

**Academic Council Meeting No. and Date : 03 / February 14, 2022**

**Agenda Number : 7**

**Resolution Number : 13 / 5.3**



**VidyaPrasarak Mandal's  
B. N. Bandodkar College of  
Science (Autonomous), Thane**



## **Certificate course in Artificial Neural Network**

**[With effect from Academic Year 2022-2023]**

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Eligibility :

Passed 12<sup>th</sup> standard (HSC) of Maharashtra State Board / CBSE / ICSE board or equivalent.

Mode of Conduct :

Offline lectures / Online lectures

## **Structure of Programme**

<b>CourseCode</b>	<b>Course Title</b>	<b>No. of lectures</b>	<b>Credits</b>
<b>BNBCCAN1T1</b>	Certificate course in Artificial Neural Network	<b>40</b>	<b>2</b>

# Syllabus

Course Code		Course Title	Credits	No. of lectures
BNBCCAN1T1		Certificate course in Artificial Neural Network	2	
Unit I :	<ul style="list-style-type: none"><li>• The Brain Metaphor, Basics of Neuroscience, Artificial Neurons, Neural Network and architectures</li></ul>			10
Unit II :	<ul style="list-style-type: none"><li>• Geometry of Binary Threshold Neurons and their networks,</li><li>• Supervised Learning I: Perceptron and LMS</li><li>• Supervised Learning II: Backpropagation and Beyond</li></ul>			10
Unit III :	<ul style="list-style-type: none"><li>• Neural Networks: A statistical pattern recognition perspective, Statistical Learning Theory, Support Vector machines and Radial Basic Function Networks</li></ul>			10

## Books for Reference

1.	Neural Network, A classroom Approach by Satish Kumar 2 <sup>nd</sup> Edition, McGraw Hill
2.	Artificial Neural Network by Robert Schalkoff McGraw Hill

## Pattern of Evaluation(8 Hours for examination, assessment and evaluation)

MCQ Test/ Online MCQ Test (Duration: 1 Hour)

Assessment and Evaluation of Case Study Reports submitted by participants (Topics for case study to be allotted by teachers in consultation with students)

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