

**10** YEARS  
OF UNIVERSITY  
RECOGNITION  
**20** YEARS OF  
ACADEMIC  
EXCELLENCE



**REVA**  
UNIVERSITY

Bengaluru, India



# Experiential Learning

Rukmini Knowledge Park,  
Kattigenahalli, Yelahanka, Bengaluru - 560 064  
[www.reva.edu.in](http://www.reva.edu.in)



## Report on Institutional visit to Bangalore Bio-Innovation center (BBC), Bangalore

**Purpose:** Exposure to entrepreneurial opportunities in the field of Biotechnology through the exposure to Bio-Incubators for start-ups

This visit was organized by Dr Shilpa BM, Assistant Professor, School of Biotechnology. This as part of 2<sup>nd</sup> Sem REVA University syllabus on Entrepreneurship and Business Planning.

Bangalore Bioinnovation Centre (BBC) is envisioned to be a state of the art incubation centre catering to the needs of start-ups in the broad areas of Life Sciences. BBC is an initiative of Karnataka Biotechnology and Information Technology Services (KBITS), Dept of IT, BT and S&T, Government of Karnataka with a liberal funding support from Department of Biotechnology (DBT), Government of India. It is located within Bangalore Helix Biotechnology Park at Electronic City. The Centre is a world class Incubation Centre with Central Instrumentation Facility in a 10 Acre campus with total built up area of above 50,000 sq ft.



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The Centre is nestled between thriving Academic Institutions like Institute of Biotechnology and Applied Biotechnology (IBAB), Centre for Human Genetics and the upcoming area for anchoring Big Companies/MNC's. Thus, the Centre provides a crucial link within the developing Bio- cluster, the Bangalore Helix Biotech Park.

Dr Jitendra Kumar, Managing Director of BBC gave a brief introduction on the function of this Bio-Incubation center. Each lab and instrumentation facilities was explained by Mr Manjunath, Business Manager. He also explained about the rent and cost which is charged for each instruments and how one can start up their own company under the roof of BBC. BBC is one of the big partners under the BIRAC (Biotechnology Industry Research Assistance Council) set up by Department of Biotechnology (DBT), Government of India as an Interface Agency to strengthen and empower the emerging Biotech enterprise to undertake strategic research and innovation, addressing nationally relevant product development needs. The purpose of this is to start and prompt Indians towards business skills in are of Biotechnology with broad areas of Life Sciences i.e, Healthcare (MedTech/ Pharma/Bio-Pharma), Agriculture, Food/ Nutrition, Industrial Biotechnology and Environmental Biotechnology.

This visit was held on **12<sup>th</sup> May 2017**, students from 2<sup>nd</sup> Sem MSc Biotech (REVA University) and 4<sup>th</sup> Sem Biochemistry Bangalore University are accompanied by Prof Shilpa BR (HOD) and Dr Shilpa BM, Assistant Professor, School of Biotechnology.

**Outcome:** Bangalore Bioinnovation Centre is an organization striving towards creating an ecosystem for Bioinnovation. The organization has opportunities and challenging nature of work, for those who want to contribute to this field.

  
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## **Compressed Stabilised Earth Blocks – Design**, one-week training course at Auroville Earth Institute, Pondicherry

Venue: **Auroville Earth Institute, Pondicherry, Tamil-Nadu**  
Dates: **2<sup>nd</sup> to 7<sup>th</sup> July 2018**  
Semester: **IV and VI**  
School faculty  
Coordinated by: **Asst. Prof. Anup Kumar Prasad**  
Coordinators: **Ayyappan, Satprem and AVEI Architect**

The CSEB Design course covers all aspects of best-practice for the design of buildings built with Compressed Stabilised Earth Blocks (CSEB). Topics addressed include a general overview of earthen architecture, overall guidelines for earth construction, specific guidelines for CSEB construction, structural principles, detailing, and cost estimation of CSEB buildings.

