

## SAPTHAGIRI COLLEGE OF ENGINEERING

(Affiliated to VTU, Belagavi and approved by AICTE, New Delhi)

(An ISO 9001:2015 & ISO 14001:2015 Certified Institution)

Accredited by NAAC with "A" Grade

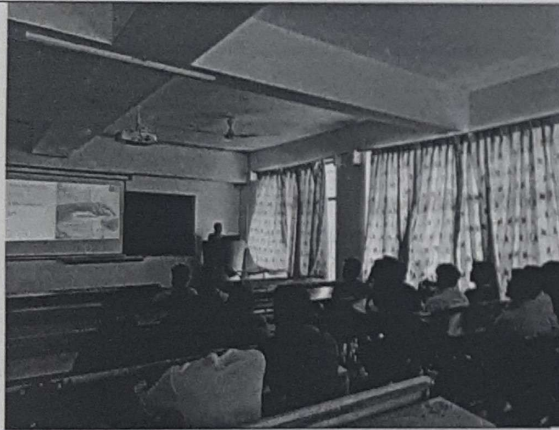
#14/5, Chikkasandra, Hesuraghatta Main Road, Bengaluru-560057

AY-2023-24

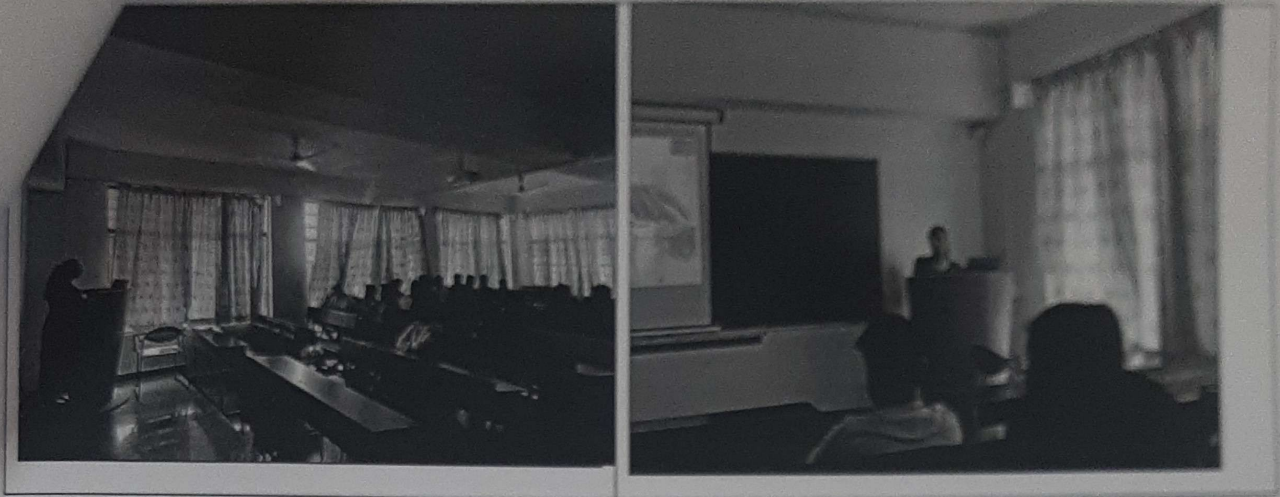
### DEPARTMENT OF CIVIL ENGINEERING

## REPORT ON *"Workshop on Revit Architecture"*

Department of Civil Engineering, Sapthagiri College of Engineering, Bengaluru has arranged a Workshop on Revit Architecture for students of 5<sup>th</sup> semester on 16.01.2024 in association with '*Jnana Infotech, Bangalore*'. Seminar was co-ordinated by Ms. Rachana who was trainer for the workshop. 33 students have registered and benefited.





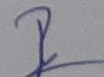


### About software

Revit is software mainly used for 3D Modeling or BIM (Building Information modeling). It will create a perfect scenario of what is going to happen at the construction site. So basically all the design clashes will be able to rectified using the Revit Model. Moreover, there is option for Structural Design and Analysis of Framing, Columns, Slabs etc. We can use this software for Rebar detailing. And the most important one is cost reduction in Estimation of the project as we can purge all the unwanted and unused materials.

### **Outcomes of Workshop**

1. To be familiar with advanced Civil Engineering Software like Revit architecture and its use in our field: After the completion of the workshop students are now familiar with the use of this software to draft the plan, elevation-sections, to update floor plans, floor levels and to develop the 3D views.
2. To Produce consistent, coordinated and complete model-based building designs and documentation: After completion of the workshop students are able to produce complete model based building design with the help of Revit Architecture software.
3. Use 3D visualizations to see a building before it's built.

  
HOD

  
Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bangalore-560 057

HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057





SRISRINIVASA EDUCATIONAL & CHARITABLE TRUST®

# SAPTHAGIRI COLLEGE OF ENGINEERING

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(Accredited by NAAC with 'A' Grade) (ISO9001-2015 & 14001-2015 Certified)

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057.



## Department of Civil Engineering Monthly Activity Report of December -2023-2024

Type of event or Activity	Workshop on problem solving and ideation
Name/Title of the event / Activity	Workshop on GIS
Date of Organization	02.12.2023
Venue	Sapthagiri College of Engineering
Organized by	Department of Civil Engineering
Objectives of Events / activity	<ol style="list-style-type: none"><li>1. To know the necessity of GIS</li><li>2. To create shape files for point, lines, and polygon features with a map reference.</li><li>3. Conducted hands on sessions for the same topic and</li><li>4. Create decision maps for specific purposes</li></ol>
Participants (Please attach list of participants, if it is organized/conducted in the dept.)	63

### Event Description

The seminar highlighted the various information about GIS. A Geographic Information System (GIS) is a computer system that analyzes and displays geographically referenced information. It uses data that is attached to a unique location. GIS is a computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface. GIS links maps to databases and creates a visualization of data, and allows interactivity between the map and the data in a database.

