B.S. Abdur Rahman Crescent Institute of Science & Technology

Deemed to be University u/s 3 of the UGC Act, 1956

School of Computer Information and Mathematical Sciences

Department of Computer Science and Engineering

VOXEL VISIONS 2.0 WORKSHOP

27-FEBRUARY-2025

Venue: IoT laboratory

Time: 9:15 am to 12:30 pm

B.S. Abdur Rahman Crescent Institute of Science & Technology
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Event Report

Name of the event: Voxel Visions 2.0

Date: 27 February 2025

Venue: IOT Laboratory

Total number of participants attended the workshop:23

The Multimedia and Robotics Club *of the* ***Department of Computer Science and Engineering***, ***B.S. Abdur Rahman Crescent Institute of Science and Technology***, *successfully organized a hands-on workshop,* ***Voxel Visions 2.0***, *on* ***Blender Advanced 3D Animation*** *on 27th February 2025. This workshop was designed to provide students with in-depth knowledge and practical experience in animating videos using Blender. The event was conducted under the guidance and support of esteemed faculty members, including* ***Dr. R. Akila (Associate Professor), Dr. S. Varsha Vardhini, and Mr. R. Ram Deepak***. *Additionally,* ***Mr. Paramaguru S***, *a third-year B.Tech CSE student, contributed significantly by sharing his expertise and experience in the fields of multimedia and robotics.*

The workshop aimed to enhance students's technical skills, encourage creativity, and provide hands-on experience in advanced 3D animation techniques, equipping them with valuable insights into the world of digital animation and visual storytelling.

Objective

The primary objective of the workshop was to provide participants with an in-depth understanding of **3D animation using Blender**. The workshop aimed to introduce students to the advanced tools and techniques required for creating high-quality animated sequences. The following were the key learning objectives:

- **Introduction to Blender Animation Tools**: Blender is a powerful open-source 3D creation tool used for modeling, animation, and rendering. Participants were introduced to Blender's animation workspace, covering its interface, key functions, and workflow. Understanding how to navigate through Blender's interface is essential for efficient animation creation.

- **Fundamentals of Keyframing**: Keyframing is the backbone of animation. The workshop introduced the concept of keyframes, explaining how they are used to define changes in an object's position, rotation, scale, and other properties over time. Participants practiced setting keyframes on objects and explored different interpolation methods, such as linear, constant, and Bezier curves, to create smooth animations.

- **Camera Settings and Motion Control**: To create professional-looking animations, camera movement plays a crucial role. Participants learned how to manipulate the camera's position, focal length, and depth of field to enhance their animation's storytelling. Topics covered included setting up tracking shots, panning, zooming, and animating the camera along a path to achieve cinematic effects.

- **BlenderKit Integration**: BlenderKit is an online asset library that allows users to import high-quality 3D models, materials, and brushes directly into Blender. The workshop demonstrated how to access and utilize BlenderKit effectively to save time in asset creation. Participants learned how to import, modify, and integrate assets into their animation projects.

- **Final Showcase and Feedback**: To conclude the session, each participant showcased their animation project. They received constructive feedback from instructors and peers, highlighting areas for improvement. This final session provided an opportunity for participants to discuss optimization techniques, troubleshoot issues, and learn how to further refine their animation projects.

TOPIC DISCUSSED

The **Voxel Visions 2.0** workshop on **Blender Advanced 3D Animation** coordinated by Mr. Parama Guru S, began with an introduction to Blender's animation workflow, where participants were familiarized with essential tools such as the **timeline, keyframe insertion, and interpolation methods**. The session started with a demonstration of **basic keyframing techniques**, allowing attendees to animate simple objects by adjusting their position, rotation, and scale over time. As the session progressed, participants explored the **Graph Editor and Dope Sheet**, learning how to refine motion curves and create smoother, more natural animations. They also gained insights into **frame rates, motion paths, and animation easing**, which are crucial for achieving professional-quality motion sequences.

Building upon these foundational techniques, the workshop introduced **camera animation**, where attendees learned to manipulate camera angles, focal length, and movement to enhance storytelling. The importance of **lighting and environment settings** was also covered, teaching participants how to create atmospheric effects using different types of light sources. Additionally, **BlenderKit integration** was explored, enabling students to incorporate high-quality assets into their projects seamlessly. The final segment of the workshop focused on **rendering animations efficiently**, covering topics such as render settings, optimizing frame rates, and reducing noise for high-quality output. The event concluded with an interactive **Q&A session**, where attendees discussed troubleshooting techniques and ways to further improve their animation quality. Each participant showcased their final animation project, receiving constructive feedback, and was awarded a **certificate of completion** for their efforts in mastering advanced 3D animation techniques in Blender.

