

National Institute of Electronics and Information Technology

Ministry of Electronics & Information Technology
Government of India



Gurukul of Technology



An premier institution established in 1978 to provide professional services in the areas of Information, Electronics & Communication Technology (IECT).

Artificial Intelligence is the intelligence exhibited by machines or software. The application areas of artificial intelligence are very vast and so this is a field of study which is gaining importance day

Initiatives in area of Artificial Intelligence

- Joint Certification Programmes with IIT Ropar
- Industrial Training / Summer Training programmes
- Corporate Training
- Faculty Development Programmes
- Programmes for School Students
- Workshops/Webinars

Modules

1. Python Associate
2. Data Analyst
3. Artificial Intelligence & Machine Learning Expert
4. Neural Networks & Deep Learning Professional
5. Project Work

Testimonial @Youtube



NIELIT Ropar



Birla Farms, BadaPhull, Rupnagar (Punjab) Ropar - 140001



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Joint Certification with IIT Ropar

Under this umbrella MoU, NIELIT and IIT offered the following training programmes in Artificial Intelligence under joint certification:

- Industrial Training / Summer Training in Artificial Intelligence and Machine Learning since 2019.
- Corporate Training
- Joint Workshops
- NIELIT staff training by IIT's Indo-Taiwan Joint Research Centre on Artificial Intelligence and Introduction to Deep Learning for 5 days.



Corporate Training Programmes

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Short Term Courses Offered

- Python with Data Science and Machine Learning (40/60/90 hrs)
- Artificial Intelligence and Machine Learning (90/360 hours)
- Courses in Summer Vacations for school children.



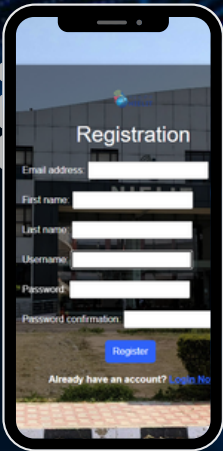
AI training imparted to group of around 100 students of

- Five colleges under Uttarakhand Technical University
- Central University, Motihari, Bihar
- Central University, Mahendergarh, Haryana
- MNIT, Jaipur
- DCRUST State University, Murthal

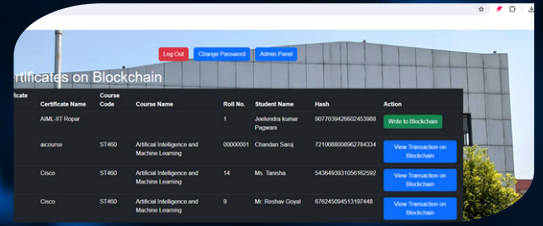


Blockchain based Certificate Management System

Web based framework powered by django, web3

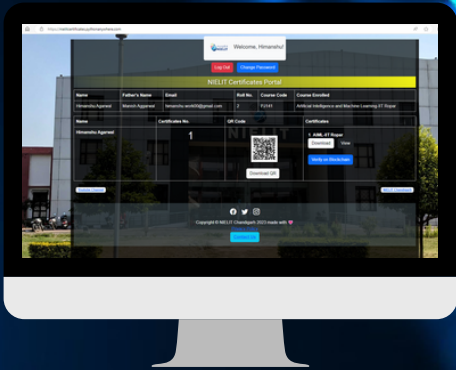


User Login

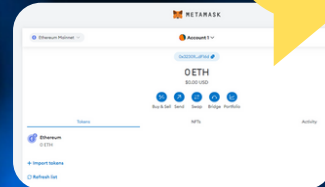
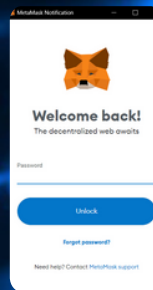


