



Rayat Shikshan Sanstha's
Yashwantrao Chavan Institute of Science, Satara
(Autonomous)

**Department of Mathematics Skill Course and Centre of Excellence in
Artificial Intelligence Applications**

Organizes

**7 Weeks Training of Trainer and Hands-on Workshop on
"Artificial Intelligence"**

Under

Rashtriya Uchcharat Shiksha Abhiyan (RUSA)

From 28th March, 2022 to 1st July, 2022

Coordinator: Ms. Gouri More, Mr. S. K. Shinde, (COE-AIA)

Report

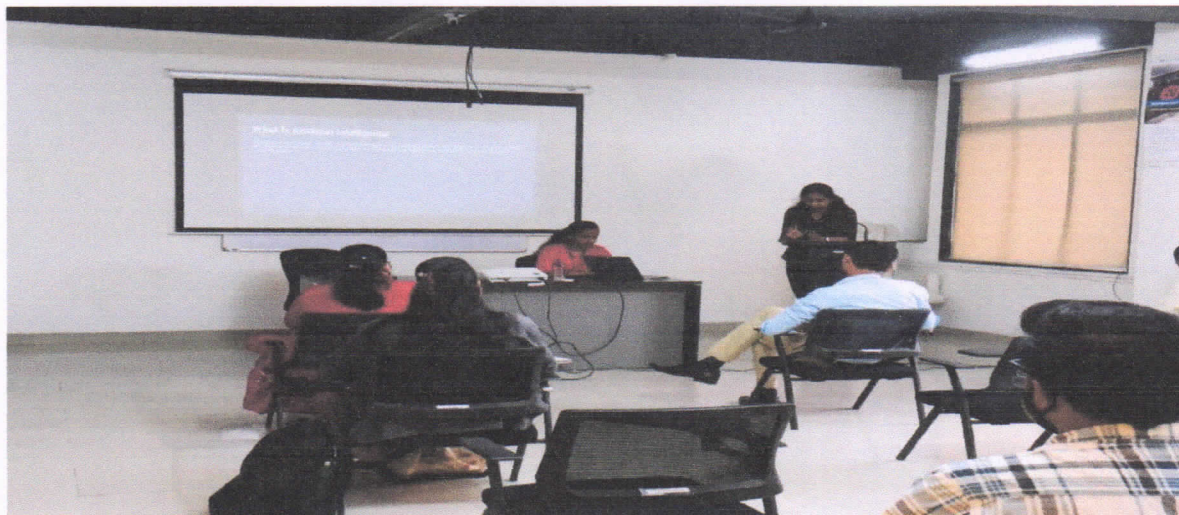
7 Weeks Training of Trainer and Hands-on Workshop on “Artificial Intelligence” was organized by Department of Mathematics Skill Course and Centre of Excellence in Artificial Intelligence Applications from 28 March, 2022 to 1 July, 2022 under the valuable guidance of Hon. Prin. Dr. B. T. Jadhav Sir. Total 26 participants were participated from selected departments. The goal of this workshop was to introduce the basic principles, techniques and applications of Artificial Intelligence. Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation and learning. Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning algorithms.

Before conducting these 7 weeks workshop, two days fundamental workshop on “Artificial Intelligence” was organized by Centre of Excellence in Artificial Intelligence Applications on 10-11 March, 2022. On first day Mr. S. K. Shinde, Coordinator, COE-AIA, gave guidance on “Artificial Intelligence- It’s your time to innovate something new”. He explained how Artificial Intelligence is future technology to the participants. He talked about various applications of artificial intelligence in healthcare, agriculture, education, smart cities and their infrastructure and also in smart mobility and transportation.



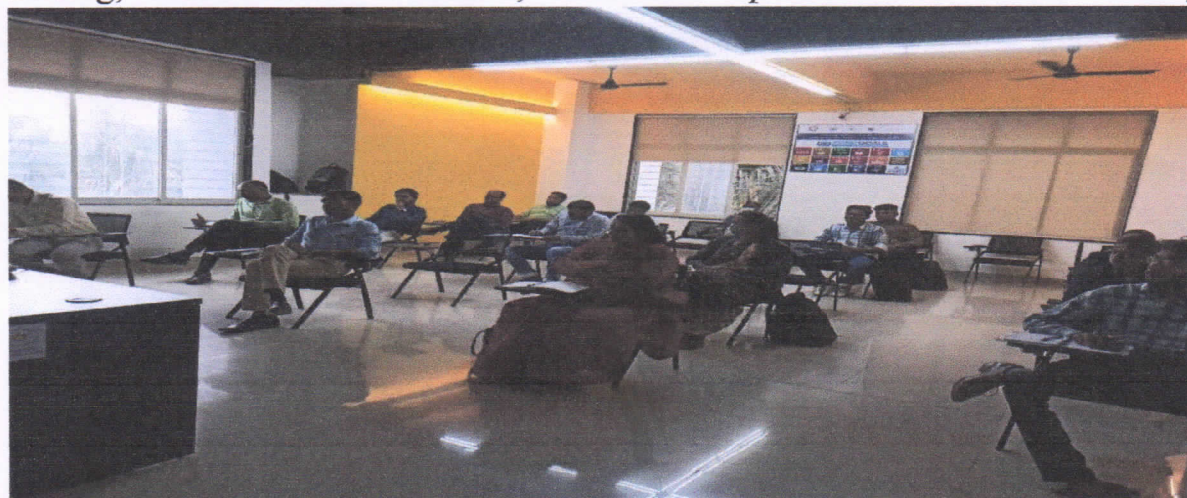
Mr. S. K. Shinde guiding participants on “Artificial Intelligence- It’s your time to innovate something new”