### Course contents:

The first half of this week combines theoretical lectures, presentations, practical exercises, and personal work with instructor's supervision and feedback, to give trainees the tools to design their own CSEB buildings:

- Auroville Earth Institute presentation
- Tradition & modernity of earthen architecture around the world
- General design for earth buildings
- Dimensioning a building & bond patterns
- Hands-on bond pattern exercise (with actual blocks)
- A case study on built projects
- Project study example with AutoCAD
- Structural components and principles
- Demonstration of block making, building a plinth beam and a CSEB wall
- Site visit

The second half of the week includes a design studio or “charette” for student designs (based on the AVEI concept plan):

- Bond patterns
- Foundation plan & calculation
- Basement, plinth ring beam and reinforcement
- Lintel ring beam, precast lintels and reinforcement

### **Photographs – Students during the workshop – Hands-on Experience**





Photographs – Parallel Theory and design on the Computers during the workshop



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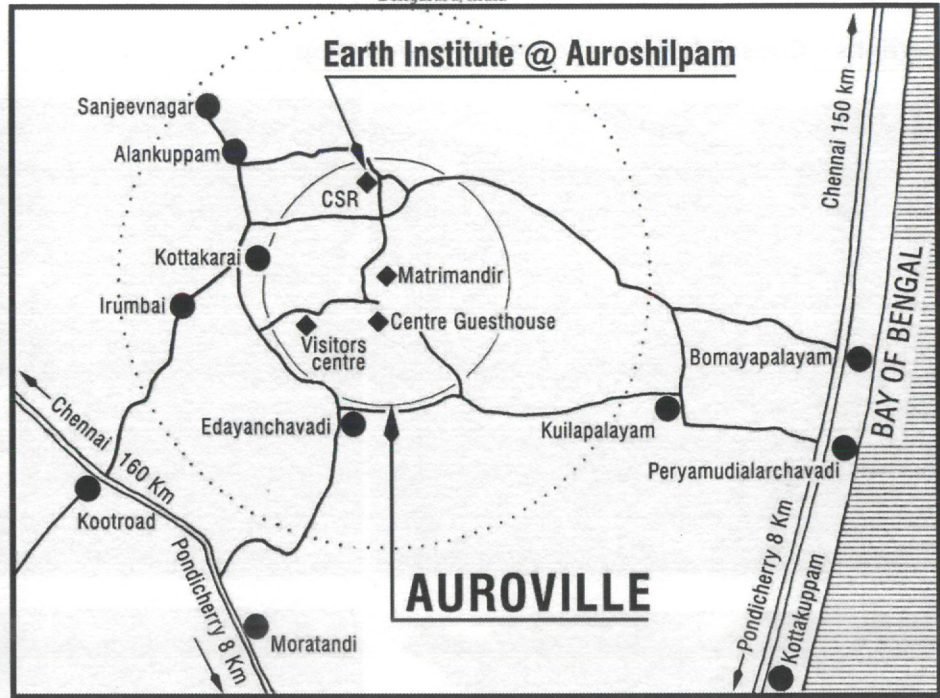
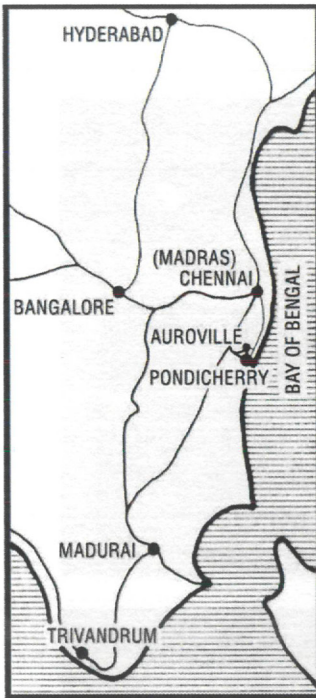


Photographs – Consolidated outcome of the workshop



  
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**Industrial Visit Report:**

**“BIOCON - INDIA'S LARGEST BIOPHARMACEUTICAL ORGANIZATION, BANGALORE, KARNATAKA”**

Date: 25<sup>th</sup> October 2018

A batch of II M.Sc. Biotechnology students (25) and two staff coordinators C.N.Prashantha and Dr.R Ramachandra visited the Biocon Ltd on **25.10.2018**. This unit is mainly focusing on the preparation of Biopharmaceutical product for the treatment of human diseases.

Mr. Sudeep Mazumdar, Head of R&D, addressed the students and introduced about the Biocon. He explained about the functioning of Biocon Unit. Later Swagata Das, HR incharge of Talent Acquisition group, Biocon Ltd, explained the different steps employed for the safety of the unit. After this session all the students were returned to the REVA University. On behalf of the Department of Biotechnology, REVA University, all the students expressed their thanks to the officials for the opportunity given.

This trip was highly useful for the students in terms of practical knowledge about the drug discovery. This trip will also be helpful for them to find placement opportunities in such industries.



