

EdSpace Creative Lab

EdSpace Creative Lab (ECL) is a venture of Digital Solutions Committee of the college in the wake of e-resources and technologies to augment teaching-learning. The ECL has recording facility and lecture capturing system with cameras. There are equipments such as LCD high resolution ceiling mount projector, high end noise suppressing microphone, open source softwares for live classroom sharing, 3D animation creators and open source virtual board application etc. The terabyte storage devices for storing virtual class sessions were upgraded to cloud storage facility with the help of Learning management systems.



Figure 1: Live class with streaming

THE COCHIN COLLEGE

Home / PHYUG2019_S1 / Basic Electronics (RI/TELEU1) / Course Materials

MANAGE COURSE VIDEO

Add video URL*
Enter your video URL

Title*
Enter your video title

Keywords*
Enter your video keywords
You can add multiple keywords separated by commas.

Description*
Enter your video description

Reset Submit

Student Information
Online Class **Now**
Attendance
Assignments
Sessional Exam
Internals
Message box
Internal Assessment
Course materials
Upload Coursewares
List Coursewares
Copy Course Materials
Video Repository Contents
List Video
Quiz And Survey

BATCH WISE REPORTS
Attendance Reports
Assignments
Exam
Sessional Result Analysis
University Exam
Timetable

Figure 2: Video content hosting feature in LMS

Python Programming

Python is an interpreted high-level general-purpose multi-paradigm scripting language which can be used for a wide variety of text processing, system administration, machine learning, data science and internet-related tasks.

Advantages:

1. Easy syntax and hence productive
2. High level language
3. Object oriented programming
4. Free and open source
5. Cross platform
6. Abundant library and community support
7. Dynamic typecasting of variables
8. Portability

Disadvantages:

1. Slow speed
2. Not memory efficient

Important Python Libraries

- 01. Pandas
- 02. SciPy
- 03. NumPy
- 04. Matplotlib
- 05. scikit-learn
- 06. Seaborn
- 07. Scrapy

Python Deep Learning Applications

- 01. Instant visual Translation
- 02. Chatbot
- 03. Self-Driving Cars
- 04. Read lip movements
- 05. Deep Dreaming
- 06. Predicting the future
- 07. Medical Care
- 08. Colorizing the Images
- 09. Photo Descriptions
- 10. Advertising

```
self.file = None
self.fingerprints = set()
self.logger = logging.getLogger(__name__)
self.title = os.path.splitext(os.path.basename(request.url))[0]
self.fingerprints.update(self.request.url)

classmethod
def fingerprint(self, request):
    url = settings.PRIVATE_FINGERPRINT_URL
    return url + self.fingerprints

def request_url(self, request):
    if fp in self.fingerprints:
        return fp
    self.fingerprints.add(fp)
    self.file.write(fp + os.linesep)
    return request.url

def request_fingerprint(self, request):
    return request.url
```

