

Realizing a high-level welfare/environment society by forming a network of clusters, based on technological innovation in the intelligent electronics field

Overview

With this project, through an accumulation of IT-related companies, software companies, medical/health/environment machinery manufacturers that use information technology, we cooperate with industry from inside and outside the region to create a new wide range of diverse businesses that use the cluster's internationally-accepted revolutionary technology as well as new employment related to the "intelligent electronics field," in order to realize a highly environmentally friendly society.

Cluster Headquarters

- **President** Hajimu Fujii (Mayor of Sendai City)
- **Vice President** Masahide Kakizaki (Deputy Governor, Miyagi Prefecture)
- **Project Director** Hideo Hirama
- **Chief Scientist (CS)** Yasuji Sawada (Professor, Tohoku Institute of Technology)
- **Science and Technology Coordinators** Junzo Takahashi, Makoto Yamada, Hiroki Shoji

Core Organization

Intelligent Cosmos Research Institute

Participating Research Organizations

(Bold: Core Research Organization)

Industry··· Advantest Corporation, Panasonic Mobile Sendai Labs, Cyber Solutions, Inc., NTT East Corporation, NEC/Tokin Corporation, IT Research Corp., Iris Ohyama, Inc., Tsuken Electric Ind. Co.,Ltd., Oi Electric Co., Ltd., Rion Inc., Mems Core Co., Ltd., Zeon Corporation, Tachibana Ricoh, Japan Radio Co., Ltd., Pioneer System Technologies, MicroBio Corp.

Academia··· **Tohoku University**, Tohoku Institute of Technology, Tohoku Gakuin University, Sendai National College of Technology, Ritsumeikan University, Hirosaki University, Miyagi National College of Technology, Kure National College of Technology



Project Director

Hideo Hirama

Ogare, Cyber Forest! (Ogare means Grow up in Sendai dialect)

When thinking of revitalizing the regional economy, whether things can be sold or not, whether money can be made or not, that is what we see as important, however we concentrate on commercialization and undertaking, and along with professors and business people we take the reins in project development by managing creation projects from research concepts to the projects' concepts.

Researching next-generation wireless that send large amounts of information over short distances using millimeter waves, the first university-based venture companies are being established. Researching next-generation micro-systems that become the mainstay next-generation manufacturing technology, a MEMS (Micro Electrical Mechanical Systems) park consortium that builds a MEMS technology-supporting government-industry-academia network is moving forward.

With this, experimental goods, even in other projects are being presented.

In this region we are forming multiple high-tech clusters in the sphere of "intelligent electronics" that are specialized in different fields of business, and through that connection we are also forming knowledge-based industry clusters that overlap different fields of business.

Hideo Hirama founded various kinds of enterprises while at Seiko Instruments Inc.

Outline of the Joint Research by Industry, Academia and Government

Bringing out the best of the region's advanced research developments centering on Tohoku University, we build coordinating systems with business, academia, and government in order to create new business in the region, develop high-speed/high-capacity millimeter-wave transmission technology, develop "miniaturized/low-energy-using/low-cost" value-added MEMS factor-technology and electronic material for electronic devices, and advance joint research based on the advantage in the "intelligent electronics" field boasted by the region.

●Development of basic information and telecommunication technology

We are developing systems that penetrate the living environment widely, security systems that assure network safety, high-precision stable-frequency light sources, and communication technology basic elements such as multi-band antennae, adaptive-array antennae, and next generation wireless technology.

●Development of basic technology for next-generation electronic devices

We are conducting development that contributes to improvement of the environment and surrounding electric machinery, for example developing low-cost packaging technology through MEMS and circuit-board material technology that lowers energy consumption of electric devices by one decimal place and developing environmentally-friendly light-catalyst production technology.

●Development of high-precision measurement communication equipment in the area of health and welfare

We are conducting development directly connected to welfare and health, for example development of testing devices for sensitivity testing to speed up medical examinations, "barrier-free" audio technology that offers a new communication environment to both the hearing-impaired and ordinary people, and portable devices that autonomously measure a person's movement and consumed energy.