On second day Miss. Ujjawala Phadtare, QHills Technology Pvt. Ltd. delivered a lecture on “Concept and Getting Started with AI”. She talked about what is Artificial Intelligence, why AI is important, fundamental concepts of AI, types of machine learning, uses of machine learning, deep learning, applications and projects related to it.



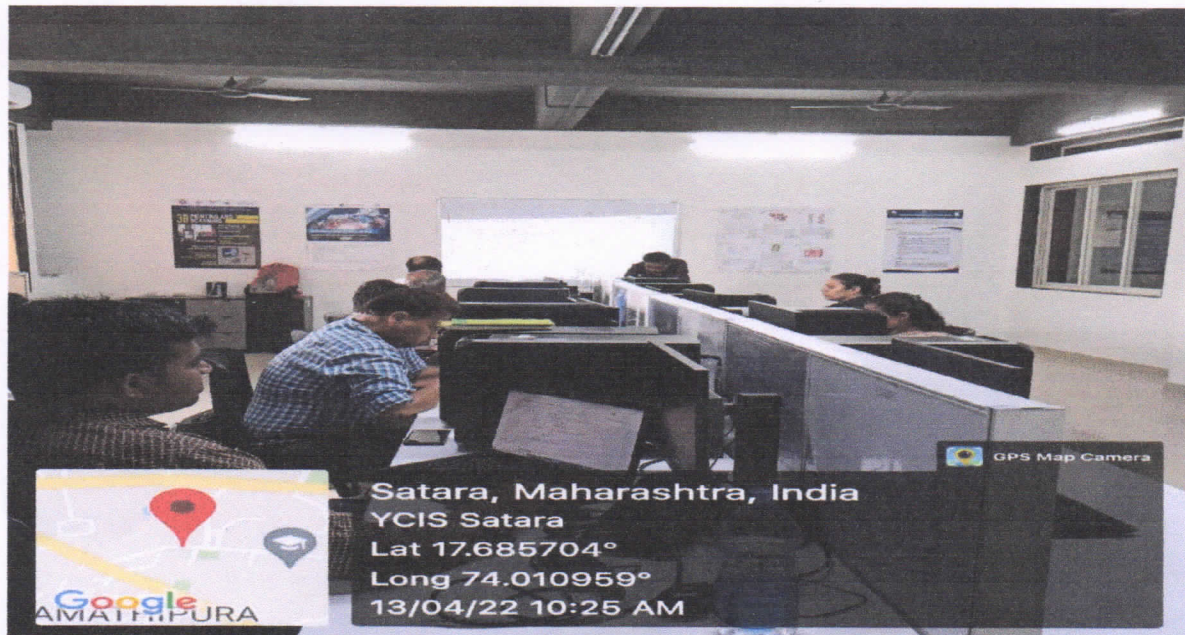
Miss. Ujjawala Phadtare guiding participants on “Concept and Getting Started with AI”

Ms. G. N. More, Assistant Professor, Department of Mathematics, YCIS Satara, took lectures for the first two weeks in this workshop. She delivered a lecture on first two units Python Introduction and Numpy. In first week, she conducts initial lectures on Introduction to python language and downloading and installation process. After that she covered various data types in python. In second week, she introduced Numpy library and also talk about its installation process. After that she gave detail about NdArray, Indexing and Slicing, mathematical functions, arithmetic operators and Matrix library.



Ms. G. N. More guiding participants on “Numpy Library”

In third week, Mr. N. A. Junghare, Assistant Professor, Department of Computer Science (Optional), YCIS, Satara, conducted lectures on pandas library. Firstly, he talks about its installation process. After that he gave detail about data structure, basic functionality, descriptive statistics and pandas indexing. Also, in his lecture he taught about how to open Kaggle account.



