



CINEMA FACTORY
ACADEMY



UNREAL
ENGINE

UNREAL ENGINE VIRTUAL PRODUCTION



1 Year Certification Course



Stage Unreal is a Virtual production studio based in Chennai. It was founded by Ace VFX Supervisor Mr. Srinivas Mohan and renowned Indian Cinematographer Mr. Manoj Paramahamsa. With constant hardware, software upgradations and innovative applications along with successful experimentations in the fast-evolving field of Virtual Productions, Stage Unreal has grown into a dedicated and passionate team of professionals. The ethos of Stage Unreal is rigorous research and relentless development. Stage Unreal works with film makers, film production houses, media and technology divisions to create new worlds and realms hitherto complicated and out of bounds. If it can be imagined, Stage Unreal will create that pixel.

Founders of Stage Unreal



Srinivas Mohan
VFX Supervisor

4 Time National Award Winner (Magic Magic, Sivaji, Enthiran, Bahubali – The Beginning) and a true Pioneer in the field of VFX in India with over 25 years of experience. Currently India's top VFX supervisor and at the same time a terrific mentor who has

authored and designed Animation and VFX courses for M.G.R government film and television institute.

Filmography : RRR, 2.0, Baahubali, Raja Rani, Maattrraan, Eega, Nanban, Dam999, Ra One, Enthiran, Eeram, Shivaji, Krrish, Anniyan, and many more.



Manoj Paramahamsa
Cinematographer

Starting with a State Award for "Best Cinematography" for his debut film (Eeram), has been the architect behind multiple blockbusters across languages in South Indian film industry. Most sought after Cinematographer in India, for always being

ahead of the curve in terms of the cutting-edge tools and technology he has introduced through his work for close to 15 years now. Manoj Paramahamsa and Srinivas Mohan have been the bedrock and have contributed their vast experience and expertise in the research and development of Stage Unreal.

Filmography : Eeram, Vinnaithaandi Varuvaayaa, Nanban, Race Gurram, Enai Noki Paayum Thota, Radhe Shyam, Beast, Leo, and many more.

Expert Mentors



Aravind Naga

VFX Supervisor | Head Of The Department

Aravind Naga is a highly accomplished professional with over a decade of experience as a VFX Supervisor and Post Production Supervisor. His visual effects work on acclaimed films such as Super Deluxe, Modern Love Chennai and Title Animations for Theri and Mersal has earned him prestigious accolades, including the Best VFX award at the Osaka Tamil International Film Festival for the film "Super Deluxe."

Filmography : Super Deluxe, Demonte Colony, Modern Love Chennai, Theri, Mersal, Maara, Maragadha Naanayam, Thegidi, Kuthiraivaal ,Kalyana Samayal Saadham, Kallachirippu, Kaiyum Kalavum, and many more.



Shiv Shankar

VFX & Virtual Production Mentor

Shiv Shankar stands out as a talented Senior VFX & Unreal Engine artist, specializing in Virtual Production with abundance hands-on experience in the visual effects industry. His proficiency in ICVFX has resulted in impressive outcomes across a range of notable projects.

His contribution at Annapurna's ANR Virtual Production Studios played a key role in various creative projects and refined his technical skills.

Shiv's portfolio exemplifies his ability to deliver compelling and high-quality visual effects.

Filmography :

The Ghost, Yashoda, Thandel, Miss Shetty Mr. Polishetty, Eagle, and Naa Saami Ranga and more.

Virtual Production Projects :

Rado, Chennai's Amrita, Vara Mahalakshmi Silks, Robinhood, Eagle, Naa Saami Ranga, Miss Shetty, Bigg Boss Telugu



Expert Mentors



Mukesh Kannan
VFX Mentor

Mukesh is a versatile 3D animator and VFX artist with expertise in Unreal Engine. He has worked on the previz animation for the film LEO and contributed to Chittha, as well as various Chinese episodic animations and the animated movie ZAN and NOAH's Ark.

His skillset spans 3D animation, VFX, and Unreal Engine, making him a key player in both international and local projects.

Filmography: LEO, Chittha, ZAN, NOAH's Ark and many more.



Muniraj
Creative Technologist

With over 12 years of experience as a DIT and creative technologist, Muniraj has established himself as a key figure in the filmmaking industry. Known for his exceptional problem-solving skills and innovative approach, he excels in addressing on-the-spot issues during film production.

Filmography : Kaala, Marina, Super Deluxe, Mumbai Police, Vikram Vedha, Thaanaa Serndha Koottam and many more.

UNREAL ENGINE | VIRTUAL PRODUCTION

Prerequisites

To ensure that students are well-prepared for the Unreal Engine course and can fully benefit from the training, the following prerequisites are required:

Minimum Education Requirement:

Students must have completed a minimum of class 10 or equivalent. This foundational education ensures that students have the necessary academic skills and discipline to engage with the course material effectively.

