

## **F.L. Lewis PATENTS AWARDED**

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### **PATENTS AWARDED**

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2. S. Jagannathan and F.L. Lewis, "Discrete-time tuning of neural network controllers for nonlinear dynamical systems," U.S. Patent 6,064,997, awarded 16 May 2000.
3. F.L. Lewis, D.A. Tacconi, Ayla Gurel, and O.C. Pastravanu, "Method and Apparatus for Testing and Controlling a Flexible Manufacturing System," U.S. Patent 6,185,469, awarded 6 Feb. 2001.
4. R. Selmic, F.L. Lewis, A.J. Calise, and M.B. McFarland, "Backlash Compensation Using Neural Network," U.S. Patent 6,611,823, awarded 26 Aug. 2003.
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### **PATENTS APPLIED FOR AND DISCLOSURES**

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2. F.L. Lewis, C.T. Abdallah, and D.M. Dawson, "Hardware analog control chip for robot arm," Disclosure of Invention, Ga. Tech., Atlanta, Nov. 1988.
3. K. Liu and F.L. Lewis, "Stewart platform manipulator control system," Disclosure of Invention, The Univ. Texas at Arlington, Dec. 1991.
4. J. Lin and F.L. Lewis, "Two-time scale Kalman filter for flexible system estimation," Disclosure of Invention, The Univ. Texas at Arlington, Dec. 1994.
5. B. Borovic, F.L. Lewis, A.Q. Liu, and D. Popa, "Systems and Methods for Improved Control of Micro-Electrical-Mechanical System (MEMS) Electrostatic Actuator," UTSL 062US, The Univ. Texas at Arlington, April 2006.