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Worker crisis slows $300m export push

By MILES KEMP

South Australia's high-technology electronics companies are battling a serious shortage of locally trained workers which is hampering the $300 million export industry.

Industry chiefs met yesterday to develop a plan to address the crisis after a study predicted SA would suffer from a shortfall of 1500 trained workers by 2000.

Findings from the study suggest interstate and overseas recruitment could be needed to overcome the shortfall.

Two hundred SA companies are now involved in making high-technology electronic equipment for defence and computer systems.

The president of the Electronics Association of SA, Mr Ron Grill, said the shortfall had been identified in a State Government-sponsored survey of employers and tertiary institutions.

"It is a real problem," he said.

Mr Grill said substantial growth had "caught the education sector and the Government and everybody else unawares".

The results of the survey were discussed by representatives of tertiary institutions, the State Government and electronics companies at yesterday's meeting.

The meeting resolved to better educate secondary school teachers and students about careers in the industry, attract more women to the industry and develop a higher profile for electronics in the community.

To help address the shortage, the State Government has run a recruitment campaign in London and attempts are being made to lure 100 hand-picked SA school students to enrol in electrical engineering courses next year.

This week Adelaide also will host a world electronics industry conference attended by 88 international experts.

The shortage of trained workers was first identified in a State Government report in 1994 which predicted the industry would boom with 20 per cent growth each year.

The report found that by 2000 the electronics industry would achieve a turnover of $2.5 billion and employ 10,000 people.

One senior industry source, who did not want to be named, was critical of Government attempts to address the issue.

"The State Government should have acted earlier," he said.

A spokesman from the Economic Development Authority, which is charged with the development of the industry, was unavailable for comment yesterday.

But Mr Grill said tertiary institutions had tried to keep up with demands.

The University of Adelaide doubled its electrical engineering enrolment this year from 60 to 120 students, UniSA has increased from 80 to 120 and Flinders University will have its first graduates.



Electronics experts at the Adelaide Convention Centre yesterday.

A gathering of masterminds

By PAUL KLARIC

A think-tank enhancing the world's scientific goal of creating computers and robots which can mimic human behavior will be in Adelaide over the next two days.

An international conference has attracted 85 of the world's top computer engineers, mathematicians and biologists to what organisers describe as a "global cross-pollination of ideas".

The organiser of the First International Conference on Conventional and Knowledge-based Intelligent Electronic Systems, Professor Lakhmi Jain, from the Knowledge-based Intelligent Engineering Systems Centre at the University of SA, said attracting the cream of the world's expertise "was a coup for SA".

"In hosting this conference we will be able to bring a wealth of knowledge to the electronics industry in SA about what is happening around the world," he said.

While terms such as fuzzy logic, neural computing and genetic algorithms may be unfamiliar to most people, these are the systems which are being used increasingly to refine things including consumer goods, aircraft and accounting.

Dr Noel Martin, principal research scientist with the Defence Science and Technology Organisation, said that in simple terms the systems mimic biological nervous systems.

"It's computer hardware and software able to adapt to the situation," he said.

Dr Nitin Natak, from the IBM Research Centre in New York, said his presentation would focus on using technology to solve problems of global enterprises.

He said the "Deep Blue experience" where an IBM computer recently beat world chess champion Gary Kasparov, was an experiment to see how complex problems could be solved.

"We can now apply that to different areas, such as finance manufacturing, chemistry and microbiology," he said.

While one of the main conference goals is to find applications in industry, Dr Takeshi Yamakawa, a fuzzy logic expert from Japan, is investigating brain patterns.

"We want to know about the emotions and feelings of the human mind, which is a little bit different from the biological and anatomical," he said. But United States neurobiologist, Professor Walter Freeman, said the main limitation was little was known about the brain.