Epoch 1/150

97/97 [==============================] - 17s 122ms/step - loss: 0.1825 - val\_loss: 0.0444 - lr: 0.0010

Epoch 2/150

97/97 [==============================] - 11s 116ms/step - loss: 0.0584 - val\_loss: 0.0038 - lr: 0.0010

Epoch 3/150

97/97 [==============================] - 12s 122ms/step - loss: 0.0317 - val\_loss: 0.0018 - lr: 0.0010

Epoch 4/150

97/97 [==============================] - 12s 122ms/step - loss: 0.0188 - val\_loss: 0.0032 - lr: 0.0010

Epoch 5/150

97/97 [==============================] - 12s 124ms/step - loss: 0.0116 - val\_loss: 0.0049 - lr: 0.0010

Epoch 6/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0099 - val\_loss: 0.0054 - lr: 0.0010

Epoch 7/150

97/97 [==============================] - 12s 119ms/step - loss: 0.0066 - val\_loss: 0.0017 - lr: 0.0010

Epoch 8/150

97/97 [==============================] - 12s 119ms/step - loss: 0.0062 - val\_loss: 0.0011 - lr: 0.0010

Epoch 9/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0055 - val\_loss: 0.0013 - lr: 0.0010

Epoch 10/150

97/97 [==============================] - 12s 119ms/step - loss: 0.0049 - val\_loss: 0.0012 - lr: 0.0010

Epoch 11/150

97/97 [==============================] - 12s 119ms/step - loss: 0.0040 - val\_loss: 9.6292e-04 - lr: 0.0010

Epoch 12/150

97/97 [==============================] - 12s 121ms/step - loss: 0.0039 - val\_loss: 8.4806e-04 - lr: 0.0010

Epoch 13/150

97/97 [==============================] - 12s 123ms/step - loss: 0.0035 - val\_loss: 0.0015 - lr: 0.0010

Epoch 14/150

97/97 [==============================] - 12s 123ms/step - loss: 0.0033 - val\_loss: 0.0015 - lr: 0.0010

Epoch 15/150

97/97 [==============================] - 12s 125ms/step - loss: 0.0038 - val\_loss: 4.7180e-04 - lr: 0.0010

Epoch 16/150

97/97 [==============================] - 15s 150ms/step - loss: 0.0036 - val\_loss: 0.0018 - lr: 0.0010

Epoch 17/150

97/97 [==============================] - 13s 130ms/step - loss: 0.0032 - val\_loss: 9.5831e-04 - lr: 0.0010

Epoch 18/150

97/97 [==============================] - 12s 121ms/step - loss: 0.0027 - val\_loss: 2.4789e-04 - lr: 0.0010

Epoch 19/150

97/97 [==============================] - 12s 122ms/step - loss: 0.0029 - val\_loss: 5.4977e-04 - lr: 0.0010

Epoch 20/150

97/97 [==============================] - 12s 119ms/step - loss: 0.0028 - val\_loss: 4.1057e-04 - lr: 0.0010

Epoch 21/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0025 - val\_loss: 2.2731e-04 - lr: 0.0010

Epoch 22/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0023 - val\_loss: 1.8913e-04 - lr: 0.0010

Epoch 23/150

97/97 [==============================] - ETA: 0s - loss: 0.0028

Epoch 23: ReduceLROnPlateau reducing learning rate to 0.0005000000237487257.

97/97 [==============================] - 12s 123ms/step - loss: 0.0028 - val\_loss: 5.0600e-04 - lr: 0.0010

Epoch 24/150

97/97 [==============================] - 12s 123ms/step - loss: 0.0024 - val\_loss: 4.8417e-04 - lr: 5.0000e-04

Epoch 25/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0023 - val\_loss: 9.0702e-04 - lr: 5.0000e-04

Epoch 26/150

97/97 [==============================] - 11s 118ms/step - loss: 0.0026 - val\_loss: 1.3223e-04 - lr: 5.0000e-04

Epoch 27/150

97/97 [==============================] - 12s 124ms/step - loss: 0.0020 - val\_loss: 5.3951e-04 - lr: 5.0000e-04

Epoch 28/150

97/97 [==============================] - 12s 125ms/step - loss: 0.0021 - val\_loss: 3.7091e-04 - lr: 5.0000e-04

Epoch 29/150

97/97 [==============================] - 12s 127ms/step - loss: 0.0022 - val\_loss: 6.0470e-04 - lr: 5.0000e-04

Epoch 30/150

97/97 [==============================] - 12s 125ms/step - loss: 0.0019 - val\_loss: 2.5230e-04 - lr: 5.0000e-04

Epoch 31/150

97/97 [==============================] - ETA: 0s - loss: 0.0017

Epoch 31: ReduceLROnPlateau reducing learning rate to 0.0002500000118743628.

