



**Date: 16/07/2020**

**REPORT**  
**On**  
**Webinar-3 “MEMS and Sensors: The need of Today's World”**

Department of Electronics and Communication Engineering, Sai Vidya Institute of Technology, Bengaluru in association with IEEE SVIT Student Chapter conducted Webinar on the topic “MEMS and Sensors: The need of Today's World”.

**Date of the Event: 16<sup>th</sup> July 2020 at 10:30 AM**

**Speaker Details:** Dr. Koushik Guha, Senior Member-IEEE, Asst. Professor (Grade 1), Dept. of ECE and Assoc. Dean of Student Welfare & Nodal Officer of Scholarships, NIT Silchar, Assam.

**Online webinar Platform:** Google Meet Application

**Webinar meeting Link:** <https://bit.ly/IEEESVITSBWebinarLive>

**Timings:** 10:30 AM to 12:00 AM

Total Number of Registrations: 460+

More than 460 participants are registered for the webinar and more than 250 Participants actively participated from various Industry professional's/ Faculty member's/ Research scholars/ students from many reputed institutions were witnessed the webinar. The webinar is started at 10:30 AM with formal Welcome for the speaker, Dr. Koushik Guha by Dr. Venkatesha M, Branch Counselor-IEEE SVIT student branch, Associate Professor, Department of ECE. Followed by Brief introduction about the speaker was given by Mr. Sourabh Bhat, Student Secretary, IEEE-SVIT student branch.

The speaker Dr. Koushik Guha explained the importance and need of MEMS and Sensors. He also expressed his view on current research topics, various MEMS sensor, MEMS simulation tools and the various applications of MEMS and Sensors. The session talk was well appreciated by all the participants and it has inspired many undergraduate students, faculty members and created lot of interest on research in the field of MEMS and Sensors. Vote of thanks was given by Bina R, student Chair, IEEE SVIT student branch. The feedback form was shared to all the participants at the end of the session we received more than 260 feedback forms and E-certificate was sent to all the registered participants.