Basic Foundations of Visual Effects:

Students should have a basic understanding of visual effects concepts, including compositing, rendering, animation, and simulation.

Software Basics:

Basic knowledge of VFX software such as Adobe After Effects, Blender or Nuke.

Computer Literacy:

Proficiency in using computers and navigating software interfaces. Basic understanding of file management, software installation, and system requirements.

Recommended Preparation:

Cinema Factory Academy's - **The Foundations Of VFX | 3 Months**

UNREAL ENGINE | VIRTUAL PRODUCTION

Detailed Course Breakdown

This 1-year program balances equal amounts of practical and theoretical training, complemented by an internship to ensure comprehensive learning and real-world experience.

Module 1

Unreal Fundamentals

- Introduction to UE
- Creating Project/Maps
- User Interface
- Tools and Menu options

Asset Import Pipeline

- Importing/Exporting asset
- Livelink
- Importing Textures
- Migrating Projects

Sequencer Fundamentals

- Cinematics
- Addings Tracks
- Working with Multiple tracks
- Creating Level & Master sequence

Module 2

Materials Fundamentals

- Understanding materials
- Creating Material & Material Instances
- Material Inputs
- Understanding Functions & Variables

Lighting Fundamentals

- Lighting basics & its types
- Adjusting Lightmaps
- Light mobility
- Indirect lighting

Level Design

- Creating Level Map
- Importing asset to level
- Creating Landscape/Scene
- Adding lights/camera/animations

UNREAL ENGINE | VIRTUAL PRODUCTION

Detailed Course Breakdown

Module 3

Previsualisation

Previsualisation provides a virtual space to explore new ideas and to propose technical solutions and make way to convey the vision to the entire crew members. Unreal engine realtime rigs provide the previs artists and filmmakers to work-out the process easily and saves time.

What you'll Learn :

- Shots Breakdown & Staging
- Photogrammetry
- Virtual Location scouting
- Integrating assets in Unreal engine
- Live Rigs and Animation
- Virtual Lighting
- Camera Blocking and Movement

Module 4

Technical-visualisation

Technical visualization is an extension of Previsualization. Sometimes script demands complex shots that are practically difficult and it can be sorted out with the help of technical visualization. When technical information like measurement of crane, camera position, angle and shots relative to subjects, etc is provided by simulating virtual camera.

What you'll Learn :

- Understanding Physical camera rigs
- LIDAR
- Simulcam
- Lighting and Camera positioning.

UNREAL ENGINE | VIRTUAL PRODUCTION

Detailed Course Breakdown

Module 5

Post-visualization

The concept behind the post-visualization is that numerous plate shots, CGI elements, and a virtual set were all put together and composited. Match moved and gave a clear translation of the ultimate output. With the finalised post-visualization, the desired studio will have the precision in scheduling the post-production visual effects and also the bidding process for final VFX becomes fixed and more accurate.

What you'll Learn :

Compositing in Unreal engine
FX
Keying

Module 6

Performance Capture

Performance capture typically involves simultaneous recording of an actor's voice, body movement, and facial expressions. The performer wears "Xsens" mocap suit to capture their body movement; a microphone to capture their voice, and tiny facial markers to capture their facial nuances, and then the mocap data will be transferred to CGI characters.

What you'll Learn :

Understanding "Xsens" Mocap suit
Mocap data Transfer to Rigs
Animation clean-up

Module 7

Metahumans

Metahumans by Unreal engine is an open source that allows us to create our own digital humans in photo-realistic and the customization of hairstyle, facial features, body proportion, etc.

What you'll Learn :

User interface
Metahuman Controls
Character Preparation

UNREAL ENGINE | VIRTUAL PRODUCTION

Detailed Course Breakdown

Module 8

Blueprint Fundamentals

Variables and types
Blueprint actors, components, pawn
Node types
Character movement/interaction

Animations Fundamentals

Metahuman Overview
Working with skeletons
Camera Animation/Light animation
Animation using Blueprint

Niagara Fundamentals

Niagara Overview and Key concepts
Emitter spawn / settings
Niagara script editor
Niagara UI editor

Module 9

Control Rig Fundamentals

Introduction to control rig in UE
IK/FK Rigging and Switching
Adjusting in real time

Hair and Fur Fundamentals

Groom asset editor
Groom Binding
Hair physics/simulation
Xgen for Hair

Rendering and Post-Processing

Post Process Basics
LUT
Anti-Aliasing
Realtime Rendering

UNREAL ENGINE | VIRTUAL PRODUCTION

Detailed Course Breakdown

Module 10

Real Time - Compositing

The traditional method of VFX composition is time-consuming and demands a team of VFX artists. But now, With the help of the green screen and Real-time software unreal engine, the creators are allowed to live key the footage in real-time and get composited with the photorealistic background environment without waiting until backgrounds are added in the post-production.

