

Travel Report:

Balneaves Travel Award

Dr Christine Todoroki

Background

The primary objectives for submitting a travel proposal to visit Sweden were to:

- develop a working relationship with the Operations Research group at Linköping University, Linköping, Sweden;
- investigate Operations Research (OR) techniques and models applicable to the forest products industry;
- develop solution techniques for matching market demand for timber products whilst simultaneously optimising the sawing of logs into boards; and,
- implement algorithms based on the above, into a log sawing simulation system,

with the over-riding objective being to derive improved value recovery and process efficiencies from our forest resource.

Outcomes

The collaborative exercise with Linköping University was extremely successful and highly relevant to the log sawing simulation project, lead by Christine at Forest Research. The prototype optimisation techniques trialed in AUTOSAW allow market demands to be taken into account during the sawing optimisation process. Algorithms for processing pruned logs have been developed and tested. Development of algorithms for unpruned logs has commenced and to date significant progress has been made. On a practical level, the results indicate that substantial improvements, such as reduction in over-production of unordered timber products and elimination of under-production of ordered products, may be achieved with a smaller log supply when production tallies are updated regularly as part of a feedback loop in the sawmill's production control system.

Valuable links with a number of key organisations were made or renewed. Organisations visited included: Linköping University (Linköping); SkogForsk (Uppsala); Luleå Technical Institute and Tråtek (Skellefteå). Visits were also made to SCA Sawmill at Piteå (which had recently undergone a \$100M upgrade) and Martinsons Glulam Plant. Seminars outlining forestry in New Zealand, log sawing simulation, and relevant OR topics were given by Christine at Linköping University, SkogForsk, Luleå Technical Institute and Tråtek.

There were many opportunities to discuss Operations Research application areas and techniques applicable to the wider forestry and forest products sectors.

Acknowledgement

Christine wishes to extend her gratitude to all those at the New Zealand Institute of Forestry who made this possible.

Revised Web Site for NZIF

The New Zealand Institute of Forestry's web site has been redesigned. It may be found at www.fore.canterbury.ac.nz/nzif/

The site offers members up to the minute news, articles, core information about the Institute, and contacts. It includes the Institute's mission, contacts to officers and sections, descriptions of the institute's publications, ethics and policies, membership categories, links to other forestry-related sites, and news from the council and local sections. A member of council has been appointed as web master in order to ensure that it remains topical and interesting.

The layout of the site allows navigation in a manner similar to Windows Explorer, a format that is familiar for many computer users. Use the left-hand menu (see Figure) to go to major headings. Links in the major heading pages allow access to sub-pages. The back key takes you to the previous menu, and you can go to a different major heading at any time by using the left-hand menu.

An Era Ends

Members will be saddened by the recent death of Professor Dennis Richardson. A full obituary and tribute to Dennis Richardson's life and work will appear in the February, 2001 edition of the Journal.

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