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	1	-	1	-	-	1	-	1	-	-	-

\*Type of Event / Activity: Workshop/seminar/conference/hackathon/hobby project/mini project/  
Invited Talk/Guest Lecture/Skill enhancement program/Cultural activity/competitions etc.,

02/12/2023  
Date of Submission  
Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bengaluru-560 057

Signature of the HOD  
HOD, Dept. of Civil Engg.  
S.C.E, Bengaluru-560 057

NOTE: All the Events should be in one PDF File



## Report on Problem solving and Ideation on GIS'

### 1. About the session

The objective of this session is to shade a light on GIS (Geographic information system). Speaker of the session Mr. Puneeth, ESRI Portfolio, GIS specialist explained about necessities of GIS, creating shape files for point, lines, and polygon features with a map reference. Conducted hands on sessions for the same topic and covered decision maps for specific purposes.

### 2. Course contents / conference themes

The seminar highlighted the various information about GIS. A Geographic Information System (GIS) is a computer system that analyzes and displays geographically referenced information. It uses data that is attached to a unique location. GIS is a computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface. GIS links maps to databases and creates a visualization of data, and allows interactivity between the map and the data in a database.

### 3. Details of coordinator's

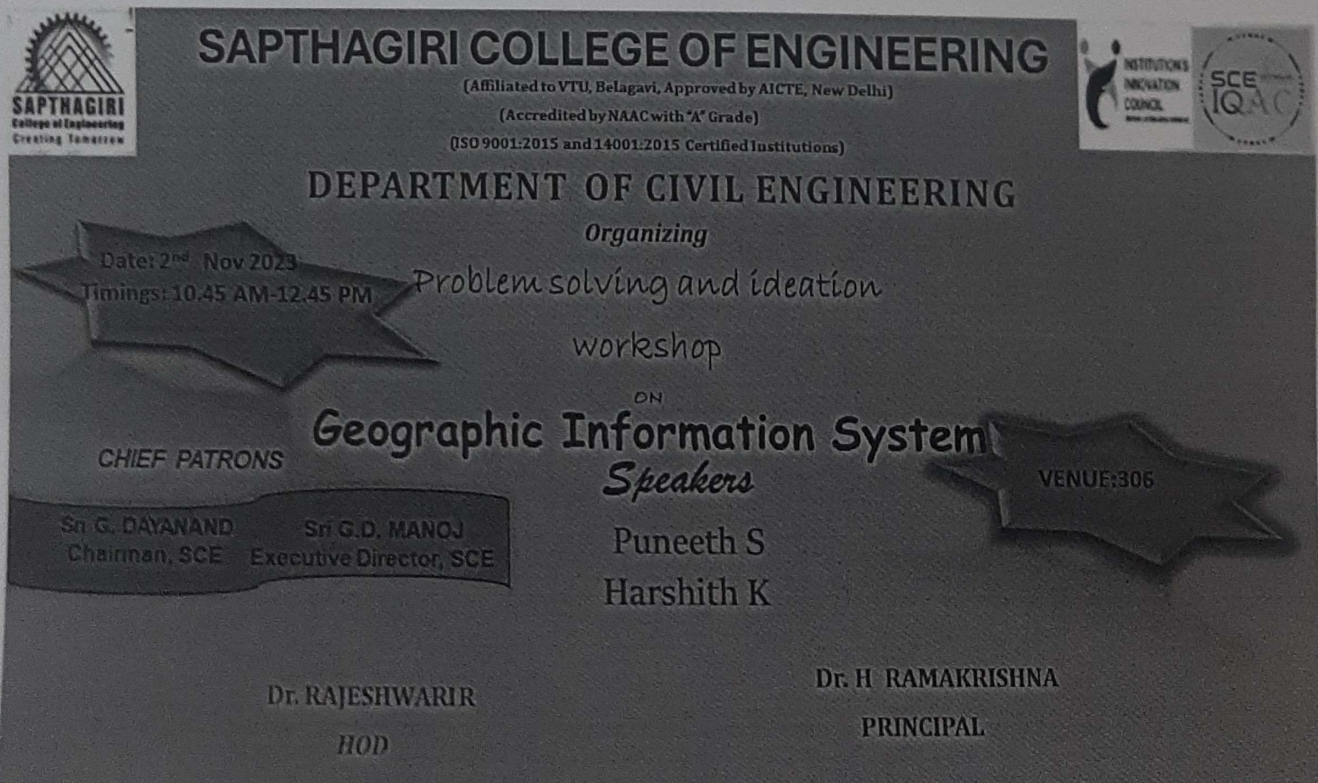
Convener

HOD: **Dr. Rajeshwari**, Prof, Head, CE

Co-Ordinator's: **Prof. Pallavi G A**

Participants – 63

Brochure and photos of the session



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**DEPARTMENT OF CIVIL ENGINEERING**  
*Organizing*

