**Cases of Islanding**

* **For Images 1-50**

The active power demand of loads for Zone 1 was varied from 50% of the total generation to 100% of total generation by varying the active power at Load L1 with 1% increment in each step. The total iterations steps were 50 producing 50 images; indexed from 1 to 50.

* **For Images 51-100**

The active power demand of loads for Zone 1 was varied from 100% of the total generation to 150% of total generation by varying the active power at Load L1 with 1% increment in each step. The total iterations steps were 50 producing 50 images; indexed from 51to 100.

* **For Images 101-150**

The reactive power demand of loads for Zone 1 was varied from 75% of the total generation to 125% of total generation by varying the reactive power at Load L1 and L3 with 1% increment in each step. The total iterations steps were 50 producing 50 images; indexed from 101 to 150.

* **For Images 151-250**

The active power demand of loads for Zone 2 was varied from 50% of the total generation to 100% of total generation by varying the active power at Load L2 with 1% increment in each step. The total iterations steps were 100 producing 10 images; indexed from 151to 250.

The mean accuracy was =99.9%  
 the final codes are in classifycode.mlx and newtraining.mlx

**Cases of non-islanding**

* **For Images 1-200**

The images were generated by varying the fault resistance of the SLG fault at DL-1 from 0.1 to 100 ohm at the steps of 0.5 resulting in 200 images.

* **For Images 201-400**

The images were generated by varying the fault resistance of the DLG fault at DL-1 from 0.1 to 100 ohm at the steps of 0.5 resulting in 200 images.

* **For Images 998 afterwards**

The images were generated by performing load switching at L2 with variation of load from 5-55 MVA at 0.5 sec.



