



Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU-56

(An Autonomous Institution, Affiliated to VTU, Approved by AICTE, Accredited by NAAC)



Coordinators

Dr. Bharathi. S
Professor, Dept. of MCA

Mrs. Shobha Rani B. R
Associate Professor, Dept. of MCA

Who can attend?

MCA I Year and II Year Students

Venue:

Seminar Hall A-217

Schedule

May

24-26

2023

Dr. Ambedkar Institute of Technology, Bengaluru-56

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In association with
INDOSKILL



Organising
Value Added Skill Development Course
3-day Hands-on Workshop
on

Real World Machine Learning Applications- Development & Deployment

Chief Convener

Dr. M. Meenakshi
Principal, Dr. AIT

Convener

Dr. M.V. Vijaykumar
Vice Principal, Dr. AIT

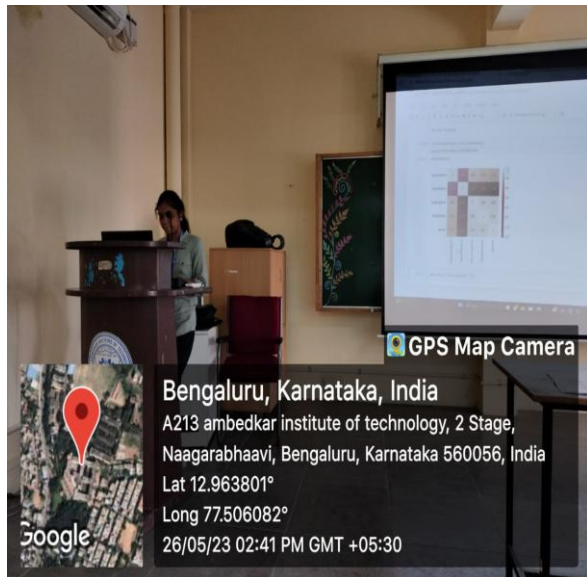
Chief Coordinator

Dr. Chandrakanth G Pujari
HOD-MCA

Workshop Report

Dr. Ambedkar Institute of Technology, Bengaluru, Department of Master of Computer Applications, is organising a Value base Skill Development Course (Three day Hands-on Workshop) on “**Real world Machine Learning Applications-Development & Deployment**” in association with INDOSKILL, Bengaluru on 24-05-2023 to 26-05-2023 at 10.00 a.m.

Resource Person: Dr. Manjunath M, Coordinator & Associate Professor, Dept. of Computer Applications, SRS College, Chitradurga.



Speaker Session 1

Speaker Session 2

More than 100 participants have registered and participated in the workshop. HOD-MCA Dr. Chandrakanth G. Pujari welcomed Chief Convener Dr. Meenakshi M, Principal, Dr. AIT, Resource persons from Aqmenz Automation Pvt. Ltd. and all the participants (Students and Faculties) to the Workshop.





Detailed plan of sessions conducted on all 3 days is as shown below:

<i>Day</i>	<i>Session</i>	<i>Time</i>	<i>Content</i>
Day-1	Theory + Hands on Session	Morning Session	Inaugural Function
			What is Machine Learning & its Applications
			Anaconda & Spider IDE Installation
			Numpy Library: Numpy arrays, Mathematical & statistical functions
			Pandas Library: Series & DataFrames creation
			Data Exploration Methods - indexing, Slicing, Filtering, Merge, Apply and concat functions
			Lunch Break
	Hands-on Session	Afternoon Session	Example Project1: Data Exploration & Analysis on Titanic Dataset
			Matplotlib graphs: Line graph, Scatter plot, bar graph, Histogram & Pie chart
			Graphs in SeaBorn Library - Distplot, Box Plot, Countplot & Heatmap
			Data wrangling in Machine Learning
			Example Project2: Data cleaning of Big Mart & Titanic Dataset

			Assessment - 1
Day-2	Hands-on Session	Morning Session	Data visualisation - Univariate, Bivariate & Multivariate Analysis
			Feature Engineering with Practical Example
			Data Encoding Methods: Labelling, Onehot, Binary with practical projects
			Train Test Split in Machine Learning
			Feature Scaling with Example Projects
			Lunch Break
	Hands-on Session	Afternoon Session	Machine Learning Models - Regression & Classification
			Introduction to Regression Models - Linear Regression, Multilinear Regression, SVR
			Project 1: Salary Prediction based on Experience
			Project 2: Predictive model building for Sales based on Advertising features
			Assessment - 2
Day-3	Hands-on Session	Morning Session	Classification Models - Logistic Regression, Decision Tree Classifier, Random Forest, KNN
			Project 3: Lung Cancer Prediction using Classification Models & Deployment
			Project 4: Classification of Iris species using SVM, KNN & Decision Tree
			Git Hub Installation
			GitHub Setup & Remote Repository Creation
			Pushing the Repositories to GitHub Server
			Lunch Break
	Hands-on Session	Afternoon Session	Streamlit Library installation
			Introduction to Model Deployment & cloud Platforms
			Model Deployment on Production Server using streamlit
			Car Sales Prediction using Linear Regression & Deployment using streamlit
			Assessment 3
			Feedback & Valedictory Function
Day-4	Online Assistance	Morning Session	Project Allocation - each student will be allocated a project
			Project abstract Preparation
			Project Data collection & reading
			Lunch Break
	Online Assistance	Afternoon Session	Source Code Building - Data preparation
			Source Code Building - Model Building
Day-5	Online Assistance	Morning Session	Project code optimization
			Project Deployment - Streamlit or Gradio platform
			Lunch Break
			Project Report Building

	Online Assistance	Afternoon Session	Project Submission
			Valedictory Function

On Day1, Day-2 and Day3, participants were taught on python basics with implementation of project for different scenarios every day. Hands-on sessions were conducted from data preparation to deployment stage in detail.

On Day -4 and Day-5, participants were assigned with projects on different domains, given assistance on how to analyse and apply model to the real-world problems on the concepts learnt. All were informed to submit the projects within 3 days, upon submission these projects were reviewed and graded by awarding certificates to the participants by the Organization.

The session was concluded with question and answers followed by vote of thanks to the speaker, HOD-MCA, faculties, staff and students.

Out of 110 participants registered,

Male-28+28=56

Female-32+25=57

Coordinated by

Mrs. B. R. Shobha Rani, Associate Professor

Dr. Bharathi. S, Professor