

## ANN RESULTS:

Epoch 1/100

**19565/19565** ————— **37s** 2ms/step - loss: 0.0016 - val\_loss: 3.7302e-04

Epoch 2/100

**19565/19565** ————— **37s** 2ms/step - loss: 3.7243e-04 - val\_loss: 3.9001e-04

Epoch 3/100

**19565/19565** ————— **36s** 2ms/step - loss: 3.6752e-04 - val\_loss: 3.7160e-04

Epoch 4/100

**19565/19565** ————— **37s** 2ms/step - loss: 3.6517e-04 - val\_loss: 3.5744e-04

Epoch 5/100

**19565/19565** ————— **37s** 2ms/step - loss: 3.6233e-04 - val\_loss: 3.5906e-04

Epoch 6/100

**19565/19565** ————— **35s** 2ms/step - loss: 3.6236e-04 - val\_loss: 3.5512e-04

Epoch 7/100

**19565/19565** ————— **33s** 2ms/step - loss: 3.6078e-04 - val\_loss: 3.5727e-04

Epoch 8/100

**19565/19565** ————— **38s** 2ms/step - loss: 3.6131e-04 - val\_loss: 3.5994e-04

Epoch 9/100

**19565/19565** ————— **33s** 2ms/step - loss: 3.5980e-04 - val\_loss: 3.6588e-04

Epoch 10/100

**19565/19565** ————— **52s** 2ms/step - loss: 3.5794e-04 - val\_loss: 3.5776e-04

Epoch 11/100

**19565/19565** ————— **26s** 1ms/step - loss: 3.6008e-04 - val\_loss: 3.5470e-04

Epoch 12/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5998e-04 - val\_loss: 3.5313e-04

Epoch 13/100

**19565/19565** ————— **41s** 2ms/step - loss: 3.5739e-04 - val\_loss: 3.5469e-04

Epoch 14/100

**19565/19565** ————— **33s** 2ms/step - loss: 3.5835e-04 - val\_loss: 3.5309e-04

Epoch 15/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5769e-04 - val\_loss: 3.5564e-04

Epoch 16/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5872e-04 - val\_loss: 3.5249e-04

Epoch 17/100

**19565/19565** ————— **19s** 944us/step - loss: 3.5793e-04 - val\_loss: 3.5547e-04

Epoch 18/100

**19565/19565** ————— **19s** 979us/step - loss: 3.5791e-04 - val\_loss: 3.5286e-04

Epoch 19/100

**19565/19565** ————— **27s** 1ms/step - loss: 3.5809e-04 - val\_loss: 3.5597e-04

Epoch 20/100

**19565/19565** ————— **29s** 2ms/step - loss: 3.5824e-04 - val\_loss: 3.5897e-04

Epoch 21/100

**19565/19565** ————— **28s** 1ms/step - loss: 3.5851e-04 - val\_loss: 3.5556e-04

Epoch 22/100

**19565/19565** ————— **29s** 1ms/step - loss: 3.5697e-04 - val\_loss: 3.5309e-04

Epoch 23/100

**19565/19565** ————— **25s** 1ms/step - loss: 3.5678e-04 - val\_loss: 3.5201e-04

Epoch 24/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5581e-04 - val\_loss: 3.5856e-04

Epoch 25/100

**19565/19565** ————— **28s** 1ms/step - loss: 3.5826e-04 - val\_loss: 3.5383e-04

Epoch 26/100

**19565/19565** ————— **27s** 1ms/step - loss: 3.5712e-04 - val\_loss: 3.5437e-04

Epoch 27/100

**19565/19565** ————— **25s** 1ms/step - loss: 3.5650e-04 - val\_loss: 3.5890e-04

Epoch 28/100

**19565/19565** ————— **19s** 963us/step - loss: 3.5741e-04 - val\_loss: 3.6114e-04

Epoch 29/100

**19565/19565** ————— **21s** 1ms/step - loss: 3.5926e-04 - val\_loss: 3.8703e-04

Epoch 30/100

**19565/19565** ————— **26s** 1ms/step - loss: 3.5833e-04 - val\_loss: 3.5298e-04

Epoch 31/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5794e-04 - val\_loss: 3.5330e-04

