

PSO for parameter identification

Liu et al. (2011) consider parameter identification as an optimization problem.

Questions

1. Explain how PSO can be used for parameter identification. What other methods do you know for parameter identification? When can these be used? Describe at least two methods beside PSO.
2. Explain and implement the PSO proposed by Liu et al. (2011) on an artificial example. How do the results compare to those obtained by an other parameter identification algorithm?

References

Liu, W., Liu, L., Chung, I.-Y., and Cartes, D. A. (2011). Real-time particle swarm optimization based parameter identification applied to permanent magnet synchronous machine. *Applied Soft Computing*, 11:2556–2564.