**Chief Coordinator:** Dr. Narayan K, Advisor, IEEE SVIT Student Branch, Dean (R&D) and Professor Department of ECE

**Head of the Department:** Prof. Vikramathithan A C, Department of ECE

**Webinar Coordinators:**

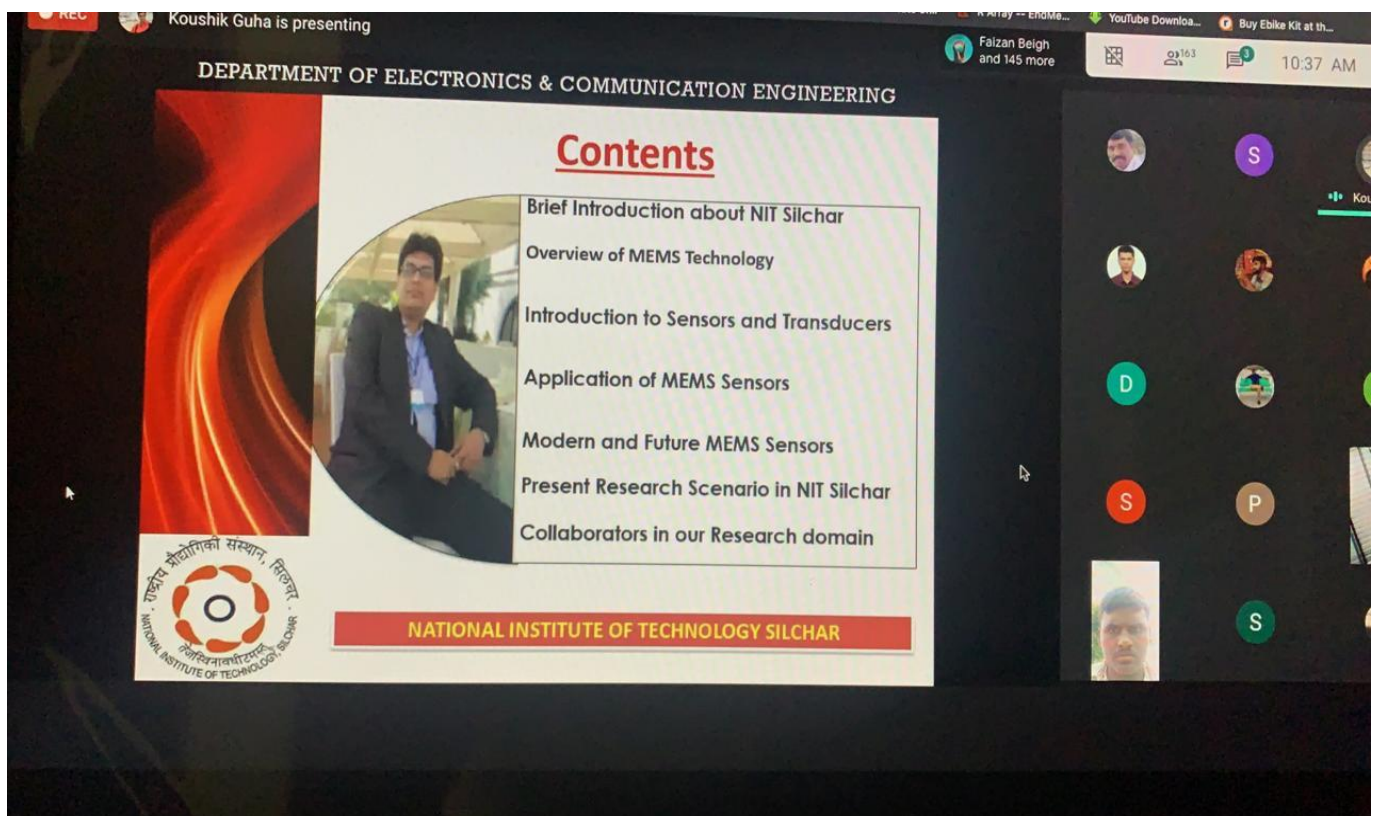
**Faculty Coordinators**

1. **Dr. Venkatesha M** –Branch Counselor, IEEE SVIT Student Branch
2. Mr. Pavan Kumar E, Assistant Professor, Department of ECE
3. Ms. Monisha Raj, Assistant Professor, Department of ECE

**Student Coordinators**

1. **Mr. Sourabh Bhat**, Student secretary, IEEE SVIT student Branch
2. **Ms. Bina R**, Student Chair, IEEE SVIT Student Branch

**Photographs taken during the Webinar:**










● REC

## Scope for Future Students

Research Areas

FOR



**RF MEMS – Switches, Filters, Resonators, Phase Shifters etc.**

**MEMS Microfluidics – Micro pump, Drug Delivery, Kidney on chip etc.**

**Bio-MEMS: Sensors & Actuators, Detection of Diseases, Lungs on Chip etc.**

**MEMS Energy Harvesting – Piezoelectric, Electromagnetic, Hybrid, Solar etc.**

**VLSI – Analog Circuits, Digital Circuits, Optimization, System on Chip, Layout etc.**

Ruchitha M has left the meeting

120

Meeting details

● 0:23:54
✕

People (14/17)

sri vidya.A 11:43 AM  
Plz do share the ppt to the mail. Informative session.

MD AYUB SHEIKH 11:43 AM  
feedback link please

Manoranjan Kumar 11:44 AM  
<https://forms.gle/PzU78LX9aZToW8J99>

pavan\_svit 11:44 AM  
<https://forms.gle/PzU78LX9aZToW8J99>


Nadeem beigh 11:45 AM  
Question: what are the best simulation softwares got MEMS

\*for


sri vidya.A 11:48 AM  
What r the sensor "MEMS" developed for the Covid19 conditions.

