



Indian Institute of  
Technology Bombay



## **FOSSEE SUMMER FELLOWSHIP - 2026**

Summer Fellowship Report

### **Graphics & Animation (Using Open Source Software) FOCAL project**

Submitted by:

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Academic Year: 2026-2027

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## Acknowledgement

I would like to express my sincere gratitude to the Indian Institute of Technology Bombay and the FOSSEE (Free/Libre and Open Source Software for Education) Project for providing me the invaluable opportunity to undertake this internship under the FOCAL initiative. This experience has been instrumental in deepening my understanding of open-source design and animation tools while significantly enhancing my technical and professional capabilities.

I am deeply indebted to my mentor, **Mr. Kushal Rajput**, for his constant guidance, patience, and constructive feedback throughout the internship. His insightful mentorship helped me grasp complex software modules in depth and continually inspired me to elevate the quality of my work.

I also extend my appreciation to the entire **FOSSEE team at IIT Bombay** for organizing structured training sessions, maintaining clear guidelines, and fostering a collaborative environment that made this internship both highly productive and rewarding.

I am profoundly grateful to the **Department of Computer Science and Engineering at Sree Narayana Gurukulam College of Engineering** for granting me permission to pursue this opportunity and for their continuous encouragement.

Finally, I would like to thank my family and friends for their unwavering support and motivation, which allowed me to focus fully on maximizing this learning experience and completing the internship successfully.

-Ayush Shivaji Ranoji

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## **About FOSSEE**

**FOSSEE** (Free/Libre and Open Source Software for Education) is a flagship project based at the **Indian Institute of Technology Bombay (IIT Bombay)**. Funded by the **Ministry of Education, Government of India**, under the National Mission on Education through Information and Communication Technology (NMEICT), its primary mandate is to promote the adoption of free and open-source software (FOSS) across academic institutions nationwide. By providing viable open-source alternatives, FOSSEE aims to eliminate reliance on commercial, proprietary software, thereby democratizing access to quality technical education. The project achieves this through a multi-pronged approach, including textbook companions, spoken tutorials, virtual laboratories, and rigorous internship programs. Through the promotion of robust tools like Scilab, OpenFOAM, Python, and various open-source creative suites, FOSSEE continues to fundamentally transform technical pedagogy and practice in India.

## **About FOCAL**

**FOCAL** is a premier, structured internship initiative under the FOSSEE project, designed to provide students with intensive, project-based exposure to open-source workflows. Moving beyond the scope of traditional workshops, FOCAL internships simulate real-world development environments by integrating dedicated mentorship, structured weekly milestones, and rigorous peer-review feedback loops.

This report details a comprehensive **two-month internship within the Graphic Design and Animation track** of the FOCAL program. The curriculum was divided into two distinct phases:

- **Weeks 1–5 (Technical Foundations):** A progressive deep-dive into the open-source creative pipeline, spanning 2D vector design, image manipulation, digital publishing, and keyframe animation. The

curriculum was systematically structured so that core skills—such as path editing in **Inkscape**—served as building blocks for advanced animation workflows in **Synfig Studio** and 3D modeling environments like **Blender**.

- **Weeks 6–8 (Advanced Projects & Leadership):** A high-impact phase dedicated to executing an independent design capstone, contributing production assets to an official FOSSEE outreach campaign, and culminating in a leadership module where I designed and delivered technical workshops for undergraduate peers.

## Internship Objectives

The primary objective of this internship was to gain practical knowledge and hands-on experience in Graphic Designing and Animation using Free and Open-Source Software under the FOSSEE Project at the Indian Institute of Technology Bombay. The internship aimed to bridge the gap between academic learning and industry-oriented practice by providing structured training in professional open-source design and animation tools.

A key objective was to develop technical proficiency in software such as Inkscape, GIMP, Scribus, Synfig Studio, and Blender through mentor-guided sessions, practical assignments, and project-based learning. The internship also focused on strengthening creativity, visual communication, and problem-solving skills by encouraging the design of original graphics, image editing projects, publication layouts, 2D animations, and 3D models.

Another important objective was to understand the complete workflow involved in creating digital design and animation projects, from concept development and planning to execution, review, and final presentation.