Epoch 32/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5710e-04 - val\_loss: 3.5527e-04

Epoch 33/100

**19565/19565** ————— **28s** 1ms/step - loss: 3.5660e-04 - val\_loss: 3.5307e-04

Epoch 34/100

**19565/19565** ————— **29s** 1ms/step - loss: 3.5665e-04 - val\_loss: 3.5517e-04

Epoch 35/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5632e-04 - val\_loss: 3.5274e-04

Epoch 36/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5762e-04 - val\_loss: 3.6541e-04

Epoch 37/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5655e-04 - val\_loss: 3.5150e-04

Epoch 38/100

**19565/19565** ————— **28s** 1ms/step - loss: 3.5681e-04 - val\_loss: 3.5244e-04

Epoch 39/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5824e-04 - val\_loss: 3.6034e-04

Epoch 40/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5717e-04 - val\_loss: 3.5753e-04

Epoch 41/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5586e-04 - val\_loss: 3.5619e-04

Epoch 42/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5604e-04 - val\_loss: 3.5427e-04

Epoch 43/100

**19565/19565** ————— **25s** 1ms/step - loss: 3.5850e-04 - val\_loss: 3.5312e-04

Epoch 44/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5886e-04 - val\_loss: 3.6938e-04

Epoch 45/100

**19565/19565** ————— **28s** 1ms/step - loss: 3.5664e-04 - val\_loss: 3.5212e-04

Epoch 46/100

**19565/19565** ————— **41s** 1ms/step - loss: 3.5676e-04 - val\_loss: 3.5328e-04

Epoch 47/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5627e-04 - val\_loss: 3.5300e-04

Epoch 48/100

**19565/19565** ————— **41s** 2ms/step - loss: 3.5654e-04 - val\_loss: 3.5601e-04

Epoch 49/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5687e-04 - val\_loss: 3.5309e-04

Epoch 50/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5785e-04 - val\_loss: 3.5259e-04

Epoch 51/100

**19565/19565** ————— **33s** 2ms/step - loss: 3.5772e-04 - val\_loss: 3.5720e-04

Epoch 52/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5604e-04 - val\_loss: 3.5205e-04

Epoch 53/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5531e-04 - val\_loss: 3.5288e-04

Epoch 54/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5702e-04 - val\_loss: 3.5252e-04

Epoch 55/100

**19565/19565** ————— **33s** 2ms/step - loss: 3.5611e-04 - val\_loss: 3.5307e-04

Epoch 56/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5681e-04 - val\_loss: 3.5913e-04

Epoch 57/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5739e-04 - val\_loss: 3.5969e-04

Epoch 58/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5635e-04 - val\_loss: 3.6851e-04

Epoch 59/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5721e-04 - val\_loss: 3.5200e-04

Epoch 60/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5693e-04 - val\_loss: 3.5216e-04

Epoch 61/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5628e-04 - val\_loss: 3.5274e-04

Epoch 62/100

**19565/19565** ————— **26s** 1ms/step - loss: 3.5419e-04 - val\_loss: 3.5688e-04

Epoch 63/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5785e-04 - val\_loss: 3.5687e-04

Epoch 64/100

**19565/19565** ————— **29s** 1ms/step - loss: 3.5713e-04 - val\_loss: 3.5471e-04

Epoch 65/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5683e-04 - val\_loss: 3.5312e-04

Epoch 66/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5778e-04 - val\_loss: 3.5199e-04

Epoch 67/100

**19565/19565** ————— **25s** 1ms/step - loss: 3.5740e-04 - val\_loss: 3.6117e-04

Epoch 68/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5705e-04 - val\_loss: 3.5243e-04

Epoch 69/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5795e-04 - val\_loss: 3.5911e-04

Epoch 70/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5630e-04 - val\_loss: 3.5480e-04

Epoch 71/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5747e-04 - val\_loss: 3.5232e-04

Epoch 72/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5697e-04 - val\_loss: 3.5254e-04

Epoch 73/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5657e-04 - val\_loss: 3.5405e-04

