

2 days workshop on “Micro electro mechanical systems”

On 16/01/2017 and 17/01/2017

Objective of the workshop

The MEMS system exists today in many environments, agriculture, automotive, medical, consumer, industrial and aerospace. Their potential for future tunneling into a broad range of applications is real, supported by progressive activities both by academia and industry in all streams of engineering. The development of MEMS is inherently interdisciplinary, necessitating an understanding of the fabrication methods. This FDP aims at providing the essence of Microelectronics and Micro Electro Mechanical Systems design using COSMOL Multiphysics Tools focusing on all engineering streams, so that, the faculty who attends this FDP should come out with their own project in MEMS.

The multiphysics nature of MEMS devices requires that a system designer has a vast understanding and knowledge of these various branches of physics. Because some microscale effects are totally new or behave differently than at the macroscale, engineers require new system-design philosophies. They likely find it difficult to split one design into parts, which is common for macroscale device, where one engineer can fully study the mechanics while others concentrate, for instance, on the electrical or thermal aspects. Thus the MEMS engineer is a true systems designer, handling several physical phenomena simultaneously—and COMSOL Multiphysics and the MEMS Module can do the same. Most MEMS devices are manufactured using lithography-based micro fabrication, a technology that the microelectronics industry has refined for highly integrated circuits. Thanks to these efforts there are excellent methodologies and facilities for mass production.

Two days workshop on “MicroElectro Mechanical System” was organized. The inauguration ceremony was graced by the presence of Mr. Basavaraj Sheeparimatti, Professor, Basaveshwara Eng. College Bagalkot, Mr. Prashanth Hanasi, Professor, Jai College, Belagavi, Mr. Rajesh, Engineer, STD Bengaluru, Dr. DV Manjunatha, HOD Dept of ECE, Dr. Praveen J, Dean Academics, AIET. The inaugural session started with a welcome address by Dr. D V Manjunatha, Head of the Dept., ECE, AIET. Followed by this, the dignitaries on the dais lighted the lamp and formally inaugurated the session. A formal introduction of the chief guest of the function was done by Prof. Shruthi Kumari, Asst Prof. from the dept of ECE.