Date: 2<sup>nd</sup> Nov 2023  
Timings: 10.45 AM-12.45 PM

*Problem solving and ideation workshop*

**Geographic Information System**  
*Speakers*

**CHIEF PATRONS**  
Sri G. DAYANAND, Chairman, SCE  
Sri G.D. MANOJ, Executive Director, SCE

**Speakers**  
Puneeth S  
Harshith K

**VENUE: 306**

**Dr. RAJESHWARI**  
HOD

**Dr. H RAMAKRISHNA**  
PRINCIPAL





Students participated in workshop

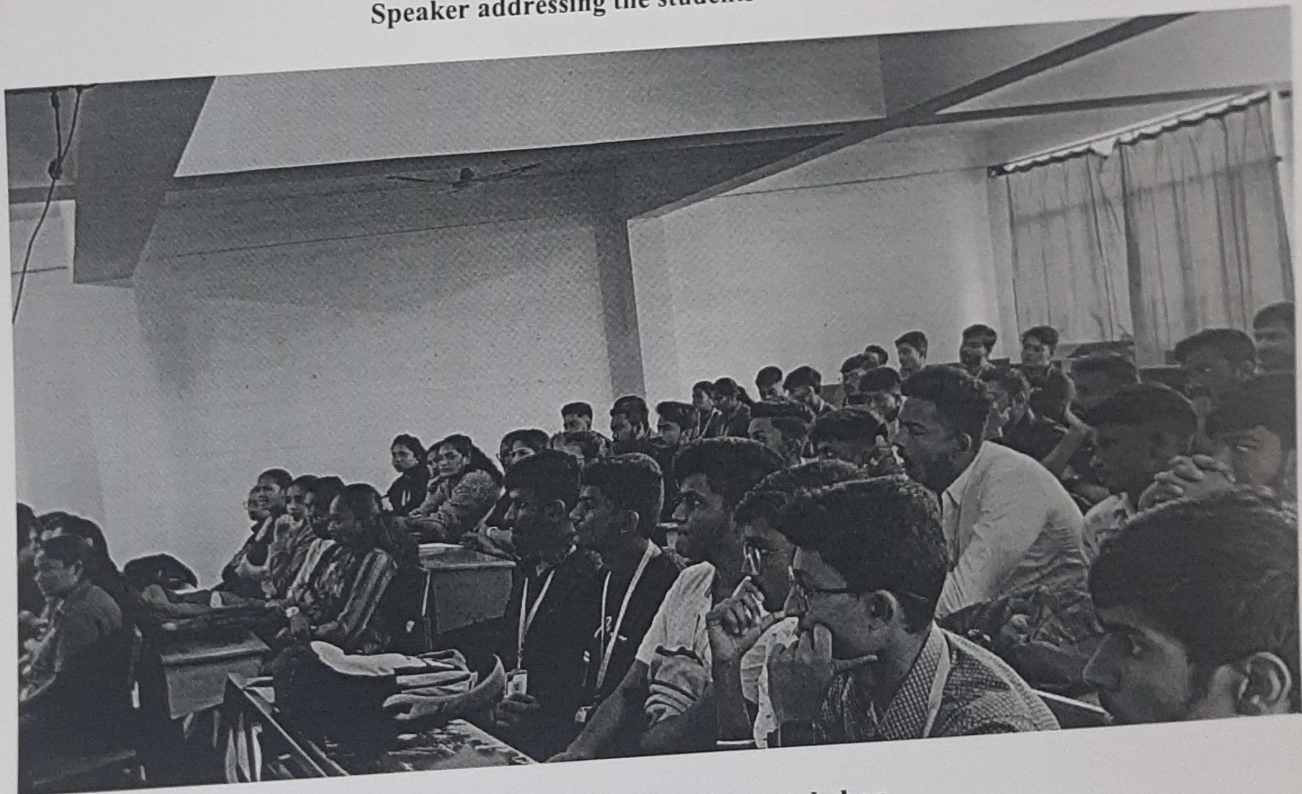


HOD addressing the students





Speaker addressing the students



Students participated in workshop

*[Handwritten Signature]*

Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bangalore-560 057

*[Handwritten Signature]*

Signature of the HOD

HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057



# Workshop on Design thinking, Critical thinking and Innovation Design on BIM

Type of event or Activity	Workshop
Name/Title of the event / Activity	Design thinking, Critical thinking, and Innovation design on BIM
Date of Organization	08.12.2023
Venue	Sapthagiri College of Engineering
Organized by	Department of Civil Engineering
Objectives of Events / activity	<ol style="list-style-type: none"> <li>1. Describe building information modelling methodology.</li> <li>2. Set up a project and transfer standards between projects, add and modify levels in project model, create and modify grids.</li> <li>3. Use the different views listed in the Project Browser, control the visibility and graphical Representation of objects</li> </ol>

Event Description	
<p>Speakers explained about BIM software. BIM adoption has grown substantially in 2011, 43% of respondents had not heard of BIM. Today, awareness is almost universal, with 73% using BIM. Improved coordination of information. The majority approach BIM by following either the PAS/BS 1192 or BS EN ISO 19650 series of standards. Many are familiar with and using the standard documents</p>	
Participants (Please attach list of participants, if it is organized/conducted in the dept.)	39

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	-	-	1	-	1	1	-	1	-	1	-

\*Type of Event / Activity: Workshop/seminar/conference/hackathon/hobby project/mini project/Invited Talk/Guest Lecture/Skill enhancement program/Cultural activity/competitions etc.,

08/12/2023

Date of Submission:

NOTE: All the Events should be in one PDF File



# Report on BIM-Building Information Modelling

## 1. About the session

The objective of this session is to implications of BIM adoption across the industry are far from clear, however the lead time to prepare for it requires business and industry leaders engage in serious strategic planning. Speakers of the session Miss. Deepika, Miss. Archana, Miss. Desulla Bhavani explained about affordable computing created the possibility of generating and then storing lots of related data in an efficient single location and this software capable of providing 'Virtual Building Solutions' allowed designers to create virtual, three-dimensional (3D) representations of their projects.

## 2. Course contents / conference themes

The seminar highlighted the various information about BIM. The BIM Engineers, one of the design consultants on the project, deployed the latest technological know-how in BIM to build the dynamic facilities. The consultants challenged the conventional method of designing the structure, by transitioning from in-silos data in AutoCAD to collaborative Revit models to efficiently control and develop the design and coordination process. By transitioning from CAD to BIM, the plan-to-design, design-to-construction, and construction-to-handover processes became more accessible and robust.

Details of coordinator's Convener

HOD: Dr. Rajeshwari, Prof, Head, CE

Co-Ordinator's: Prof. Pallavi G A

Participants – 39

Brochure and photos of the session

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(ACCREDITED BY NAAC WITH "A" GRADE)  
14/5, HESARGHATTA MAIN ROAD, BANGALORE- 560057

**DEPARTMENT OF CIVIL ENGINEERING**  
organising

**Workshop**  
**Design Thinking, Critical Thinking and Innovation design**  
Knowledge sharing session by ADAPT graduates from SMEC, India

**Speakers**  
Deepika R  
Archana J K  
Desulla Bhavani

**Chief Patrons**  
Sri G Dayanand  
Chairman  
Sri G D Manoj  
Managing Director  
Dr H Ramakrishna  
Principal  
Dr Rajeshwari R  
HOD

08.12.2023 Time: 10.00am Venue: ALH 411





Students participated in workshop



Students participated in workshop





Speaker addressing the students



Students participated in workshop

08/12/2023  
Date of Submission:

*B*  
Principal

Sapthagiri College of Engineering  
Chikkasandra, Hesarghatta Road,  
Bangalore-560 057

*[Signature]*

Signature of the HOD  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057





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ISO 9001 - 2015 & ISO14001 - 2015 Certified

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560 057.

