



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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B.Des. 1st Year

Academic Year:2026–27

Delhi Technological University

Under the guidance of:

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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 with the opportunity to undertake the **FOSSEE Summer Fellowship 2026** under the **FOCAL (Free and Open-source Creative Art Library) Project**. This internship has been an enriching learning experience that strengthened my understanding of open-source creative software and enhanced my practical skills in graphic design, publishing, animation, and visual communication.

I am deeply thankful to my internship mentor, **Mr. Kushal Rajput**, for his constant guidance, encouragement, and constructive feedback throughout the fellowship. His mentorship motivated me to improve the quality of my work and helped me gain confidence in using professional open-source design tools through practical assignments and projects.

I would also like to express my sincere appreciation to the entire **FOSSEE team at IIT Bombay** for organizing well-structured training sessions, providing clear guidance, and creating a collaborative learning environment that made the fellowship both engaging and rewarding.

I extend my heartfelt gratitude to the **Department of Design, Delhi Technological University (DTU)** for encouraging students to explore practical learning opportunities beyond the classroom. As a **Bachelor of Design (B.Des.)** student, this fellowship allowed me to apply my academic knowledge to real-world design projects while developing new technical and creative skills.

Finally, I would like to thank my family and friends for their continuous encouragement, patience, and support throughout the internship. Their motivation enabled me to complete the fellowship successfully and make the most of this valuable opportunity.

Khushi Kashyap

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About FOSSEE

The FOSSEE (Free/Libre and Open Source Software for Education) project, based at IIT Bombay, is funded by the Ministry of Education (MoE), Government of India, under the National Mission on Education through Information and Communication Technology (NMEICT). The project promotes the adoption of Free and Open Source Software (FOSS) in education, research, and industry by encouraging the use of high-quality open-source alternatives to proprietary software. FOSSEE also develops, enhances, and supports open-source tools to meet the needs of academia and scientific research.

FOSSEE conducts a wide range of initiatives, including internships, fellowships, workshops, hackathons, training programs, and the development of educational resources such as tutorials and documentation. It supports several open-source projects, including Scilab, Python, eSim, Osdag, DWSIM, OpenFOAM, and FOCAL, enabling students, educators, and professionals to gain practical experience while contributing to the growth of the open-source ecosystem.

About FOCAL

FOCAL (Free and Open-source Creative Art Library) is an initiative of FOSSEE, IIT Bombay, dedicated to promoting the adoption of Free and Open Source Software (FOSS) for computer graphics, design, publishing, and animation. As an open-source community project, FOCAL encourages students, educators, and entrepreneurs to explore and create using professional open-source creative tools such as Inkscape (vector graphics), GIMP (image editing), Scribus (desktop publishing), Synfig Studio (2D animation), and Blender (3D animation). The project also provides a platform for publishing high-quality artwork and creative assets developed using these open-source applications, fostering collaboration and innovation within the community.

Vision and Activities

Through the FOSSEE Summer Fellowship, participants contribute to the growth of the FOCAL library by creating tutorials, documentation, graphics, animations, and other educational resources that help new users learn open-source creative software. FOCAL also aims to support the transition from proprietary design workflows to open-source graphics studios, promote industry adoption of FOSS tools, and organize online as well as hands-on workshops, exhibitions, and outreach programs. By building a rich repository of open educational resources and encouraging real-world project contributions, FOCAL creates opportunities for skill development, community collaboration, and future careers in the open-source creative ecosystem.

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. Through regular mentor feedback and continuous improvement, the internship encouraged quality-focused work, attention to detail, and the ability to apply constructive suggestions effectively.

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

During the first week of the fellowship, I was introduced to **Inkscape**, an open-source vector graphics software. I learned the fundamentals of vector design, including the use of shapes, paths, nodes, layers, and the Bezier tool. As part of the weekly assignments, I created various vector illustrations such as a computer setup, landscape scenery, bottles, and other everyday objects, which helped strengthen my understanding of vector graphics and design principles.

