

A Novel Method for Handwritten Digit Recognition System

Applying one hot encoding

APPLYING ONE HOT ENCODING

```
[ ] number_of_classes = 20
```

```
[ ] y_train = np_utils.to_categorical(y_train,number_of_classes)
    y_test = np_utils.to_categorical(y_test,number_of_classes)
```

```
[ ] y_train[0]
```

```
array([0., 0., 0., 0., 0., 1., 0., 0., 0., 0., 0., 0., 0., 0., 0., 0.,
       0., 0., 0.], dtype=float32)
```

```
[ ] y_test
```

```
array([[0., 0., 0., ..., 0., 0., 0.],
       [0., 0., 1., ..., 0., 0., 0.],
       [0., 1., 0., ..., 0., 0., 0.],
       ...,
       [0., 0., 0., ..., 0., 0., 0.],
       [0., 0., 0., ..., 0., 0., 0.],
       [0., 0., 0., ..., 0., 0., 0.]], dtype=float32)
```