PROJECT DESIGN PHASE II

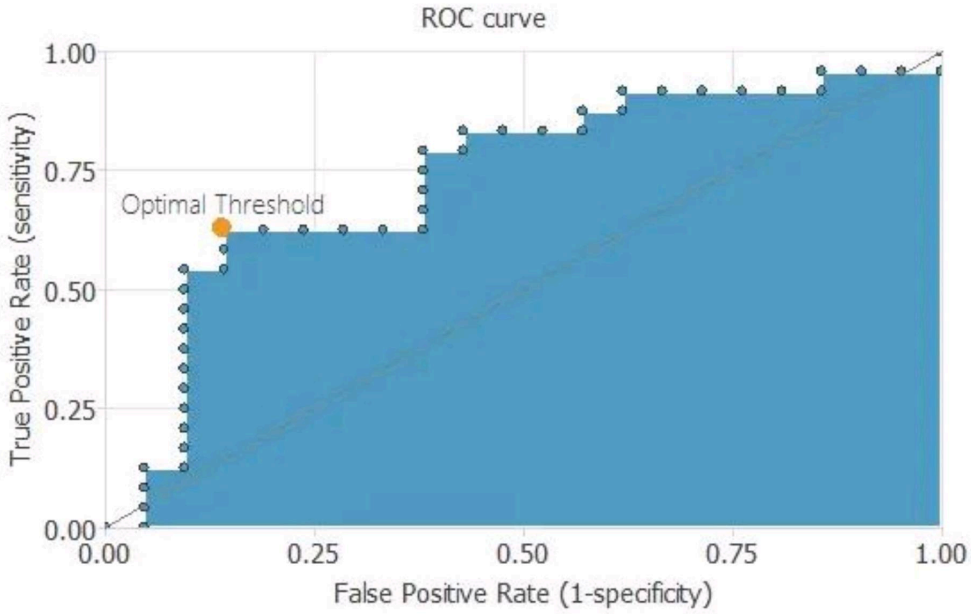
Requirement Analysis Using Critical Thinking:

Team ID	PNT2022TMID41774
Project Name	Emerging Methods For Early Detection of Forest Fires
Maximum Marks	4 Marks

ANALYSIS:

The objective of the analysis is to validate the generalization performance of the trained neural network.

To validate a classification technique, we need to compare the values provided by this technique to the observed values. We can use the ROC curve as it is the standard testing method for binary classification projects.



In the confusion matrix, the rows represent the target classes and the columns the output classes for the testing target data set. The diagonal cells in each table show the number of correctly classified cases, and the off-diagonal cells show the misclassified instances.

The following table shows the confusion elements for this application. The following table contains the elements of the confusion matrix.

MODELING INTERPRETATION:

- This model starts with uncontrolled tree growth. After some time, lightning strikers will start fire.
- The fire will spread, destroying trees in large patches.
- Simultaneously, in the event of a fire, new trees will grow up again.
- If we have a probability of growing p and a fire probability q set at appropriate levels, we can see a growing group of trees, otherwise we just get a random distribution of empty, tree, and burning cells.