

Background

CSIR-National Physical Laboratory (NPL), New Delhi is organizing the International Conference on Thin Films (ICTF-17) in collaboration of Indian Vacuum Society during 13-17 November 2017 at NPL, New Delhi. This is an important series of conference supported by "International Union for Vacuum Science & Technology Application (IUVSTA) which is organized after every three years.

In connection with ICTF-17, a pre-conference one day workshop is also being organized focussing on "Thin Films & Coating Technology: Science and Industry". Thin films and coatings are utilized in almost all spheres of our lives, from optical anti-scratch/anti-reflection lenses for our spectacles to other more specific uses like coatings for application in electronics, wear resistance, energy, photovoltaic and other applications. Objective of this workshop is to create better understanding in the area of industrial thin film coatings through specially designed lectures and live experimental demonstrations. The participants may also have future opportunities for collaborations.

General Format of the Workshop

The workshop will be conducted by renowned scientists. In the first half of the workshop, participants will be introduced to the fundamentals, growth, characterization and applications of the thin films and coatings. Second half of the day will be devoted for live experimental demonstrations and lab tour.

The engagement for the day will be from 9 AM to 6 PM.

Workshop Coordinator

Dr. Ajay Kumar Shukla
(Scientist, NPL)

Workshop Committee

Dr. S. K. Srivastava
(Senior Scientist, NPL)
Dr. S. S. Kushvaha
(Scientist, NPL)
Dr. Ashok Kumar
(Senior Scientist, NPL)
Dr. P. K. Siwach
(Scientist, NPL)

DATES TO REMEMBER

Last day of registration : 12.10.2017
Selected participant intimation : 15.10.2017

REGISTRATION FEE
1500 INR

Contact Details

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17th International Conference
on Thin Films-2017 (ICTF-17)

CSIR-National Physical Laboratory



A Pre-Conference Workshop
on "Thin Films & Coating
Technology: Science and
Industry"

13 November, 2017



CSIR-NPL, New Delhi



The Lecture topics will include:

- ☑ Overview of thin films and coatings: Wide spectrum of growth and characterization techniques
- ☑ Industrial scale growth of thin films
- ☑ Uncertainty in measurements and calibration of measuring instruments

Laboratory sessions:

- ☑ Live experimental demonstration of industrial scale growth of technologically relevant thin films in clean room conditions
- ☑ Interactive lab tours of array of sophisticated thin film growth techniques
- ☑ Discussion and clean-room visit

Selection Criteria for Participants:

Preference will be given to the participants interested in thin films and coatings and their scientific and industrial applications. Ph.D. students, M. Sc./M. Tech. students, young faculties and industry personnel working in thin films and coatings or closely related areas will be given preference.

Fee and Expenses during the Course:

The registration fee for the workshop is 1500 INR. Participants are encouraged to register for ICTF-2017 main conference as well and take the opportunity to interact with renowned speakers from India and abroad and also get 500 INR discount on registration. Participants need to register and pay the registration fee at,

<http://www.ictf2017.in/registration.html>

Few State-of-the art growth and characterization facilities at NPL

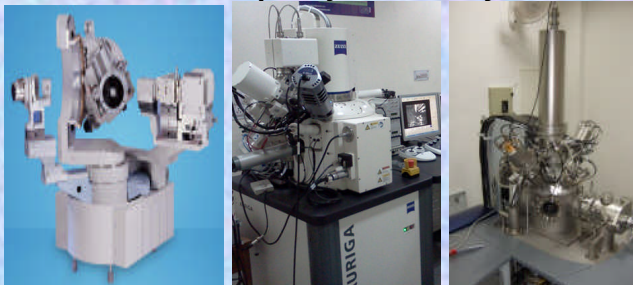


Multi-chamber UHV Magnetron sputtering

PLD growth system equipped with RHEED



UHV RF-plasma assisted Diffusion oxidation & Molecular Beam Epitaxy PECVD system



High-resolution XRD/XRR

FESEM/FIB Lithography

UHV TOF-SIMS

PROGRAM

08.30	Registration
09.00	Welcome address
09.15	Overview of Growth and applications of thin films and coatings
10.15	Tea/Coffee Break
10.30	Techniques for characterization of thin films and coatings
11.30	Industrial scale growth of materials in controlled conditions
12.15	Error sources and uncertainty in measurements for characterization methods
13.00	Lunch
14.00	Tour of state of the art clean room and demonstration of large wafer scale growth of technologically important thin films
16.00	Lab tour of various advanced growth techniques
17:00	Tea/Coffee Break
17.25	Concluding session & Certificate distribution