

**TECNIA INSTITUTE OF ADVANCED STUDIES**  
Grade 'A' Institute  
**Department of Information, Communication & Technology**  
**Bachelor of Computer Applications (BCA)**  
**Scheme and Syllabus (w.e.f. AS 2021-22)**

**COURSE CODE: BCAP 314**

**COURSE NAME: DEEP LEARNING WITH PYTHON LAB**

**LEARNING OBJECTIVES:**

In this course, the learners will be able to develop expertise related to the following: -

1. To present the mathematical, statistical and computational challenges of building neural networks
2. To study the concepts of deep learning and important deep learning techniques
3. To introduce important Deep Learning architectures
4. To enable the students to apply deep learning techniques to support real-life applications

**PRE-REQUISITES:**

Basics of Python Programming

**COURSE OUTCOMES (COs):**

After completion of this course, the learners will be able to: -

<b>CO#</b>	<b>Detailed Statement of the CO</b>
<b>CO1</b>	Understand the basic concepts of Deep Learning and differentiate between shallow learning and deep learning.
<b>CO2</b>	Implement various Deep Learning Models.
<b>CO3</b>	Understand different Deep Learning architectures and training algorithms.
<b>CO4</b>	Understanding Dimensionality Reduction and optimization in Deep Learning.
<b>CO5</b>	Understanding and implementing Recurrent Neural Network (RNN).27
<b>CO6</b>	Applying Deep Learning techniques in real life applications such as object detection and analysis.