About CyboSoft

The provider of Model-Free Adaptive (MFA) Control and Physical AI Technology

CyboSoft, General Cybernation Group, Inc., is a pioneer of AI and the developer of Model-Free Adaptive (MFA) control technology, serving the worldwide process control, building control, and equipment control markets. CyboSoft's patented MFA control technology represents a major breakthrough in automatic control. No other comparable technology possesses all the attributes of MFA.

Developed by applying neural networks to automatic control in 1997, MFA is a smart, general-purpose AI control technology that does not require mathematical process models. It was developed with a focus on certainty, repeatability, and stability in mission-critical systems, long before today's Large Language Models (LLMs) and generative AI emerged.

MFA is the only commercially successful smart controller that does not require mathematical process models. Its adaptive and robust control capabilities make it particularly suitable for complex industrial processes involving nonlinearities, large time delays, changing operating conditions, and multivariable interactions. MFA controllers require no process identification, controller design, or manual tuning. In many applications, they can directly replace conventional PID controllers and deliver significant improvements in control performance and economic benefits.

Based on its core MFA technology, CyboSoft has developed a family of general-purpose and application-specific MFA controllers for challenging control problems. These controllers can be integrated into industrial control systems, building automation systems, equipment, instruments, and embedded devices. MFA technology has been commercially deployed across numerous industries, with long-term customers including NASA, Siemens, and many other industry leaders. CyboSoft received the prestigious 2007 Frost & Sullivan "North America Technology Leadership Award" in Industrial Automation.

MFA Control for AI Data Center Cooling Systems

As AI data centers expand rapidly, their liquid cooling systems face significant control challenges caused by rapidly changing GPU workloads, nonlinear process behavior, and interactions among temperature, pressure, and flow control loops. CyboSoft is now offering an MFA control solution for Coolant Distribution Units (CDUs) and larger liquid cooling systems. MFA technology is particularly well suited for these “grey-box” control problems, where process uncertainties and frequent load changes make conventional control difficult. The MFA control solution can improve cooling stability, control performance, energy efficiency, and system reliability under large and unpredictable AI load changes.

CyboNoid — A Real-Time AI Deployment Platform for Physical AI

To advance Physical AI, CyboSoft will release CyboNoid, a patent-pending real-time AI deployment platform that bridges the gap between AI engines operating in the digital world and systems operating in the physical world. This common infrastructure for AI deployment enables scientists, engineers, and AI developers to easily and quickly simulate, test, and deploy their AI engines in the physical world.

Together, MFA control technology and the CyboNoid AI platform can help accelerate the adoption of intelligent automation, autonomous equipment, Physical AI, and lights-out factories in the AI Era.

Products, Solutions, and Business Partnerships

CyboSoft offers MFA control software, embedded MFA controllers, AI-based soft sensors, and application-specific control solutions. Its products include CyboCon MFA Control Software, MFA Control Toolset for LabVIEW, MFA Control ToolBox for MATLAB, embedded MFA control software for various platforms, CyboEye Soft-Sensor software, and the emerging CyboNoid AI deployment platform.

Beyond its core technologies and products, CyboSoft works with equipment manufacturers, automation suppliers, system integrators, and technology partners to develop and deploy application-specific MFA control solutions. Its compact, high-speed MFA controllers are particularly suitable for embedded applications where performance, reliability, and ease of implementation are critical.

CyboSoft's mission is to provide advanced MFA control and AI technologies and products that enable customers and partners to improve the performance, efficiency, and reliability of their physical systems. By combining its proven MFA control technology with emerging Physical AI capabilities, CyboSoft is expanding its contributions to industrial automation, AI infrastructure, and autonomous systems in the AI Era.

Headquartered in Rancho Cordova, California, CyboSoft was founded in 1994 as a California corporation. With more than three decades of innovation and industry experience, CyboSoft continues to develop and commercialize advanced control and AI technologies that benefit industry and society. (www.cybosoft.com)

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The trusted brand in the AI era