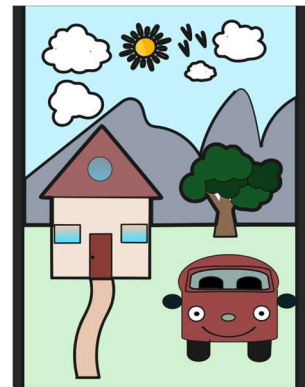
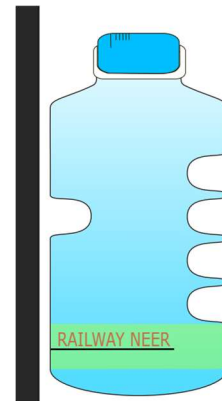
The programme further aimed to enhance essential professional skills such as time management, communication, teamwork, self-learning, and adaptability while working in a structured project environment. The later stages of the internship provided opportunities to apply acquired knowledge through an independent project, contribute to a FOSSEE introductory video, and conduct workshops for college students, thereby developing leadership and presentation abilities.

Overall, the objective of the internship was to equip participants with industry-relevant technical skills, practical experience with open-source software, and professional competencies that support future academic projects, creative work, and career opportunities in graphic design, animation, multimedia, and related fields.

# Week 1– 5

In Week 1, we learned about the open source Vector Graphics tool “INKSCAPE” .

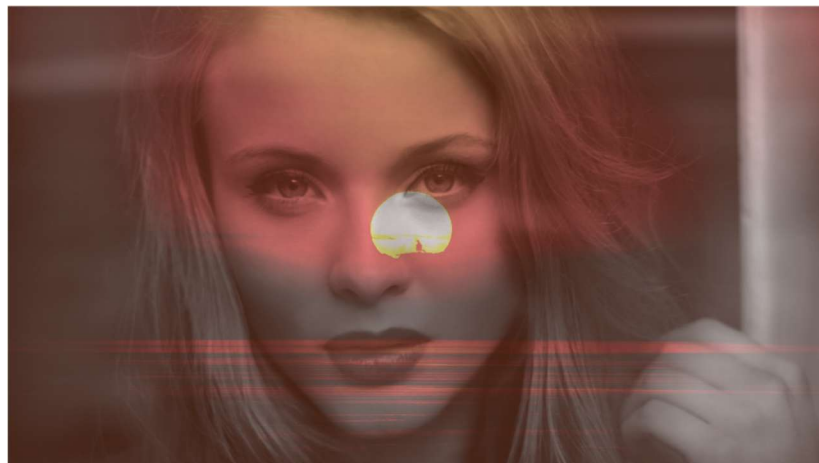
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## WEEK 2

In Week 2, we learned about the open source Image Manipulation tool  
“ GIMP ”.

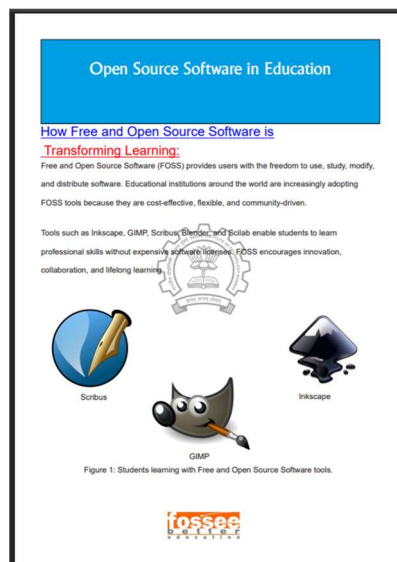
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## WEEK 3

In Week 3, we learned about the open source Desktop publishing tool  
“SCRIBUS”.

