INTRODUCTION

The subject of Electromagnetics is one of the most standard topics in the engineering/science curriculum. It is also one of the most relevant in our daily lives. The importance of Electromagnetics has grown several-fold in the last 25 years while the applications are mind-boggling and are still evolving. There is immediate utility for several of these applications. However, there is no single book which addresses all these new topics comprehensively and the teacher/student is left to refer to multiple sources for a basic and rigorous understanding of the topic. References are also not very easily available in the engineering/science colleges and the course instructors are forced to search and settle for somewhat unreliable information on many occasions. Needless to say, experiments are far too few in these emerging fields in the standard engineering curriculum today, even though the experimental skills in some of the emerging topics can give a clear edge to the engineer. This QIP course is an effort to remedy this situation.

OBJECTIVE

In recent years, the topic of Electromagnetics has gained importance through several applications. This QIP course will address some of these topics through lectures and demonstration experiments. It is also planned to conduct tutorial sessions and one quiz at the end of the course to gauge the understanding gained through the course. Some of the topics addressed during the course will be put in perspective during the visit to the research labs equipped with high-quality instrumental infrastructure.

COURSE CONTENTS

Lectures will cover the following topics:
- Basic electromagnetic theorems and boundary conditions.
- Electromagnetic radiation and Antennas.
- Electromagnetic Guided waves.
- Electromagnetic waves in inhomogeneous media.
- Transformation electromagnetics and Metamaterials.
- Electromagnetic scattering and Imaging.
- Relevant experimental sessions.

LECTURES

Lectures will be delivered by experts working in the respective topics at IIT Kanpur.

REGISTRATION FORM

The registration form complete in all respects should reach the coordinator latest by 22nd January 2018. The participants are required to get their applications duly recommended and forwarded by their reporting officers.

ADDRESS FOR CORRESPONDENCE

Prof. R. Vijaya
Coordinator, QIP course-2018
Centre for Lasers and Photonics
SL-215, Southern Labs
Indian Institute of Technology Kanpur
Kanpur - 208016 (U.P.)
E-mail: rvijaya@iitk.ac.in
Office Tel: 0512-2597552

SELECTION OF PARTICIPANTS

The QIP course is intended solely for College teachers and is not open to others. Only 30 participants can be accommodated in this course. All those desirous of participation have to photo-copy the Registration form from the reverse side of this flyer, complete it in all respects and send it to the Coordinator by speed-post before the last date. The selected candidates will be informed by e-mail.

PARTICIPATION FEES

A caution deposit fee of Rs. 1,000 is to be paid only by the selected participants. This fee will be refunded to those participants who attend the QIP workshop. Those who drop out after the selection will forfeit this amount. The details of payment of caution deposit will be sent to the selected participants.

The selected participants will be provided shared boarding and lodging in the guest house extension or halls of residence at IIT Kanpur, and reimbursed for their travel to Kanpur as per QIP norms.

IMPORTANT DATES

Last date for receipt of applications: January 22, 2018
Announcement of list of selected candidates: January 30, 2018
Payment of Registration fees: February 26, 2018
Duration of QIP Course: March 26 to 30, 2018
Name: _________________________________________________________

Position / Designation:______________________________________________

Department: ____________ Institution/Organization:____________________

Full Postal Address of the Institute/College/University:____________________

__________________________________________ Pincode:__________ State:__________

E-mail Address*:________________________________________________

Mobile No.:______________ Office Telephone No.:_______ STD code_____

Educational Background (starting from Undergraduate Degree):

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<tr>
<th>Degree</th>
<th>Specialization</th>
<th>Institute/ University</th>
<th>Marks (%)</th>
<th>Year of Passing</th>
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<tr>
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<tr>
<td>M.Tech./M.E./M.Sc.</td>
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<td>M.Phil./Ph.D.</td>
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Number of years of teaching experience___________ at_____ (UG/PG) level.

Signature of applicant:______________________________________________

Recommendation (supporting the application):

Signature of Head of the Department or Head of the Institution

Designation:__________ Date:__________

* Mandatory
Note: This form should be filled up, signed by all concerned and sent by speed-post to the Coordinator.