



A robotic arm, ITRI-A, developed by ITRI.

utilization.

6. Electro-optics technology: (1) electro-optics systems; and (2) computer peripherals.

7. Pollution abatement technology: (1) incineration of industrial wastes; (2) waste water treatment; (3) industrial pollutants analysis technology; and (4) monitoring of public hazards distribution.

8. Measurement technology: (1) measurement standards; (2) measurement quality control; and (3) automated calibration.

ITRI's recent accomplishments include:

— The successful application of carbon graphite fiber technology to the manufacturing of rapier wheels for weaving machines. This unique application increases the performance and reduces the energy consumption and noise level of the weaving machines.

— The development of a batch-type solar water heater which is simple in construction and low in cost (half the conventional cost). Performance on a per unit collecting area basis is 85% of that of conventional water heaters.

— The development of three VLSI integrated circuits for IBM PC/AT compatible computers. This three-chip set will reduce the component count from ninety to twenty-one and consequently enhance the competitiveness of local manufacturers.

— The development of an autodrawing processor with an innovative raster to vector algorithm which is implemented when used with both software and hardware on an optical scanner. The septa can be used as an input device for any graphic information.

— The establishment of ROC national measurement standards and calibration technologies. The provision of accurate calibration services for domestic industries to increase their competitive advantage in international markets.

ITRI is committed to preparing industry to meet the new challenges of an increasingly sophisticated technical environment. Its diverse, expert capabilities uniquely equip ITRI to upgrade technology and contribute to a better tomorrow for Taiwan's industry.

The Science-based Industrial Park

The Science-based Industrial Park, established in 1980, epitomizes the ambition of the Republic of China to launch itself into the era of high technology. Its aim is to create an ideal environment for investment to attract high technology industries to set up in the park in order to upgrade the nation's industrial level and, at the same time, cultivate its service sector, supporting industries, and technical manpower. It is expected that the park will act as a catalyst in the Republic of China's effort to readjust the country's industrial structure and work toward another economic miracle.

Now in its second phase of development with over one thousand acres of land already developed, the park has approved eighty-one investment cases, of which sixty-nine are already operating in the park. They specialize in the following high-tech fields: computer and its peripherals, telecommunications, semi-conductor integrated circuit, electronics, precision machinery and instruments, material science, and biochemical engineering.

Fiscal incentives are provided to investors in the park: there is a five-year tax holiday and exemption from import and export duties. A government joint venture option is also available for investors who need capital, in which investors' technology may be counted for up to 25% of the equity shares. In addition, low interest financing is available. There are research and development incentive programs and many technical and management training programs tailored especially for park enterprises. Public facilities, standard factory buildings, housing units, landscaping, utility supply systems, and recreation facilities are all well planned and constructed. Customs, taxation and utilities offices, banks, customs brokerage houses, clinics, bilingual



An instrument to test roundness at ITRI.

schools, and a waste water treatment plant are right in the park. Such service all in one compound greatly streamlines the business operations. Careful planning for the residents' everyday convenience and comfort as well as education for the second generation makes the park's quality of life very high.

The products of park enterprises are now sold to scores of countries around the world and have won awards and praises along the way. Total sales volumes have shot up dramatically: yearly export values for period 1981-86 were US\$4, \$27.9, \$103.5, \$241.5, \$264.8, and \$400.5 million respectively.