C.N.Prashantha  
Dr.R.Ramachandra  
Staff Coordinators  
REVA University



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RUKMINI KNOWLEDGE PARK, KATTEGENAHALLI, YELAHANKA

SCHOOL OF CIVIL ENGINEERING

PARISARA CLUB

Report on Field visit to REVA University sewage treatment plant

Field visit was organized through parisara club for the 8<sup>th</sup> sem students (section 3 of IWWT class) to REVA University sewage treatment plant and also to organic waste converter site on 18/3/2019

In this treatment plant they treat 6MLD of water every day and this treatment plant consists of primary, secondary and tertiary units and the treatment plant is very much suitable for the students to explain the flow of waste water from the different industries.

In organic waste converter plant, they are converting food waste and all the leaves waste from the campus to an organic manure which is being used for the plants in the campus.

We went to the field visit by 10.30 AM and it went on till 1.30PM.

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**Report on Alternative Roofing Systems Workshop Conducted at  
Centre for Sustainable Technology, IISc, Bangalore.**

Subject: **Structural Systems and Building Construction -III**

Organized by: Ar. Anupadma R, Ar. Prerana Hazarika, Ar. Nazish Abid & Er. Nagaraj S

Date: 4<sup>th</sup>, 13<sup>th</sup> and 18<sup>th</sup>, November, 2019.

**Number of Students:90 (30 students/ batch – in 3 batches)**

As part of extended activities for the Subject SSBC-III, involving 3 semester students of architecture in activity-based learning, the School of Architecture, REVA UNIVERSITY has conducted Workshop on Alternative Roofing System at CST, IISc Campus, Bangalore. Based on the curriculum the students of 3rd semester must learn and understand the building construction techniques and structural aspects of the same. This workshop on alternative roofing system is to enhance their knowledge on Special Roofs. It is organized with the insight of offering experiential learning of construction techniques outside the classroom and to provide practical exposure of the subject to the students. In order to maintain good interaction with the expert and on the activity, number of students are restricted to 30 per batch, conducted at 3 sessions.

Centre For Sustainable Technology Campus, IISc, Bangalore has an established built environment and infrastructure for sustainable technology. The Workshop was curated by Dr. S.N. Ullas, expert on sustainable construction technology and Senior Project Officer, IISc Bangalore. The workshop commenced with expert lecture on roofing systems, involving different aspects of constructing alternative roofs namely, Jack arch roof, filler slab, brick domes, vaults and composite roofs. Followed by site visit around the Centre for Sustainable Technology Campus to understand the constructed structures, materials and finish, continued with hands-on workshop on Jack arch panel (brick and Concrete) casting and brick vaults and Dome Construction methods and techniques.

The students participated actively, interacted with the experts and documented the activities in the form of handwritten notes, photographs and videos. The Students understood the significance of the alternative roofing system and its sustainability, they also recognized construction techniques and intricacies involved in the construction of the same. The students will reproduce the documented details in the form of a building construction (hand-drafted) sheets.

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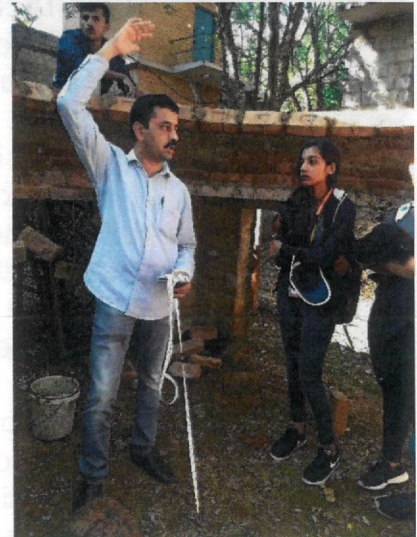


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We would like to thank **Dr. Vimala Swamy**, our director for encouraging and supporting these extended learning activities. The **REVA School of Architecture** is always looking forward for the interactive learning process, making it more relevant to the students for their profound understanding on practice and live examples. We would also like to thank **the team and management, REVA University**, for offering their support and initiatives to conduct the workshop for the benefit of students. We would also like to thank **Centre for Sustainable Technology, IISc Bangalore** for giving us this opportunity to conduct workshop in their campus and effective knowledge sharing to the students.

Pictures taken during the workshop are below



  
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*One Day workshop on 4<sup>th</sup> Nov 2019 - Batch 1*



*One Day workshop on 13<sup>th</sup> Nov 2019 - Batch 2*



*One Day workshop on 18<sup>th</sup> Nov 2019 - Batch 2*

  
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### Industry Visit Report

#### **NITK innovation & start-up center and central research facility, Mangalore**

For the benefit of BSc students, the Department of Chemistry, School of Applied Science, and Reva University organized an **industry visit to the Bangalore NITK innovation & start-up organized and central research facility, Mangalore, from May 1-3, 2022** as a part of the knowledge sharing, hands-on experience, research, and start-up support ideas for the benefit of BSc students.

