



International Conference

on

Laser Deposition:

Nanostructures, Heterostructures and 2D layers

(iCOLD-2023)

March 23-25, 2023

Organized by

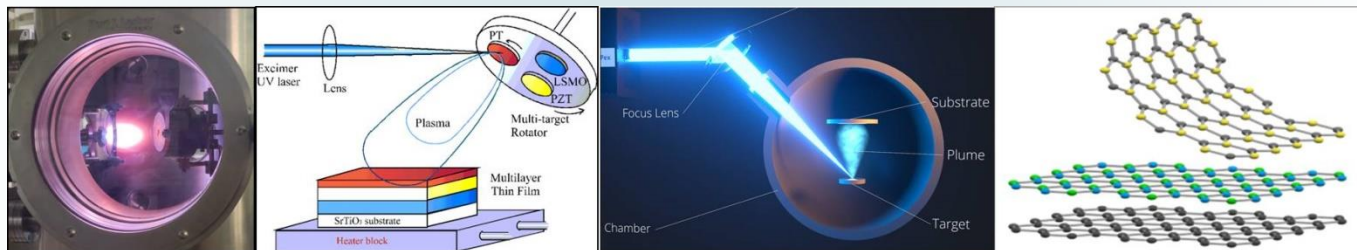
**Defence Institute of Advanced Technology,
Girinagar, Pune-411025**

In association with

Indian Institute of Technology, Madras

&

Alva's Institute of Engineering and Technology, Moodbidri, Karnataka



About DIAT:

Defence Institute of Advanced Technology (DIAT) is a research-centric University which offers a Masters and Doctoral degree in Technology. DIAT is 28 km from Pune Airport and is strategically located near Khadakwasala dam. It has a lush green campus spread over 498 acres. The vision of the institute is To be a center of Excellence of international repute for Education, Training and research in Advanced Technologies with a view to strengthen national security and self reliance, and its mission is to evolve as an Innovative Unique Research University to develop indigenous contemporary Defence related technologies in Advanced Sensors, Smart Materials, Navigation Systems, Wireless Sensors, Efficient Propulsion Systems, Weapon Systems for DRDO and Defence Services.

Scope of the conference:

This conference aims to review the advancement in nanostructures, heterostructures and 2D layers from physics and technology points of view. Laser-aided Deposition techniques and Atomic Layer Deposition are the key techniques enabling researchers in the realization of device quality thin films, heterostructures and multi-layers. The scope includes a variety of materials such as semiconductors, superconductors, ferroelectrics, multi-ferroics, polymers,

nano-materials, organic materials, photonic materials, 2D systems, computational aspects, surface coatings, bio-medical coatings and also novel technologies for very low frequency vibration sensors and energy harvesters, proton exchange membrane fuel cells and other advanced devices. The conference will comprise of plenary and invited talks, oral and poster presentations. It is our hope that this international conference will provide a platform, both for specialists and research students, to present their latest results on their work.

Topics to be covered, but not limited to

- Thin film science and technology of advanced materials, heterostructures, multilayers and super-lattices
- Fundamentals of Laser-Material Interactions
- Ultrafast Phenomena and Phase Transformations
- Emerging Trends in Photo-excitations and New Applications
- Pulsed Laser Deposition
- Lasers in Nanoscience – Photonic Fabrication at Nanoscale
- Laser Interactions with Organic and Biological Materials
- Atomic Layer Deposition
- Thin film growth kinetics in Pulsed Laser Deposition and Atomic Layer Deposition
- Novel materials and Nanomaterials
- Computational aspects of materials
- Smart materials including shape memory alloys
- Ferroelectrics and Multi-ferroics and their multilayers
- Organic and Inorganic photonic materials
- Superconductors and topological insulators
- Technologies & devices for emerging electronics
- Surface coatings including high laser damage-resistant coatings
- Characterization techniques and measurement protocols
- Mechanisms, Modeling, and simulations

Call for Abstracts:

Technical/Research papers are invited from scientists/research scholars/faculties in the areas mentioned above. Abstract Template Link: <https://tinyurl.com/mwrkvj9n>

Poster and Oral presentation:

There will be a poster presentation session in the schedule of conference. 10 min will be allowed for oral presentation. **Cash prizes will be given to Best Three Poster & Oral presentation respectively.** Poster Guideline Link: <https://tinyurl.com/bdfk2k6m>

Stalls for Industries:

We also welcome various industries to setup their stall for exhibition of their work.

