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INTERNATIONAL  
YEAR OF LIGHT  
2015

The Department of Physics, SSSIHL Prashanti Nilayam Campus, conducted a two-day international workshop titled **Light Matters** from **26 to 27 October 2015**.

Light plays a vital role in our daily lives and is an imperative cross-cutting discipline of science in the 21<sup>st</sup> century. It has revolutionized medicine, opened up international communication via the Internet, and continues to be central to linking cultural, economic and political aspects of the global society.

The UN has recognized the importance of light-based technologies to promote sustainable development and provide solutions to global challenges in energy, education, agriculture and health and proclaimed the year 2015 as the 'International Year of Light' (IYL2015). It is envisioned that IYL2015 programs will promote improved public and political understanding of the central role of light in the modern world while also celebrating noteworthy anniversaries in 2015, from the first studies of optics 1,000 years ago to discoveries in optical communications that power the Internet today.

This International Year will bring together many different stakeholders including scientific societies and unions, educational institutions, technology platforms, non-profit organizations and private sector partners'. (<http://www.light2015.org>).

The 'Light Matters' workshop focused on the recent advances in the field of Photonic applications. The main objective of the workshop was to bring together scientists, researchers and engineers from across the country, working in photonics and materials for photonic applications, to disseminate their latest results, allow cross-disciplinary exchange of knowledge and

showcase their recent inventions and innovations.

The proceedings of the workshop began with the lighting of the lamp by the chief guest Shri Prashanta Chakraborty, LEOS, ISRO, Bangalore and by Prof K B R Varma, Vice Chancellor, SSSIHL. After initial remarks by the Vice Chancellor, Shri Chakraborty gave the Inaugural address of the workshop.

There were 16 invited talks by eminent scientists who delivered lectures in their respective fields of expertise from various Indian institutions. A special session was held where experts from Photonics industry based in India delivered lectures. Postgraduate and research students presented their research work during the posters sessions and they could get valuable inputs from academicians, scientists and industry partners. Additionally, a special lecture on IP and Patenting issues was held on 27<sup>th</sup> post-dinner for the benefit of the faculty and students.

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## ADDRESSES & LECTURES (26 OCT 2015)

SRI PRASHANTA CHAKRABORTY, LEOS, ISRO

Development of Space-Borne Imaging Optical Systems and its Technologies at LEOS

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PROF. D NARAYANA RAO, UNIVERSITY OF HYDERABAD

Laser light – a phenomenal contribution to mankind

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PROF. BALAJI SRINIVASAN, IIT MADRAS

Advances in Stabilization and Power Scaling of Ultrashort Pulses from Actively Mode-Locked Fiber Lasers

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DR. SRIDHAR RAJA, LEOS, ISRO

Light Matters for Space Exploration too: Development of Light-based Instruments for Planetary Science Missions





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PROF. BHEEMSAIN RAO, NITMS, BANGALORE

Practical aspects of Laser biophysics and clinical applications

PROF. SAI SIVA GORTHI, DEPT. OF INSTRUMENTATION & APPLIED PHYSICS, IISC

Optofluidic Point-of-Care Diagnostic

PROF. OSK SHASTRI, CENTRAL UNIVERSITY OF HIMACHAL PRADESH

Interference as a Convolution of Fourier Transforms of the Double Slit and the Gaussian Beam Profile of Laser

DR. SREE RAMANA, RESEARCH CENTRE IMARAT, HYDERABAD

Light Matters – Defence Applications in particular to Navigation

### ADDRESSES & LECTURES (27 OCT 2015)

PROF. K PORSEZIAN, UNIVERSITY OF PONDICHERRY

Supercontinuum Generation in Photonic Crystal Fibers: Recent Applications

PROF. M. KRISHNAMURTHY, TIFR, HYDERABAD

Physics of ion, neutral and negative ion acceleration with intense laser fields

DR. REJI PHILIP, RRI BANGALORE

Nanosecond and Femtosecond laser produced plasmas from metallic targets

DR. HIMANGSHU R VAISH, MD, INSTAPOWERS LIMITED

DR. SUMIT NATH, IMEC

KRISHNA KUMAR, DIRECTOR LIGHTMOTIF SYSTEMS

VEDHA MUTHU, LASER SPECTRA SERVICES

Lectures on Photonics Industry: Global and Indian perspective

PROF. B. RAGHAVENDRA PRASAD, IIAP, BANGALORE

Light, Astronomy and the Universe

