The objectives of this course are to reinforce the fundamentals of electromagnetic principles demanded by recent advances in novel phenomena and exotic materials, and to provide exposure to recent developments in sensors and antennas for ever increasing applications, and to follow Tokomak research activity and new trends in Radio astronomy.

New developments continue to emerge from various parts of the wide spectrum of electromagnetic waves. Participants would be exposed to the exciting developments in the Terahertz regime, in energy harvesting, in the design and development of metamaterials, in the widespread use of microwaves for processing materials in an environmentally friendly and sustainable manner, in the advancement of microwaves for diagnostics and therapeutic uses and in the rapid progress made in compact sensor development and deployment. In addition, they would get a perspective of the challenges encountered in the design and development of electromagnetic devices and diagnostic tools for tokomaks, and of the new trends in radio astronomy.

In parallel, participants would participate in tutorial sessions that would enable them to reinforce their understanding of electromagnetic phenomena and update themselves to effectively engage with students.

By bringing researchers and teachers together, the course aims to contribute to the growth and sustenance of trained manpower that can engage with new developments through continuing education.

## *Eligibility and Registration Fee*

The course is open to faculty with background in Physics, Electrical Engineering, Electronics and Communication Engineering, and Mathematics from AICTE approved Institutions.

## *Course Contents*

Novel phenomena; Novel materials; Advances in sensors and sensing applications; Electromagnetics in Tokomaks, Radio astronomy; Electromagnetic Energy Harvesting; plus Tutorials/Simulations

## *Resource Persons*

The teaching faculty will constitute experts from different fields of specializations within IIT Madras and guest speakers from other reputed institutions and organizations.

**The course would be conducted in online mode.**

## *Important Dates*

Last date for applications: **15 March 2021**

Intimation of selection through email: **17 March 2021**

Confirmation of participation: **19 March 2021**

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Supported by
Centre of Continuing Education, IIT Madras
**https://cce.iitm.ac.in**

## Contact information

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# AICTE QIP SHORT TERM COURSE ON Principles and Advances in Electromagnetics

**Sponsored by AICTE, New Delhi**
**March 22 – 27, 2021**

*Coordinators*
**Dr. V. Subramanian**
**Dr. C. V. Krishnamurthy**

*Organized by*
**Microwave Laboratory**
**Department of Physics**
**Indian Institute of Technology Madras**
**Chennai – 600036**

## *Sponsorship*

Prof./Dr./Mr./Ms./Mrs./ _____

is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course "**Principles and Advances in Electromagnetics**" at IIT Madras during **March 22 – 27, 2021**, if selected.

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(Signature of Sponsoring Authority with date and seal)

The duly sponsored application form should be scanned and sent by email to:


Professor V. Subramanian

Microwave Laboratory, Department of Physics

Indian Institute of Technology Madras

Chennai – 600036

Email: *manianvs@iitm.ac.in*


## AICTE QIP Short Term Course (Online Mode) on Principles and Advances in Electromagnetics

Sponsored by AICTE, New Delhi

March 22 – 27, 2021

### Application Form

**Name:** _____

**Designation:** _____

**Department:** _____

**Organization:** _____

**Mailing Address:** _____

_____

**Pincode:** **Mobile No.:**

**E-mail:**

**Highest Academic Qualification :** _____

**Research Specialization:** _____

**Purpose of attending this workshop:** _____

_____

**Experience (in years):** **(a) Teaching:** **(b) Industrial/Research:**

All data provided are true to the best of my knowledge and belief. Kindly register me for the short-term course on "Principles and Advances in Electromagnetics" to be held in online mode by IIT Madras.

**Place:**

**Date:** **(Signature of the applicant)**