Mr. N. A. Junghare guiding participants on “Pandas Library”

In 4th week, Dr. S. S. More, Assistant Professor, Department of Computer Science (Optional), YCIS, Satara conducted lectures on matplotlib library. Firstly, she talks about its installation process. After that she gave detail about pyplot, plotting, markers, line, labels, bars, histogram and pie chart. Also, she gave idea about how to run python program on google colab.

Ms. Marulkar, Assistant Professor, Department of Animation Science, YCIS, Satara conducted lectures in 5th week. She gave detailed idea about loops in python. In her lecture she covered for loop, while loop, nested loop, loop control statements and functions. Also, she talks about built in and user defined functions in python.

6th week was about Machine learning algorithms. In this week Ms. G. N. More, Assistant Professor, Department of Mathematics, YCIS, Satara, conducted lectures on machine learning introduction, types of machine learning and its process and training-testing data. After, that she delivered lectures on Regression algorithm, Classification algorithm, decision tree algorithm and

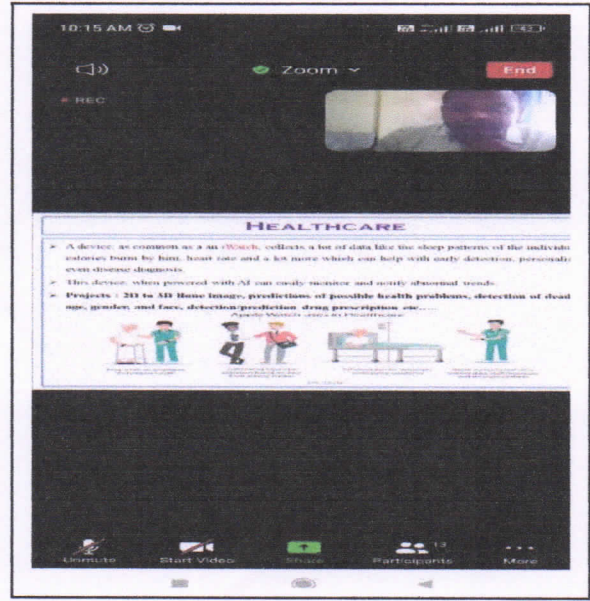
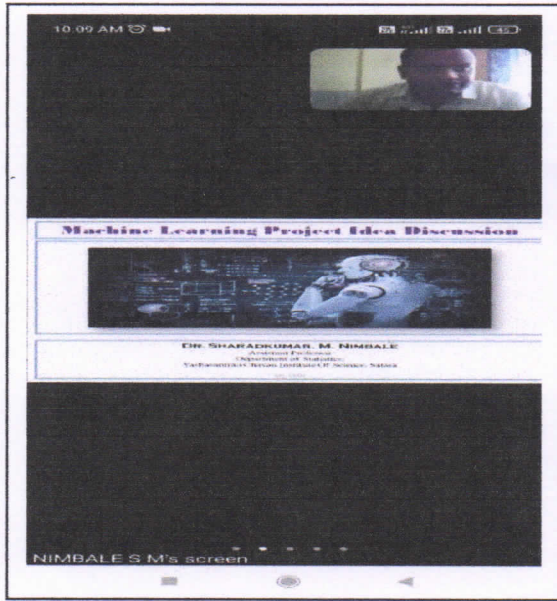
Random Forest algorithm. Ms. S. V. Marulkar, Assistant Professor, Department of Animation Science, YCIS, Satara, conducted lecture on Support Vector Machine algorithm. Dr. S. S. More, Assistant Professor, Department of Computer Science (Optional), YCIS, Satara, conducted lecture on Naïve Bayes algorithm and Mr. N. A. Junghare, Assistant Professor, Department of Computer Science (Optional), YCIS, Satara conducted lecture on KMN algorithm.

In 7th week Mr. P. H. Mahadik, Assistant Professor, Department of Statistics, YCIS Satara, on 30 June, 2022 delivered a lecture on “Machine Learning Project Idea”. He discussed about Churn prediction model, Recommendation system, Sales Forecasting and plant species classification model.



Mr. P. H. Mahadik guiding participants on “Machine Learning Project Idea”

Dr. S. M. Nimbale, Assistant Professor, Department of Statistics, YCIS Satara, on 1 July, 2022 delivered a lecture on “Machine Learning Project Idea”. In his lecture he discussed various real life project ideas of AI in the field healthcare, automobile, finance, surveillance, social media, entertainment, education, space exploration, gaming, robotics, agriculture and E-commerce.



Dr. S. M. Nimbale guiding participants on “Machine Learning Project Idea”.

G. More

Ms. Gouri More
Coordinator, Training of Trainer AI

S. K. Shinde

Mr. S. K. Shinde
Coordinator, COE-AIA