

**SILICON INSTITUTE OF TECHNOLOGY,
SAMBALPUR**

Two Days National Workshop
On
Recent Advancements in High frequency Electromagnetic Designs
using HFSS & MATLAB
March 3-4, 2018

Resource Persons :

Chief Guest :
**Dr. B. B. MANGARAJ, Associate Professor,
VSSUT, BURLA, ODISHA**

Invited Guest :
**Mr. Guru prasad Mishra, Ph.D Research Scholar,
VSSUT, BURLA, ODISHA**

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HFSS & MATLAB

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Venue of the Workshop:

Silicon Institute of Technology, Sambalpur.

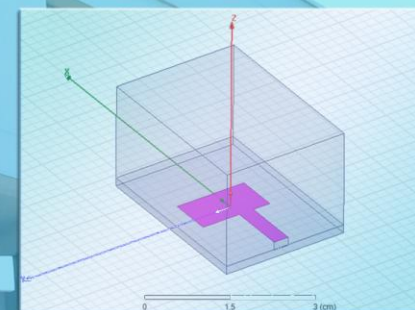
Conference Registration:

Registration fee (Rs. 350/-) is to be paid in the form of DD in favour of 'Director, Silicon Institute of Technology', payable at Sambalpur. Spot registration is also available. The registration fee includes workshop kit, lunch & refreshment.

Last date for registration : March 01, 2018

Correspondence:

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ORGANISED BY:
Department of Electronics & Communication
Engineering,
Silicon Institute of Technology,
Sambalpur - 768 200, Odisha

Silicon

Silicon Institute of Technology, Sambalpur, Department of Electronics and Communication Engineering:

Silicon Institute of Technology started its first campus at Bhubaneswar in 2001 and with the completion of its nine glorious years it ventured into Western Odisha with its second campus at Sambalpur in 2009. After eight years of its existence, Silicon, Sambalpur otherwise known as Silicon West is now a familiar name in the field of technical education of Odisha. Since its inception, the institute has been undergoing continuous improvisation by adapting to modern and innovative technologies in order to cater to the students' needs.

Team silicon came up with the campus primarily to meet the growing demand of technical manpower for core industries in Sambalpur, Jharsuguda & Sundergarh industrial zone. Silicon west offers core engineering courses & train the students to cater to the needs of these industries. The institute has enthusiastic & competent faculty with state-of-the-art laboratories & safe residential accommodation with modern amenities.

Silicon West, 15km away from Sambalpur and 5 km away from Rengali has been excelled in imparting the best of technical education and made it a state of the art institute for pursuits of engineering education. The strength of Silicon lies in its determination to go beyond teaching through creative learning and teamwork. The team of dedicated personnel comprising the initiators, advisors, members of management, faculty & staff through their cooperative and relentless efforts have been contributing for the swift growth of the Institute.

All the programmes offered at Silicon are approved by All India Council for Technical Education (AICTE), Ministry of HRD, Government of India, recognized by Government of Odisha and the institute is affiliated to the Biju Patnaik University of Technology (BPUT), Odisha.

The department of Electronics and Communication Engineering aims at producing qualified and dynamic engineers to cope with the fast changing areas of Electronics and Communication Engineering. The Department offers undergraduate course on Electronics & Communication Engineering and these course proved to being dispensable to industrial establishments. All laboratories are well furnished with sophisticated equipments and software based on latest technology. About the National Workshop: Wireless technology has gone through different phases of development since its inception. Over these years different standards in this technology have been evolved out of the demands. The communication using electromagnetic wave has replaced wired technology to wireless technology to enable over long distance communication. Currently there is a demand for portability & mobility in wireless communication Systems. High frequency has been applied to various fields of Wireless communication like Mobile communication, Satellite communication, radio-telescope for astronomy, radar surveillance system, and also to GPS positioning system known as car navigation system & so on. So it is required to study & analyse on Recent Advancements in High Frequency Electromagnetic Designs to adequate ourselves in recent high-speed and high-capacity wireless communication systems. So, High Frequency Electromagnetic Designs is an area of Communication System Engineering that has rapidly developed during the past few decades resulting phenomenal advances in research. Therefore, it is planned to organize a two days national workshop on Recent Advancements in High Frequency Electromagnetic Designs using HFSS & MATLAB in the Department of Electronics and Communication Engineering at Silicon Institute of Technology, Sambalpur, Odisha.

This workshop aims to train the beginners in High Frequency Electromagnetic Designs and discuss the practical problems encountered and the solutions adopted.

Topics for the seminar include, but not limited to

- Need of High frequency Electromagnetic Designs in Communication Systems.
- Study, Design & Analysis of rectangular waveguide.
- Introduction to HFSS & MATLAB.
- Modes of a rectangular waveguide using HFSS.
- Various parameters like s-parameter, input and output reflection coefficient.
- Transverse Electric Waves in a Parallel-Plate Waveguide.
- HFSS
- Design of cavity Resonator, & calculation of Dispersion Relation and Phase Velocity
- Basic introduction to Antennas and some recent developments in Antenna Design and Applications.
- Antenna Design using HFSS and MATLAB.

Chairman

Prof.(Dr.)P. K. Mishra, Director

Convener

Prof. Manas Ranjan Jena(ECE)

Advisory Committee

Prof. (Dr.) A. Behera,

Dean, (Academics)

Prof. T. Thakur, HOD, (BSH)

Prof. S.K.Mishra, HOD, (CSE)

Prof. M. Mahapatra, HOD, (ME)

Prof. R. Patel, HOD, (EE)

Prof. S.Patel, HOD, (CE)

Organizing Committee

Prof. P. K. Nayak, HOD, (ECE)

Prof. B.K. Chaudhary, (ECE)

Prof. N. K. Naik, (ECE)

All faculty & staff members of Department of Electronics and Communication Engineering, Silicon Institute of Technology, Sambalpur