Admin Panel

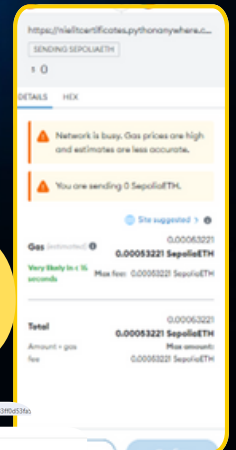
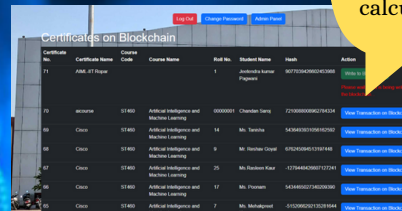
Admin logs in cryptocurrency wallet- **Metamask**



- User can download the certificate
- Verify the data on blockchain



Admin clicks **“Write to Blockchain”** button.
Metamask looks for the available ETH and calculates **Gas** amount

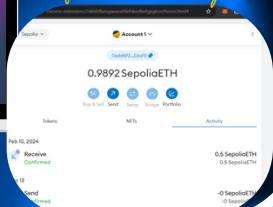
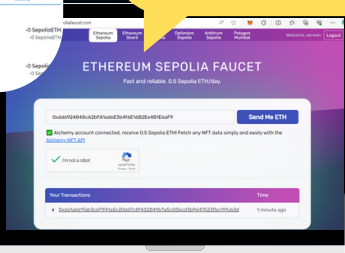


Transaction is saved on blockchain,
control returns with block-ID ,
Transaction-ID

Role of Faucet

Getting Ethers from Ethereum Sepolia Faucet

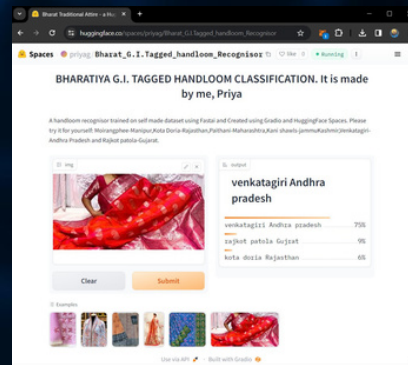
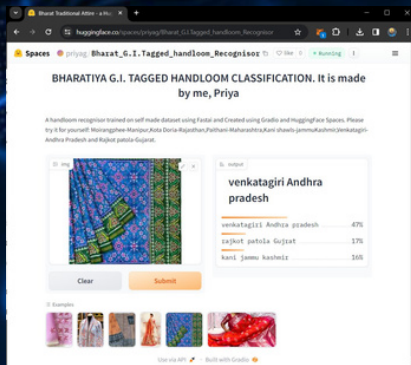
Balance in metamask
after receiving ETH



AI based Handloom Recognisor

Trained for handloom like : Moirangphee-Manipur,Kota Doria-Rajasthan,Paithani-Maharashtra,Kani shawls-jammuKashmir,Venkatagiri-Andhra Pradesh and Rajkot patola-Gujarat.

using Fastai, Gradio and HuggingFace



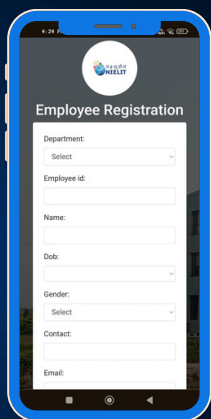
Scan me



AI based ID card generator

AI based Automated ID card generator using OpenCV for image editing , has user ceredential verification and database support for storing attendance data leading to analytics