Epoch 74/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5643e-04 - val\_loss: 3.5172e-04

Epoch 75/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5640e-04 - val\_loss: 3.5290e-04

Epoch 76/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5741e-04 - val\_loss: 3.5439e-04

Epoch 77/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5781e-04 - val\_loss: 3.5262e-04

Epoch 78/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5508e-04 - val\_loss: 3.5455e-04

Epoch 79/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5797e-04 - val\_loss: 3.5551e-04

Epoch 80/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5731e-04 - val\_loss: 3.5393e-04

Epoch 81/100

**19565/19565** ————— **27s** 1ms/step - loss: 3.5747e-04 - val\_loss: 3.5433e-04

Epoch 82/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5684e-04 - val\_loss: 3.5225e-04

Epoch 83/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5603e-04 - val\_loss: 3.5269e-04

Epoch 84/100

**19565/19565** ————— **32s** 2ms/step - loss: 3.5605e-04 - val\_loss: 3.5643e-04

Epoch 85/100

**19565/19565** ————— **30s** 2ms/step - loss: 3.5733e-04 - val\_loss: 3.5550e-04

Epoch 86/100

**19565/19565** ————— **31s** 2ms/step - loss: 3.5748e-04 - val\_loss: 3.5205e-04

Epoch 87/100

**19565/19565** ————— **33s** 2ms/step - loss: 3.5667e-04 - val\_loss: 3.5366e-04

Epoch 88/100

**19565/19565** — **32s** 2ms/step - loss: 3.5765e-04 - val\_loss: 3.5235e-04  
Epoch 89/100

**19565/19565** — **31s** 2ms/step - loss: 3.5699e-04 - val\_loss: 3.5597e-04  
Epoch 90/100

**19565/19565** — **31s** 2ms/step - loss: 3.5796e-04 - val\_loss: 3.5404e-04  
Epoch 91/100

**19565/19565** — **31s** 2ms/step - loss: 3.5798e-04 - val\_loss: 3.5811e-04  
Epoch 92/100

**19565/19565** — **30s** 2ms/step - loss: 3.5786e-04 - val\_loss: 3.6099e-04  
Epoch 93/100

**19565/19565** — **32s** 2ms/step - loss: 3.5624e-04 - val\_loss: 3.5950e-04  
Epoch 94/100

**19565/19565** — **31s** 2ms/step - loss: 3.5723e-04 - val\_loss: 3.5566e-04  
Epoch 95/100

**19565/19565** — **40s** 2ms/step - loss: 3.5643e-04 - val\_loss: 3.5869e-04  
Epoch 96/100

**19565/19565** — **27s** 1ms/step - loss: 3.5717e-04 - val\_loss: 3.5774e-04  
Epoch 97/100

**19565/19565** — **30s** 2ms/step - loss: 3.5576e-04 - val\_loss: 3.5383e-04  
Epoch 98/100

**19565/19565** — **42s** 2ms/step - loss: 3.5779e-04 - val\_loss: 3.5252e-04  
Epoch 99/100

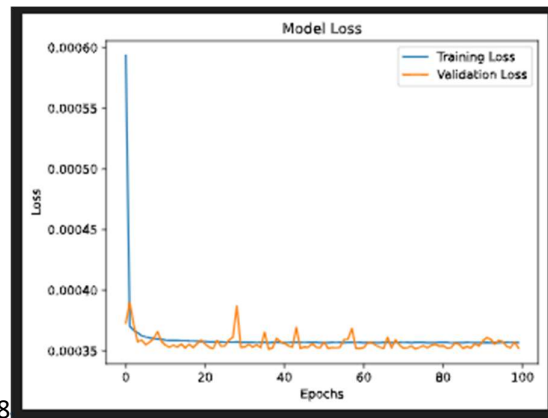
**19565/19565** — **31s** 2ms/step - loss: 3.5820e-04 - val\_loss: 3.5726e-04  
Epoch 100/100

**19565/19565** — **31s** 2ms/step - loss: 3.5783e-04 - val\_loss: 3.5232e-04



10481/10481

9s 845us/step



Mean Squared Error on Test Data: 0.0003513298031713738