

**Sri Taralabalu Jagadguru Institute  
of Technology**

**Ranebennur, Haveri Dist, Karnataka**

**DEPARTMENT OF ELECTRONICS AND  
COMMUNICATION ENGINEERING**

**AICTE Training and Learning (ATAL) FDP**

**Programme on**

**"Recent Trends in MEMS/NEMS Technology  
for Biomedical Applications"**

**From 16<sup>th</sup> to 21<sup>st</sup> October 2023**

1. Name: \_\_\_\_\_
2. Designation: \_\_\_\_\_
3. Qualification: \_\_\_\_\_
4. Institution: \_\_\_\_\_
5. Professional Experience: \_\_\_\_\_
6. Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Email Id: \_\_\_\_\_
8. Mobile No. : \_\_\_\_\_

**Declaration:**

The information provided is true to the best of my knowledge and belief. If selected, I agree to abide by the rules and regulations of the programme.

**Signature of the Applicant**

Signature of the Head of Organization  
(With seal)

Place:

Date:

N.B.: Brochure & registration form can also be  
downloaded from our Website: [http:// www.stjit.ac.in](http://www.stjit.ac.in)

**Chief Patrons**

**Dr. Shivamurthy Shivacharya Mahaswamiji,**

President, S T J Education Society

**Sri Shiva Prakasha Shivacharya Swamiji,**

Vice President, S T J Education Society

**Patron**

**Dr. Shivakumara B,** Principal

**Coordinators**

**Dr. Maheshwarappa. B,** Prof & Head. Dept. of ECE

**Dr. Srinivasarao Udara,** (Assoc. Professor),

**Resource Persons .**

**1. Dr. Maheshwarappa. B**

Professor & Head, Dept of E.C E, STJIT

Specialization: MEMS

**2. Dr. Srinivasarao Udara,**

Associate Professor Dept of E.C E, STJIT

Specialization: VLSI, MEMS

**3. Dr. Gopalkrishna Hegde**

Professor Dept of Nano Technology, IISC, Bangalore

Specialization: MEMS/NEMS Fabrication

**4. Dr. Manjunath**

Professor Dept of E.C.E, AIT, Moodbidri

Specialization: MEMS/NEMS

**5. Dr. Harish H M**

Professor, Dept of E.C.E, GEC, Haveri

Specialization: MEMS Soft Computing

**6. Dr. Nitin S Kale**

Scientist, Nanosniff Technologies Pvt Ltd.

Specialization: VLSI

**7. Dr. Raghavendra C R**

Professor, Dept of Mechanical, GEC, Haveri

Specialization: Nano Materials & MEMS Applications

**8. Dr. Subbarao A V**

Professor and HOD, NIE, Macherla.

Specialization: Nano Materials Characterization

**AICTE Training and Learning (ATAL)**

**FDP Programme on**

**"Recent Trends in MEMS/NEMS**

**Technology for Biomedical**

**Applications"**

**From 16<sup>th</sup> to 21<sup>st</sup> October 2023**



Organized by Department of Electronics  
and Communication Engineering  
Sri Taralabalu Jagadguru Institute of  
Technology,  
Ranebennur, Haveri Dist.  
Karnataka - 581115.

Ph: 08373-266343. Fax: 08373-266427

Website: [www.stjit.ac.in](http://www.stjit.ac.in)

**Address for Correspondence**

**Dr. Maheshwarappa B**

**Professor and Head,**

**Department of ECE**

S.T.J. Institute of Technology,

Ranebennur,

Ph.+ +919980511641

Email: [bangalimaheshb1975@gmail.com](mailto:bangalimaheshb1975@gmail.com)

## About the College:

Sri Taralabalu Jagadguru Institute of Technology is established by the religious Organization namely, Sri Taralabalu Jagadguru Brihanmath, Sirigere, which is well-known in Karnataka for its yeoman service in the field of rural education. Under the auspices of this organization are running more than 172 institutions right from nursery to the Engineering College all over the State of Karnataka. Nearly 32 thousand students are studying in various schools and colleges of this organization which is one of the biggest private Educational Organization in Karnataka. More than Six thousand students are provided with free boarding and lodging.

## History:

The present pontiff of the Brihanmath is **Dr. Shivamurthy Shivacharya Mahaswamiji** who succeeded to this religious seat in the year 1979. The Swamiji is an eminent Sanskrit scholar with Ph.D. from Banaras Hindu University. His Holiness is also the President of the S T J Education Society Sirigere. Treading the path of his predecessor, the Swamiji has been relentlessly striving for the upliftment of the rural poor and the downtrodden. The role of technology in the development of a country is well known. It is the content and quality of technical education that ensures the availability of technology in the country. When the whole world is emerging as a global village, it is technological edge of a country that enables it to survive in this competitive world. It is only institutions having enlightened management and qualified, dedicated faculty that could ensure the availability of technical personnel to meet the needs of a country.

It is against this back drop His Holiness **Sri Taralabalu Jagadguru Dr. Shivamurthy Shivacharya Mahaswamiji**, had established Sri

**Tarabalu Jagadguru Institute of Technology** at Ranebennur in the year 1980.

## About the Department:

The Electronics & Communication Engineering department was started with UG Programme in 1989 with an annual intake of 60. Now the department is offering UG programme with 60 intakes aspirants per year. The vision of the department is to train the students with latest updates in the field of Electronics and Communication Engineering and is striving for the quality of education.

