

## 19ES1451- AI TOOLS LAB

Course Category:	Engineering Sciences	Credits:	1
Course Type:	Laboratory	Lecture-Tutorial-Practical:	0-0-2
Prerequisites:	Nil	Continuous Evaluation:	25
		Semester End Evaluation:	50
		Total Marks:	75

### Course Outcomes

Upon successful completion of the course, the student will be able to:

<b>CO1</b>	<b>Apply</b> various preprocessing techniques on different datasets.	K3
<b>CO2</b>	<b>Construct</b> Machine learning programs for Supervised, Unsupervised and Semi supervised learning models.	K6
<b>CO3</b>	<b>Develop</b> Deep learning programs for Supervised & Unsupervised learning models.	K6
<b>CO4</b>	<b>Identify</b> and <b>Apply</b> Artificial Intelligence concepts to solve real world problems.	K3

### Contribution of Course Outcomes towards achievement of Program Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
<b>CO1</b>	3	3	2	1	2					1		2	1	2
<b>CO2</b>	3	3	2	1	2					1		2	1	2
<b>CO3</b>	3	3	2	1	2					1		2	1	2
<b>CO4</b>	2	2	3	1	2		1			1		2	1	3
<b>Avg.</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>2</b>		<b>1</b>			<b>1</b>		<b>2</b>	<b>1</b>	<b>2</b>

**1- Low**

**2-Medium**

**3-High**

## Course Content

<b>Experiment No.1</b>	Apply Data pre-processing techniques.	CO1
<b>Experiment No.2</b>	Construct a Machine Learning model using supervised learning method.	CO2
<b>Experiment No.3</b>	Construct a Machine Learning model using Unsupervised learning method.	
<b>Experiment No.4</b>	Construct a Machine Learning model using Semi supervised learning method.	
<b>Experiment No.5</b>	Develop a Deep Learning model using supervised learning method.	CO3
<b>Experiment No.6</b>	Develop a Deep Learning model using Unsupervised learning method.	
<b>Experiment No.7</b>	Apply a Convolutional Neural Network for Image Classification.	
<b>Experiment No.8</b>	Build an AI application.	

## Learning Resources

<b>e-Resources &amp; other digital material</b>	<ol style="list-style-type: none"> <li><a href="https://github.com/atinesh-s/Coursera-Machine-Learning-Stanford">https://github.com/atinesh-s/Coursera-Machine-Learning-Stanford</a></li> <li><a href="https://github.com/Kulbear/deep-learning-coursera">https://github.com/Kulbear/deep-learning-coursera</a></li> </ol>
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