Web: www.sapthagiri.edu.in, Email: principal@sapthagiri.edu.in

### Monthly Event Report for the month of NOVEMBER AY: 2023-24

#### DEPARTMENT OF CIVIL ENGINEERING

*Type of Event/Activity	Site Visit to Marathalli, Bangalore
Name/Title of the Event / Activity	Site Visit to Marathalli, Bangalore
Date of Organization	27/11/2023
Venue (with address)	Marathalli, Bangalore
Organized by	Department of Civil Engineering
Objectives of the event/activity	To understand the Scope of Steel Structures, Construction works and erection methods
Participants (Please attach list of participants, if it is organized/conducted in the dept.)	35
Mention organized /participated/attended	-

#### Event Description:

Sapthagiri College of Engineering, Bengaluru conducted a steel structures construction site visit on 27.11.2023. The final year students of Department of Civil Engineering were actively participated in the activity and they have learned about how to implement their design in site, witnessed different sections and enhanced their knowledge about erection and section handled by labors in site. 35 Students along with the faculty had been to site in Marath halli,

#### Images:

#### Note:

(i) After every event, please take feedback

(online/offline).(ii)At the end map PO's (with

3/2/1):

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	-	2	-	-	1	1	-	-	-	-	-



**\*Type of Event / Activity:**

Workshop/seminar/conference/hackathon/hobby project/mini project/ Invited Talk/Guest Lecture/Skill enhancement program/Cultural activity/competitions etc.,

Date of Submission:

Signature of the HOD

NOTE : All the Events should be in one PDF File

HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057



## REPORT ON "SITE VISIT TO STEEL STRUCTURES CONSTRUCTION"

Sapthagiri College of Engineering, Bengaluru conducted a steel structures construction site visit on 27.11.2023. The final year students of Department of Civil Engineering were actively participated in the activity and they have learned about how to implement their design in site, witnessed different sections and enhanced their knowledge about erection and section handled by labors in site. 35 Students along with the faculty had been to site in Marath halli, Bengaluru.



### SAPTHAGIRI COLLEGE OF ENGINEERING

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14/5, Hebaghatta Main Road, Bangalore- 560057

To,  
The Principal,  
Sapthagiri College of Engineering,  
Bengaluru

Date: 24.11.2023

Respected Sir,

Sub: Request letter to visit steel structures construction site near Marathahalli on 27.11.2023

With reference to the above subject, we request your kind self to permit our 7<sup>th</sup> semester students for steel structures construction site visit in Marathahalli on 27.11.2023. The site visit is for better understanding of the scope of steel structures, construction work and erection methods. Kindly provide transportation facility for the same and oblige.

