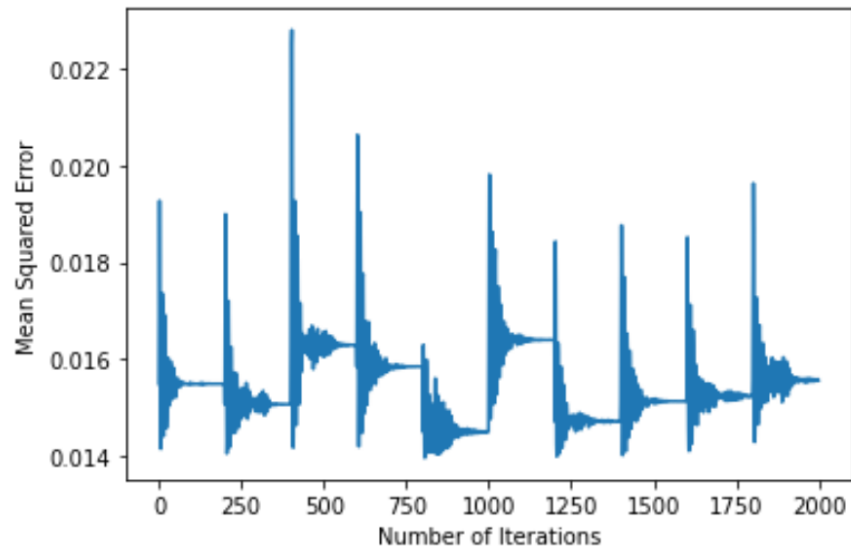


TanH Function Approximation with Sigmoid Activation

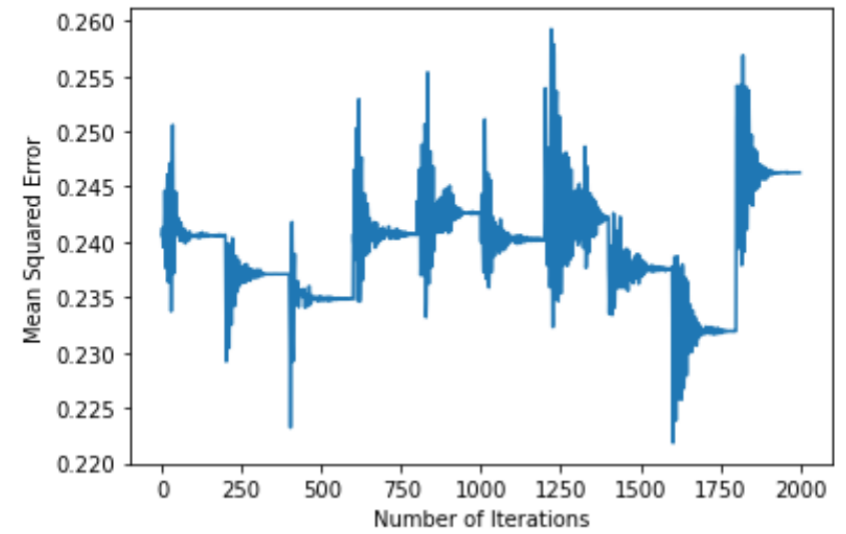
10 Independent Experiments



Over 10 experiments (each with 200 iterations)

TanH Function Approximation with TanH Activation

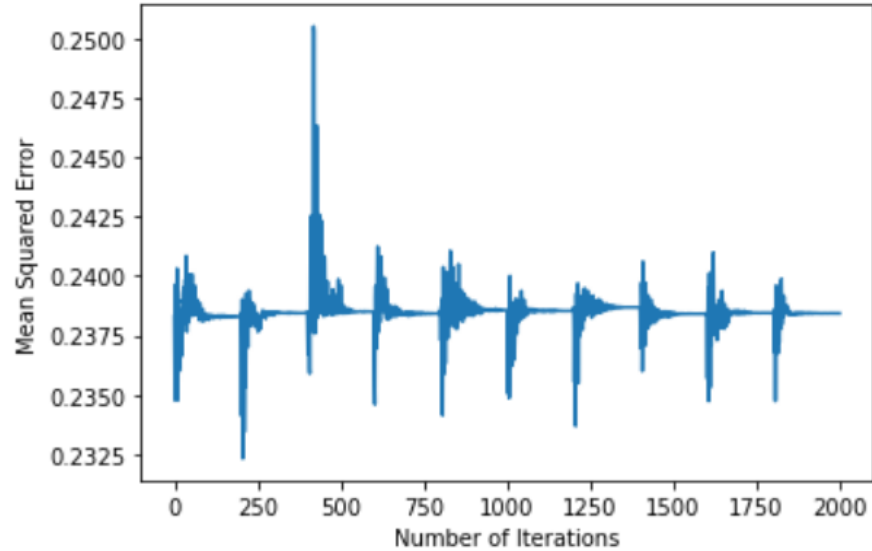
10 Independent Experiments



Over 10 experiments (each with 200 iterations)

TanH Function Approximation with Linear Activation

10 Independent Experiments



Over 10 experiments (each with 200 iterations)

TanH function approximation:

PSO parameters	Sigmoid activation function	Hyperbolic Tangent activation function	Linear activation function
Swarm size	100	100	100
Informants	6	20	16
Epsilon	0.2	0.2	0.2
Alpha range	0.9	0.9 to 0.91	0.9
Position range	-0.01 to 0.09	-0.01 to 0.09	-0.01 to 0.01
Velocity range	0.05 to 0.25	0.05 to 0.25	0.15 to 0.25
Cognitive component	1.2	1.2	1.5
Social component	3.7	3.9	4
Hidden Layer nodes	5	5	5
Least MSE (approx)	0.015	0.24	0.238

Figure 4