Office of the Principal Scientific Adviser to the Government of India

Science & Technology Cluster

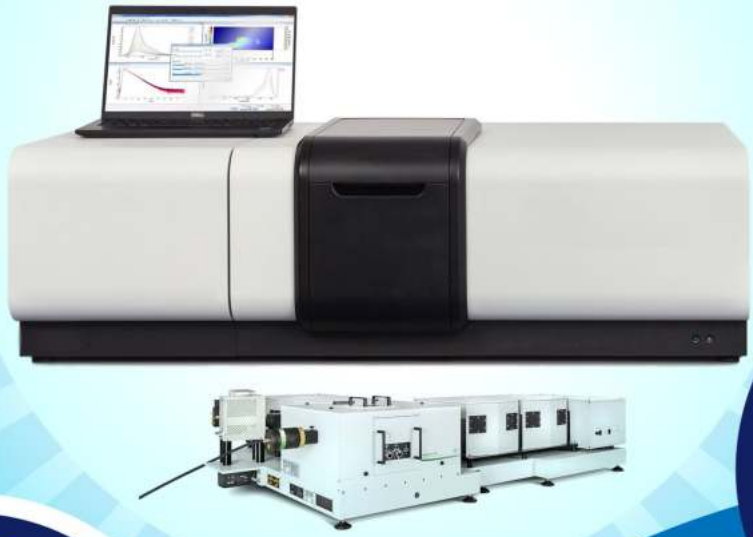
DRIIV & IIT Delhi *(Department of Chemistry)*

present workshop titled

Understand & Explore

The World of Fluorescence

(In-depth Introduction to the Principles of Fluorescence Spectroscopy and its Applications)



Online Session:
25th-**27**th April

Offline Session:
will be notified shortly

Registration Starts Only @
₹ *800/-*

- ***Theory*** : *Lectures by experts covering varied topics in the field.*
- ***Hands-on:*** *Steady-state & TCSPC*
- ***Skill Development*** : *Extensive practical experience*

Tier 1 (Online)
Theory Session

Tier 2 (Hybrid)
Theory + Hands-On

Tier 3 (Hybrid)
Theory + Hands-on
+ Skill Development

for online registration, log on to,
www.driiv.co.in/skill-development

for any enquiry contact@driiv.co.in

Visit Us @ www.driiv.co.in

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PERKS initiative

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Shipra Misra, CEO, DRIIV

CKIC DRIIV, an initiative of the Office of the Principal Scientific Adviser (PSA) to the Government of India, is a platform to form collaborations between industry-academia-government bodies, with the aim of leveraging science and technology to address problems of national relevance.

Under the purview of PERKS [Platform for Education Research Knowledge and Skill Development], DRIIV envisages to boost technological advancement towards multidimensional growth of the nation. To know more about DRIIV, please log on to **www.driiv.co.in**

for online registration **www.driiv.co.in/skill-development**

EXPERTS

Prof. A. K. Mishra
Indian Institute of Technology, Madras

Prof. Anindya Datta
Indian Institute of Technology, Bombay

Prof. Pratik Sen
Indian Institute of Technology, Kanpur

Prof. Sameer Sapra
Indian Institute of Technology, Delhi

Prof. Prasun Mandal
Indian Institute of Science Education and Research, Kolkata

Prof. Amitava Patra
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Programme Coordinators

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An In-depth Introduction to the Principles of Fluorescence Spectroscopy and its Applications.

Introduction

Fluorescence spectroscopy is a powerful and effective tool to study the physical and chemical properties of macromolecules. It has extraordinary sensitivity, high specificity and simplicity as compared to other analytical techniques. It is widely accepted in the fields of environmental science, medical diagnostics, DNA sequencing, material science, forensics, genetic analysis and biotechnology applications.

Scope

The workshop aims to provide an in-depth introduction to steady-state and time-resolved fluorescence techniques along with a flavour of applications in different areas. The online session combines a series of lectures presented by renowned experts in the field. This will be followed by practical sessions complementing the lectures, intended to maximize the hands-on experience through a series of live demonstrations on the two systems.

Who can attend

The workshop is designed for students/technical personnel who use (look forward to use) fluorescence techniques and instrumentation as well as for researchers from both academia and industry who wish to enhance their knowledge of fluorescence applications.

Why should you attend

- To gain foundation level knowledge on the basic principles of steady-state and time-resolved fluorescence spectroscopy
- Get to know about new applications for advancement of your research
- Insights into instrumentation and data analysis
- Direct interaction with experts to discuss your research, daily challenges with samples, and results

Overall programme structure

The workshop consists of a comprehensive **theory session** [made online to maximize participation] focusing on in-depth theoretical training.

A series of intensive **hands-on** exposure to basics of fluorescence instrumentation.

Skill Development Program for those interested on receiving more extensive training on fluorescence skill sets.

Program Schedule [Online Lectures]: 25th-27th April, 2022

Day 1 [25.04.22]	
9:45 – 10:00 AM	Inauguration /Welcome address
Session 1 (10:00 AM – 1:15 PM) :	Basics of Fluorescence Spectroscopy
10:00 - 11:05 AM	(i): Introduction
11:05 - 12:10 PM	(ii): Factors Affecting Fluorescence
12:10 - 1:15 PM	(iii): Fluorescence Quenching and Förster Resonance Energy Transfer (FRET)
Day 2 [26.04.22]	
Session 2 (9:00 AM – 1:20 PM):	Basics of Time Resolved Fluorescence and Data Analyses
9:00 - 10:05 AM	Lecture (iv):Basics of Time correlated single photon counting (TCSPC)
10:05 - 11:10 AM	Lecture (v): Instrumentation and Data Analyses
11:10 - 12:15 PM	Lecture (vi): Fluorescence Anisotropy
12:15 - 1:20 PM	Lecture (vii): Applications of fluorescence (Part I)
Day 3 [27.04.22]	
Session 3 (9:00 AM – 1:20 PM):	Applications of Fluorescence
9:00 - 10:05 AM	Lecture (viii): Applications of Fluorescence (Part II)
10:05 - 11:10 AM	Lecture (ix): Fluorescence in Proteins
11:10 - 12:15 PM	Lecture (x): Fluorescence in Materials Science (I)
12:15 - 1:20 PM	Lecture (xi): Fluorescence in Materials Science (II)

Please note:
The details of the Hands-on & Skill Development sessions will be notified shortly.

for any enquiry **contact@driiv.co.in**