Staff co-ordinator,  
Prof. Priyanka A

Thanking you,

Mr. Vijay

Buy

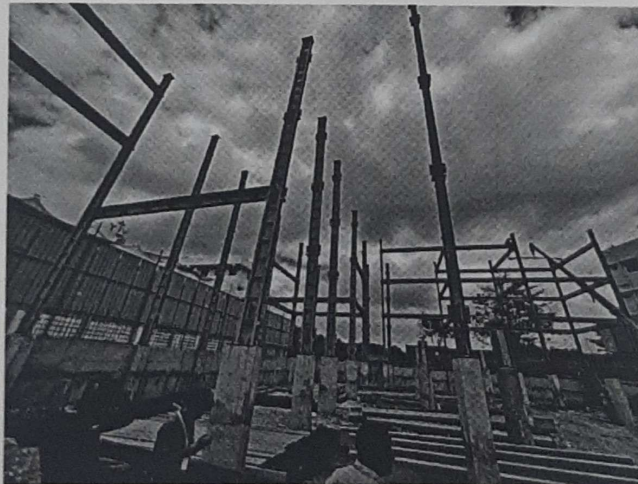
B  
24/11/23

B 24/11/23  
HOD  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057



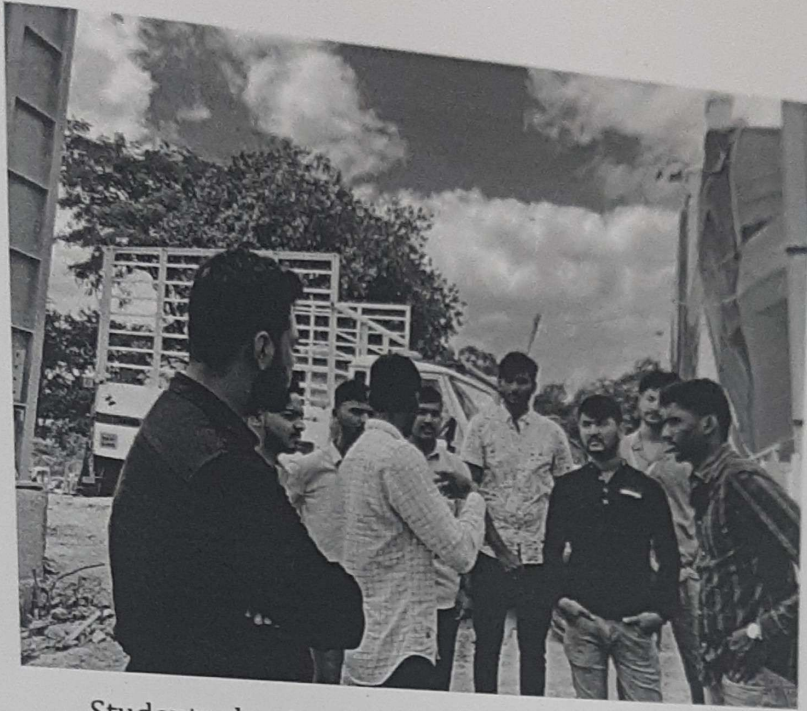


Steel Structure Site



Steel Columns erected in site





Students clearing their doubts with site engineer

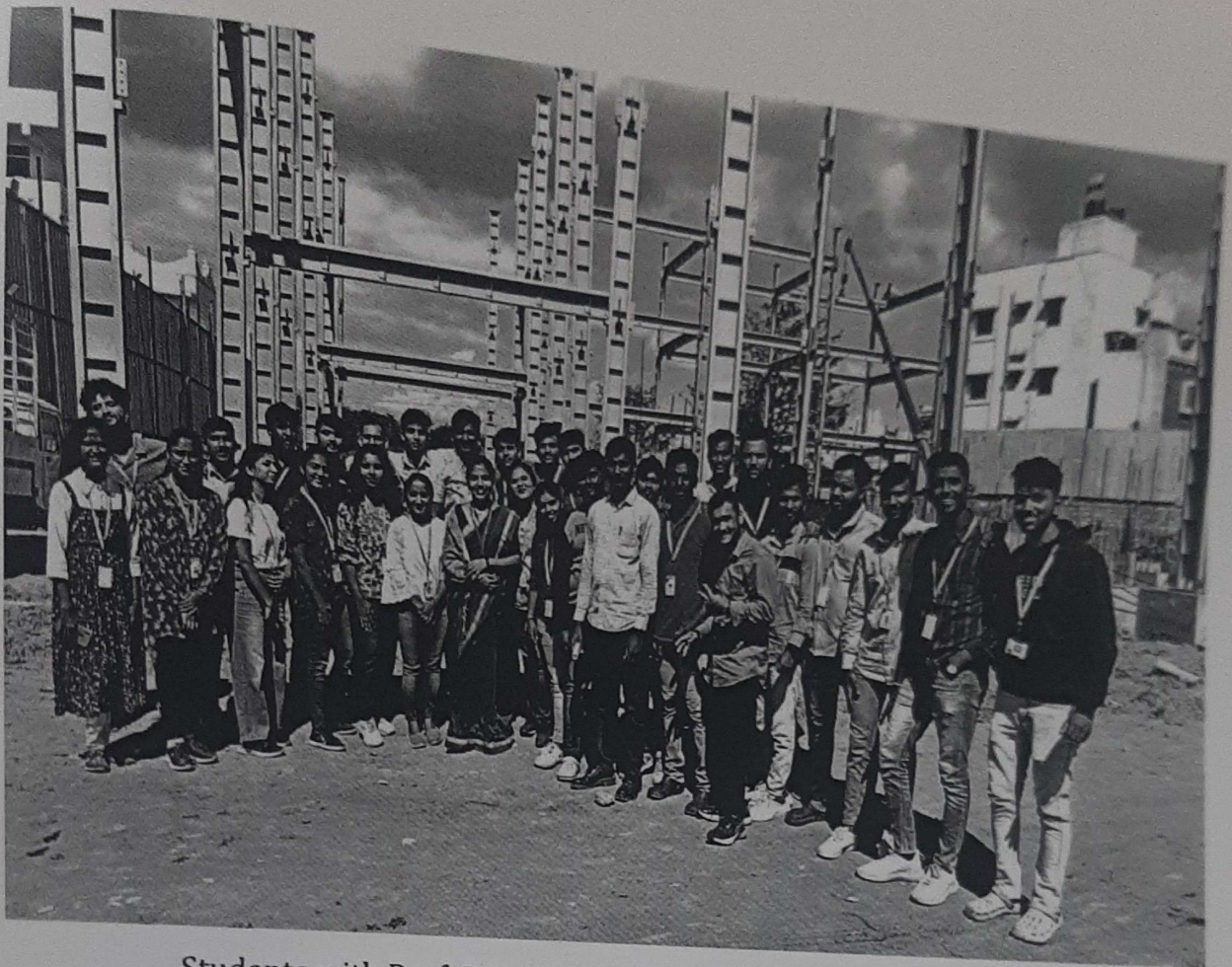


Site engineer Mr. Karthik explaining about construction details



Site engineer Mr. Karthik explaining about construction details





Students with Prof. Priyanka A and Site Er Karthik

### About Steel Structures Construction

In modern construction, steel structures is used for almost every type of structure including heavy industrial building, high-rise building, equipment support system, infrastructure, bridge, tower, airport terminal, heavy industrial plant, pipe rack, etc Depending on each project's applicable specifications, the steel sections might have various shapes, sizes and gauges made by hot or cold rolling, others are made by welding together flat or bent plates. Common shapes include the I-beam, HSS, Channels, Angles and Plate. Students have already studied steel and RCC in their academics. Its very important to know the site limitations, erection procedures, materail handling and labour managemnet in site.

Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bangalore-560 057

HOD  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057





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### DEPARTMENT OF CIVIL ENGINEERING

#### 1) Industrial visit to Nirmiti Kendra

*Type of Activity	Industrial visit
Name/Title of the Event	Industrial visit to Nirmiti Kendra
Date of Organization	06/09/2023
Venue	Rajajinagar, Bangalore
Organized by	DEPARTMENT OF CIVIL ENGINEERING
Objectives of the event/activity	To explore and witness the potential alternate materials to meet the challenge of global warming in construction practices
Participants (Please attach list of participants, if it is organized/conducted in the dept.)	42

#### Event Description:

The Department of Civil Engineering has organized a one-day visit to Nirmiti Kendra in view of imparting sustainable construction materials used in the practical field to fight against the reduction of carbon footprints in the construction industry.

The students of the 2nd and 4th semesters were taken to visit as a part of their curriculum subject, Green Buildings. Students were explained the latest low cost housing techniques by Er. Manjunath Engineer Nirmiti Kendra, and practical sessions were undertaken by Er. Shiv Shanker Site Incharge.



