

Cold Regions Engineering 2012

Sustainable Infrastructure Development in a Changing Cold Environment

Edited by Brian Morse, Ph.D. Guy Doré, Ph.D.



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COLD REGIONS ENGINEERING 2012

SUSTAINABLE INFRASTRUCTURE DEVELOPMENT IN A CHANGING COLD ENVIRONMENT

PROCEEDINGS OF THE 15TH INTERNATIONAL SPECIALTY CONFERENCE ON COLD REGIONS ENGINEERING

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Technical Council on Cold Regions Engineering (TCCRE)
of the American Society of Civil Engineering

Canadian Society for Civil Engineering

EDITED BY Guy Doré, ing. Ph.D. Brian Morse, ing. Ph.D.



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Preface

The International specialty conference on cold regions engineering (ICCRE) held in Quebec City is the fifteen of the series organized as part of the activities of the technical council on cold regions engineering (TCCRE) of ASCE. Being held in Canada, the Canadian society for civil engineering (CSCE) has been the main sponsor of the event in cooperation with ASCE.

Over the last decades, ICCRE conferences have provided a focal point on new development in cold region engineering technologies. The Quebec conference has perpetuated the tradition of excellence set by previous conferences. The Call for Papers has attracted 140 abstracts originating from nearly 20 countries. The evaluation process managed by the technical committee of the conference led to the selection of 84 peer reviewed papers. 6 additional presentations were solicited from speakers invited to participate in one of the three plenary session of the conference and 15 others were solicited for special sessions on specific themes. Also, the program included a keynote address given by Don Hayley, a distinguished lecturer from EBA engineering selected by the organizing committee. These scientific contributions were included in the 3 plenary sessions and 24 parallel sessions of the conference program. The peer reviewed papers are included in the conference proceedings.

This collection of 82 papers represents the current state of knowledge and a truly international view of cold regions engineering. This latest contribution from the international scientific and engineering community will greatly assist with the worldwide improvement of cold regions engineering practice and standards.

The challenge for researchers is to use this new state of knowledge as a basis for new technical developments. The challenge for practitioners is to implement these new techniques in the cold regions engineering practice.

Guy Doré, ing. PhD., Chair of the local organizing committee

Brian Morse, ing. PhD., Chair of the scientific committee

Acknowledgments

Local Organizing Committee

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Brian Morse, Laval University (Chair of the scientific committee)

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