

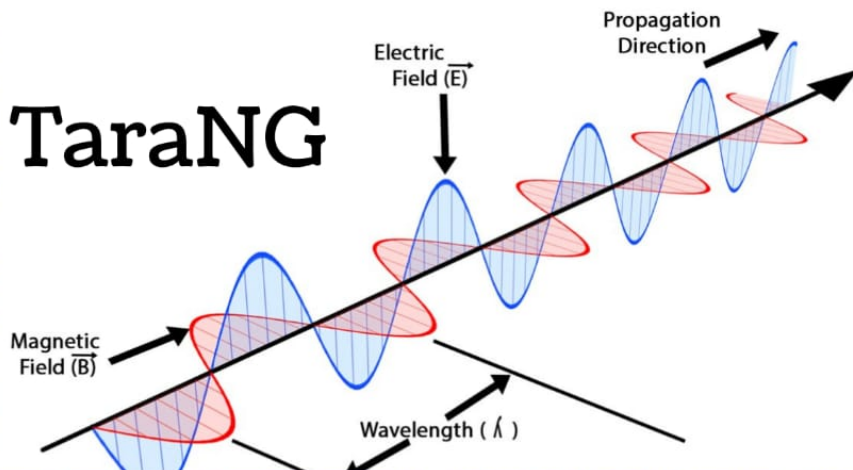
Two Days

Workshop

On

Electromagnetic Wave

TaraNG



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7 & 8 March 2022

Two Days Workshop
on
‘Electromagnetic waves software tool – TaraNG’

Introduction:

Electromagnetic Fields and Microwave Engineering are two courses of Electronics Engineering which includes the complex concepts of physics and their implementation in the form of Electromagnetic Waves, Microwaves etc. Alongwith the complex concepts, the courses also involve analytical treatment making them very difficult.

In the academic year 2021-22, Government College of Engineering, Amravati has implemented it's new curriculum for third year. ‘Electromagnetic Waves’ and ‘Electromagnetic Waves Lab’ are the part of new implemented curriculum.

‘Electromagnetic waves software tool – TaraNG’ is a platform which will help the students to visualise and understand the complicated concepts of Electromagnetism. It also helps to develop analysing and problem solving capabilities in students.

Keeping this in mind, Department of Electronics Engineering arranged a **‘Two Days Workshop on ‘Electromagnetic waves software tool – TaraNG’** on 7th and 8th March 2022 for the final year students. The resource person for the workshop, Mr. Swapnil Gaul, conducted the sessions on the TaraNG.

Mr. Swapnil Gaul has completed Masters from IIT Kharagpur during 2011-2013 with specialization in RF & Microwave. He completed his dissertation work on Computational Electromagnetic & Numerical Techniques under the guidance of Prof. Ramesh Garg.

While working as teacher’s assistant, he had to carry out lab sessions and demonstrate the software present in their lab to undergraduate students. Soon he realized that many students were uncomfortable using that simulation software. Mr. Swapnil identified the need of unified solution where the goal is not to learn the software but it is to learn the concepts by understanding those simulations.

Mr. Swapnil developed the simulation packages which will allow hands-on based learning experience. He continued his masters project to make it in form of product and started a private limited company ‘NUMEREGION’ to commercialize the same to achieve the goals in a strategic manner.

With vision of making engineering education more hands-on based, NUMEREGION is Delhi NCR based education technology startup working in field of engineering simulations. According to technical mentors from IIT Mumbai, the software is the India’s first engineering tool that will provide the simulation based hands-on learning especially in Engineering and Technology. The startup is supported by Department of Science and Technology under EIR scheme through which incubation support and fellowship is awarded. ISBA committee once referred to NUMEREGION to represent at Malaysia in one startup event, where he has got two medals for India.

Day wise details of Two Days Workshop:

Day 1:

Mr. Swapnil Gaul interacted with the students and told them how he himself faced lots many problems and difficulties with Electromagnetism. Then he told how he developed the EMF software tool – TaraNG. He explained the TaraNG platform, various facilities offered by the software. He demonstrated various electromagnetic laws and theorems, Electromagnetic wave propagation. Day2:

Day 2:

Second day was for Hands-on session on TaraNG tool. Attendance of the day is attached herewith.

The overall activity was coordinated by S. J. Meshram under the guidance of Dr. P. R. Deshmukh, Head of Department.

Mr. Gaurang Deshpande (18004064) presented the vote of thanks.

