

## **KLETech - SRIB Collaborative Initiatives**

The initiative for collaboration with Samsung Research Institute Bangalore (SRIB) was taken under the KLE Technological University's (KLE Tech) Industry Collaborative Initiatives towards curriculum design & delivery, collaborative projects for experiential learning, and capacity building of students & faculty.

The objective of this collaboration is to strengthen the curriculum thread in undergraduate programs by involving the experts from SRIB in Board of Studies (BoS) and Introduction of state of art courses for UG and PG programs, where the industry experts are a part of designing course content, delivery, and evaluation. SRIB team is also actively involved in course conduction through co-delivery and conducting reviews towards evaluation. The SRIB team is in continuous discussions with faculty to arrive at the holistic curriculum thread.

The SRIB team contributes towards capacity building of students by conducting training programs, workshops, expert tech talks. Towards enhancing software competency SRIB team contributes in conducting Codethons and Hackathons. SRIB also provides student internships to students of KLE Tech under the initiative. Under the initiative SRIB also plays a role in capacity building of faculties by conducting faculty development programs (FDP), workshops, training programs, and also provide internships to faculties.

Under the initiative collaborative projects with faculties and includes activities like writing proposals to funding agencies, industry sponsored projects, institutional sponsored projects towards developing a POC, joint IP generation and publications. These activities paves ways towards experiential learning for students through collaborative projects evolving them to think beyond academia, and providing exposure to industry culture.

## **Curriculum Design**

### ▪ **Machine Learning and AI**

- Strengthening of Machine Learning and AI Curriculum thread in CS and EC Undergraduate Programs
- Adapting of ML curriculum framework by Programs from 2018-19 academic year.

### ▪ **Embedded Intelligent Computing**

#### **Faculty Capability building:**

- 12 Faculty are trained for one week on embedded intelligent computing at SRIB 22nd to 29th July 2019
- Workshops for 1-2 days on advanced topics
- Android programming for efficiency
- Heterogeneous computing.

#### **Projects**

- Research projects given by SRIB to students and faculty in the area of embedded intelligence computing and reviewed by SRIB experts.

#### **Course Design**

- A course 'Embedded Intelligent Computing' is designed and to be offered in the ensuing semester (Floated from Jan 2019)

<b>Content</b>
1. Basics of embedded systems
2. Lab session on embedded systems
3. Heterogeneous computing
4. Heterogeneous computing Lab session
5. ML Frameworks
6. ML Frameworks lab with the target device
7. Model Development and Optimization
8. Android Anatomy

## **Building Software Competency**

- **CODETHON** scheduled in collaboration with SAMSUNG and CodeChef on 29<sup>th</sup> Sept 2018 at KLE Tech Hubli
- Unique initiative by Samsung, first of its kind being held in North Karnataka and targeting north Karnataka talent
- 100 teams comprising of 400+ students from 10 institutions of North Karnataka including IIIT Dharwad and IIT Dharwad are registered
- 40+ teams made it to leader board

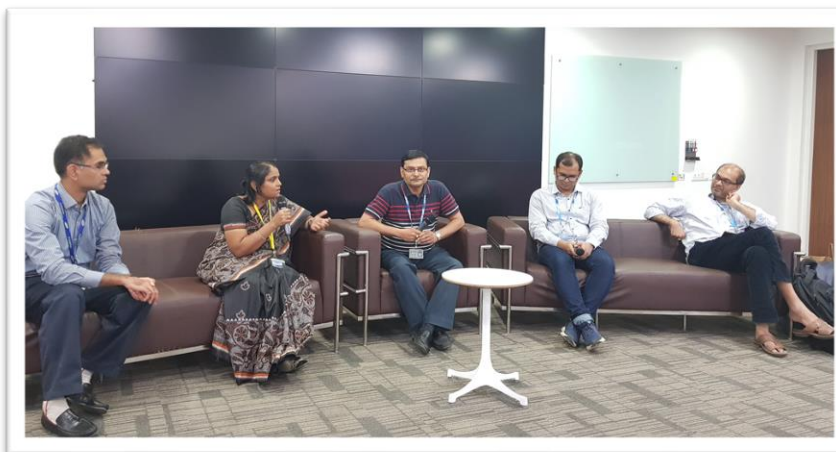
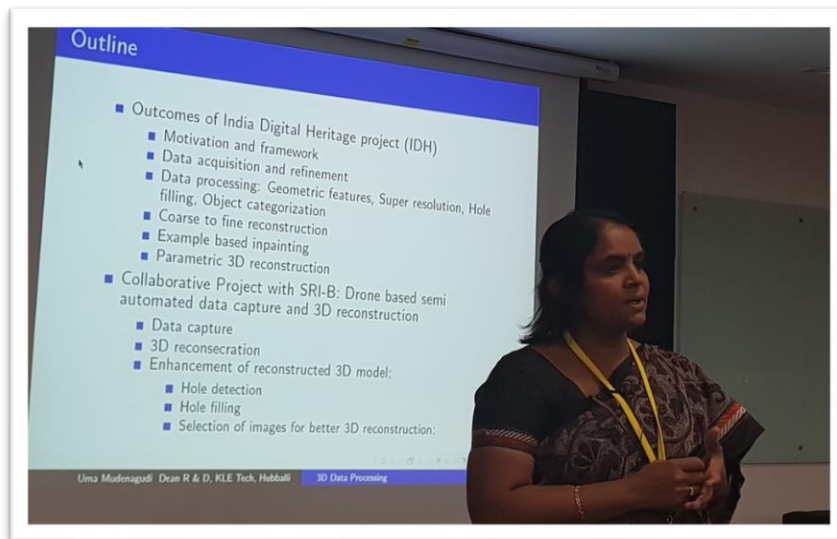
## **Research Collaborations**

