

***Science Mathematics and Technology Education:
Beyond Cultural Boundaries***

**Proceedings of the Fifth International Conference on
Science, Mathematics and Technology Education**

**Udon Thani, Thailand
16-19 January 2008**

Edited by

**Darrell Fisher and Rekha Koul
Curtin University of Technology, Australia**

**Supatra Wanpen
Udon Thani Rajabhat University, Thailand**

Proceedings of the Fifth International Conference on Science, Mathematics and
Technology Education
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Editors
Darrell Fisher, Rekha Koul and Supatra Wanpen

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Rekha Koul
Curtin University of Technology, Australia

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PREFACE

The Fifth International Conference on Science, Mathematics and Technology Education was held in Udon Thani, Thailand in January, 2008. The theme of the conference was ‘Science Mathematics and Technology Education: Beyond Cultural Boundaries’ and it was organised jointly by the national Key Centre for School Science and Mathematics, Curtin University of Technology, Australia and the Udon Thani Rajabhat University, Thailand.

The conference provided an intellectually challenging and culturally enriching experience for science, mathematics and technology teachers, teacher educators, researchers and administrators from primary, secondary and tertiary education from around the world. Over 120 participants from 15 countries had an opportunity to interact and exchange innovative ideas, research findings and practical implications in the traditional fields of science, mathematics and technology as well as new areas of international significance related to conference theme.

These proceedings are a result of the conference. All papers contained in the proceedings were presented at the conference and consequently submitted to a reviewing process. Each paper was reviewed by at least two referees.

This conference is now providing a supportive environment, particularly for early-career researchers, a number of who presented papers and have papers in these proceedings. The papers have been organised alphabetically.

We have continued our mode of publication as an electronic form. However, people may order a book of the proceedings by contacting one of the editors.

ACKNOWLEDGEMENTS

The conference would not have been possible without the support of the Key Centre for School Science and Mathematics, Curtin University of Technology, Australia and Udon Thani Rajabhat University, Thailand.

We would like to thank all the authors who contributed their papers to these proceedings. We would also like to thank the reviewers and particularly the members of the Editorial Board for their time and diligence.

The book represents contributions from many nations including Australia, Brunei, Canada, Japan, Mauritius, New Zealand, Singapore, South Africa, South Korea, Taiwan, Thailand, Turkey, The Netherlands, United Arab Emirates, and USA. We acknowledge the contributions of people from all these countries. The fields of science, mathematics and technology education research represent a truly international endeavour.

Darrell Fisher, Rekha Koul and Supatra Wanpen
Editors
August, 2008

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