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WEEK 2

During the second week of the fellowship, I learned **GIMP (GNU Image Manipulation Program)**, an open-source image editing software. I explored essential tools and techniques such as layers, masking, selections, color correction, and image enhancement. The weekly assignments involved tasks like adjusting brightness, contrast, and saturation, creating selective color effects, performing photo manipulations using masks, and editing images to improve their overall visual quality and composition.

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WEEK 3

During the third week of the fellowship, I learned **Scribus**, an open-source desktop publishing application. I explored essential tools and techniques for creating professional page layouts, including working with typography, text and image frames, grids, alignment, and page composition. The weekly assignments involved designing brochures, magazines, and other multi-page layouts while learning to organize content effectively and prepare documents for print. This week enhanced my understanding of document design, typography, and professional print-ready layouts

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Open Source Software in Education

How Free and Open Source Software is Transforming Learning

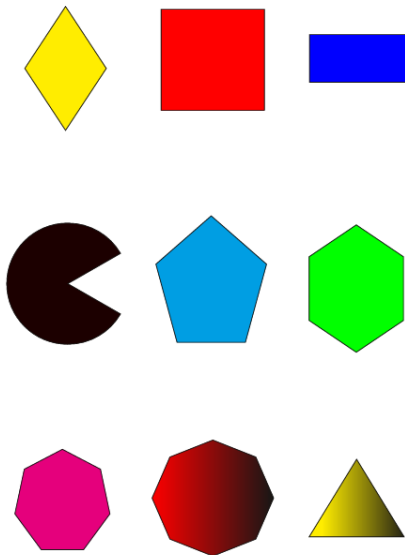


Figure 1: Students learning with Free and Open Source Software tools.

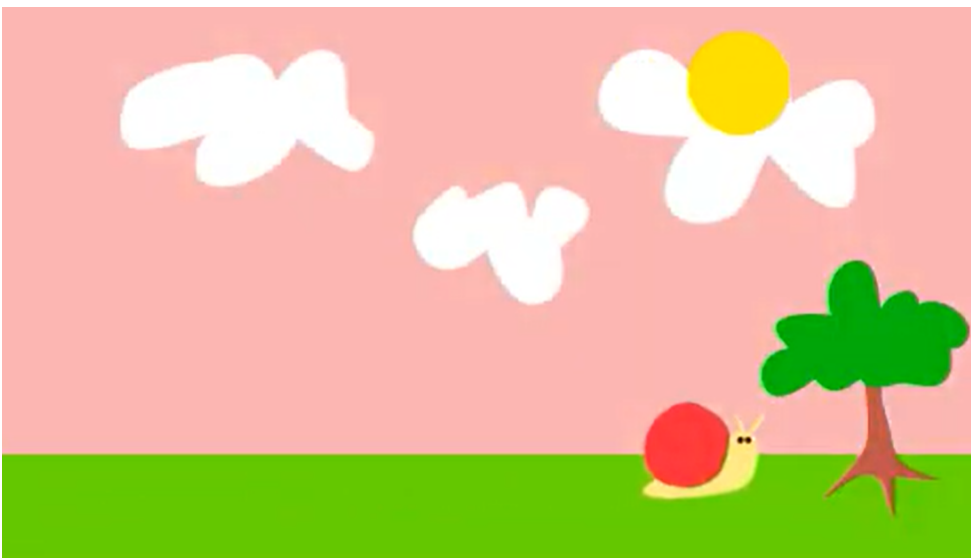
Free and Open Source Software (FOSS) provides users with the freedom to use, study, modify, and distribute software. Educational institutions around the world are increasingly adopting FOSS tools because they are cost-effective, flexible, and community-driven.

Tools such as Inkscape, GIMP, Scribus, Blender, and Scilab enable students to learn professional skills without expensive software licenses. FOSS encourages innovation, collaboration, and lifelong learning.

WEEK 4

During the fourth week of the fellowship, I learned **Synfig Studio**, an open-source 2D animation software. I explored essential animation tools and techniques such as keyframes, tweening, object movement, layers, and basic transformations. The weekly assignments involved creating simple animations and experimenting with movement and timing to produce smooth transitions and engaging visual effects. This week enhanced my understanding of 2D animation principles and provided hands-on experience in creating dynamic animated content.

