



SIAST

SASKATCHEWAN INSTITUTE OF
APPLIED SCIENCE AND TECHNOLOGY

MEDIA RELEASE

Note to editors: SIAST presenters at tonight's event are available for interviews between 5:30 and 6:30 p.m. and after the event. Dr. Robert G. McCulloch, who is presenting at a Tour of Sustainability roundtable this morning, is available for interviews between 1 and 3:30 p.m. and this evening. Please call Lori Foster to arrange interviews.

FOR IMMEDIATE RELEASE

SIAST event showcases sustainability

President signs colleges' pan-Canadian protocol

October 14, 2010 - SIAST will pledge its continued support of sustainable development and will showcase a number of related initiatives at a special event in Regina tonight.

SIAST president and CEO Dr. Robert (Bob) G. McCulloch will sign the Association of Canadian Community Colleges (ACCC) Pan-Canadian Protocol for Sustainability. Signatories to the protocol agree to maximize their contribution to a sustainable future and are committed to their role as leaders to their internal and external communities.

Dr. McCulloch will sign the protocol following presentations on such SIAST initiatives as a grassroots "green group" and a take-home tool for testing appliance energy consumption. One of the speakers, Ron Thompson, an instructor at SIAST Palliser Campus in Moose Jaw, will address the use of small wind turbines in urban areas. A wind turbine at SIAST Palliser Campus is used to power an Iron Workers classroom. The turbine is tied into the SaskPower grid, and any excess electricity goes into the grid.

"For SIAST, sustainability is standard operating procedure," says Dr. McCulloch.

"There's no question, it means offering contemporary programming in applied sciences and technologies. But sustainability for us means so much more – it means wise use of all our resources in support of enduring social and economic growth in Saskatchewan. It's what SIAST is all about."

Tonight's event is part of the Tour of Sustainability – Saskatchewan, which provides a platform for experts, students and the public to discuss the importance of Education for Sustainable Development. The tour is being led by Dr Charles Hopkins, holder of the UNESCO Chair on Reorienting Education to Address Sustainability at York University.

Dr. Hopkins was a leader in the development of the *Bonn Declaration*, which is a call to create sustainable development through education and lifelong learning.

Media are invited to attend the presentations and signing:

Location: SIAST Wascana Campus, Cafeteria, Level 1
Date: Thursday, October 14, 2010
Time: Presentations: 6:30 – 8 p.m.
Signing of Protocol: 7:50 p.m.

The Saskatchewan Tour of Sustainability is taking place from October 12 to 15.

SIAST is Saskatchewan's primary public institution for post-secondary technical education and skills training, recognized nationally and internationally for its expertise and innovation. More than 14,000 students were enrolled in SIAST programs in the most recent academic year; additionally, the organization drew almost 30,000 individual course registrations. Through program and course registrations, SIAST served almost 26,000 distinct students with programs that touch every sector of the economy. SIAST operates campuses in Moose Jaw, Prince Albert, Regina and Saskatoon, and provides a number of courses and programs through distance education.

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Information about SIAST can be found at www.goSIAST.com.

Background

The following applied research projects have been completed or are being conducted by SIAST faculty.

100 Mile House

Over a four-day period during the summer of 2009, a demonstration shelter was constructed near Livelong, Saskatchewan, using materials found or produced within a 100-mile radius of the building site. The project was intended to promote and explore local and natural building materials and methods to reduce the carbon footprint of the building and to demonstrate the economic importance of using materials found and manufactured locally. The project was organized by Reg Forbes, an instructor with SIAST's Architectural Technology program.

Community Garden Green Roof

Reg Forbes with a group of students constructed a garden pavilion building with a green roof system at Moose Jaw's Saskferco Community Gardens (now Yara Community Gardens). The group partnered with Soprema, an international company specializing in roofing, to install the roof. The roof system includes a vegetation cover of indigenous plants. The advantages of the roof are rain water runoff control to reduce the impact of rain storms, natural cooling due to increased green space and added protection to increase the lifespan of the waterproof membrane. The pavilion also demonstrates a composting toilet, a photovoltaic system and a green wall system.

Home Energy Efficiency Program (Share the Warmth)

Share the Warmth is a community development energy conservation project. Reg Forbes developed the concept, which was implemented province wide by SaskEnergy. The purpose of the project is to improve the energy efficiency of older less energy efficient homes.

Review of Moose Jaw's Building Standards

Reg Forbes with an Architectural Technology student reviewed the city of Moose Jaw's building bylaws to assess their potential environmental impact, focusing on the city's site selection, energy efficiency, water reduction and waste diversion bylaws. The final report identified how the city could adopt more sustainable building regulations.

Small Urban Wind Turbine

This project is investigating the benefits and limitations of a small urban wind turbine erected at SIAST Palliser Campus in Moose Jaw. The research is being conducted by Ron Thompson, a SIAST Civil/Water Resources/Environmental engineering technologies instructor.

Separation of Naphthenic Acids

SIAST Chemical Technology program head Dr. Salim Khalid investigated the separation and identification of naphthenic acids. The project attempted to develop a high

pressure liquid chromatographic technique to separate and identify naphthenic acids and other contaminants found in oil and tar sands. Naphthenic acids occur naturally in crude oil and are toxic to aquatic life forms.

Removal of Mercury from Coal Fumes

Dr. Salim Khalid investigated the removal of mercury from coal combustion gases. The project assessed the effectiveness of using activated carbon to remove mercury from gases created when coal is burned.

Tracing Transition Metals

Dr. Salim Khalid worked on the concentration and separation of trace transition metals from brine solution using chelating ion exchange resin. The research was in collaboration with the Saskatchewan Research Council to improve the efficiency of the analytical process employed by the potash industry.

The following applied sustainable research projects were approved for the 2010/11 academic year.

City of Regina 2050 Urban Plan

A city of Regina urban plan will be created for the year 2050. The project will gather information from various community stakeholder groups to generate an urban plan for a less energy intensive, healthier and more liveable city. Rod Stutt is leading the project, which will include a number of SIAST Architectural Technology students.

Use of Photovoltaic Cells to Recharge Electric Vehicles

Michael Lasante, a SIAST Electronic Systems Engineering Technology instructor, is exploring the use of photovoltaic cells to recharge electric vehicles. The project will attempt to identify the energy requirements of a charging system for a battery powered motorcycle and a cost-effective photovoltaic cell to charge the system.

Site Wind Speed Monitoring

Kurt Soucy, a SIAST Mechanical Engineering Technology faculty member, is conducting research to determine the feasibility of a simpler and alternative method for recording site wind speeds. Wind speed data is important to determine the potential of a site before erecting a wind turbine.

Straw Bale Housing

Steve Lawrence, a SIAST Carpentry instructor, is investigating straw bale housing construction. His research will explore the structural integrity of straw bales used in residential construction, particularly how wind forces and moisture loss affect the strength of straw bales.