

International Workshop

Organized by



IIT Allahabad

Co-sponsored by



IEEE UP Section

on

Antenna and RF Design For Low Power Applications

September 27-30, 2012

Venue: Indian Institute of Information Technology, Allahabad

<http://rfworkshop.iita.ac.in>, rfworkshop@iita.ac.in

Coordinator:

Dr. Neetesh Purohit

Distinguished Speakers:

Prof. S. K. Koul, IITD

Prof. B. R. Singh, IITA

Prof. A. R. Harish, IITK

Prof. M. K. Meshram, IIT BHU

Sponsoring Companies:

Agilent Technologies

Amitec Electronics

National Instruments

NI Logic

Rohde & Schwarz

Co-coordinator:

Dr. Rajat Kumar Singh

About the Institute:

The Indian Institute of Information Technology Allahabad (IIIT-A) was established in 1999 as a center of excellence in Information Technology and allied areas. It has been ranked 8th after the seven IIT's by INDIA TODAY magazine. The most important fact to be considered is that IIT-A is the youngest institute to be included in India Today's top 10 ranking list.

The Institute has been conceived with the ambitious objectives of developing professional expertise and skilled manpower in Information Technology (IT) and related areas. This will enable the country to exploit efficiently emerging opportunities, and meet economic challenges being thrown up by the rapid global IT revolution, which is influencing virtually every area of development and social activity. As an apex nucleating institute in the area of IT, the establishment of IIIT-A, is a major step of Govt. of India towards strengthening the indigenous capability necessary for exploiting profitably and harnessing multi-dimensional facets of IT at all levels, and attaining expertise to enable the country to emerge as a leading player in the global arena.

Aim of workshop:

Astonishing success of wireless networks has generated the need for engineers, who can design fabricate and test the low power radio frequency (RF) circuits. Designing an antenna and RF section for such applications is more complicated because the physical dimensions are mostly decided by the outlook of the device. It requires specialized training on the simulation tools, fabrication methods, measurement and testing procedures. IIIT Allahabad should take up the above responsibility of producing skilled RF manpower. A specialized training program has been prepared for the same. The benefits can be extended to other universities, colleges and institutions by offering a few seats to their teachers and potential students. IEEE UP section is a co-sponsor of the event.

Features of workshop:

1. Exposure to RF measuring instruments
2. Training of Antenna and RF Design tools
3. Training on antenna fabrication and testing
4. Demonstration of VLSI fabrication of RF circuits and antenna
5. Demonstration of SMT fabrication technology

Hands-on/Demonstration By representatives of following companies:

1. Agilent Technologies
2. Amitec Electronics Ltd.
3. National Instruments systems
4. NI Logic Pvt. Ltd. (FEKO dealer)
5. Rohde & Schwartz

Tentative Schedule of the Workshop

Day-1, Sept 27, 2012, Thursday

08.30 to 09.30 (In front of auditorium)	Registration and Kit distribution
09.30 to 10.15 (Auditorium)	Inauguration Ceremony Welcome to the distinguished guests and the participants (5 minutes) Objectives of the workshop: Prof. M. Radhakrishna, IITA (10 minutes) Schedule and organization of the workshop: Dr. Rajat Kumar Singh, IITA (5 minutes) Address by the chair, IEEE UP section (or the representative) (10 minutes) Address of the Session Chair (Hon'ble Director Sir, IITA) (10 minutes) Vote of thanks – Prof. B. R. Singh (5 minutes)
10:15 to 11:15 (Auditorium)	RF Design issues Dr. Ajay Singh Raghuvanshi, IIT, Allahabad
11:15 to 11:30 (In front of auditorium)	Tea Break
11:30 to 12:00 (Auditorium)	The antenna design issues for low power applications Dr. Neetesh Purohit, IIT, Allahabad
12:00 to 13:00 (Auditorium)	'Advances in Microstrip Antenna' Mr. Amit Sharma, Amitech Electronics Ltd.
13:00 – 14:30 (VH-1)	Lunch Break
14.30 to 17:30 (5019, CC-III)	Hands-on by NI2 design Team (on FEKO simulation tool) <i>(Tea will be arranged during the hands-on)</i>
17.30 to 19.30 (5042, CC-III) (5019, CC-III)	Optional labs (a) Hands-on on the Amitech Instruments (b) FEKO lab
20:00 to 21:30 (VH-1)	Dinner