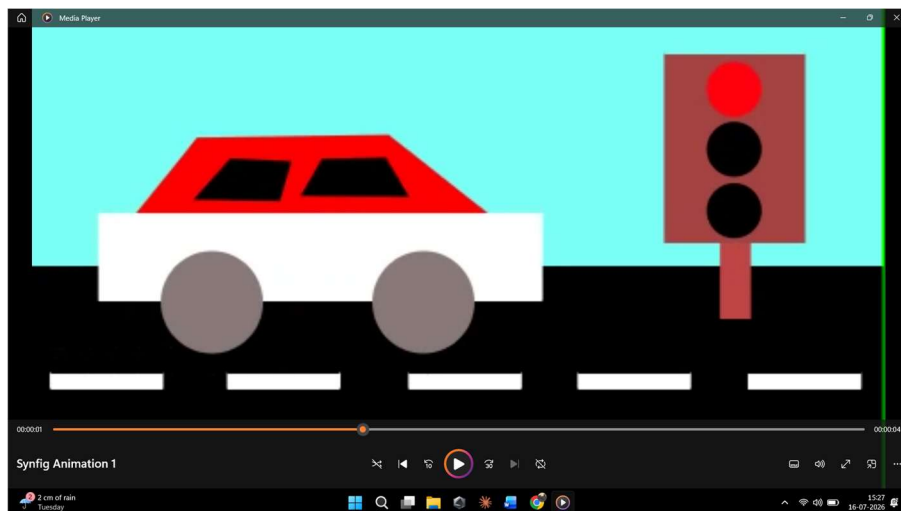
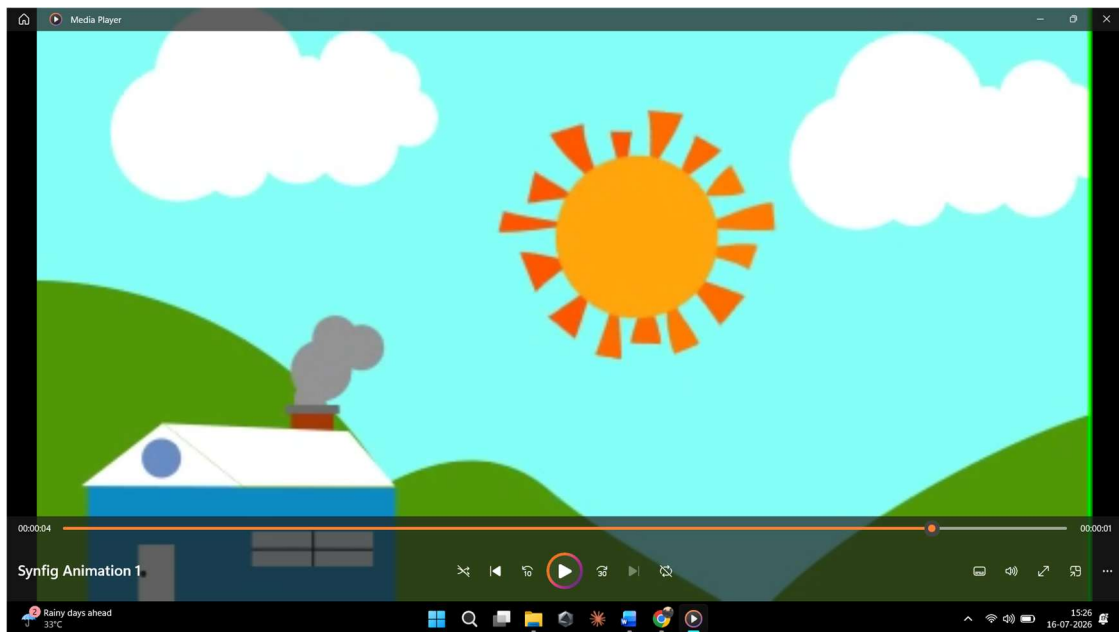
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## **WEEK 4**

In Week 4, we learned about the open source 2D animation tool “SYNFIG STUDIO”.

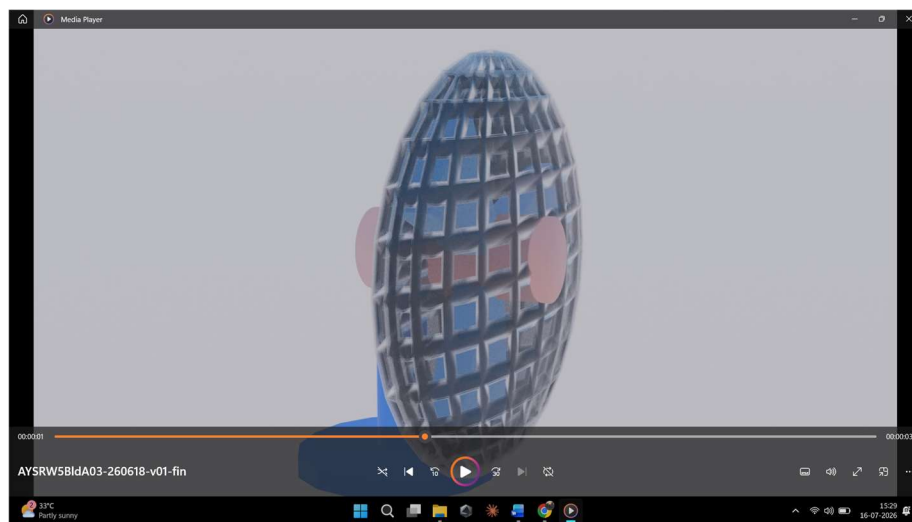
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## WEEK 5

In Week 5, we learned about the open source 3D model and animation tool  
“BLENDER”.