The department has well qualified experienced and dynamic faculty along with experienced and skilled technical supporting staff who spearhead the process of achieving the vision of the department. The department has well equipped labs and infrastructure. Till now more than 28 batches have passed out with more than 85 pass percentage. Many of our students' technical papers have been published in various National and International technical symposiums. A good number of students are being placing through campus placements in major IT and core MNC companies every year.

## About the Programme:

The significant advancements within the electronics miniaturization field have shifted the scientific interest towards a new class of precision devices, namely Micro Electro Mechanical Systems (MEMS). Specifically, MEMS refers to microscaled precision devices generally produced through micromachining techniques that combine mechanical and electrical components for fulfilling tasks normally carried out by macroscopic systems.

Although their presence is found throughout all the aspects of daily life, recent years have witnessed countless research works involving the application of MEMS within the biomedical field, especially in drug synthesis and delivery, microsurgery, microtherapy, diagnostics and prevention, artificial organs, genome synthesis and sequencing, and cell manipulation and characterization.

## Eligibility Criteria:

This programme is open to all AICTE approved engineering college Teaching Staff members and students pursuing their PG courses, R&D scholars & Professionals from R&D, Industry. Selection of participants will be on first come first serve basis.

## Eligibility and Selection:

The faculty members of the AICTE approved institutions, PG students & Research scholars from Government, Industry can participate in this FDP.

- Maximum number of participants is Limited to 50.
- To register, please visit:  
<https://atalacademy.aicte-india.org/signup>
- There is no registration fee.
- Participants will be selected on first come- first-serve basis.
- Selected candidates will be intimated by e-mail.

## Important Dates:

Last date of registration: 12-10-2023

Intimation of selection: 14-10-2023

**Faculty Development Workshop from**

**16-10-2023 to 21-10-2023**



## AICTE TRAINING AND LEARNING (ATAL) ACADEMY

Sponsored One week Faculty Development Program on

# "Recent Trends in MEMS/NEMS Technology for Biomedical Applications"

Organized by

Department of Electronics and Communication Engineering

**SRI TARABALU JAGADGURU INSTITUTE OF TECHNOLOGY, Ranebennur - 581115**

16<sup>th</sup> October to 21<sup>st</sup> 2023

Six-day Offline Mode (9.30AM to 5.00PM)

Dates	9.30 AM to 10.30 AM	10.30 AM to 11.00 PM	11.00 PM to 1.00 PM	2.00 PM to 4.00 PM	4.00 PM to 5.00 PM
16/10/2023( Day-1)	Inauguration	Tea Break	(Session - 1) Micro Nano Fabrication Dr. Gopal Krishna Hegde	(Session - 2) Micro Fabrication Characterization Dr. Gopal Krishna Hegde	
Dates	9.30-12.00 PM	11.00-1.00 PM	1.00 PM To 2.00 PM	2.00-4.00 PM	4.00-5.00 PM
17/10/2023( Day-2)	(Session - 3) Introduction to MEMS/NEMS for Biomedical Fields Dr. Srinivasarao Udara	MEMS/NEMS for Biomedical applications Dr. Srinivasarao Udara Article-1 discussion	Lunch	(Session - 4) Article-2 discussion - Performance of MEMS Sensor using OmniCant Dr. Nitin S Kale	
18/10/2023( Day-3)	(Session - 5) Introduction to MEMS Technology Dr. Maheshwarappa. B	Article-3 discussion MEMS Verification using OmniCant Dr. Maheshwarappa. B	Lunch	(Session - 6) Analytes for MEMS Detection performance Article-4 discussion Dr. Nitin S Kale	
19/10/2023( Day-4)	(Session - 7) Soft computing in MEMS/NEMS Dr. Harish H M	Applications of MEMS/NEMS Dr. Harish H M	Lunch	(Session - 8) Challenges and Opportunities for MEMS/NEMS Engineers Dr. Subbarao A V	
20/10/2023 (Day-5)	(Session - 9) Nano Materials for MEMS/NEMS Dr. Raghvendra	Nano Materials for MEMS/NEMS Characterization Dr. Raghvendra		(Session - 10) Nano Materials for MEMS/NEMS Characterization Instruments Dr. Subbarao A V	
21/10/2023 (Day-6)	Travel for Industrial Visit		Lunch	MCQs	Valedictory

**Note: One explanation about the Patent filed**

- Every session, last 15 minutes, discussion of a paper - optimised for Design, performance

**FDP Coordinator**

**Dr. Maheshwarappa B**

Professor and Head,

Department of E & CE,

S T J Institute of Technology, Ranebennur

E-mail ID: bangalimaheshb1975@gmail.com

Alternate Email ID: bangalimahesh@rediffmail.com

Mobile :+919980511641

**FDP Co-coordinator**

**Dr. Srinivasarao Udara**

Associate Professor, R&D Head,

Department of E & CE,

S T J Institute of Technology, Ranebennur

E-mail ID: drsrudaraj@gmit.ac.in

Mobile : +917760105495

**FDP Co-coordinator**

**Ms. Chandrashekar BG**

Assistant Professor,

Department of E & CE,

S T J Institute of Technology, Ranebennur

E-mail ID: chandra007bnk@gmail.com

Mobile :+919986669411