AICTE Sponsored QIP Short Term Course on
Sensors Technology

Organized by
Department of Sciences and Humanities (Physics)
Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram,
Chennai - 600 127
www.iiitdm.ac.in

Between
14th-19th March 2022

Coordinator
Dr. Y. Ashok Kumar Reddy

ABOUT THE INSTITUTE
Indian Institute of Information Technology Design and Manufacturing (IIITDM), Kancheepuram is an Institution of National importance established in 2007 by the Ministry of Education, Government of India. It is a Centre of Excellence for pursuing design and manufacturing oriented engineering education and research and for promoting the competitive advantage of Indian products in global markets. IIITDM Kancheepuram is offering UG and PG programs in the areas of Computer Science, Electronics and Communication Engineering, Mechanical Engineering, and interdisciplinary Ph.D. programs in core and applied areas of basic sciences and humanities (Physics, Mathematics, and English) and engineering.

ABOUT THE DEPARTMENT
The Department of Science and Humanities at IIITDM Kancheepuram currently has Physics, Mathematics, and English streams. The English stream involves research areas in theories of self and identity, literature, science, etc. The Mathematics stream involves diverse research areas such as algorithms, graph theory, numerical linear algebra, mathematical cryptography, etc. The Physics stream consists of a vibrant team of faculty members working in diverse research areas including materials science based defence & energy devices, photovoltaics, and fuel cells, materials modeling, fiber optics and photonics, solar and thermal energy applications, giant resonances of nuclei, and supersymmetric quantum mechanics. The major research facilities include RF/DC reactive magnetron sputtering, Thermal evaporation system, CVD tube-furnace, Electrochemical workstation, Spray pyrolysis, High-temperature furnace, Ball milling, Source measurement units, UV-Vis spectrophotometer, Hall measurement system, Optical spectrum analyzer, Splice machine, Broadband light sources, interrogator, etc.

The faculty members are involved in sponsored and consultancy research projects from various government organizations and industries.

IMPORTANT DATES
Last date for applications : 10-03-2022
Intimation of selection : 11-03-2022
Confirmation of participation : 12-03-2022

For further details, please contact:
Dr. Y. Ashok Kumar Reddy
Assistant Professor of Physics,
Indian Institute of Information Technology Design and Manufacturing (IIITDM)
Kancheepuram, Chennai – 600 127
Tel: +91 - 44 - 2747 6369
E-mail: akreddy@iiitdm.ac.in
AICTE Sponsored QIP Short Term Course on Sensors Technology 14th-19th March 2022

APPLICATION FORM
Please fill the below Google form:
https://forms.gle/qLMoHbWsAVLWa2SYA
(or) Scan the below QR Code:

Eligible teachers are requested to submit the filled in application (Google form) along with the sponsorship certificate in the format given below on or before 10-03-2022.

ABOUT THE COURSE:

INTRODUCTION
Sensors technology course aims to elucidate sensors concept of portion allied with infrared (IR) image sensors for defence technology, photodetectors for optical sensors, and gas sensors for health monitoring. Generally, a sensor is a device that detects the change in the environment and responds to some output on the other system. Most of the technologies such as optical communication, video imaging, night vision, biomedical imaging, motion detection, gas sensing, and renewable energy include the application of photodetectors which are used in our daily lives. New semiconductor materials and devices are the subversive frontier technology emerging among the international research community in recent years and also a propeller for the development of new sensor technology. This course will predominantly focus on the current status and future development of semiconductor materials and sensor devices.

COURSE OBJECTIVES
The objectives of the short-term course are the necessity of sensor technology, identification of semiconductor material for sensor devices, fabrication of IR imaging sensor, and gas sensor test-devices, device production and available platforms, and scope of the manufacturing opportunities on sensors for researchers.

COURSE OVERVIEW
- Design and development of infrared image sensing detectors
- Organic semiconductor thin films based sensors
- Introduction to MEMS based sensors
- Infrared image sensor devices
- Autonomous gas leak detection
- Semiconductor based photodetectors
- Nanoscale devices for emerging technology
- Nanostructure based photovoltaic devices
- Fabrication of infrared image, photodetector, and gas sensors
- Fiber based optical sensors

COURSE DURATION
The course is of one-week duration from 14th to 19th March 2022.

RESOURCE FACULTY
The resource faculty includes experts from topmost Research labs, Academia, and Industry.

ELIGIBILITY
Engineering college teachers from AICTE approved colleges are eligible to apply for the course.

REGISTRATION FEE
There is no course fee for the participants.

MODE
The course will be online, and attendance during all the sessions is compulsory. The course link will be sent to shortlisted candidates (maximum of 100) by 12-03-2022.
SPONSORSHIP CERTIFICATE FORMAT

Certified that Dr./Sri./Smt. ……………………… is a faculty of our Institute and is being sponsored hereby for attending the QIP short term course on “Sensors Technology” be conducted by the Department of Sciences and Humanities (Physics), IIITDM Kancheepuram in online mode from 14th to 19th March 2022.

Signature of Sponsoring Authority

(With date and seal)