Send a message to everyone ▶


● REC




Sourabh Bhat




... Dr. Narayan K




Venkatesha M



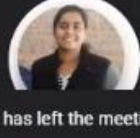
Bhavana S P




Mohan B M




... Vikramathithan A C



sri vidya.A has left the meeting



Yuvashree D



mohd saad

Bina R

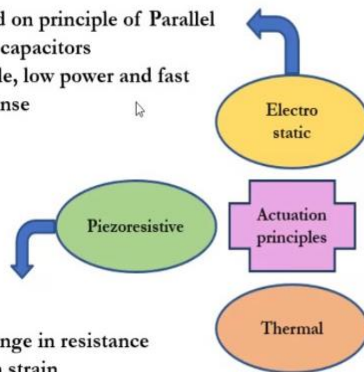
Yuvashree D

mohd saad  
Thank you everyone

mohd saad

## MEMS Actuation & sensing principles

- Based on principle of Parallel plate capacitors
- Simple, low power and fast response



- Change in resistance with strain

Meeting details ^



Turn on captions

Koushik Guha is presenting

Meeting details X

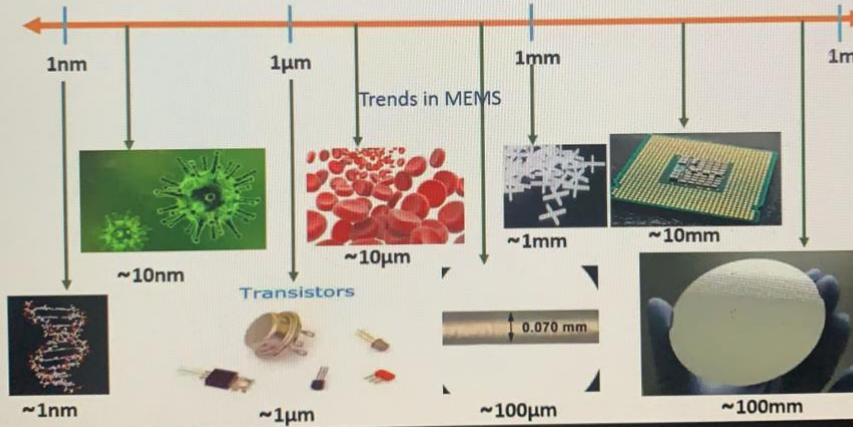
People (212) Chat (3)

- Jeeva Jayaram
- Joel J
- Jyoshna Y S
- Kala Chandra
- Kavitha D
- Kavya T
- Kavya U P
- Keerthi Raj G N
- Kirankumar P
- kirankumari c
- KOHILA c

## Introduction to MEMS Technology

### MEMS = Micro Electro Mechanical Systems

Any Engineering system that performs electrical and mechanical functions or both with components in micrometres scale is called MEMS technology



Meeting details: 0:23:20

## Research at National MEMS Design Centre

- Motto:** To promote MEMS field and interdisciplinary research nature in academic community.

*"no research is successful unless it is interdisciplinary"*

**Working Fields:**

- RF MEMS Switches
- RF MEMS Filters
- RF MEMS Reconfigurable antennas
- Piezoelectric Energy harvesters
- MEMS Drug Delivery Systems
- MEMS Kidney on Chip Devices

**NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR**

Meeting chat:

- sri vidya.A 11:43 AM: Plz do share the ppt to the mail. Informative session.
- MD AYUB SHEIKH 11:43 AM: feedback link please
- Manoranjan Kumar 11:44 AM: <https://forms.gle/PzU78LX9aZToW8J99>
- pavan,svit 11:44 AM: <https://forms.gle/PzU78LX9aZToW8J99>
- Nadeem beigh 11:45 AM: Question: what are the best simulation softwares got MEMS for
- sri vidya.A 11:48 AM: What r the sensor "MEMS" developed for the Covid19 conditions.

Send a message to everyone

11:54 AM 7/16/2020

## Electronics & Communication Engineering Department

126

Thank you for your kind attention!

**Special Thanks to Dr. Narayan**

**We all are in this together  
Let us do our bit in the fight against COVID-19**

**Contact me for any query**  
Email: [koushikguha2009@gmail.com](mailto:koushikguha2009@gmail.com)  
Email: [Koushik@ece.nits.ac.in](mailto:Koushik@ece.nits.ac.in)

**National Institute of Technology Silchar  
Assam-788010**

Viswanath V has left the meeting

*AC Viswanath*

**Program Coordinator**