||Jai Sri Gurudev||

SJC INSTITUTE OF TECHNOLOGY

(VTU affiliated, AICTE approved, Accredited by NAAC&NBA Gold Rated by QS I-Gauge)

P.B No. 20, BB Road, Chickballapur - 562 101

REPORT ON

"**5-days Faculty Development Program on Professional Skill Development in 3D Printing & 3D Scanning Technologies**"

VENUE: BGS R & D Centre (offline)

DATE : 17th to 21st January 2023

TIMINGS: 10:00 AM to 04:00 PM

NUMBER OF PARTICIPANTS: 16

ORGANIZING CHAIR: Sri. Suresha J, Registar, SJCIT, Chickballapur

CHIEF MENOT: Dr G.T. Raju, Pricipal, SJCIT, Chickballapur

FACULTY COORDINATOR: Dr. Bhaskar S, Professor, Dept of ECE , SJCIT, Chickballapur

Faculty Co-Coordinator: Dr .B N Shobha, Prof & Head, Department of ECE, SJCIT, Chickballapur

TECH GURU: Prof. Harish, Asst. Professor, Dept. of ME, SJCIT, Chickballapur

OGANIZING COMMITTEE:
Dr. Thyagaraj N R, HOD, Dept. of MED
Prof. Kalaiah, Asst.Professor, Dept. of ECE
Prof. Mohanbabu. C, Asst.Professor, Dept. of ECE
Prof. Chandini A G, Asst.Professor, Dept. of ECE
Prof. Vishala I L, Asst. Professor, Dept. of ECE

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About the FDP:

5-days in-house Faculty Development Program on "Professional Skill Development in 3D Printing & 3D Scanning Technologies was organized by the AICTE IDEA LAB SJCIT, CHICKBALLAPUR. The FDP aimed at enriching skills of faculties in advanced technologies in 3D printing and 3D scanning, Types of 3D Printing Technologies, History of 3D Printing, Software used to create 3DCAD models, Applications of 3D Printing and 3D Scanner in various departments such as Aerospace, Automotive, Food, Jewelry, Fashion, Product Design, Architecture and Construction, Medical and more, 3D Printing in India, Industries using 3D printer and 3D scanner and many more aspects of 3D Printing and 3D scanning. It also include Hands on sessions on 3D printers and scanners. 3D Printing is an Additive Manufacturing technique that creates a physical object from a virtual 3D CAD model in faster and effective way. It has gained a lot of attention as it has changed the way a product can be manufactured. 3D printers are the medium through which Additive manufacturing happens. It has a great impact on manufacturing domain. Hence it is important for the academicians to get awareness of the present day technology.

The program had begun with a formal inauguration. Dr Ashwin C Gowda , coordinator VIAT Muddenahalli was the chief guest for the inaugural function.

17th January, 2023 - Day 1

Morning Session was held from 10:00 am to 12:00 pm on following topics

- ➤ Reverse Engineering using 3D Scanning
  - 2D drawing
  - 3D drawing
  - Graphics for manufacturing
  - Various tools required for scanning

Afternoon Session was held from 2:00 pm to 4:00 pm on following topics

- ➤ Case study on 3D Sense:
  - Software tool explanation

18th January, 2023 - Day 2

Morning Session was held from 10:00 am to 12:00 pm on following topics

- ➤ Case study on 3D Sense:
  - Hardware device handling

Afternoon Session was held from 2:00 pm to 4:00 pm on following topics

- ➤ Practical demonstration:
  - Scanning an object.
  - Small, medium and large objects demonstration.

19th January, 2023 - Day 3

Morning Session was held from 10:00 am to 12:00 pm on following topics

- ➢ Additive Prototyping:
  - Manufacturing basis
  - Types: Top-Down approach & Bottom-up approach

Afternoon Session was held from 2:00 pm to 4:00 pm on following topics

- ➢ Top-Down approach:
  - Matching
  - Turning
  - Milling
  - Drilling
- ➢ Bottom-up approach:
  - Casting
  - Additive prototyping

20th January, 2023 - Day 4

Morning Session was held from 10:00 am to 11:30 am on following topics

- ➢ Additive manufacturing- Basics

Types:

- Solid material- FDM
- Liquid material- SLA
- Powder material- SLS

Afternoon Session was held from 2:00 pm to 3:30 pm on following topics

- ➢ Solid material
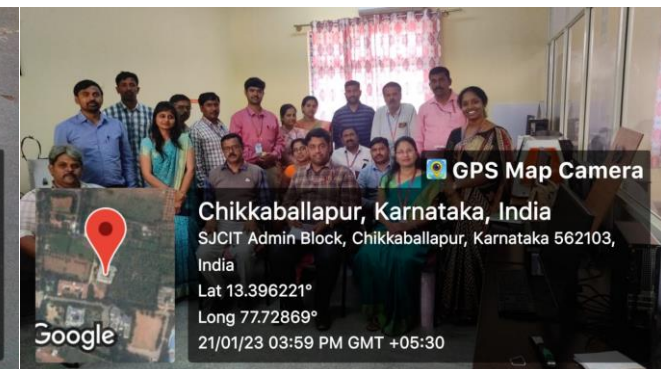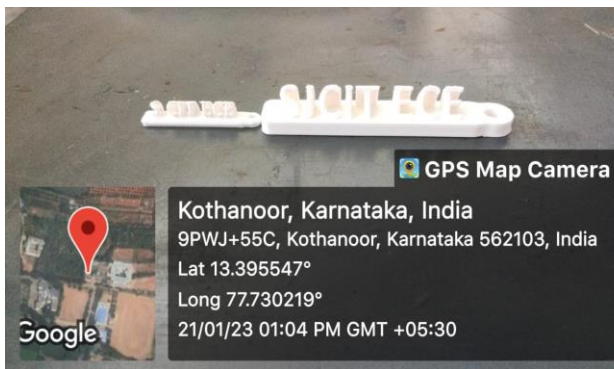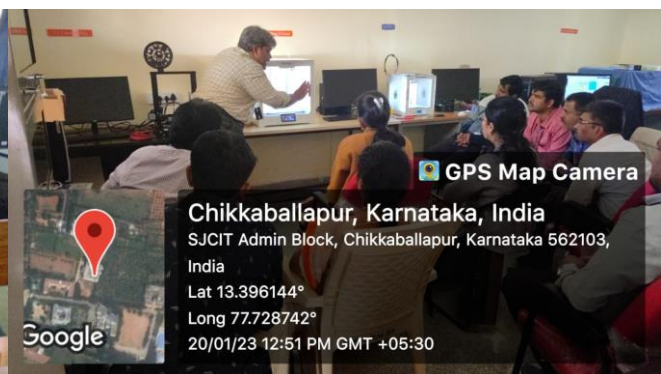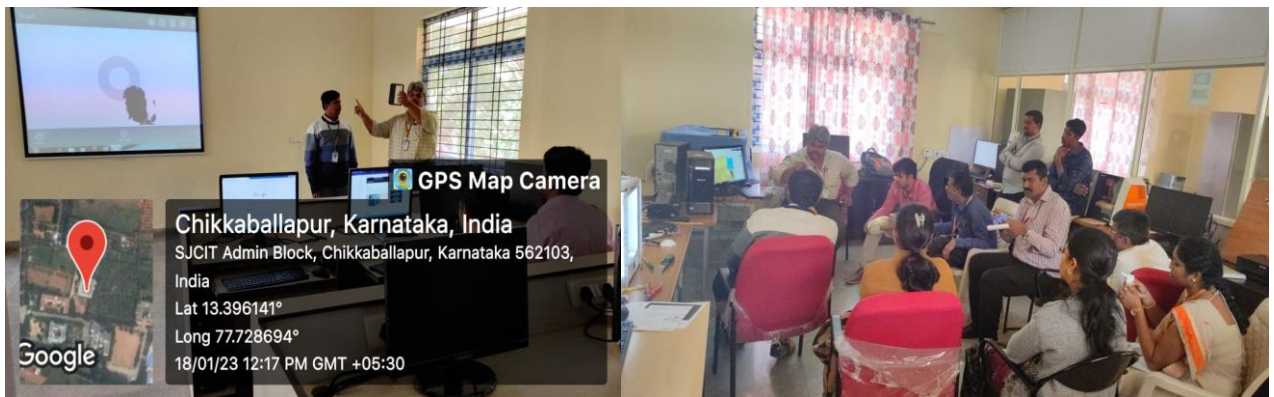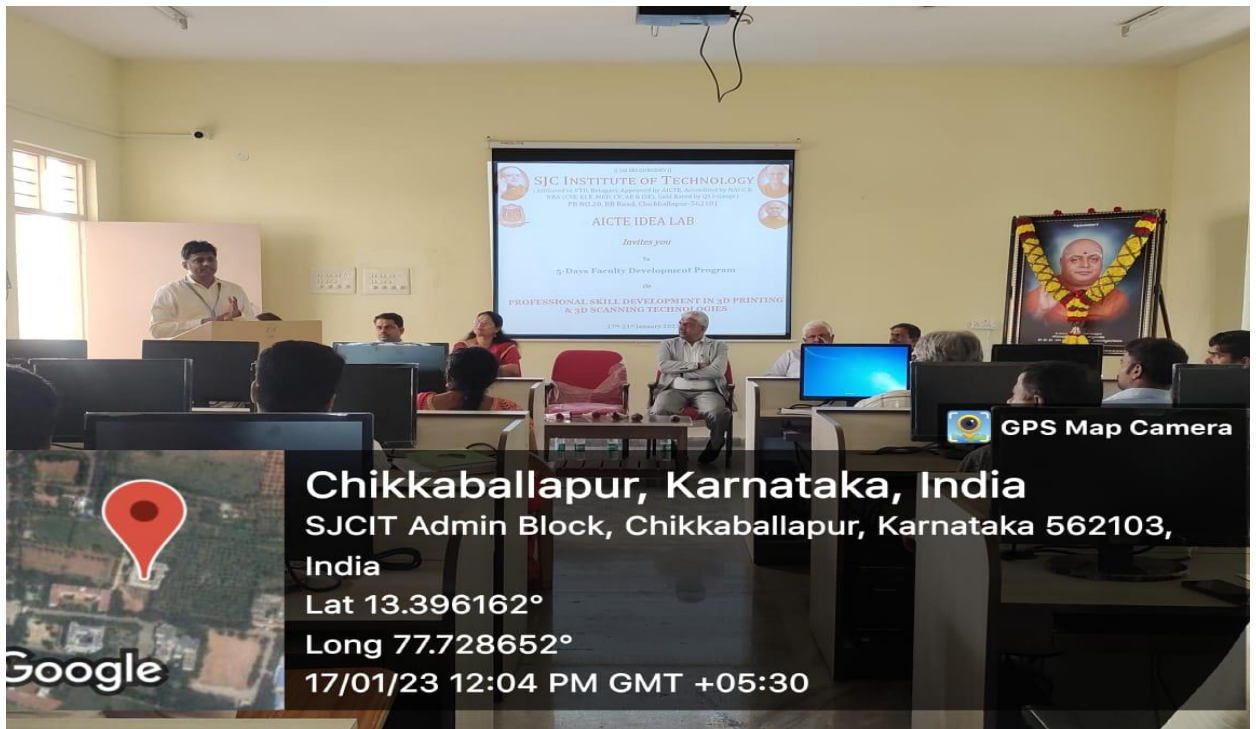 - Detailed discussion on FDM (Fused Deposition Modeling)