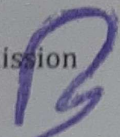
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
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**\*Type of Event / Activity:**

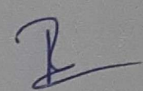
Workshop/seminar/conference/hackathon/hobby project/mini project/Invited  
Talk/Guest Lecture/Skill enhancement program/Cultural activity/competitions etc.,

**NOTE : All the Events should be in one PDF File.**

Date of Submission

  
Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bangalore-560 057

Signature of the HOD

  
HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057



# Report on Industrial Visit to Nirmiti Kendra

## About Nirmiti Kendra:

Bangalore district administration has established R&D institutes in India like CBRI, SERC, IIT, RRI etc. Nirmiti Kendra is developing technologies that can reduce the cost of construction and also we can conserve the energy to a large extent and also recycling of waste materials. Government of India has established Building centers in each district under the National Network of "Building Centers" in India. These are all "Technology Transfer" centers. These Building Centers will promote and propagate the proven technologies from the above R&D Institutes to the field on "Lab to Land" principles.

## TECHNOLOGIES PROPAGATED FOUNDATION

- Random Rubble Masonry, Arch
- Foundation WALLING
- Stabilized Mud Blocks, Concrete Block (Hollow & Solid),
- Rat trap bond, Ferro cement Portion & Selves, Fly ash Blocks.

## ROOFING

- Filler Slab, Ferro cement Channel, Jack Arch Roofing, Mud Block Roofing, Ribbed Slab Roofing, Mud Block Jock arch Roofing, High Volume Flyash Roofing.

## OPENINGS

- Steel Doors & Windows, Arches, Corbels, RCC Doors, Window frames, FRP & Coir Shutter.

## CONSULTANCY AND HOUSING GUIDANCE.

- Nirmiti Kendra has provided technical assistance on innovative technologies to private builders and contractor

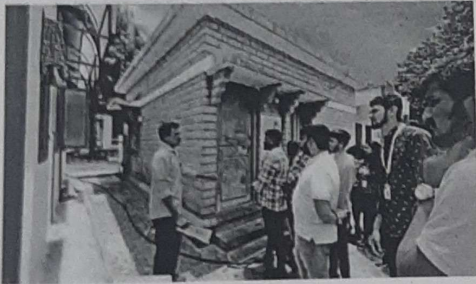
The Department of Civil Engineering has organized a one-day visit to Nirmiti Kendra in view of imparting sustainable construction materials used in the practical field to fight against the reduction of carbon footprints in the construction industry.

The students of the 2nd and 4th semesters were taken to visit as a part of their curriculum subject, Green Buildings. Students were explained the latest low cost housing techniques by Er. Manjunath



Engineer Nirmiti Kendra, and practical sessions were undertaken by Er. Shiv Shanker Site Incharge.

The students explored and witnessed the potential alternate materials to meet the challenge of global warming in construction practices. Prof. Santhosh R. Asst. Professor, Prof. Vinodkrishna M. Savadi, and Prof. Kavya H. P. coordinated the visit. We thank our management chairman, Sri Dayanand, managing director, Sri G D Manoj, principal, Dr. H Ramakrishna, and officials of Nirmiti Kendra for the successful completion of the visit.



Site visit to Nirmiti Kendra

Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hosareghatta Road,  
Bangalore-560 057

HOD, Dept. of Civil Engg  
S.C.E, Bangalore-560 05



## 2) Engineers Day Celebration

*Type of Activity	Engineers Day Celebration
Name/Title of the Event	Engineers Day Celebration
Date of Organization	15/09/2023
Venue	Sapthagiri Engineering College, Bangalore
Organized by	DEPARTMENT OF CIVIL ENGINEERING
Objectives of the event/activity	To create awareness to students and faculties on Role of engineers in the development of our Nation
Participants (Please attach list of participants, if it is organized/conducted in the dept.)	130

### Event Description:

The Sapthagiri College of engineering celebrated Engineer's Day on 15-09-2023 organized by department of civil engineering . The Engineering Community across India is celebrating Engineers Day on 15 September every year as a remarkable tribute to the greatest Indian Engineer Bharat Ratna Mokshagundam Visvesvaraya (popularly known as Sir MV). He is held in high regard as a pre-eminent engineer of India. "Role of Engineers in developing India" was the theme of the event. This event is planned to create awareness to students and faculties on Role of engineers in the development of our Nation. . Chief guest of the event is Sri M Dhananjeya Murthy, Deputy Chief Engineer, BMRCL, Reach 6, bengaluru". Around 130 students and faculty members, HODs from civil and various departments have participated

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	1	3	2	2	3	3	3	3	3	1	3

### **\*Type of Event**

Activity/Workshop/seminar/conference/hackathon/hobbyproject/mini project/Invited Talk/Guest Lecture/Skill enhancement program/Cultural activity/competitions etc.,

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 (ACCREDITED BY NAAC WITH "A" GRADE)  
 14/5, HESARGHATTA MAIN ROAD, BANGALORE- 560057

## DEPARTMENT OF CIVIL ENGINEERING

organising

# Engineer's Day

Chief Guest

**Sri M Dhananjaya Murthy**  
 Deputy Chief Engineer  
 BMRCL, Reach 6, Bengaluru

Chief Patrons

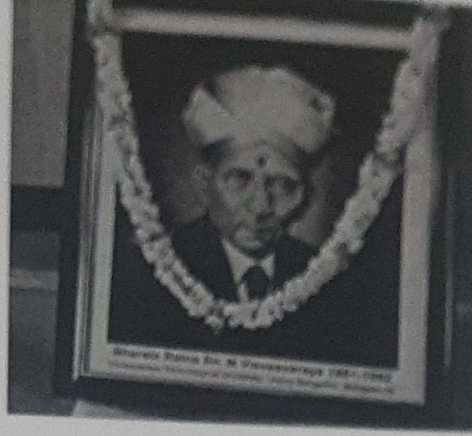
<b>Sri G Dayanand</b> Chairman	<b>Sri G D Manoj</b> Managing Director
<b>Dr H Ramakrishna</b> Principal	<b>Dr Rajeshwari R</b> HOD