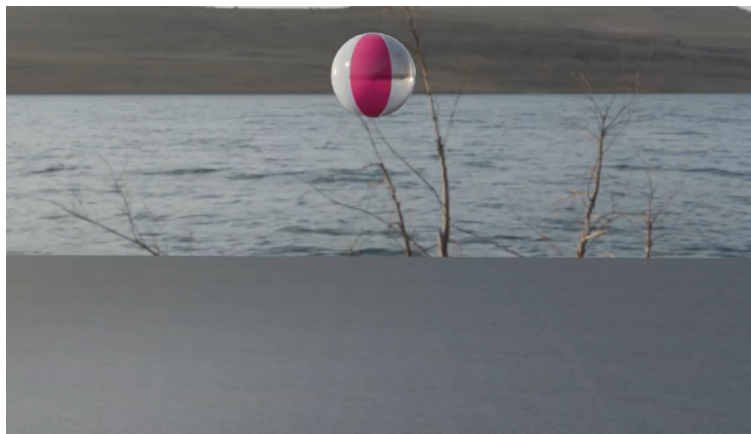
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WEEK 5

During the fifth week of the fellowship, I learned **Blender**, an open-source 3D modeling and animation software. I explored essential tools and techniques such as 3D modeling, object manipulation, lighting, texturing, camera setup, rendering, and basic animation. The weekly assignments involved creating and modifying 3D objects, experimenting with materials and lighting, and producing rendered scenes. This week enhanced my understanding of the complete 3D content creation workflow and provided hands-on experience in 3D design and animation.

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WEEK 6

During the sixth week of the fellowship, I focused on applying the skills and techniques learned throughout the previous weeks through practical design projects. I worked on creative assignments using different open-source tools, combining image editing, desktop publishing, animation, and 3D design techniques. These projects provided an opportunity to experiment with different design approaches while improving my problem-solving, creativity, and overall design workflow.

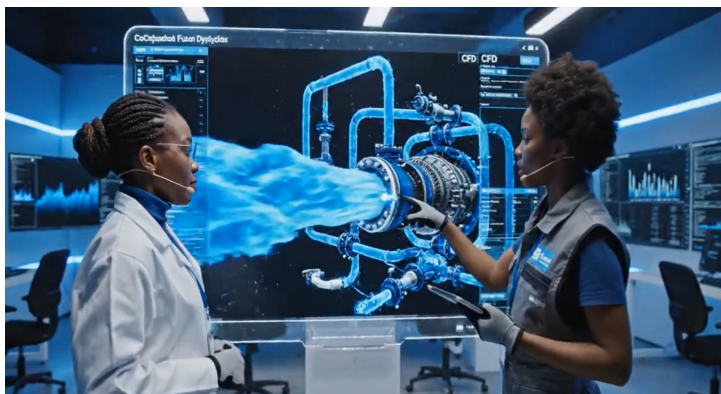
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WEEK 7

During the seventh week of the fellowship, I focused on creating animation-based projects using AI-assisted tools. I explored the process of generating video content while applying the concepts of visual storytelling, composition, and effective content presentation learned throughout the fellowship. The project provided hands-on experience in combining AI-generated content with creative design techniques. This week enhanced my understanding of how AI tools can support and streamline the creative process.

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WEEK 8

During the eighth week of the fellowship, I focused on conducting workshops to share the knowledge and skills gained throughout the fellowship. I guided participants through various open-source tools and techniques while explaining their applications through practical demonstrations. Conducting these workshops helped improve my communication, presentation, and leadership skills while also reinforcing my own understanding of the tools and concepts covered during the fellowship.