Figure 3: Openboard - onscreen whiteboard software

OBS 27.0.1 - modified (linux) - Profile: Demo - Scenes: Demo

Camera: Camera, Image, Mic

Audio Mixer: -3.1 dB

Scene Transitions: Stinger

Controls: Start Streaming, Start Recording, Studio Mode, Settings, Exit

Live: 00:00:00 | Rec: 00:00:00 | CPU: 9.3% | 60.00 fps

Figure 4: OBS Studio - open source software for recording and live streaming

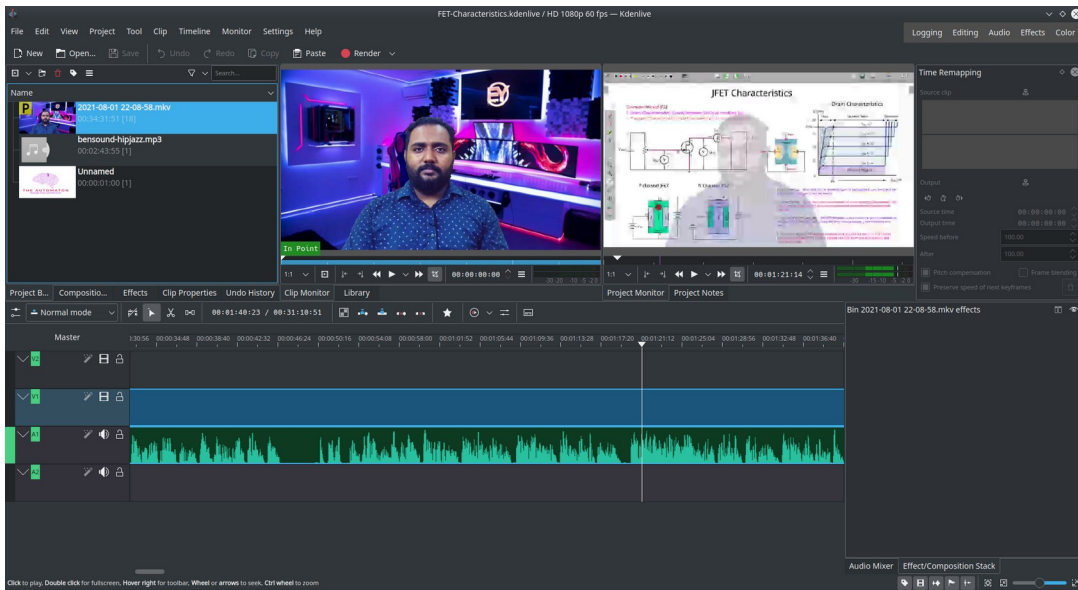


Figure 5: Kdenlive - open source software for video editing

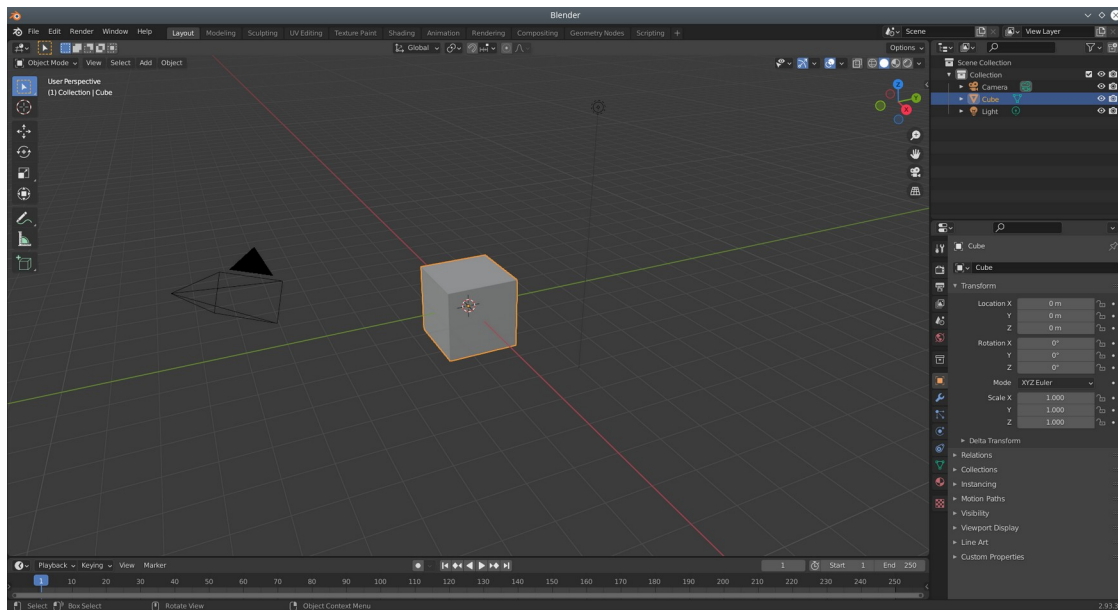


Figure 6: Blender - open source software for creating animations



Figure 7: Recording facility with webcams, tripods, greenscreen backdrop and lighting