



**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)**  
L.B.Reddy Nagar, Mylavaram – 521 230, Krishna Dt.,Andhra Pradesh, INDIA  
Affiliated to JNTUK, Kakinada & Approved by AICTE New Delhi  
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**DEPARTMENT OF MECHANICAL ENGINEERING**

**A.Y:2015-16**

Event : **Guest Lecture**  
Title of Event :3D printing applications  
Date of the Event Organized :29-02-2016  
Resource Person :V. Siva Ganesh  
Venue :**LBRCE, Mylavaram**  
No. of Participants : Faculty: 16  
Students:134

### **Report on Event:**

Mr. V. Siva Ganesh had delivered a guest lecture on 29-02-2016 on “**3D printing applications**” to the students of II, III and IV yr students of Mechanical Engineering.

He discussed about a variety of processes, equipments, and materials used in the synthesis of a three-dimensional object. 3D printing(additive manufacturing) processes tend to be additive in nature with a few key differences in the technologies and the materials used in this process.

He emphasized on some of the different types of processes include extrusion, light polymerization, continuous liquid interface production and powder bed. Each process and piece of equipment has pros and cons associated with it. These usually involve aspects such as speed, costs, as well as a mechanical and appearance properties of the material like strength, texture and color.

Processes like selective laser melting (SLM) or direct metal laser sintering (DMLS), selective laser sintering (SLS), fused deposition modeling (FDM), or fused filament fabrication (FFF), while others cure liquid materials using different sophisticated technologies, such as stereolithography (SLA) are discussed illustratively.

He focused on the main considerations in choosing a machine are generally speed, costs of the 3D printer, of the printed prototype, choice and cost of the materials, and color capabilities.

Further, the resource person mentioned that the printers that work directly with metals are generally expensive and pointed out that less expensive printers can be used to make a mold, which is then used to make metal parts.