#### **Instructors at NITK:**

##### **Prof.M.N. Satyanarayan**

Chairman CRF- NITK,  
Mangalore

##### **Dr. Arun Mohan Isloor**

Professor, HOD, and Director,  
NITK, Mangalore.


**Dr. Arun Mohan Isloor**, along with the staff at NITK, received our students and presented Dr. Arun Mohan Isloor with an overview of the program. He explained opportunities for after BSc, competitive entrance examinations, and industrial jobs in the seminar hall, NITK, Mangalore. Later, Dr. Arun Mohan Isloor took our students to the NITK innovation & start-up centre and central research facility labs at NITK. **Prof. M.N. Satyanarayan** explained the applications and handling procedures of the available instruments.

#### **Following are major instrumentation facilities available at NITK:**

1. Scanning electron microscopy
2. Transmission electron microscopy
3. X-ray diffractometer
4. Atomic force microscopy
5. Scanning tunneling microscopy
6. Electropolishing unit
7. Electrochemical workstation
8. NMR
9. IR spectroscopy
10. UV-Visible spectroscopy
11. Confocal Spectroscopy
12. Live-cell confocal spectroscopy
13. Gas Chromatograph-MS
14. LC-MS
15. Particle size analyzed
16. Glovebox
17. HPLC and MPLC
18. Infra-Red Red and UV spectrophotometer...etc

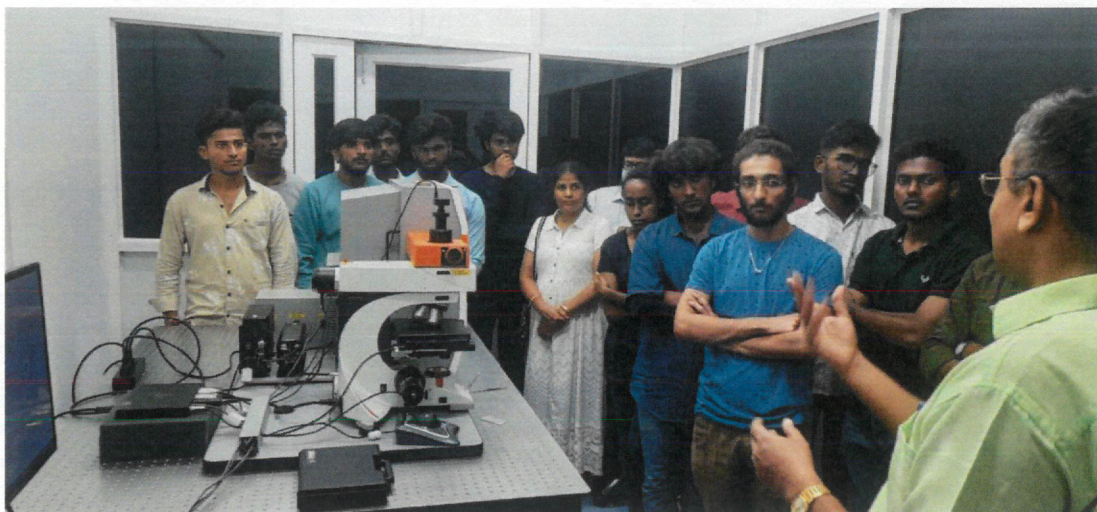




  
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The visit helps our UG-PCM (Physics, Chemistry, and Mathematics)- IV Sem students explore more advanced instruments and enhance their knowledge. This visit focuses on students' enhancing knowledge of advanced science and technology, start-ups, and incubation centers' ideas. There were 18 BSc Chemistry students visited along with 3 faculty – Dr. Sathish Reddy, Assistant Professor, and Dr. B. Lakshmi, Associate Professor, and Mrs. Savitha, Lab Assistant.

We would like to thank, **Dr. Arun Mohan Isloor**, Director, HOD of Chemistry, and **Prof. M.N. Satyanarayan**, Chairman, CRF- NITK, NITK Mangalore, for accepting and inviting us to visit and explore the facilities at NITK. We also thank all the support staff who guided and explained to our students about the facilities at NITK.

**Organizer:**

**Dr. Sathish Reddy**  
**Dr. B. Lakshmi**  
**Dr. Madhusudana Reddy M B**  
Department of Chemistry, SoAS,  
REVA University, Bangalore.

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