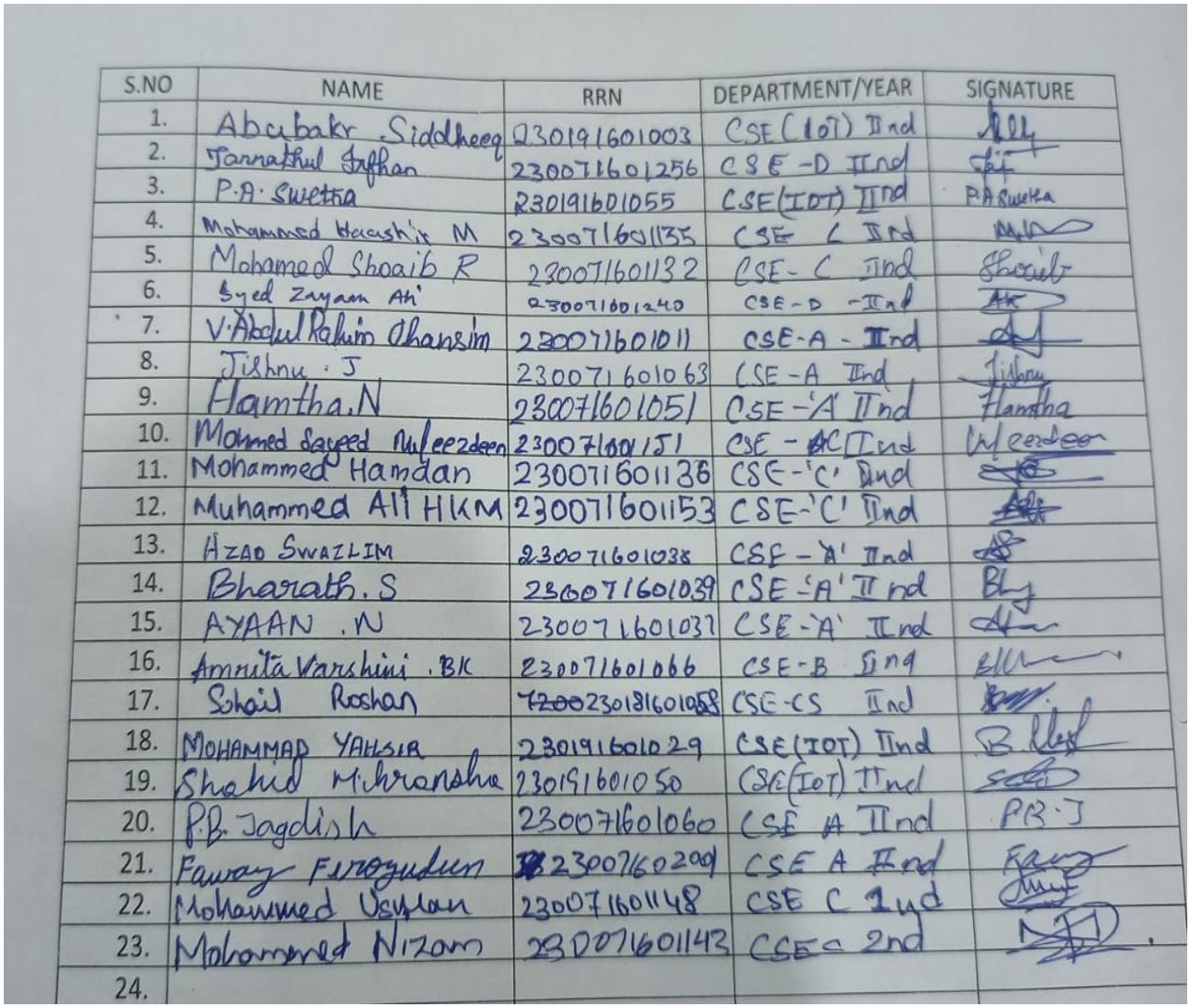
Outcome of the 3D Modeling Workshop:

By the end of the workshop, participants had achieved the following:

- **Developed a Strong Foundation in Blender Animation:** Participants became comfortable using Blender's animation tools, enabling them to create their own animated projects independently.
- **Mastered Keyframing and Motion Control:** Students successfully applied keyframing techniques to animate objects and experimented with various interpolation settings to create smoother animations.
- **Gained Expertise in Camera and Lighting Techniques:** Understanding camera angles, depth of field, and light placement allowed participants to enhance the realism of their animations.
- **Learned How to Utilize BlenderKit for Asset Integration:** Participants efficiently integrated pre-built assets into their animations, improving productivity and project quality.
- **Improved Animation Quality through Advanced Edits:** By using the Graph Editor and Dope Sheet, students fine-tuned their animations, ensuring fluid and natural motion.
- **Participated in a Hands-on Interactive Q&A Session:** The Q&A session provided valuable troubleshooting insights and additional learning resources.
- **Created and Rendered Their Own Animated Sequence:** Each participant successfully designed, animated, and rendered a 3D scene, implementing all the learned techniques.

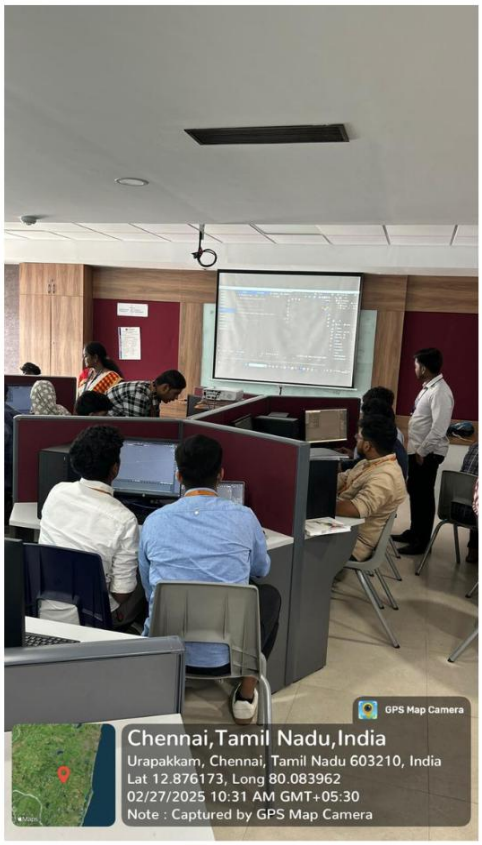
Brochure of the Workshop

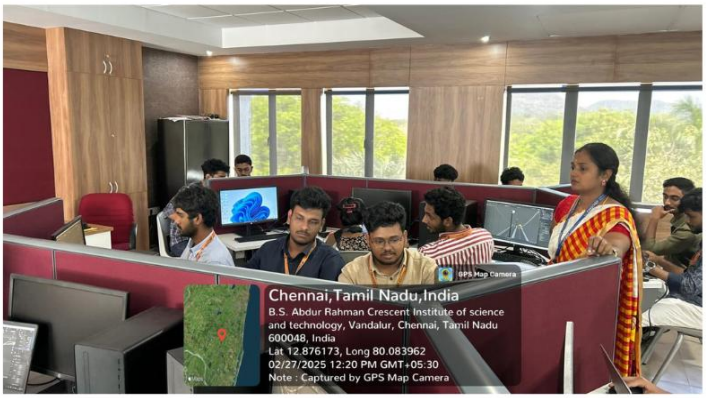
Participants Name list

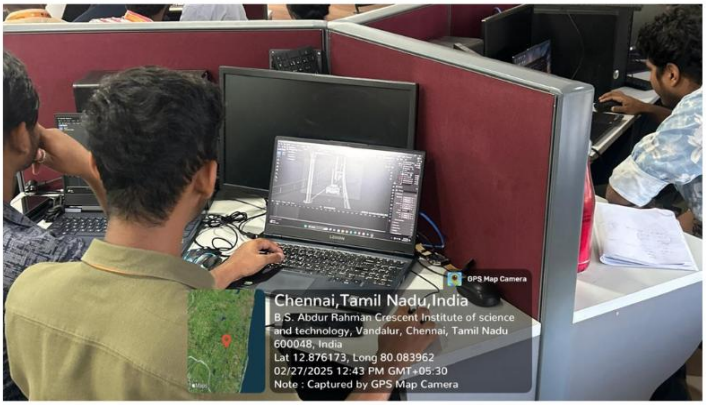


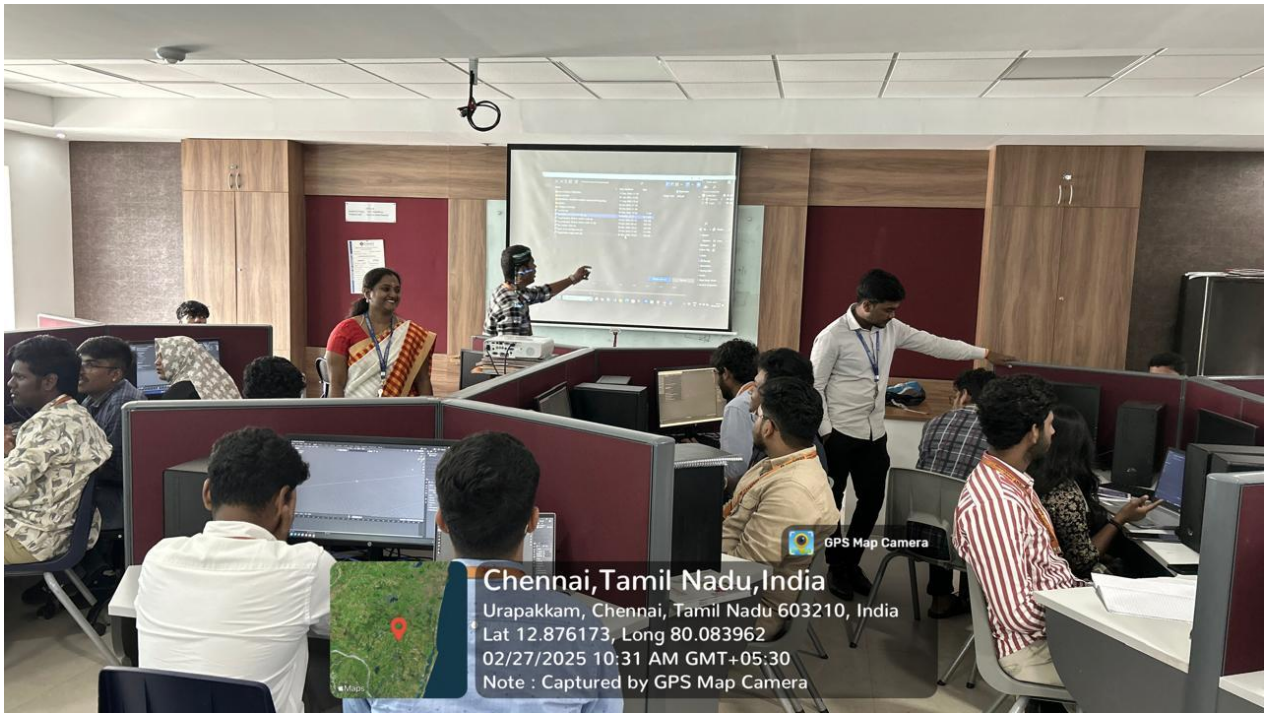
S.NO	NAME	RRN	DEPARTMENT/YEAR	SIGNATURE
1.	Abubakr Siddheeq	230191601003	CSE (IOT) IInd	
2.	Jannathul Sufhan	230071601256	CSE-D IInd	
3.	P.A. Swetha	230191601055	CSE(IOT) IInd	P.A Swetha
4.	Mohammed Harashit M	230071601135	CSE C IInd	
5.	Mohamed Shoaib R	230071601132	CSE-C IInd	Shoaib
6.	Syed Zayam Ali	230071601240	CSE-D -IInd	
7.	V. Abdul Rahim Ghansim	230071601011	CSE-A - IInd	
8.	Jishnu. J	230071601063	CSE-A IInd	Jishnu
9.	Hamtha.N	230071601051	CSE-'A' IInd	Hamtha
10.	Mohmed Sayeed Nuleezdeen	230071601151	CSE - AC IInd	Nuleezdeen
11.	Mohammed Hamdan	230071601136	CSE-'C' IInd	
12.	Muhammed Ali HKM	230071601153	CSE-'C' IInd	
13.	HZAD SWAZLIM	230071601038	CSE-'A' IInd	
14.	Bharath.S	230071601039	CSE-'A' IInd	
15.	AYAAN .N	230071601037	CSE-'A' IInd	
16.	Amrita Varshini .BK	230071601066	CSE-B IInd	
17.	Sohail Roshan	230071601058	CSE-CS IInd	
18.	MOHAMMAD YAHSIR	230191601029	CSE(IOT) IInd	
19.	Shahid Mihranshe	230191601050	CSE(IOT) IInd	
20.	P.B. Jagdish	230071601060	CSE A IInd	P.B.J
21.	Fawaz Firozudin	230071602001	CSE A IInd	
22.	Mohammed Usman	230071601148	CSE C IInd	
23.	Mohammed Nizam	230071601143	CSE-C 2nd	
24.				

Pictures taken during the Event









"Bring your creations to life: Master the art of animation with Blender's powerful tools."

Faculty Coordinator

Dr. R. Akila, Asso.Prof/CSE
Dr. Varsha Vardhini, AP/CSE
Mr. R. Ram Deepak, AP/CSE

Convenor

Dr. S. Sharmila Sankar DEAN/SCIMS
Dr.W.Aisha Banu, HOD/CSE