**September 15th - 2023 | Time: 10.00am | Venue: ALH 306**

### Report on Engineer's Day Report -2023

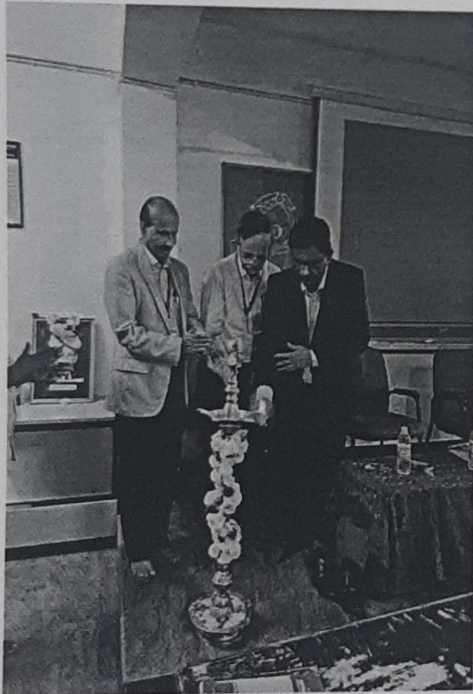
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The detailed report is given below:

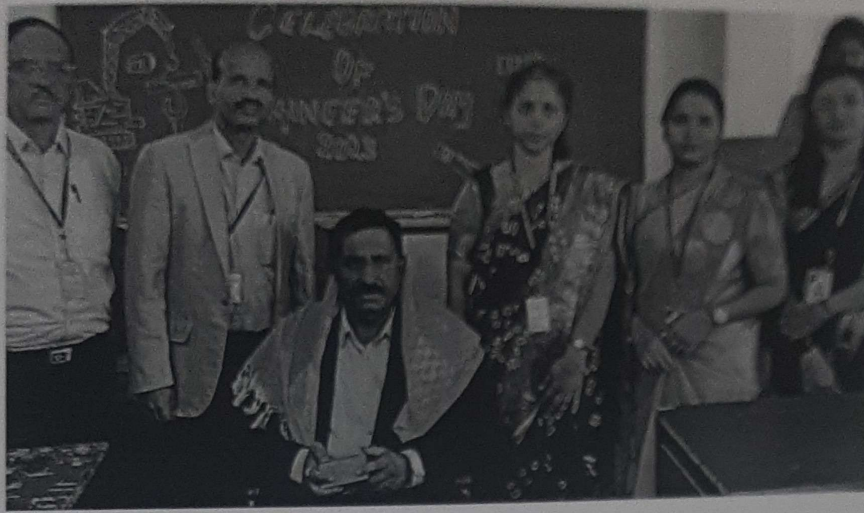
Inaugural function started at 10.30 am in ALH 308, SCE. The Inaugural function started with a prayer song sung by Lalitha Kala and team welcomed the Chief guest, Sri M Dhananjeya Murthy, Deputy Chief Engineer, BMRCL, Reach 6, bengaluru. The welcome speech was followed by the lighting of lamp by the dignitaries and speaker.



Lighting the lamp by faculties and students

Dr. R Rajeshwari , Civil Dept. SCE, gave a brief description about the Chief Guest; Followed by our beloved Principal Dr. H R Ramakrishna addressed the gathering by his inspirational speech. Then the Chief Guest was honored for his great achievements in the field of civil engineering.





Felicitation to the Chief Guest

Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bangalore-560 057

HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057



### 3) ACTIVITY – “ GUEST LECTURE ON BIO PRINTING TECHNIQUES ”

*Type of Activity	GUEST LECTURE
Name/Title of the Event	GUEST LECTURE ON BIO PRINTING
Date of Organization	04/09/2023
Venue	Sapthagiri Engineering College
Organized by	DEPARTMENT OF CIVIL ENGINEERING
Objectives of the event/activity	To solve problems in the interfacing of systems like plant, animal or microbial—with human-designed machines, structures, processes and instrumentation and also to Study biological engineering tools, resources, knowledge, and opportunities to prepare positive solutions for the world.
Participants (Please attach list of participants, if it is organized/conducted in the dept.))	42

#### **Event Description:**

The Department of Civil Engineering has arranged guest lecture on “Bio Printing Techniques ” for 4<sup>th</sup> semester students on 04/10/2023. Guest lecturing was related to topics of biology for engineers.

Biology for Engineers is an interdisciplinary area focusing on the application of engineering principles to analyze biological systems

This activity is to spread knowledge to solve problems in the interfacing of systems like plant, animal or microbial—with human-designed machines, structures, processes and instrumentation and also to Study biological engineering tools, resources, knowledge, and opportunities to prepare positive solutions for the world. This activity helped students to focus more on the subject which in turn helps them to absorb more knowledge about bio- engineering applications.

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	1	1	1	1	-	1	-	1	1	1	-



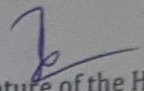
**\*Type of Event / Activity:**

Workshop/seminar/conference/hackathon/hobby project/mini project/Invited  
Talk/GuestLecture/Skill enhancement program/Cultural activity/competitions etc.,

**NOTE : All the Events should be in one PDF File.**

Date of Submission

  
Principal  
Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bangalore-560 057

  
Signature of the HOD

HOD, Dept. of Civil Engg.  
S.C.E, Bangalore-560 057



**SAPTHAGIRI COLLEGE OF ENGINEERING**  
 (AFFILIATED TO VTU, BELAGAVI) AND APPROVED BY AICTE, NEW DELHI  
 (ISO 9001:2015 & ISO 14001:2015 CERTIFIED)  
 (ACCREDITED BY NAAC WITH "A" GRADE)  
 14/5, HESARCHATTA MAIN ROAD, BANGALORE - 560057

**DEPARTMENT OF CIVIL ENGINEERING**

**GUEST LECTURE ON**  
**BIO PRINTING TECHNIQUES**

**SPEAKER**  
**DR. SOWMYA C**  
 ASSOCIATE PROFESSOR  
 DEPT. OF BIO TECHNOLOGY  
 SCE, BANGALORE

**04, Monday 2023**  
**9:30am - 10:30am**

**Venue**  
**ALH 208**

**CHIEF PATRONS**

**SRI G DAYANAND**  
 CHAIRMAN

**DR. H RAMAKRISHNA**  
 PRINCIPAL

**DR. RAJESHWARI R**  
 HOD

**SRI D MANOJ**  
 MANAGING DIRECTOR

**PROF. NANDINI I V**  
 CO ORDINATOR

### Report on Activity

Name : "BIO PRINTING TECHNIQUES".