Day-2, Sept 28, 2012, Friday

09:00 to 10:00 (Auditorium)	RF VLSI Design Dr. Kusum Lata, IIT, Allahabad
10:00 to 11:00 (Auditorium)	Monolithic Microwave Integrated Circuits (MMIC) Prof. B. R. Singh, IIT, Allahabad
11.00 to 11.30 (In front of auditorium)	Tea Break
11:30 to 13:00 (Auditorium)	The Keynote Address: Micromachined Microwave and Millimeter Wave Integrated Circuits Prof. Sibani Koul, IIT, Delhi
13:00 to 14:30 (VH-1)	Lunch Break

14:30 to 15:30 (Auditorium)	Re-defining RF Instrumentation Abhay Samant, R&D Manager, National Instruments India
15:30 to 17:30 (5042, CC-III)	Hands-on by NI Team <i>(Tea will be arranged during the hands-on)</i>
17:30 to 19:30 (5042, CC-III) (5042, CC-III)	Optional labs: (a) NI Instruments (b) Agilent Instruments
20:00 to 21:30 (VH-I)	Dinner

Day-3, Sept 29, 2012, Saturday

09:00 to 13:00 (5042, CC-III)	Hands-on/demonstration on Fabrication Technologies <i>(Tea will be arranged during the hands-on)</i>
13:00 to 14:30 (VH-I)	Lunch Break
14:30 to 15:30 (Auditorium)	Antenna and RF design issues in RFID Technology Prof. A. R. Harish, IIT, Kanpur
15:30 to 16:30 (Auditorium)	Recent trends in RF and Microwave Test Applications Mr. Vishal Gupta, Agilent Technology
16:30 to 18:30 (5042, CC-III)	Hands-on by the Agilent Team <i>(Tea will be arranged during the hands-on)</i>
18:30 to 20:30 (2311, CC-1) (5042, CC-III)	Optional labs: (a) SMT lab (b) R&S Instruments
20:00 to 21:30 (VH-I)	Dinner

Day-4, Sept 30, 2012, Sunday

09:00 to 10:00 (Auditorium)	Embedded Antenna Design for handheld devices Prof. M. K. Meshram, IIT, BHU
10:00 to 11:00 (Auditorium)	RF measurement systems: Principles and operations Mr. Suvrat Verma, Rohde & Schwarz
11:00 to 13:00 (5042, CC-III)	Hands-on by Rhode & Schwarz Team <i>(Tea will be arranged during the hands-on)</i>
13:00 to 13:30 (5042, CC-III)	Feedback Collection and Concluding Remarks
13:30 to 15:00 (VH-I)	Lunch

Registration form

International Workshop on Antenna and RF Design for Low Power Applications

Sept 27-30, 2012

Venue: IIT-Allahabad

1. Full Name:

2. Email id:

3. Mobile number:

4. Postal Address:

5. Registration Fee (choose one Type):

Type	Non-IEEE member	IEEE member
(a) Outstation Participants (Includes shared non-AC accommodation +food+Reg. Kit)	Rs. 6000/-	Rs. 5000/-
(b) Local Participants (Includes food+Reg. Kit)	Rs. 4000/-	Rs. 3000/-
(c) Foreign Participants (Includes shared non-AC accommodation +food+Reg. Kit)	USD 200/-	USD 180/-
(d) IIT-A Participants (Includes Tea+pad+pen+folder)	Rs. 500/-	Rs. 400/-

6. IEEE membership number (if applicable):

Note:

1. Fill this registration form and email us at rfworkshop@iita.ac.in or rfworkshop.iita@gmail.com by September 20, 2012.
2. The confirmation of registration will be intimated to out station candidates (if screened) within 2 days of submission of the form. However, the final shortlisted local and IIT-A participants will be announced on Sept 21, 2012.
3. All selected participants need to bring a DD favoring, 'The Director, IIT Allahabad' payable at Allahabad, at the time of Registration during the Workshop. However, you must email us the details of Demand Draft within 2-3 days after getting the confirmation. However, IIT-A participants can pay through cash.
4. Better accommodation may be arranged on additional payment as per institute's norms.