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Blender Basics Workshop (Responses) ☆ 📁 ☁				
File Edit View Insert Format Data Tools Gemini Extensions Help				
↶ ↷ 🖨 🗑 100% ▾ \$ % -0.00 .00 123 Roboto ▾ - 10 + B I ↺ A 🔍 🏠 📄 📑 📊				
⌵ 📅 Timestamp				
A	B	C	D	E
Form_Responses ▾				
Timestamp ▾	Full Name ▾	Email Address ▾	Contact Number (optional) ▾	Have you used Blender before?
7/11/2026 20:50:25	Mahi Mogha	designmahimogha@gm	9821590422	Yes
7/11/2026 20:58:46	Nikita	v.nuganaremandango@		No
7/11/2026 21:10:03	Meena	meenakashyap.mk28@		Yes
7/11/2026 21:38:07	Rashi	golarashi21@gmail.com		Yes
7/11/2026 23:27:06	Garima Sharma	gs0760604@gmail.com	8800602751	No
7/12/2026 12:40:59	Harshita yadav	harshitayadav2425@gm		Yes
7/12/2026 12:55:39	Usha	ushakashyap1967@gm		No
7/12/2026 14:18:31	Navyadisha	navyadishak@gmail.con		No
7/12/2026 14:42:02	Sunil	dr.kashyapsunil@gmail.c		No
7/12/2026 14:44:33	Vijay	vk2869162@gmail.com		No

Challenges & Solutions

During the fellowship, I encountered several challenges that contributed to my technical and professional development. Learning five different open-source software applications within a limited period required adapting to different interfaces and workflows. Advanced concepts such as 3D modelling, rendering, keyframes, and animation in Blender and Synfig Studio required additional practice and guidance. Managing multiple weekly assignments and deadlines also required effective time management and planning. I overcame these challenges through mentor guidance, self-learning, regular practice, official documentation, and hands-on experimentation.

The independent project, contribution to the FOSSEE introductory video, and Leadership Week workshops further required creativity, responsibility, communication, and confidence. Breaking tasks into smaller steps, discussing ideas with my mentor, and preparing carefully for workshops helped me complete these activities successfully. Overall, the fellowship strengthened my technical knowledge, problem-solving ability, adaptability, communication skills, time management, and confidence, providing valuable experience for my future academic and professional development.

Learning Outcomes

The FOSSEE Fellowship under the FOCAL initiative provided valuable hands-on experience in graphic design and animation using open-source tools 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. The fellowship also strengthened my understanding of design principles such as colour theory, typography, layout, visual hierarchy, and motion design.

Working on projects including posters, brochures, illustrations, animations, and 3D models improved my creativity, problem-solving, and attention to detail. Mentor feedback and project-based learning encouraged experimentation and independent learning, while deadlines helped develop my time management and organisational skills. Contributing to the FOSSEE introductory video and conducting workshops further improved my communication, presentation, and leadership abilities. Overall, the fellowship strengthened my technical and professional skills and provided a strong foundation for my future academic projects and career in design, animation, multimedia, and UI/UX.

Feedback

The FOSSEE–FOCAL Graphic Designing and Animation Fellowship at IIT Bombay was a highly valuable and enriching learning experience. The programme was well-structured, combining mentor-led sessions, practical assignments, and regular feedback, which helped me continuously develop my technical and creative abilities. The guidance and constructive feedback from my mentor encouraged me to improve the quality of my work and approach design tasks more professionally.

Through the structured assignments, I gained hands-on experience with open-source tools such as Inkscape, GIMP, Scribus, Synfig Studio, and Blender, while developing an understanding of practical design and animation workflows. Working on an independent project, contributing to the FOSSEE introductory video, and conducting workshops for college students further strengthened my creativity, communication, teamwork, and leadership skills. I am grateful to my mentor and the FOSSEE team for their constant support, encouragement, and well-planned training. Overall, the fellowship has enhanced my technical knowledge, professional skills, and confidence, providing a strong foundation for my future academic and career goals.

Declaration

I hereby declare that this fellowship report entitled “**Graphic Designing and Animation Fellowship under the FOSSEE–FOCAL Initiative, IIT Bombay**” is a genuine record of the work carried out by me during the fellowship 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: Delhi

Date: 16/07/2026

KHUSHI KASHYAP

Appendix

<If needed add this>

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

Appendix A: Fellowship Offer Letter / Selection Letter

Appendix B: Fellowship 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