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## WEEK 6 (DESIGN WEEK)

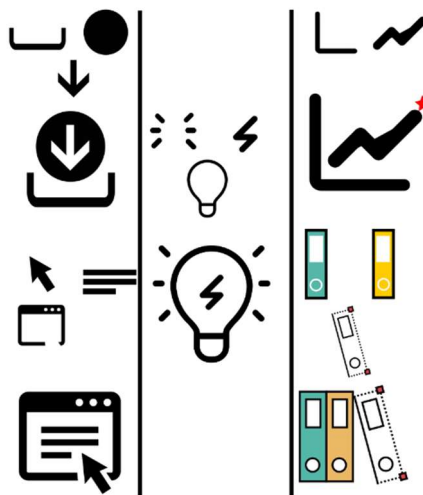
In Week 6, we made a few projects which were related to the open-source tool which we learnt in the previous weeks.

About Week-

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### F O C A L I C O N S

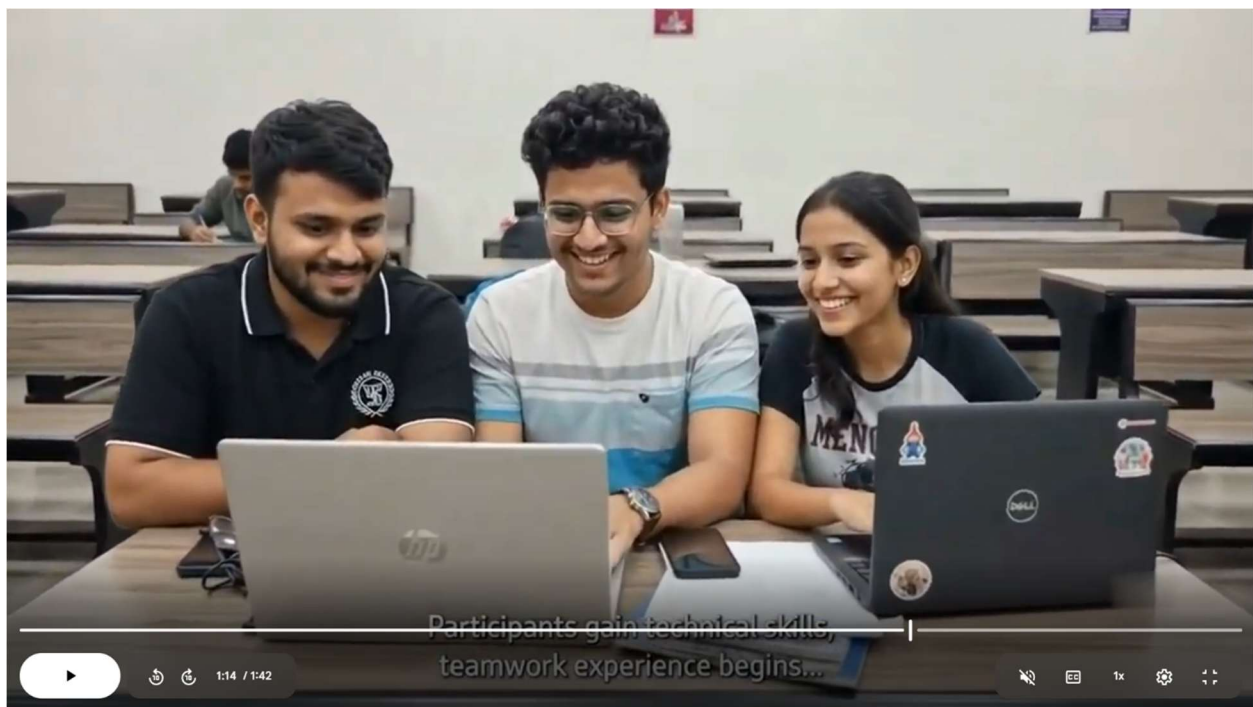


## WEEK 7 (ANIMATION WEEK)

In Week 7, we made a few projects which were related to the open source tool which we learnt in the previous weeks ( Synfig studio and Blender).

