PROGRAM OVERVIEW

Visualizing beyond the two dimensions has become an integral part of the technical domain. Application of the third dimension is useful in many domains such as: animation (for entertainment and education), 3D printing, architecture, game creation, etc.

3D Visualization and Animation program offers insights into key concepts of visualization, mental rotation, modeling, texturing, lighting, and animation. In order to create a sustainable skill development lifecycle, Blender, a free and open-source 3D computer graphics software, will be utilized. Blender allows users to acquire and master their skills ethically.

Under this **program**, IIT Bombay has designed three short courses to acquire important professional skills. These courses have been well received on IITBombayX as well as on edX platforms in the past few semesters. These are - **1. 3D Visualization, 2. Basic 3D Modeling using Blender, and 3. Basic 3D Animation using Blender.** The details of these courses can be seen in the 'Course Content' section. The course content consists of elegantly shot and edited slow paced video tutorials, quizzes, activities, and hands-on assignments.

The program will be conducted using a **Blended MOOCs** approach, with the help of IITBombay remote centres. A Blended MOOC combines the advantages of online and face-to-face (F2F) interactions.

Learners will carry out activities and assessments in an ONLINE mode, on the IITBombayX platform. Periodically (twice a month), IITBombayX will conduct LIVE interactive sessions with the course team. These will be offered using the free tool: A-View. The learners have a choice to either participate in these interactive sessions by visiting the nearest Remote Center established by IITBombay or by attending them online using A-View or YouTube LIVE. IITBombay has established over 550 remote centres (RCs) at colleges across the country. These RCs are equipped for live interactive sessions for an entire class. RCs participate in this program by making the facility available for the scheduled LIVE interactive sessions. LIVE chat is used by learners across the country to get information/feedback about their queries.

COURSE CONTENT

Sr.No	Course name	Content
1	Fundamentals of 3D Visualization	Use of Free Tools, Blender, Collab CADD & 3D visualization techniques
2	Basic 3D Animation using Blender	Basic 3D modelling skills such as modeling, texturing and lighting using open source tool: Blender
3	Basic 3D Modeling using Blender	Basic of 3D animation including key framing, timing, and animation principles using the free and open source tool: Blender

TEACHING FACULTY

1. **Dr. Sameer Sahasrabudhe**
   Senior Project Research Scientist,
   Dept. of CSE, IIT Bombay.
2. **Dr. Kapil Kadam**
   Project Research Scientist, IDP-ET,
   IIT Bombay
3. **Kaumudi Sahasrabudhe**
   Freelance Animator and Illustrator
4. **Nitin Ayer**
   Technical Assistant, IIT Bombay
5. **Sneha Sanglikar**
   Senior Animator, IIT Bombay

DURATION

Sr.No	Course name	Course Details
1	Fundamentals of 3D Visualization	Duration **4 weeks** Registration start **27-Aug-19** Registration end **5-Dec-19** Course start **5-Sep-19** Course end **23-Dec-19**
2	Basic 3D Animation using Blender	
3	Basic 3D Modeling using Blender	

The duration of each of the courses is 4 weeks. However, since the courses will be offered in SELF-PACED mode, it will be available for 3 months (5th September 2019 to 23rd December 2019). The learners are free to access the course content anytime during this period. Additionally, face-to-face interaction will require an engagement of about 1 - 2 hours on alternate Fridays.

WHO SHOULD ATTEND

These are non-curricular skills courses. Therefore, 'curious learners' from any discipline can enroll for the courses.

Fundamentals of 3D Visualization - Engineering students and students with basic knowledge of geometry will help.

Basic 3D Modeling using Blender - Individuals interested in developing skill sets in 3D modeling should take this course in order to learn the nuances of 3D modeling and Blender

Basic 3D Animation using Blender - Individuals interested in developing skill sets in 3D animation should take this course in order to learn the nuances of 3D animation and Blender

COURSE FEE AND REGISTRATION

The registration fee for each course of the program is INR. 500/-. However, as an incentive to students/learners, if they register for all the 3 courses, the ESOS (Educational Services for Outreach at Scale) project at IIT Bombay will subsidize the fees to INR. 1100/- lump sum (instead of Rs.1500/-)

To register online, please visit
www.it.iitb.ac.in/lakshya

HOW TO REGISTER

Enrollment will be strictly online, and no other mode of application will be entertained. The online registration for the 3 courses will start on 27th August 2019. It will end on 5th December 2019.

Registration process for the Program:

- Sign up using your valid email id on the website https://www.it.iitb.ac.in/lakshya/signup.html
- After verification, your account will be created
- Login on the website with the verified account
- Go to Announcements, select the program and register
- After successful registration, you will receive an automated email. Your name will be listed in the "List of Participants page"
- Thereafter register on IITBombayX site (https://courses.iitbombayx.in/register) using the same email id to access the course content

CERTIFICATION

Course certificates will be issued after successful completion of each course (based on the passing criteria mentioned for each of the courses). A program certificate will be issued to those who have completed all the three courses in the particular program. All the certificates will be issued ONLINE. NO hard copies will be issued.

NOTE

Live recording of the course and other created content will be released under Open Source, through a portal. All participants must agree that the content contributed by them would be released under Open Source Licence, by accepting the terms mentioned under 'No Objection Certificate'. All contributors will be acknowledged.

ADDRESS FOR COMMUNICATION

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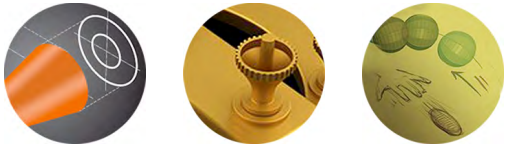

3D Visualization and Animation Program

(These courses will be offered in a Blended mode)

05 September to
23 December 2019

Conducted by

IIT Bombay

Course Coordinator

Dr. Sameer Sahasrabudhe

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