Developing a New Learning Paradigm for Systems & Control

Theory

New Learning Paradigm

Iterative Learning

Repetitive Learning

System Learning

Machine Learning

Bio-Learning

Reinforcement Learning

Incremental Learning

Statistical Learning
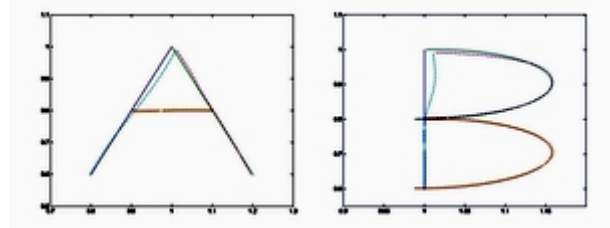
Imitation Learning
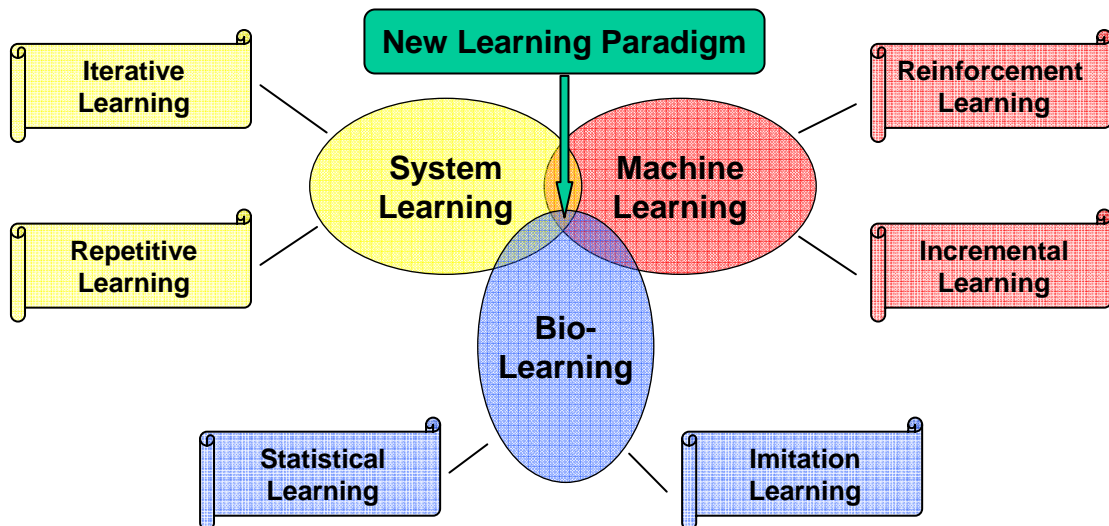
Applications

Motion Systems Control
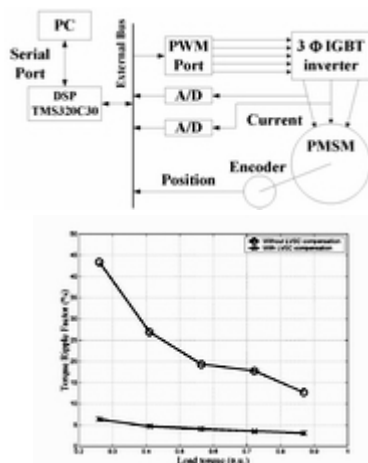
Biomechanical Movement

Humanoid behavioral analyzer
By multiple internal models

Selected Publications

1. J.-X. Xu and Y. Tan, "Linear and Nonlinear Iterative Learning Control", Lecture Notes in Control and Information Sciences (291), Springer Verlag, 2003, Germany, ISBN 3-540-40173-3.
2. W.Z. Qian, S.K. Panda and J.-X. Xu, "Torque ripples minimization in PM synchronous motors using iterative learning control", IEEE Transactions on Power Electronics, Vol.19, no.2, pp.272-279, 2004.
3. J.-X. Xu, Y.Q. Chen, T.H. Lee and S Yamamoto, "Terminal iterative learning control with an application to RTPCVD", Automatica, Vol.35, no.9, pp.1535-1542, 1999.
4. J.-X. Xu and W. Wang, "A Multiple Internal Model Approach to Movement Planning", IEEE 2004 International Symposium on Intelligent Control.

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