

Each Employee Supports Hitachi High-Tech's CSR Program

Liquid Crystal Displays Ensure Environmental Protection through Higher Productivity, Miniaturization and Reduction of Volume.



Shigeru Nakamura
Assemble Systems Dept.,
Fine Technology Product Business
Group,
Hitachi High-Technologies

I design equipment that attaches IC chips and basal plates for displaying images to liquid crystal displays used for the screens of TV and PC automatically at high speed.

Liquid crystal TVs and displays are highly valued because they cause less damage to the environment. As a manufacturer we have the responsibility to protect the environment during the manufacturing process. We reviewed our manufacturing line for high productivity and miniaturization of products, which resulted successfully in saving energy and time, plus volume reduction. The single unitization of plural processes and non-stop operation have increased production efficiency, and, in addition, we have reduced the amount of materials needed for manufacturing liquid crystal displays. Such developments have produced Eco-Products of Hitachi Group and they receive a good evaluation.

Our next goal is to make products concerning from the selection of eco-friendly materials to recycle, and save more energy and volume through higher productivity and miniaturization.



Module Assembly System for LCD



Liquid crystal displays

Contribution to the Development of ASEAN Industry through Mutual Communication between Technology and Human Resources



Shuichi Hirabayashi
Vietnam Representative Office
Hitachi High-Technologies
(Singapore) Pte. Ltd.

Hitachi High-Technologies (Singapore) Pte. Ltd. has installed scanning electron microscopes (SEM) for a Vietnamese national research organization, the IMS (Institute of Materials Science), and has provided related information and training seminars for their engineers. As a sponsor in 2007, we also have provided \$10,000 in financial aid to IMS during the collaborative development research into carbon nanotubes with Vietnam's Industry-Government-Academia, and supported an international workshop held in Ha Long Bay as well.

IMS is expected to play a key role in establishing a research base, introducing advanced technologies, and developing domestic industry in Vietnam. Our company hopes the engineers studying at the IMS will help to further the development of Vietnamese industry by improving their research and development capabilities through the optimal use of Hitachi electron microscopes, thus increasing contributions to industry throughout the world. With the hope of accelerating communications between Japan and ASEAN countries, in the near future we are planning to welcome two Vietnamese engineers for training at Hitachi High-Technologies' factory in Japan. We also will send our Japanese engineers to *Biopolis in Singapore.

I hope that we will be able to act as a bridge builder between ASEAN countries and Japan and contribute to the development of industries in the ASEAN region.



Dr. Minh and a researcher of IMS, operating SEM of Hitachi High-Technologies

* the governmental bio research and development complex

Sharing the Wonder of Science with Today's Children-Tomorrow's Scientists



Bill Roth
San Francisco Office, California
Hitachi High Technologies America, Inc.

* Carbon Nanotubes : new nano-level (1 nanometer= 1/1000000000 meter) material has advanced characteristics in strength and electricity, which is expected to apply for semiconductors and displays.

I am an Application Engineer for the Electron Microscope products in the San Francisco Office. The Hitachi High-Technologies Group supports various "Science Education activities" to stimulate students' interest in Science in hope that they will contribute to the development of High-Technologies in the future.

At the San Francisco Office we organize field trips for local Elementary school, High school and college students which include a tour through our facility and the experience of operating the Electron Microscopes.

Recently, students from Mission College visited our facility. After a lecture on how the Scanning Electron Microscope (SEM) and Transmission Electron Microscope (TEM) work, students were allowed to operate the microscope themselves. They observed the microscopic world that could only be observed by the Electron Microscope: insects, viruses etc. and *carbon Nanotubes that recently have attracted considerable attention as material for Nano research.

I think it is very important to get the younger generation interested in and excited about science. I enjoy this part of my job and hope to share this activity in the local communities.



Students listening carefully to the demonstration of how electron microscopes work



A thank you letter from Mission College

Offer Global Solutions to Customers through New Material Suggestions



Keiko Onodera
Advanced Materials Group,
Industrial Materials 2nd. Dept.,
Hitachi High-Technologies

My division deals with providing various advanced industrial materials for customers both inside and outside Japan. My work here involves a new plastic material used for home appliances. From April, 2004, I was given a chance to go to Shanghai for an international business training within the company for a year. There I learned a new language, how to work in a different culture, and the importance of communication. I was able to gain a global view through this experience.

In recent years, environmentally friendly materials have been increasing in demand. For example, I have proposed a plastic derived from corn and other plants which have since been adopted in the manufacturing of products such as desktop cellular phone holders. The training I received overseas has been a great asset in the development of our business globally as we find insight into the various needs of our customers.

For the future, I am going to do my best to provide new materials corresponding to the needs of customers and society.



Products using plant-derived material



Intercultural Business training in Shanghai