

## Industrial Application

### Aerospace



### Medical

### Transportation



### Energy



### Consumer Products



## CENTRE ACTIVITIES



The perfect balance  
between theory and practice ...



TRAINING



Consultancy



Research

## CONTACT INFORMATION

### AKGEC-FABLAB

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## Training on "Design for Additive Manufacturing"

## AKGEC SKILLS FOUNDATION

AKGEC-Skills is an initiative promoted by AKGEC & NSDC, Ministry of Skill Development & Entrepreneurship. The objective of this initiative is to encourage skill development for youth to increase productivity of the existing workforce and align the training and certification needs of the country's youth. AKGEC SKILLS works to promote training, education and upskilling activities in the fields of Industrial Automation, Robotics and Advance Manufacturing processes. Under this initiative nine state of art centres are operational. These centres have been set up in collaboration with several key Industry Partners including SIEMENS, BOSCH Rexroth, KUKA Robotics, Mitsubishi Electric, Fronius, Schmalz, CARL Zeiss and Pepperl+Fuchs .

## About AKGEC FABLAB

A Fabrication Laboratory is a technical prototyping platform for innovation and invention which aims at providing stimulus for students and serves as a platform for learning and innovation. Fab Lab Foundation program began as collaboration between the Grassroots Invention Group and the Center for Bits and Atoms at the Media Lab in the Massachusetts Institute of Technology (MIT). The Fab Lab also becomes a medium for connecting to a global community of learners, Educators, Technologies, Researchers and Innovators-essentially becoming a self-sustaining global knowledge sharing network. It also have global network of nearly 2000 local labs across the world. A fabrication Laboratory (FABLAB) is a technical prototyping platform for learning and innovation. It is a small scale workshop offering Digital Fabrication which empowers students and other users to create smart devices for themselves which can be tailored to local or personal needs. At a time when engineering is supposedly losing its shine because of degradation in educational standard, AKG Engineering College shines out at a savior with its visionary approach and state of art engineering excellence

### || About Course

The main objective of the course is to train participants and to develop their skills on Design tool like Solid-Edge and able to create complex industrial components and able to convert their creative and innovative ideas into reality with the help of Solid Edge and prototyping technology with the industrial grade 3D printers.

- ◆ Introduction to Product Life Cycle Management and its application
- ◆ 3D & 2D CAD Sketching
- ◆ 3D Modeling
- ◆ Complex Assembly
- ◆ Drafting Essentials
- ◆ Introduction to Additive Manufacturing and various technologies
- ◆ FDM based 3D printing Technology
- ◆ Learning of various 3D printers (Makerbot Z-18, Ultimaker)
- ◆ Hands on session with printers and their software's

### || Highlights

- Implementation : Theory & Practice
- Language : English
- Duration : 40Hrs/1Week
- Prerequisite : Engineers, B.Tech pursuing Students
- Training Location : AKGEC-PLM
- Certification Partner : SIEMENS

### || Key Takeaway

- ◆ Certification by AKGEC SIEMENS.
- ◆ Hands-on with CAD software.
- ◆ Validate designs against product requirements.
- ◆ Assignment Based Learning.

### || Outcomes

- ◆ Learn about the materials, designing of CAD models, working of a 3D Printer.
- ◆ Enable to understand how to build and calibrate a 3D printer.
- ◆ Enable to understand the basics of G code generation.
- ◆ The participants will get 3D printed models that they design.

