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Applied AI News

General Electric's Research and Development Center (Schenectady, NY) has developed an expert system which is being used to increase the speed of design of new jet engines, electric motors, and other complex machines. The system, called Engineous, has been used to improve gas turbine designs, resulting in increased fuel efficiency for jet aircraft engines manufactured by GE.

The Expert Sniffer, developed by **Network General** (Menlo Park, CA), is an expert system-based technology that automatically identifies network problems and recommends solutions to network managers. Software based on this technology will be a standard part of the Sniffer Network Analyzer, targeted initially for Ethernet and Token Ring environments.

NASA has developed the Automated Robotic Truss Assembly Program (ARTAP), a knowledge-based expert system for earth-based research on the robotic assembly of large truss structures in space. The generic truss assembly task allows NASA to develop automation concepts and techniques which will be required for a flight-qualified system to perform these activities.

Sound Linked Data (Mississauga, ON, Canada) has upgraded its MAX series of hearing testing systems using AI software to produce an intelligent computerized audiometric technician. Drawing on AI and neural network techniques, MAX collects patient information, performs a complete set of tests, analyzes test results, provides a diagnosis, and prints out an analysis for the patient.

Cementos Diamante (Bogota, Colombia), a cement manufacturer, has installed an expert system to help maintain optimum industrial operations through its on-line process control. The system, Expert Control, is helping to improve product quality while reducing environmental problems.

Elscint (Hackensack, NJ), a manufacturer of medical imaging systems, has begun offering its customers a service option based on expert systems. The MasterMind system delivers troubleshooting expertise to the point of service on laptop or desktop computers.

Volkswagen Canada (Barrie, ON, Canada) has installed a wheel-sorting system that uses machine vision to automatically identify wheels after casting and route them to the appropriate conveyor for further processing. The system is able to recognize patterns on objects even when the objects have become rotated.

Microsoft (Redmond, WA) has joined the Common Sense Knowledge Base (Cyc) project spearheaded by MCC (Austin, TX). The goal of the Cyc project is to enhance decision support systems. At a process level, the Cyc project has developed methods and tools for entering, browsing and editing huge knowledge bases, and assuring that information remains accurate and consistent.

MCC has also formed a project to develop a common runtime architecture for fuzzy technology (CRAFT). The objective of this project will be to define a standard execution environment for fuzzy systems. CRAFT will allow the execution of different applications and tools on different hardware systems, thereby opening up the market via the emergence of standard, portable applications. The goal is to allow for more rapid implementation of fuzzy technology in the US.

Symbolics' Consulting Group (Burlington, MA) has been awarded a contract by Delta Air Lines (Atlanta, GA) to develop a decision support system for fuel management. The main objective of the system is to help reduce operating costs by increasing the frequency and quality of information available for tracking and managing fuel resources.

Johnson Controls (Milwaukee, WI) has begun deployment of a knowledge-based engineering application to increase the productivity of the engineering design function. Using Symbolics workstations, engineers will be able to reduce the amount of time needed to respond to customer requests.

Air Products and Chemicals (Allentown, PA) has developed a real-time process control expert system. The expert system is implemented on three 1,000-ton-a-day oxygen plants, supervised by a single operator. It allows the optimal control system to be programmed more quickly than with manual systems.

VPL Research (Redwood City, CA), a developer of virtual reality products, has spun off a start-up company called Medical Media Systems (MMS). MMS will apply advances in scientific visualization, computer hardware and software to medicine. Virtual reality will be used to place a surgeon inside a smart surgical environment.

Stock forecasts and analyses from the Macro*World expert financial analysis system are available to users of **Telescan**'s (Houston, TX) on-line investment service. Macro*World, developed by **Black River Systems** (Winston-Salem, NC), mathematically analyzes a large database of economic and financial information on major countries daily, and determines forecasts for stocks, commodities, interest rates, and exchange rates.

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