What you'll Learn :

Ncam tracker
Camera tracking/Calibration
Green screen compositing

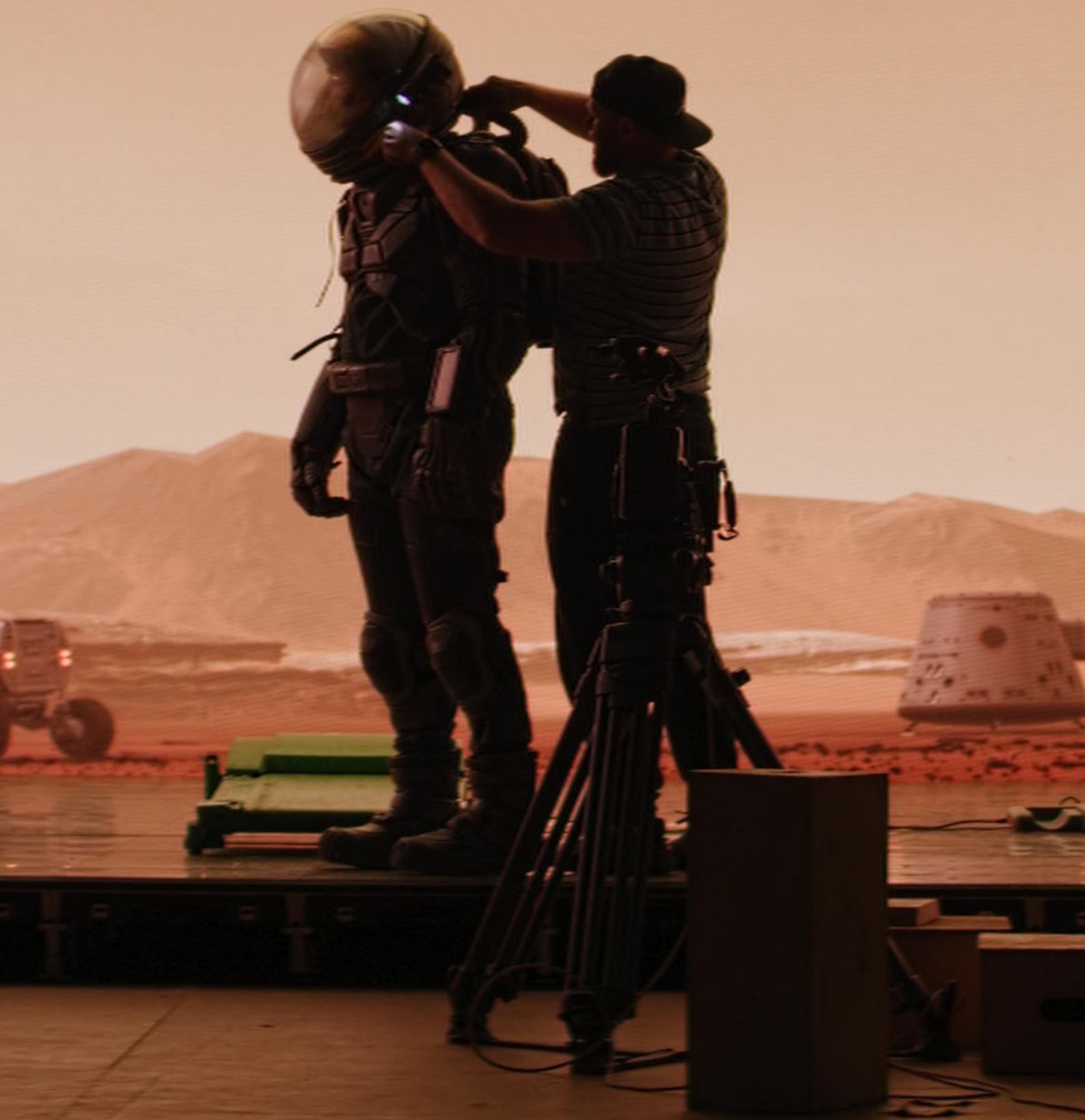
Module 11

ICVFX

In-camera Vfx gives seamless integration between real actors & physical sets with photo realistic backdrops displayed on LED volume. It's also referred to as on-set virtual production. It's a cutting edge methodology for filming Real-Time visual effects during live action film shoot. ICVFX results in providing the closest representation to the final product, as early on as the creative process.

What you'll Learn :

Understanding LED volume
LED projection
Real-time rendering
Live-link and multi user editing





**UNREAL
ENGINE**

Copyright © 2022 Epic Games, Inc. All rights reserved.



BIGBAY CINEMA FACTORY PVT LTD
No.271A, 3rd Floor, Maan Sarovar Tower, Scheme Road,
Teynampet, Chennai - 600018 India
www.CinemaFactoryAcademy.com
contact@cinemafactoryacademy.com
+91 9884683888 | +91 9884428688 | +91 44 24815365

Download PDF