About week-

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## Week 8

About week-

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This final week provided a valuable platform to share our comprehensive fellowship experiences and technical insights with our college peers. Facilitating these sessions significantly enhanced our communication skills, boosted our professional confidence, and reinforced our own understanding of the tools we mastered.

## Outcome

The FOSSEE internship under the FOCAL initiative provided valuable hands-on experience in graphic designing and animation using open-source software such as Inkscape, GIMP, Scribus, Synfig Studio, and Blender. Through structured training and practical assignments, I developed skills in vector illustration, image editing, desktop publishing, 2D animation, and basic 3D modelling, gaining a clear understanding of the complete design and animation workflow.

The project-based learning approach encouraged independent learning, experimentation, and problem-solving. Regular mentor feedback helped me continuously improve the quality of my work while developing confidence in applying theoretical concepts to real-world projects.

Beyond technical knowledge, the internship improved my professional skills, including communication, teamwork, time management, organisation, and adaptability. Working under deadlines taught me to plan tasks effectively, while contributing to the FOSSEE introductory video and conducting workshops for college students strengthened my leadership, presentation, and mentoring abilities.

The internship also deepened my understanding of the importance of Free and Open Source Software (FOSS) in providing accessible, cost-effective, and industry-relevant tools for education and creative work. Overall, this experience enhanced my technical and professional competencies, strengthened my confidence, and provided a solid foundation for future academic projects and career opportunities in graphic design, animation, multimedia, and UI/UX design.

## **Feedback**

The FOSSEE–FOCAL Graphic Designing and Animation Internship at IIT Bombay was a valuable and enriching learning experience. The internship was well-organized, combining mentor-led training, practical assignments, and regular feedback that helped me steadily improve my technical and creative skills.

The guidance provided by my mentor played a key role in my learning journey. Constructive feedback on each task encouraged me to refine my work, improve design quality, and develop a professional approach to problem-solving. The structured assignments enabled me to gain hands-on experience with open-source tools such as Inkscape, GIMP, Scribus, Synfig Studio, and Blender while understanding real-world design and animation workflows.

Working on an independent project, contributing to the FOSSEE introductory video, and conducting workshops for college students further enhanced my creativity, communication, teamwork, and leadership skills. These experiences also improved my confidence in applying technical knowledge to practical situations.

I sincerely appreciate the support and encouragement provided by my mentor and the entire FOSSEE team throughout the internship. Their guidance, well-planned training sessions, and positive learning environment made the programme highly productive and enjoyable. Overall, this internship has strengthened my technical knowledge, professional skills, and confidence, providing a strong foundation for my future academic and career goals.

## Declaration

I hereby declare that this internship report entitled "**Graphic Designing and Animation Internship under the FOSSEE-FOCAL Initiative, IIT Bombay**" is a genuine record of the work carried out by me during the internship from **15 May 2026 to July 2026**. The work presented in this report has been completed under the guidance of my mentor and has not been submitted, either wholly or in part, for the award of any other degree, diploma, or certification.

I further declare that all the information presented in this report is true to the best of my knowledge and that appropriate acknowledgment has been given wherever necessary.

**Place:** Bhopal

**Date:** 16/07/2026

**Ayush Shivaji Ranoji**

## Appendix-

The appendix contains supporting materials related to the internship that provide additional evidence of the work carried out during the programme.

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Appendix A: Internship Offer Letter / Selection Letter

Appendix B: Internship Completion Certificate

Appendix C: Weekly Task Sheets and Assignment Details

Appendix D: Screenshots of Practical Work

- Inkscape Illustrations (House, Car, Icons)
- Certificate Border, Brochure, and Poster Designs
- GIMP Image Editing and Colour Replacement
- Scribus Newspaper Layout
- Synfig Studio Animations
- Blender 3D Models and Animations

Appendix E: Contribution to FOSSEE Introductory Video

Appendix F: Photographs of Leadership Week and Student Workshops

Appendix G: Mentor Feedback and Evaluation Records

Appendix H: Additional Project Source Files (SVG, XCF, SLA, SIF, BLEND) and Supporting Documents