

**ASIMMOD2007 Program
Overall Program**

Monday January 8, 2007

1600-1800 Registration, In front of Grand Nanta Hall, 2nd Floor, Sheraton Hotel, Chiang Mai.

Tuesday January 9, 2007

730-830 **Registration** In front of Grand Nanta Hall, 2nd Floor, Sheraton Hotel, Chiang Mai.

830-900

Opening ceremony

H.S.H.Prince Bhisatej Rajani, Chairman, Royal Project Foundation

900-930

Opening address

"His Majesty King Bhumibol: long time user of modeling and simulation techniques" by Prof. Dr. Santhad Rojanasoonthon, Director of Research, Royal Project Foundation
Room : Nanta A and B

930-1030

Keynote I "Integrated Modeling and Sustainability Assessment"

by Professor Tony Jakeman and Susan Cuddy, Australian National University, and CSIRO, Australia

Room : Nanta A and B

1030-1100

Coffee break (In front of Grand Nanta Hall)

**Session : Applications and
Implementation I (A.I)**

**Session: Natural and Agricultural
Management I (C)**

Room: Nanta A

Room: Lanna

1100-1220

A.I (1-4)

C (1-4)

1220-1330

Lunch (River Terrace Room)

1330-1500

A.I (5-8)

C (5-8)

1500-1530

Coffee break (In front of Grand Nanta Hall)

1530-1730

A.I (9-14)

C (9-12)

1830-2100

Conference dinner (Lanna Style, Kum Khuntok Place with Northern Thai performances)

Wednesday January 10, 2007

900-1000

Keynote II "How numerical simulations may contribute to Tsunami risk preparedness; the 26 December 2004 Indian Ocean event and Thailand case study"

by Dr. Mansour Ioualalen, Institut de Recherche pour le Developpement,IRD, Géosciences Azur, Villefranche-sur-mer, France

Room : Nanta A and B

1000-1030

Coffee break

**Session: Applications and
Implementation II (A.II)**

**Session: Economic and Finance
Modelling (E)**

Room: Nanta A

Room: Lanna

1030-1200

A.II (1-4)

E (1-4)

1200-1330

Lunch

1330-1500

A.II (5-8)

E (5-8)

1500-1530

Coffee break

**Session: Sustainable Production and
Development (D)**

1530-1730

D (1-6)

E (9-13)

Thursday Jan 11

900-1000

Keynote III Scientific Computings for Real World by TFlops Supercomputer by Professor Takayuki Aoki, Global Scientific Information and Computing Center, Tokyo Institute of Technology, Japan

Room : Nanta A and B

1000-1030

Coffee break

**Session: Advanced Modelling
Concepts (B)**

**Session: Natural and Agricultural
Resource Management (C)**

Room: Nanta A

Room: Lanna

1030-1200

B (1-4)

C (13-16)

1200-1330

Lunch

1330-1500

B. (5-8)

C (17-20)

1500-1530

Coffee break

1530-1650

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C (21-24)

1700-2000

Farewell drinks and dinner

Detailed program

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January 9, 2007

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by Professor Tony Jakeman and Susan Cuddy, Australian National University, and CSIRO, Australia

1030-1100

Coffee Break

Contributed Papers**Applications and implementation I (A.I)**

Room

Nanta A

Industrial and transport engineeringDr. Voratas Kachitvichyanukul,
Asian Institute of Technology,
Thailand

Chair

Integration of Manufacturing
Execution System and Simulation by
*Kiatkajohn Worapradya and
Thaweepat Buranathiti*

1100-1120

A.I-1

Regional Clustering of Interconnected
Systems with an Advanced FCM by
*Sang-Hyuk Lee, Se-Hwan Jang ,
Young-Soo Park and Jin-Ho Kim*

1120-1140

A.I-2

Quantum & Monte Carlo Simulation
Study of amino acids across on carbon
nano tube and Evaluation of Methods
and Basis Set Effects by *M.
Monajjemi and L. Papei*

1140-1200

A.I-3

A Deep Drawing Process by Inverse
Finite Element Analysis by *Thaweepat
Buranathiti*

1200-1220

A.I-4

1220-1330

Lunch

Chair

Prof. