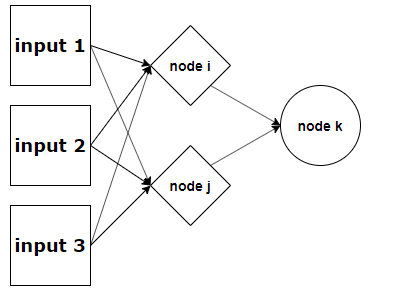
**Compute adaptive weight for ANN**

The given ANN as:



We assume that the actual label *y=1.0,* bias=0.2, learning rate =0.5 and the activation function is *sigmod.*

*Input=[1.0,0.4,0.7]*

Then apply the summation and bias at ***node i*** yields:

Apply same process for ***node j*** produces:

In case of ***node k***:

Then the predict output is:

Calculating the total errors, note that we have only one output thus:

Now we update the weight. Let’s consider :

We have:

Thus:

Apply the same way for :

Then we update the weight in hidden layer. Consider :

We have:

Thus:

Consider :

We have:

Thus:

Consider :

We have:

Thus:

Consider :

We have:

Thus:

Consider :

We have:

Thus:

Consider :

We have:

Thus: