, Materials synthesis and characterization techniques , Optoelectronic materials , Luminescent materials Polymeric materials , Liquid crystals , Nanostructured polymer electrolytes for energy storage device applications , Nanocomposites, Bio- materials , Thin Films, Surfaces & Interfaces Ultrasonics and Chemical Thermodynamics

Prof. G. Vijaya Prakash, Dept. of Physics, IIT Delhi, New Delhi acted as a Chief Guest for this occasion. In this conference, we included 8 plenary talks from various reputed institutes like IIT Delhi, SSN Institutes and etc.

List of Invited Speakers:

1. Prof. P. Ramasamy, Director, SSN Research Centre, SSN institutions, Kalavakkam, Tamil Nadu.
2. Prof. V. R. K. Murthy, Dept. of Physics, IIT Madras, Chennai.
3. Prof. J. Lakshman Rao, Dept. of Physics, Sri Venkateswara University, Tirupathi.

4. Prof. A. Srinivasa Rao, Dept. of Applied Physics, Delhi Technological University, Delhi.
5. Dr. M. Senthil Pandian, Research Scientist, SSN Research Centre, SSN institutions, Kalavakkam, Tamil Nadu
6. Dr. R. Venu Reddy, DST Inspire Faculty & Head, Nano Technology Research Center, SRKR college of Engineering , Bhimavaram
7. Dr. J. Suryanarayana Murty, Associate Professor, Dept. of Physics, IIT Hyderabad, Hyderabad.

Members of our university attended and given their valuable messages.

Prof. M. RamaMoorthy, Chancellor, KLEF

Prof. A. Anand Kumar, Principal, KL College of S&H, KLEF

Prof. V. Krishna Reddy, Vice Principal & FED Coordinator, KLEF

Prof. K. Satya Prasad, Pro-Vice Chancellor

and other Deans, HODs, Faculty members are attended.

Around 60 research scholars from different places have registered. We have received 60 abstracts (oral and poster presentations) from different institutions across the country. Among these we have selected 17 papers for Oral presentations and remaining for Poster presentations. Based on the quality of the presentations, We have selected 3 best posters and 1 best oral presentation. Finally it was successfully completed.

Programme Schedule:

Day 1: 22nd December 2017

Venue: Jasmine Hall

08:30 AM – 10:00 AM Reception and Registration

Venue: Jasmine Hall

10:00 AM – 11:00AM Inaugural function

10:00 AM – 10:05 AM Inviting the dignitaries on to the dais

10:05 AM – 10:10 AM Lighting the Lamp – Invocation

- 10:10 AM – 10:15 AM Welcome speech & Dept. profile by Convener,
Dr N S M P Latha Devi
- 10:15 AM – 10:20 AM Introduction to conference by Co Convener
Dr K Swapna
- 10:20 AM – 10:30 AM Message by Principal, College of S&H,
Prof. A. Anand Kumar
- 10:30 AM – 10:40AM Message by Hon'ble Chancellor,
Prof. M. Rama Moorthy
- 10:40 AM – 10:45 AM Message by Pro-Vice Chancellor
Prof. M. Satya Prasad,
- 10:45 AM – 10:50 AM Message by Chief Guest,
Prof. G. Vijaya Prakash
- 10:50AM – 10:55 AM Souvenir launching
- 10:55 AM Vote of Thanks by Co-Convener
Dr G Sunita Sundari
- 11:00 AM – 11:15AM High Tea
- 11:20 AM – 12:20 PM **Keynote Address** : Prof. G. Vijaya Prakash, Dept. of Physics, IIT
Delhi, New Delhi

Topic: Advanced functional Materials: Growth, Progress and Prospective.

12:20 PM – 01:05 PM **Invited Talk 1**: Prof. J Lakshman Rao, Dept., of Physics, S V University,
Tirupathi.

Topic: Recent Advances in Glass and Glass-Ceramics and its Characterization through spectroscopic techniques.

01:05 PM – 02:05 PM Lunch Break & Poster Session (PP 001 – PP 015)

02:05 PM – 02:45 PM **Invited Talk 2**: Dr. P. Ramaswamy, Professor, Dept. of Physics, SSN
Research center, Chennai.

Topic: Fabrication of Dye Sensitized TiO₂ nanocrystalline Solar Cells (DSSC) using Organic and Ru complex dyes as sensitizers, Iodide/Triiodide (I⁻/I₃⁻) electrolyte and Transition Metal Carbide (TMC) based Counter Electrode.

02:50 PM – 03:30 PM **Invited Talk 3:** Dr. Senthil Pandian, Research Scientist, SSN Research center, Chennai.

Topic: Improvement in crystallinity of unidirectional method grown nonlinear optical (NLO) and ferroelectric single crystals for Second Harmonic Generation and Infrared (IR) Detector Applications.

03:30 PM – 03:45 PM Tea break

03:50 PM – 06:00 PM Oral Presentations –I (OP 001 – OP 010)

Day 2: 23rd December 2017

Venue: Jasmine Hall

09:20 AM – 10:20 AM **Invited Talk 4:** Prof. VRK Murthy, Rtd. Professor, Dept. of Physics, IIT, Chennai.

Topic: Microwave Sintering Studies On Bulk And Nano Ceramics.

10:20 AM – 11:00 AM **Invited Talk 5:** Dr. J. Suryanarayana Murty, Assoc. Professor, Dept. of Physics, IIT, Hyderabad.

Topic: Conductance switching and tunneling of electrons in magnetostriction based nanocontacts.

11:00 AM – 11:15 AM Tea Break

11:20 AM – 12:00 PM **Invited Talk 6:** Prof. A. Srinivasa Rao, Professor, Dept. of Applied Physics, DTU, Delhi.

Topic: Morphological and Photoluminescence studies of Visible Up-Conversion Nanophosphors for the Prospective Bio-photonic Applications.

12:00 PM – 12:45PM **Invited Talk 7:** Dr. Venu Reddy, DST Inspire Faculty & Head, Nano Technology Research Center, SRKR College of Engineering, Bhimavaram.

Topic: Magnetic pathways for manipulation of single particles and cells.

12:45 PM – 02:00 PM Lunch Break

02:05 PM – 03:00 PM Poster Session (PP 016 – PP 038)

03:00 PM – 03:45 PM Oral Presentations – II (OP 011 - OP 017)

03:50 PM – 04:00 PM Tea Break

Distribution of Best Oral and Poster certificates & Valedictory function : 4.00PM onwards

Best Oral :

Dr.B.Purna Chandra Rao, Associate Professor, PACE Institute of Science & Technology,
Ongole.

Best Posters:

1. K Siva Rama Krishna, Research Scholar, KLEF
2. P. Rekha Rani, Research Scholar, KLEF
3. M.Chandrika,, Research Scholar, KLEF

Finally the event was successfully completed with the cooperation of all the faculty members of department of Physics, Lab technicians and Research scholars. I am highly thankful to Honorable President sir for kind support in conducting the event successfully.