

## Department of Mechanical Engineering Industrial Visit Report – Surya Silpa Sala, Tenali

IV/IV B. Tech Students of Mechanical Engineering Department were taken to Surya Silpa Sala, Tenali for industrial visit on 30-03-2024 to acquire knowledge by seeing practically the things happening in Surya Silpa Sala. Initially the Supervisory team explained demo lecture on Preparation of Sculptures made by Bronze and Fibre. As a part of visit 31 students and 2 faculty (Dr. B Kiran Kumar and Mr. Harish) have visited.



## **Department of Mechanical Engineering**

### **Surya Silpa Sala**

Established as a Partnership firm in the year 1995, we “Surya Silpa Sala” are a leading Manufacturer of a wide range of Human Statue, Animal Statue, Buddha Statue, etc. are made Bronze, Fiber and welded iron scrap materials.

#### **It was observed that the bronze sculpture is made by following steps:**

- Initially, the artist creates a model of the sculpture using clay or another material.
- A mold is then made from the model, usually using silicone or plaster.
- Molten bronze is poured into the mold and allowed to cool and solidify.
- After cooling, the bronze sculpture is removed from the mold, revealing the rough form.
- The rough bronze sculpture is then refined and detailed through a process called chasing.
- Finally, the bronze parts are assembled and welded together to create the final sculpture.
- The sculpture may undergo further finishing touches such as patination to achieve the desired color and texture.

#### **Manufacturing steps in fiber sculpture include:**

- Initially, the artist creates a design or model for the sculpture using various materials like clay or digital software.



## **Koneru Lakshmaiah Education Foundation**

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

Accredited by **NAAC** as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

**Campus:** Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; [www.klef.ac.in](http://www.klef.ac.in); [www.klef.edu.in](http://www.klef.edu.in); [www.kluniversity.in](http://www.kluniversity.in)

**Admin Off:** 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2577715, 2576129.

### **Department of Mechanical Engineering**

- A mold is then created from the original model, usually using materials like silicone or fiberglass.
- Fiberglass or other composite materials are applied to the mold in layers, often with resin as a bonding agent.
- Once the layers are set and cured, the sculpture is removed from the mold, revealing the rough form.
- The rough sculpture is then refined and detailed by sanding, carving, or adding additional layers if needed.
- The fiber parts are assembled together using adhesives, welding, or other joining techniques to create the final sculpture.
- Finishing touches such as painting or sealing may be applied to enhance the appearance and durability of the sculpture.



**The process steps observed in the making of fiber sculptures using 3D printing techniques are as follows:**

- Scan the model: Use 3D scanning technology to create a digital model of the sculpture.
- Splitting with ZBrush: Employ ZBrush software to split the model into printable parts and optimize them for 3D printing.
- 3D printing: Print the split parts of the sculpture using a 3D printer and appropriate materials like fiber-reinforced plastics.
- Assembling: Join the printed parts together using adhesives or other assembly techniques to reconstruct the sculpture.
- Post-processing: Perform finishing touches such as sanding, painting, or coating to enhance the appearance and durability of the fiber sculpture.





## Koneru Lakshmaiah Education Foundation

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

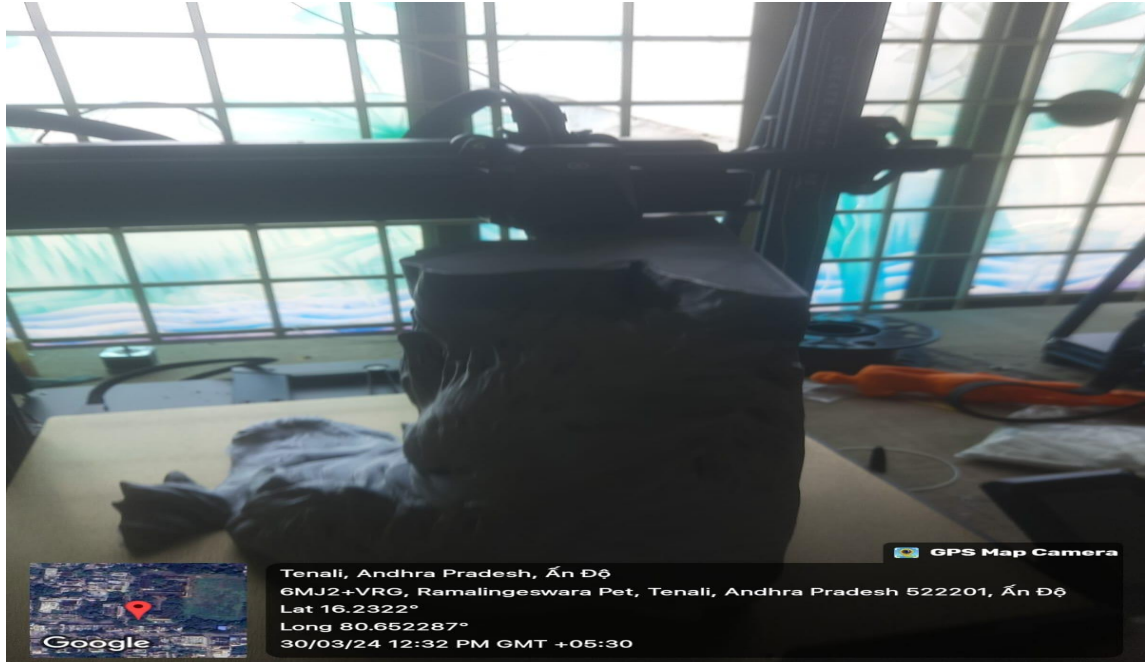
Accredited by **NAAC** as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

**Campus:** Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; [www.klef.ac.in](http://www.klef.ac.in); [www.klef.edu.in](http://www.klef.edu.in); [www.kluniversity.in](http://www.kluniversity.in)

**Admin Off:** 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2577715, 2576129.

### Department of Mechanical Engineering



Tenali, Andhra Pradesh, Ấn Độ

6MJ2+VRG, Ramalingeswara Pet, Tenali, Andhra Pradesh 522201, Ấn Độ

Lat 16.2322°

Long 80.652287°

30/03/24 12:32 PM GMT +05:30

## Department of Mechanical Engineering

The manufacturing process of observed welded steel scrap sculptures includes

- Designing the sculpture and creating a model.
- Constructing a fiber mold from the model.
- Assembling steel scrap pieces within the mold.
- Welding the steel scraps together to form the sculpture.
- Removing the fiber mold to reveal the welded steel sculpture.



Finally, Dr. B Kiran Kumar, Associate Professor and Mr. Harish thanked management of Surya Silpa Sala, Tenali for accepting and providing guidance during the industrial visit.

**Prepared by**  
Dr. B. Kiran Kumar

**Authorized by**  
HOD-ME