There are three categories mentioned below under which industries can register:

Silver stall (with one free registration): 50,000/- INR

Golden stall (with two free registrations): 80,000/- INR

Platinum Stall (with five free registrations): 4,00,000/- INR

Chief Patrons:

Dr. Samir V. Kamat
(Secretary, Department of Defence R&D and Chairman, DRDO)

Dr. C. P. Ramanarayanan,
(Vice Chancellor, DIAT Pune)

Prof. Kamakoti Veezhinathan
(Director, Indian Institute of Technology, Madras)

Invited Speakers :

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| Prof. S. B. Ogale, IISER-Pune | Dr. Lalit Kukreja, RRCAT-Indore |
| Dr. Venkatesan, NUS, Singapore | Prof. Dr. Wilfrid Prellier, CNRS, France |
| Dr. Pratap Raychaudhuri, TIFR, Mumbai | Dr. Daisuke Nakamura, Kyushu University, Japan |
| Dr. Samresh Das, IIT Delhi | Dr. Ram Janay Choudhari, IUC, Indore |
| Dr. Jeyaraman, AIET, Moodbidri | Dr. Dhananjay Bodas, ARI, Pune |
| Dr. Anjana Dogra, NPL, Delhi | Dr. Raghvendra Bairy, NMAMIT, Kerla |
| Dr. Bhagawathi Prasad, IISc, Bangalore | Dr. KP Adhi, SPPU, Pune |
| Dr. Pankaj Mishra, RRCAT | Dr. Satyanarayan, AIET, Moodbidri |
| Dr. C. Gopalakrishnan, SRM University, Chennai | Dr. Sujit Das, IISc, Bangalore |
| Dr. G. Raghvan, DIAT, Pune | Dr. Dipak Maity, ICT, Mumbai |
| Dr. R Vijaya, IIT, Kanpur | Dr. Suvankar Chakraverty, INST, Mohali |
| Dr. Umakant Rapol, IISER, Pune | |

Who can participate?

Faculty from Academic Institutions

Research Scholars and PG students

Engineers/Scientists from Industry and R & D Centers

Important Dates:

Last date for submission of Abstracts: 28 February 2023

Intimation of Acceptance: 10 March 2023

Registration Fee:

Research Scholars/PG Students: 2,500/- INR
Faculty of Academic institutions: 5,000/- INR
Researchers from Industry: 10,000/- INR
International Participants: USD 100/-

Payment Details:

Account Name: DIAT (DEEMED UNIVERSITY) IMPREST

Account Number: 30166494269 **IFSC Code:** SBIN0002155

Bank Name: STATE BANK OF INDIA **Branch Name:** IAT Girinagar

Accommodation:

Accommodation will be provided based on prior request, first-come-first-served basis.

Registration, Payment of fees and Accommodation are available in the link :

<https://forms.gle/S5LZ5tgQgkPpjbM6>

The participants are requested to submit their abstract on Email Id: icold2023@gmail.com,

Contact: 020-24604494

Organizing Committee:

Chair : Prof. Sangeeta Kale, DIAT, Pune

Co-Chair: Prof. M. S. Ramchandra Rao,
IIT, Madras

Prof. Richard Pinto, (Dean Research,
AIET, Moodbidri)

Convener: Dr. Suwarna Datar, DIAT Pune

Treasurer : Dr. Vidya Gargote DIAT, Pune

Committee Members

| | |
|---------------------------------|-------------------------------------|
| Prof. Sangeeta Kale, DIAT, Pune | Dr. Suwarna Datar, DIAT, Pune |
| Dr. Tejashree Bhave, DIAT, Pune | Dr. Devnath Dhirhe, DIAT, Pune |
| Dr. Shyamal Mondal, DIAT, Pune | Dr. AVR Murthy, DIAT, Pune |
| Dr. Vidya Gargote, DIAT, Pune | Dr. Kanaka Raju Pandiri, DIAT, Pune |

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