### **Faculty Internships**

- Two faculty registered for PhD are selected by Samsung for 9 months internship to carry out their research work at SRIB from September 2018 to May 2019
  - Ramesh Tabib working on Dynamic 3D reconstruction
  - Uday Kulkarni working on Model Quantization

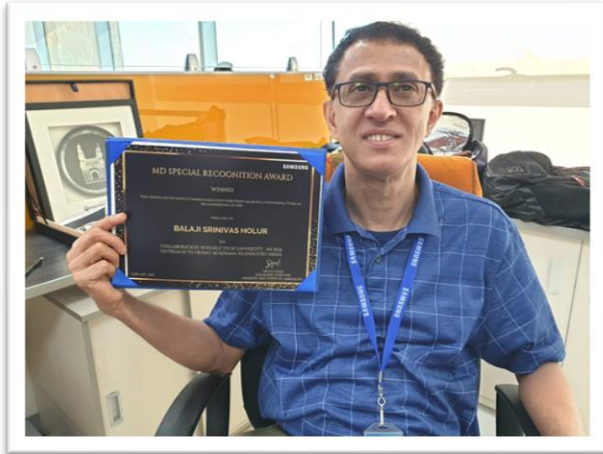
## Research Projects

- Project supported by Samsung at KLE Tech under MOU in common areas of interest
  - One collaborative project on “3D reconstruction using Drone images” is completed
  - Uma Mudenagudi, PI of the collaborative project presented outcomes of the project at India Research Network (IRN) 2018 meeting held at Samsung R&D Institute India-Bangalore (SRI-B) on 6,7 Sept. 2018.



## Recognition to Samsung Mentors by SAMSUNG Leadership

The Samsung leadership appreciated the participation of SRIB team for collaboration with KLE Technological University. The MD special recognition award was given to the SRIB Mentors



## Research Collaborations

### Projects

Year	Number of Projects	Number of Students	Number of Faculty
2018-19	14	45	14

### List of Faculty from KLETech part of Collaboration

#	Name of the Faculty	School/ Department
1	Uma Mudenagudi	Dean R&D
2	Meena S M	HoS School of CSE
3	Nalini C Iyer	HoS School of ECE
4	A B Raju	HoD EEE
5	Sunitha Hiremath	School of CSE
6	Shrinivas Desai	School of CSE
7	Nirmala S R	School of ECE
8	Uday Kulkarni	School of CSE
9	Ramesh Ashok Tabib	School of ECE
10	Sunil V G	School of CSE
11	Priyadarshini Patil	School of CSE
12	Praveenraj Pattar	School of CSE
13	Mallikarjun Akki	School of CSE
14	Shashidhara V	School of CSE
15	Shivashankar H	School of ECE
16	Shrishail M P	School of ECE
17	Heera Wali	School of ECE
18	Satish C	School of ECE
19	Leah S Joshi	Department of EEE
20	Shilpa Kamath	Department of EEE
21	Kavita Chachadi	Department of EEE
22	Ravi Guttal	CIPD
23	Sacin Khot	School of ME