

## Supporting technology development for cold, snowy regions toward more comfortable life in the North

Hokkaido Development Engineering Center (**dec**) is mainly aiming at making proposals and carrying out research, investigation and planning that are necessary for technology development for cold, snowy regions.

**dec** also is engaged in promotion or application of its effort results. To introduce its achievements, **dec** is actively offering domestic and international opportunities including lectures, workshops and symposiums for exchange of knowledge and information.

## Great potential of technologies created in cold, snowy regions

Our hope is that we could work for realizing bright futures for Hokkaido.

Hokkaido is Japan's northern most island whose climatic condition during the winter time is severer than that in other places in Japan.

Since the Meiji Government established the Hokkaido Development Commission in Sapporo in July 1869, Hokkaido has been intensively developed led by national policies.

In the course of its development, technologies that were tailored to fit cold, snowy surroundings of Hokkaido have uniquely developed so as to form an independent research field.

In a global view of technology development, those developed in cold regions have greatly contributed to improvement of human living. Thus, **dec** intends to support further development of technologies that have originated in Hokkaido in order that they will be utilized not only in Japan but also all around the world.

## Background of dec

The Hokkaido Development Engineering Center (**dec**) was established in 1982 as a voluntary organization by people with the same interests in various fields. In 1983, it made a fresh start as an incorporated body. Its research and other activities cover a wide range of fields including technology development for cold regions, regional development, tourism, development of industrial infrastructures, urban issues specific to cold, snowy regions and development of construction industries.

With cooperation of other research institutes, **dec** researchers are presenting original research results that are characterized with their cold environment oriented focuses.

To further develop technologies for cold, snowy regions, catching up global technology trends concerning cold regions, and cross-sectional cooperation between the public, private and academic arenas are necessary.

### ◆◆◆ Research scope of dec ◆◆◆

#### ◆ Technology development for cold, snowy regions

(e.g.: Fuyu Topia Fair, information on technology development for cold, snowy regions)

#### ◆ Regional development

(regional vitalization, tourism development, social infrastructures)

#### ◆ Infrastructure improvement

(artery roads, effects of expressway development, wide-area transportation network planning, local transportation network planning, planning of traffic capacity increase)

#### ◆ Urban issues of snowy cities

(snow treatment, snow treatment in other countries)

#### ◆ Others

(construction industries, environmental landscape, Scenic Byways Hokkaido projects)



Sapporo City

# Photos

National Scenic Byways Conference in Baltimore



Japan China Winter Road Workshop



ISCORD



Safe walking experiment



Survey of winter barrier free

Fuyutopia Fair



Local economic development

Improvement of infrastructure

Solutions for problems in cold, snowy regions

Engineering development for cold regions

Information provision and event organization

Academic public-private partnership

Research and development of innovative technology

Promotion of industrial development

International exchange

## Independent Researches and Projects

### Researches

- ◇Motor vehicle transportation and ecology education
- ◇Public transportation
- ◇Easily recognizable traffic signs at intersections
- ◇Preservation and utilization of roadside environment
- ◇Footpaths
- ◇Space design of cities included in the Fuyutopia Fair
- ◇Icy walkway surfaces
- ◇Drivers' visibility in blowing snow
- ◇Traffic safety information provision by use of community FM broadcast
- ◇Road greening in cold, snowy regions
- ◇Eco. corridor
- ◇Probe information

### Projects

- Collection and management of information/materials for technologies for cold, snowy region development
- Evaluation system for technologies for cold, snowy regions
- Database development for materials for infrastructure development technologies
- Internship
- Joint project with groups that are working for utilizing and preserving roadside environment.

### International projects

- ◆Participation in the 6th Japan-China Winter Road Workshop (Inner Mongolia, China)
- ◆Technological information exchange with Xinjiang Uyghur Aptonom Rayoni, China (Xinjiang University, Xinjiang Transport Research Institute)
- ◆Exchange of technological information with the Committee 17 of PIARC (World Road Association)
- ◆Participation in the National Scenic Byways Conference in Baltimore
- ◆Technological information exchange with the TRB Committee on Winter Maintenance
- ◆Technological information exchange with the American Society of Civil Engineers Council on Cold Regions Engineering (TCCRE)
- ◆Technological information exchange with the International Center for Accessible Transportation
- ◆Organizing the 8th ISCOLD (International Symposium on Cold Region Development)

PIARC XIth International Winter Road Congress 2002-Sapporo



HOKKAIDO DEVELOPMENT ENGINEERING CENTER

#2-17,NORTH-11,West-2,KITA-KU,SAPPORO,HOKKAIDO 001-0011,JAPAN  
Phone : 011-738-3361 • Fax : 011-738-1886 • URL : <http://decnet.or.jp/>