

government leaders were quick to offer their congratulations to Mrs. Sauvé.

Conservative Leader Brian Mulroney said that Mrs. Sauvé is a woman of "great talent, accomplishment and warmth. I am pleased that she will continue to serve Canada and Canadians in such high office".

New Democratic Party Leader Edward Broadbent said that all of those who have been active in the struggle for women's rights will be pleased. The sentiment was echoed by women's groups across the country.

The appointment is for five years. Mrs. Sauvé said she hopes to find some special activity during her time at Rideau Hall, the official residence.



Jeanne Sauvé enters the House of Commons.

Canapress

Fibre optics make speedy link in information network

A high-speed communications network that uses fibre optics to link computers and terminals has been developed by the University of Toronto and Canada Wire and Cable Ltd. of Toronto, according to the *Globe and Mail*.

The market for network systems in the next decade is expected to be worth about \$15 billion (US), according to one of the developers of the network system, called Hubnet. A medium-sized system would cost more than \$15 000 when full-scale marketing commences in 1985.

Canstar Communications, a division of Canada Wire, is about to begin looking for orders, said Geoffrey Adamson, executive director of the Innovations Foundation, an organization set up to act as a bridge between the university and industry.

Hubnet is the brainchild of professors Stewart Lee and Peter Boulton of the University of Toronto's Computer Systems Research Group.

Developed own system

The system was conceived four years ago when the university began looking for a network system that would connect the growing number of terminals and computers on campus. The professors decided to develop their own system after finding that the networks available were not adaptable to their needs and were not Canadian, Professor Lee said.

Hubnet links many computers and

terminals into one large network. Operators at terminals can tap into the data banks of a number of different computers, which are made available through central hubs connected to the various terminals.

Canstar is developing a smaller version, scheduled to be installed in the Department of National Defence in Ottawa, said Harvey Ikeman, project engineer with Canstar. This will be the first test of the network outside the university. A full-scale test of the system, involving 300 terminals, is also planned at the university soon after.

The original idea was to use light guide cable, commonly called fibre optics, as the main connection for the system. However, existing computer network configurations would not permit the use of the light guide cable.

Professor Lee's idea was to link all of the computers and terminals to a central hub using fibre optic cable, which is smaller, lighter and more easily installed than the coaxial cable used in traditional network systems.

Fibre optics can handle 50 million bits of information a minute; copper coaxial cable is limited to 10 million bits a minute.

Information would be sent along the cables into the hub, which would process the requests on a first come, first served basis. The network would be expanded by adding sub-hubs that would control the communications flow into the central hub.

Research on robots

The fledgling Canadian Institute for Advanced Research has begun a multi-million dollar project on artificial intelligence and robotics. Funded by Spar Aerospace Ltd., the program will promote research at three Canadian universities on "smart" robots and their implications for society.

The institute, now two years old, is a private, non-profit group formed to promote excellence and achievement in Canadian research.

Officials are also anxious to establish cross-disciplinary research programs, develop young, promising researchers, and work on problems of international significance.

For this project, as many as 15 "fellows" may be appointed to the institute, including researchers at Canadian universities, Canadian researchers working in the US and researchers from Spar.

Artificial intelligence was selected for study because it involves life sciences, computer and engineering sciences and the humanities.

Fellows will get together regularly, in person and by telephone and electronic communication.

Institute president Dr. Fraser Mustard said that the group had received \$1.1 million in funding to date, and expects to raise \$1.6 million next year.

Japan trade ties boosted

Cominco Ltd., best known for big mining operations, has moved to increase its trading ties with Japan, this time in high-technology.

Cominco has concluded an agreement with two Japanese companies that will boost sales of its high-technology electronic materials in the Asia-Pacific region. The Vancouver-based company has appointed Mitsui and Co. and Denki Kagaku Kogyo KK, both of Tokyo, as joint agents for the marketing of most of its electronic materials product line.

Mitsui and Denki Kagaku, who belong to the same group of companies, or keiretsu, in Japan, will market the electronic materials in Japan and Southeast Asia.

Cominco's link with Mitsui could develop later into a joint venture production company in Japan with Cominco supplying the high purity materials, made from rare metals extracted along with the