ARTIFICIAL INTELLIGENCE OLYMPIAD

Live sessions schedule:

Dates: 30/12 13/1 27/1 10/2	
Subject	**Time**
Embedded Systems	**12:00**
Computer Vision	**2:00**

Dates: 6/1 20/1 3/2 17/2	
Subject	**Time**
Coding	**2:00**
Cybersecurity	**4:00**

Dates: 20/1 3/2 17/2	
Subject	**Time**
Math and Algorithms	**3:00**

Training Schedule:

Computer Vision

Video	Date	Title
1	Thursday 21/12	Deep Neural Networks ANN
2	Thursday 28/12	Stochastic Gradient Descent
3	Saturday 30/12	Live Session
4	Thursday 4/1	Overfitting and Underfitting
5	Thursday 11/1	Dropout and Batch Normalization
6	Saturday 13/1	Live Session
7	Thursday 18/1	Binary Classification
8	Thursday 25/1	The Convolutional Classifier
9	Saturday 27/1	Live Session
10	Thursday 1/2	Convolution and ReLU, Maximum Pooling
11	Thursday 8/2	The Sliding Window , Custom Convnets
12	Saturday 10/2	Live Session
13	Thursday 15/2	Data Augmentation , Object Detection YOLO5

Embedded systems

Video	Date	Title
1	Thursday 21/12	Introduction to Embedded System , Introduction to Arduino , Electricity basics
2	Thursday 28/12	Output digital devices and applications, Variables, Functions
3	Saturday 30/12	Live Session
4	Thursday 4/1	Input digital devices and applications , Wired communication (Serial) , If statements
5	Thursday 11/1	Analog signals
6	Saturday 13/1	Live Session
7	Thursday 18/1	For loop , Servo motor
8	Thursday 25/1	Ultrasonic sensor , LDR sensor , Temperature sensor
9	Saturday 27/1	Live Session
10	Thursday 1/2	Gas sensor , IR sensor
11	Thursday 8/2	Internet of things applications
12	Saturday 10/2	Live Session
13	Thursday 15/2	Sensing Circuits , Bluetooth Applications.

Coding

Video	Date	Title
1	Thursday 21/12	Introduction , Output and Input function , Data types
2	Thursday 28/12	String Methods , Arithmetic Operations , Logic operations , If Statements
3	Thursday 4/1	While and for Loops , Generating Random Values
4	Saturday 6/1	Live Session
5	Thursday 11/1	Collection Data Types (Lists ,Tuples , Sets dictionaries)
6	Thursday 18/1	Exercices
7	Saturday 20/1	Live Session
8	Thursday 25/1	Functions (Parameters , Arguments , Return function)
10	Thursday 1/2	Classes , Modules , Packages , Working with Directories , PyPi and Pip
10	Saturday 3/2	Live Session
11	Thursday 8/2	Exercices , Basic principles of Machine Learning
12	Thursday 15/2	Classification , Deep Learning .
13	Saturday 17/2	Live Session

Math and Algorithms

Video	Date	Title
1	Thursday 21/12	Computational Thinking , Pseudocode & Python
2	Thursday 28/12	Pseudocode and Python
3	Thursday 4/1	Arrays
5	Thursday 11/1	Procedural Programming , Python , File Handling
6	Thursday 18/1	ADT / Python , Searching
7	Saturday 20/1	Live Session
8	Thursday 25/1	File handling Operations
10	Thursday 1/2	Graph , Voting System
10	Saturday 3/2	Live Session
11	Thursday 8/2	Registration System , Image Processing
12	Thursday 15/2	Object Detection , Object Identification, Sorting & Recursion
13	Saturday 17/2	Live Session

Cybersecurity

Video	Date	Title
1	Thursday 21/12	Intro to cyber security and the CTF competition
2	Thursday 28/12	Setup Linux environment
3	Thursday 4/1	Introduction to digital forensics
4	Saturday 6/1	Live Session
5	Thursday 11/1	Basic programming using python
6	Thursday 18/1	Introduction to cryptography, number system and different ciphers
7	Saturday 20/1	Live Session
8	Thursday 25/1	How the internet works and network fundamental
9	Thursday 1/2	Introduction to web security
10	Saturday 3/2	Live Session
11	Thursday 8/2	Open-source intelligence (O SINT) and Google dorks: Web
12	Thursday 15/2	Forensics, Cryptography,Reverse Engineering OSINT
13	Saturday 17/2	Live Session