97/97 [==============================] - 12s 123ms/step - loss: 0.0017 - val\_loss: 0.0011 - lr: 5.0000e-04

Epoch 32/150

97/97 [==============================] - 12s 121ms/step - loss: 0.0018 - val\_loss: 2.8298e-04 - lr: 2.5000e-04

Epoch 33/150

97/97 [==============================] - 12s 121ms/step - loss: 0.0015 - val\_loss: 3.7784e-04 - lr: 2.5000e-04

Epoch 34/150

97/97 [==============================] - 12s 122ms/step - loss: 0.0014 - val\_loss: 1.2437e-04 - lr: 2.5000e-04

Epoch 35/150

97/97 [==============================] - 11s 118ms/step - loss: 0.0016 - val\_loss: 1.8912e-04 - lr: 2.5000e-04

Epoch 36/150

97/97 [==============================] - ETA: 0s - loss: 0.0016

Epoch 36: ReduceLROnPlateau reducing learning rate to 0.0001250000059371814.

97/97 [==============================] - 12s 122ms/step - loss: 0.0016 - val\_loss: 1.6880e-04 - lr: 2.5000e-04

Epoch 37/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0015 - val\_loss: 2.0499e-04 - lr: 1.2500e-04

Epoch 38/150

97/97 [==============================] - 12s 119ms/step - loss: 0.0016 - val\_loss: 2.3600e-04 - lr: 1.2500e-04

Epoch 39/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0015 - val\_loss: 9.9893e-05 - lr: 1.2500e-04

Epoch 40/150

97/97 [==============================] - 12s 122ms/step - loss: 0.0015 - val\_loss: 1.0109e-04 - lr: 1.2500e-04

Epoch 41/150

97/97 [==============================] - ETA: 0s - loss: 0.0015

Epoch 41: ReduceLROnPlateau reducing learning rate to 6.25000029685907e-05.

97/97 [==============================] - 12s 119ms/step - loss: 0.0015 - val\_loss: 9.0853e-05 - lr: 1.2500e-04

Epoch 42/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0015 - val\_loss: 1.3879e-04 - lr: 6.2500e-05

Epoch 43/150

97/97 [==============================] - 12s 119ms/step - loss: 0.0015 - val\_loss: 1.8316e-04 - lr: 6.2500e-05

Epoch 44/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0014 - val\_loss: 1.6744e-04 - lr: 6.2500e-05

Epoch 45/150

97/97 [==============================] - 12s 119ms/step - loss: 0.0015 - val\_loss: 1.6543e-04 - lr: 6.2500e-05

Epoch 46/150

97/97 [==============================] - ETA: 0s - loss: 0.0014

Epoch 46: ReduceLROnPlateau reducing learning rate to 3.125000148429535e-05.

97/97 [==============================] - 12s 119ms/step - loss: 0.0014 - val\_loss: 1.9533e-04 - lr: 6.2500e-05

Epoch 47/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0015 - val\_loss: 1.7306e-04 - lr: 3.1250e-05

Epoch 48/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0014 - val\_loss: 1.3300e-04 - lr: 3.1250e-05

Epoch 49/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0014 - val\_loss: 1.3025e-04 - lr: 3.1250e-05

Epoch 50/150

97/97 [==============================] - 12s 120ms/step - loss: 0.0013 - val\_loss: 1.2862e-04 - lr: 3.1250e-05

Epoch 51/150

97/97 [==============================] - ETA: 0s - loss: 0.0016

Epoch 51: ReduceLROnPlateau reducing learning rate to 1.5625000742147677e-05.

97/97 [==============================] - 12s 120ms/step - loss: 0.0016 - val\_loss: 1.1184e-04 - lr: 3.1250e-05

48/48 [==============================] - 2s 16ms/step

Root Mean Squared Error (RMSE): 0.01