Venue: Civil Engineering Department,

Bangalore. Name of the Coordinator- Prof.

Nandini I V

No. of Students participated – 35

students Duration: 1 hour



## Schedule of Activity

The Department of Civil Engineering has arranged guest lecture on "Bio Printing Technology" for 1<sup>st</sup> semester students on 04/10/2023. Guest lecturing was related to topics of biology for engineers.

Biology for Engineers is an interdisciplinary area focusing on the application of engineering principles to analyze biological systems

This activity is to spread knowledge to solve problems in the interfacing of systems like plant, animal or microbial-with human-designed machines, structures, processes and instrumentation and also to Study biological engineering tools, resources, knowledge, and opportunities to prepare positive solutions for the world. This activity helped students to focus more on the subject which in turn helps them to absorb more knowledge about bio- engineering applications.

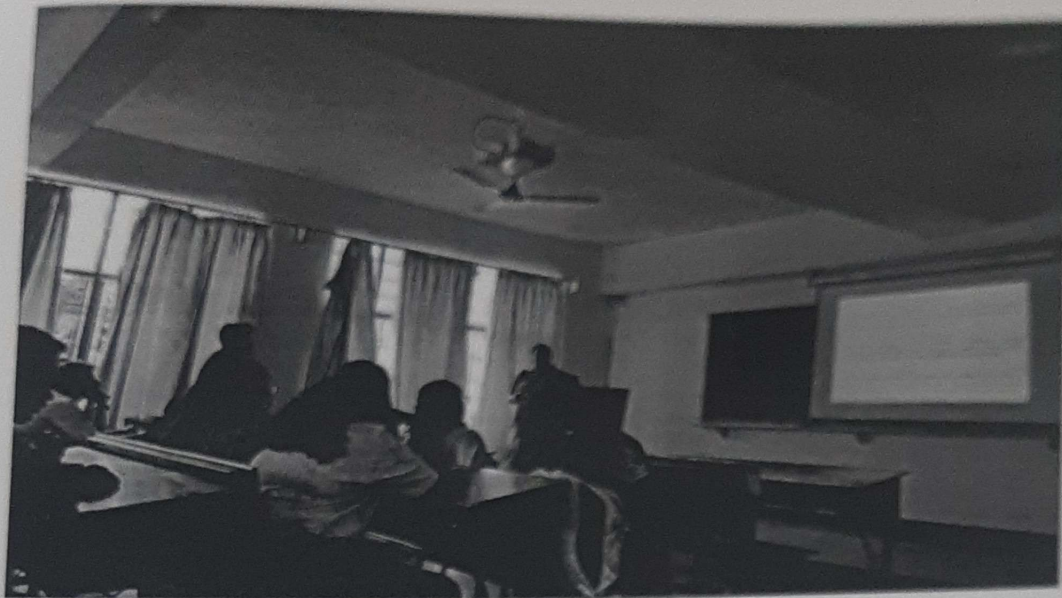
Some of the key ideas of this activity includes: -

1. 3D printing with bio-materials to create structures that mimic natural tissues
2. drug research and most recently as cell scaffolds to help repair damaged ligaments and joints
3. Bioprinting of ears
4. Bioprinting of nose
5. Bioprinting of skin

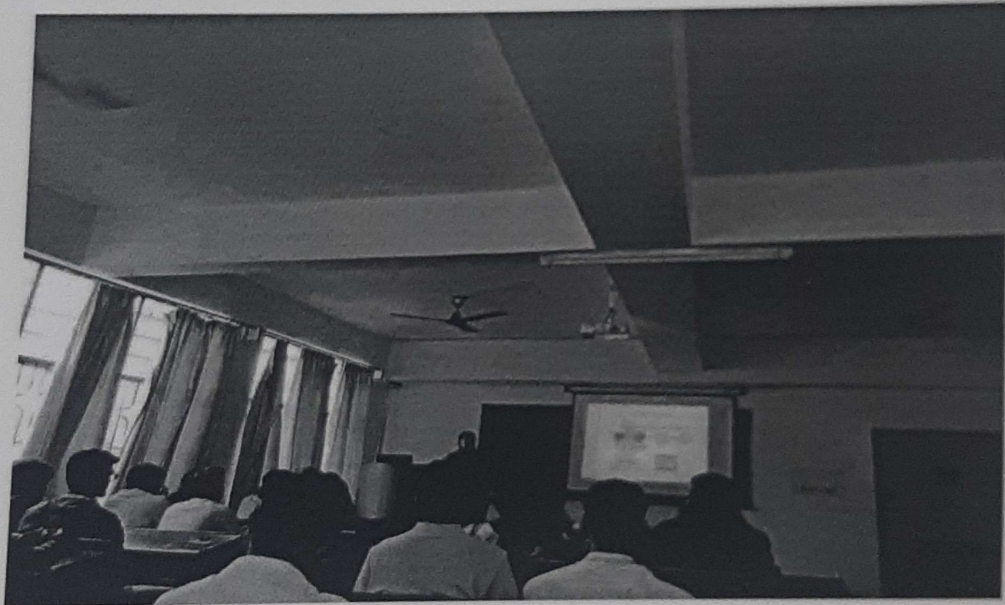
## Outcome of activity

- Students clearly understood about the different materials used in bioprinting.
- Students absorbed knowledge about the different methods of organ bioprinting.
- To encourage students to take up projects related to biology.

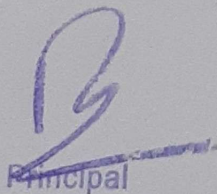




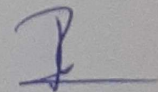
Guest lecture on Bio printing techniques



Students actively participated in bio printing technical talk

  
Principal

Sapthagiri College of Engineering  
Chikkasandra, Hesaraghatta Road,  
Bangalore-560 057



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