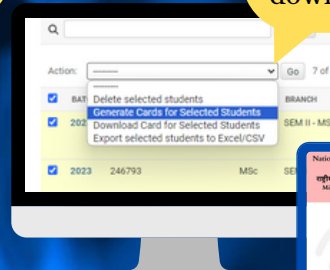
using django, OpenCV and pythonanywhere



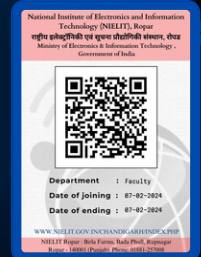
Admin generate ID cards



cards can be downloaded



Scan me

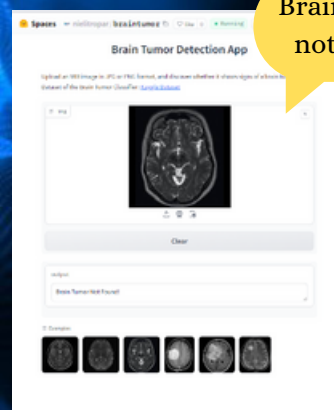
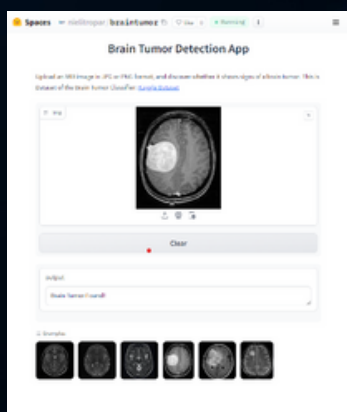


Brain Tumor

ML based Brain Tumor detection system

Based upon MRI image (JPG or PNG format), Predict the signs of a brain tumor.

using Fastai, Gradio and HuggingFace



Brain Tumor not Found

Scan me

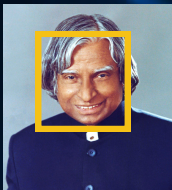


Face Recognition using Deep Learning

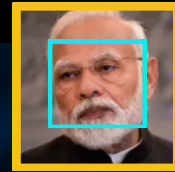
Test Image



Face Detection

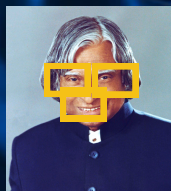


Python provides face_recognition API which is built through dlib's face recognition algorithms. This face_recognition API allows us to implement face detection, real-time face tracking and face recognition applications.



Modi ji

Image Normalization



Feature extraction

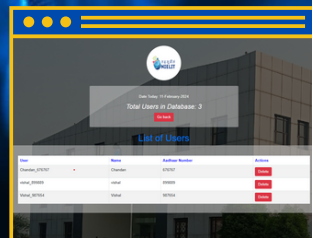
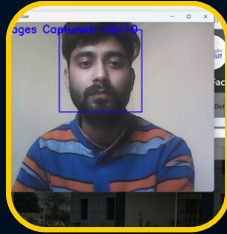
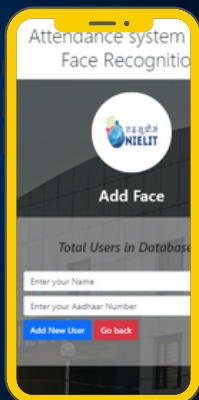


Recognizer Predict

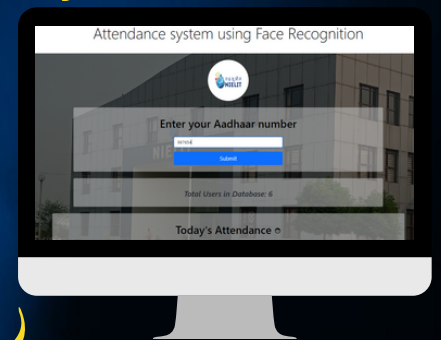
Aadhaar based Attendance System

Add new Face

Data Stored in Database



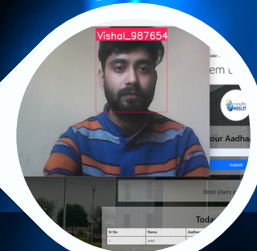
Add Aadhaar No.



Attendance updated on web server

Marking Attendance

Today's Attendance			
Sr No	Name	Aadhaar No.	Time
1	Vishal	987654	2024-02-11 12:45:04
2	ankit	888888	2024-02-11 12:44:10



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