21st January, 2023 - Day 5

Morning Session was held from 10:00 am to 11:30 am on following topics

- ➢ Process: Conceptualization of a product
  - 2D drawing
  - 3D drawing
  - Rendering
  - Modification of 3D drawing according to machine specification

Afternoon Session was held from 2:00 pm to 3:30 pm on following topics

- ➢ Process: Conceptualization of a product
  - Slicing software: Tinkercad, Slice 3D or CURA.
  - Transferring to Machine
- ➢ Exhibition of Prepared Models

FDP BROCHURE:

|| Jai Sri Gurudev ||
Sri Adichunchanagiri
Shikshana Trust(R)

Estd, 1986

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5-Days Faculty Development Program

on

PROFESSIONAL SKILL
DEVELOPMENT IN 3D PRINTING
& 3D SCANNING TECHNOLOGIES

January 17 - 21st 2023

Organized by

**AICTE IDEA LAB
SJCIT, CHICKBALLAPUR**

ABOUT THE INSTITUTION

SJC Institute of Technology (SJCIT) is a premier institute, dedicated to impart quality education since 1986. With divine blessings of Paramapoojya Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji, the institute is managed by Sri Adichunchanagiri Shikshana Trust(R). The trust is under the astute visionary & spiritual guidance of Paramapoojya Jagadguru Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji. The college campus is spread over 64 acres of lush green environment and is located near Muddenahalli, the birthplace of the Architect of Modern India, Bharath Ratna Sir M. Visvesvaraya. The college is situated on Bengaluru - Bellary National Highway (NH-44) about 50 kms from Bengaluru and 20 kms from Kempegowda International Airport. The Institution is accredited by NBA, NAAC and offers ten UG Courses: ECE, CSE, CSE (CS&D), CSE (AI&ML), CSE (DS), ISE, MECH, CV, AE & AS and Five PG Courses in Engineering and MBA along with Eight VTU recognized R&D centers.

ABOUT AICTE IDEA LAB

AICTE-IDEA (Idea Development, Evaluation & Application) Labs are being established across the country for encouraging students for application of science, technology engineering and mathematics (STEM) fundamentals towards enhanced hands-on experience, learning by doing and even product visualization. As a common facility embedded in the institution, the IDEA Lab is making engineering graduates more imaginative and creative, besides getting basic training in the 21st century skills like- critical thinking, problem solving, design thinking, collaboration, communication, lifelong learning etc. IDEA Lab can empower the students and faculty to "engage, explore, experience, express and excel", addressing the need of new age learning. IDEA Lab would serve as an infrastructure for faculty to take up and promote multidisciplinary education and research. Accordingly, faculty are being encouraged to get trained in these Labs and strive for creating problems/ projects/ internships in their own subjects/ disciplines and mentor the students.

DIVINE BLESSINGS:

His Holiness, The Divine Soul, Jagadguru Padmabhushan Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji, Founder President, Sri Adichunchanagiri Shikshana Trust(R)

CHIEF PATRON:

His Holiness Jagadguru Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji, President, Sri Adichunchanagiri Shikshana Trust(R)

PATRON:

Poojya Sri Sri Mangalanatha Swamiji
Secretary, SACST(R), Chickballapur

CHIEF MENTOR:

Dr. G T Raju
Principal, SJCIT, Chickballapur

ORGANIZING CHAIR:

Sri. Suresha J
Registrar, SJCIT, Chickballapur

FACULTY COORDINATOR:

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FACULTY CO-COORDINATOR:

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Prof. Chandini A G, Asst.Professor, Dept. of ECE
Prof. Vishala I L, Asst. Professor, Dept. of ECE

VENUE: AICTE IDEA LAB, SJCIT, P.B No. 20, BB Road, Chickballapur 562-101

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List of Participants attended for Faculty Development Program on "PROFESSIONAL SKILL DEVELOPMENT IN 3D PRINTING & 3D SCANNING TECHNOLOGIES" held from 17th to 21st January 2023

SI No	Name	Designation	Department
1.	Ajay N	Assistant Professor	Computer Science and Engineering
2.	Ambika L G	Assistant Professor	Information Science and Engineering
3.	Chandini A G	Assistant Professor	Electronics and Communication Engineering
4.	Jagadish K M	Instructor	Information Science and Engineering
5.	Kalaiah J B	Associate Professor	Electronics and Communication Engineering
6.	Kamath G M	Assistant Professor	Civil Engineering
7.	Kiran R V	Mechanic	Electronics and Communication Engineering
8.	Dr. Mallaradhya H M	Associate Professor	Mechanical Engineering
9.	Manjunatha A	Lecturer	Mechanical Engineering
10.	Mohan Babu C	Assistant Professor	Electronics and Communication Engineering
11.	Dr. Nagesh D	Associate Professor	Aeronautical Engineering
12.	Ramesh N	Mechanic	Mechanical Engineering
13.	Dr. C Rangaswamy	Assistant Professor	Electronics and Communication Engineering
14.	Dr. Ravikumar M	Assistant Professor	Mechanical Engineering
15.	Ravikiran R	Assistant Professor	Electronics and Communication Engineering
16.	Veena S	Assistant Professor	Electronics and Communication Engineering