

# Artificial Intelligence for Lunar Exploration

## Program Structure

Only Program and Internship schedule is covered in this brochure. Please visit our website page to get a detailed info about the [program](#).

- *With tremendously amazing performance from our previous batches, we are glad to announce our new batch of Artificial Intelligence for Lunar Exploration for candidates seeking unique problem sets in Space Science to build their skills in the Artificial Intelligence domain.*

# Training Program Structure

## Key Points -

- The Training Program Part is divided into 8 Weeks/Modules
- Each Module consist of Live sessions, practical code implementation sessions and assignments.
- Through each modules, performance of participant will be evaluated that will reflect in final performance reports and eligibility for further paid internship offers.

# Training Program Structure

## Expected Schedule-

- Session 1: Monday (6 pm - 7 pm)
- Session 2: Wednesday (6 pm - 7 pm)
- Session 3: Friday (6pm -7 pm)
- Doubt sessions: Monday-Saturday (7 pm)
- Saturday: Weekly Assignment submission day (No live session with students other than discussion channels)
- Sunday: Expert Session, Quiz or similar activity.

# Training Program Structure

- **Week 1:** Introduction to the project statement. Basic understanding of Lunar Environment, and Introduction to Python Programming Language
- **Week 2:** Introduction to Advanced Python Concepts and related Libraries. Introduction to Machine Learning

# Training Program Structure

- **Week 3:** Building a Neural Network in Python, Image classification with Tensorflow
- **Week 4:** Building a Convolutional NN and image data preprocessing

# Training Program Structure

- **Week 5:** Intro to Transfer Learning, Data Annotation and handling images with OpenCV
- **Week 6:** Understanding the Image Segmentation in depth, Intro to UNet Architecture

# Training Program Structure

- **Week 7:** Introduction to segmentation\_models, Optimization and deploying our application
- **Week 8:** Final Project submission and Internship Preparations (Team formation and Guides Allotments)



# Research Internship Structure

- The internship duration will be of 2-months starting immediately after Training Program.
- Several Research Guides and Instructors will be there for Interns to show them the right path.

# Certifications

- Research Training Completion Certificate
- Performance Report from Instructors
- Research Internship Certificate
- Letter of Recommendation (on good performance)



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*Upscaling the Opportunities*