Applied AI News

David Blanchard

The Emission Reduction Research Center (ERRC) at the New Jersey Institute of Technology (Newark, N.J.) has developed the Batch Design Kit, an expert system for optimizing batch processes and minimizing pollution. The system will help eliminate avoidable pollution and save pharmaceutical and chemical manufacturers millions of dollars. The Batch Design Kit will be commercially available in the summer of 1995.

Photosound (Saffron-Walden, England) is using virtual reality to simulate and visualize the effects of different pharmaceutical drugs on the human body. The results are being used as the focal point of exhibition stands designed by Photosound for such pharmaceutical firms as Smith-Kline Beecham.

Westinghouse Electric (Pittsburgh, Penn.) and Carnegie Group (Pittsburgh, Penn.) are working with the Pittsburgh Cancer Institute on a knowledge-based intelligent system for the management of national clinical trials. The system will be designed to include an automatic error-checking system that will be readily understandable, and it will eliminate reporting delays.

Neural Computer Sciences (Southampton, England) is developing a neural network system that will be capable of being embedded inside a smart card integrated circuit, to provide support for security checks using such techniques as biometric validation. Neural Computer Sciences is a partner in the European CASCADE (chip architecture for smart cards and portable intelligent devices) project, which has been established to develop the next generation of smart cards.

Avatar Partners (Boulder Creek, Cal.) and General Reality (San Jose, Cal.) have codeveloped the DIVE (dis-

mounted infantry virtual environment) belt wireless virtual reality interface. The DIVE belt provides the ability to operate inside a virtual environment without becoming tangled in wires or cords. Funded by the U.S. Army, the DIVE project is designed to allow soldiers to operate within a virtual battlefield.

The Fire Service College (Moreton in the Marsh, England), the U.K.'s national officer training college for the fire service, is using a virtual reality system as part of the training programs for officers and for industrial and commercial courses run by the college. VR is being used to demonstrate fire engineering principles such as means of escape theory, fire modeling, human behavior, and spatial awareness of a complex building.

Interactive Products (Eugene, Ore.)

David Blanchard is the author of *Intelligent Systems: Applications & Analysis*, a comprehensive resource guide, market analysis and directory of the entire advanced computing arena. The book examines in detail all the key AI technologies: expert systems, neural networks, fuzzy logic, virtual reality, speech recognition, artificial life, and more. Price: $395. *Contact* Lionheart Publishing Inc., 2555 Cumberland Parkway, Suite 299, Atlanta, GA 30339, (404) 431-0867 ext. 202, Fax: (404) 432-6969.

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and Hall Technologies (Milpitas, Cal.) have teamed up to create a command-and-control speech recognition system-on-a-chip for mass applications, such as home appliances and consumer electronics. The heart of the system, known as ChipTalk, is based on the work of a group of Russian software experts.

Chevron Canada Resources, a division of petroleum company Chevron USA (Concord, Cal.), is using a rule-based client/server development sys-

tem from Neuron Data (Palo Alto, Cal.) as the foundation for its corporate downsizing strategy. Chevron Canada is decentralizing its computer environment from mainframes to PCs and Sun workstations. With the rule-based system, more than 100 Chevron oil exploration crews will be able to retrieve various types of well and seismic data.

ADVANTA Mortgage (San Diego, Cal.) has signed a license agreement with HNC Software (San Diego, Cal.) to use HNC's Colleague, an underwriting system that incorporates neural network risk prediction, rules and rule bases, expert emulation models, and statistical scoring. ADVANTA Mortgage will use Colleague to reduce the time it takes for prospective borrowers to obtain loan approval.

The Santa Fe Institute (Santa Fe, N.M.) has won an ARPA grant of $323,000 for research on complex adaptive systems. The grant will help accelerate research into new "messy" systems that cannot be well understood by traditional scientific approaches, such as immune and neurological systems, individual and group behavior in economic markets, biological and social ecologies, natural hazard prediction, and trading systems.

Thinking Machines (Cambridge, Mass.) has established a Business Systems Group to develop and support a new line of Intelligent Business Systems. The Darwin product line incorporates adaptive database search and analysis algorithms based on neural network and genetic algorithm technologies.

Amerinex AI (Amherst, Mass.) and Hughes Research Laboratories (Malibu, Cal.) have received an award of $18.4 million from the Clinton Administration's Fiscal 1993 Technology Reinvestment Project. The two companies will commercialize computer vision technology developed for NASA.