

## Industrial Visit Report

Name of the college:- Global Academy of Technology, Raja Rajeshwari Nagar, Bangalore

Department:- Electronics and Communication Department

Organisers:- TechConnect (departmental Technical Club)

Industry Visited:- STARC (SITAR), DRDO

Semiconductor Manufacturing

Bengaluru, Karnataka 156, India

Date:- 23<sup>rd</sup> February 2023

**Number of attendances:-** Total 27 students and 5 faculties

**Faculties Accompanied:-** 1) Prof. BNM

2) Prof. Sushma

3) Prof. Shridhar Kabbur

3) Prof. Bindu

4) Prof. Keerthi

Industry Profile:- Semiconductor Technology and Applied Research Centre (STARC), a Unit of SITAR Society is a dedicated MEMS (microelectromechanical systems) foundry for the production of MEMS sensors for strategic applications. STARC serves its DRDO/ Defence customers from a 23-acre campus with a 16000 sq.ft. clean room area in Bangalore. STARC has a MEMS manufacturing facility for 6" (150 mm) wafers. STARC Foundry offers the flexibility to use substrate materials like silicon, SOI, glass, quartz and CMOS-wafers. STARC offers services with high quality and reliability, advanced process development, prototyping and low volume manufacturing. STARC is an ISO 9001:2015 certified company.

### **Aim of the Industrial Visit:-**

- 1) To interact the students with actual industry personals.
- 2) To make them aware of the industrial procedures required to enter in any company.
- 3) To experience the working environment in industry and visualize all the important Departments in the Industry.
- 4) To prepare the students for the selection of carrier path in different departments of industry.

### **At STARC terminal, Management team informed all students about:-**

- 1) Safety measures
- 2) Issued visitors ID for all the students and staff ID for all the Lecturers

### **Inside STARC :-**

- 1) Students were briefed about the processes followed at STARC in manufacturing and in research and development
- 2) Students were then taken to see the process done in different classes
- 3) Silicon wafers of n-type were taken and SiO<sub>2</sub> was grown, on which photoresist layer was uniformly distributed.
- 4) In the next class, mask was placed in the respective regions of the wafer, and exposed to light of certain frequency.
- 5) In the next class, students observed cleansing and etching process followed by diffusion and metallization.
- 6) The dies from the silicon wafers were packaged with respect to its various applications.

#### **Feedback from students:-**

- 1) Together with a few of my classmates and seniors, I M Vinith Krishna, a third-semester "A" student, was one of the fortunate students to visit STARC. We received a quick explanation on designing, lithography, and etching on a silicon wafer. As we continued our visit, we saw centres that were kept immaculately clean, learned how to maintain humidity, use a yellow light for lithography, use dies on etched silicon wafers, and were introduced to ASIC devices and MEMS that have many applications in accelerometers and gyroscopes. It was a truly memorable visit, and we are grateful to the department of electronics and communication, Ravichandran Sir, and the college administration for making it possible
- 2) We had an amazing experience visiting STARC, we got a great exposure in the field of VLSI and MEMS. We thank BNM sir and TechConnect for organizing this industrial visit.
- 3) We were able to link theory concepts with practical experience, we had a great experience with the management of STARC. Staffs were very supportive and explained the concepts with great interest
- 4) VLSI is my favourite domain and this visit helped me understand its importance and applications in the real world

#### **Moment with students :-**

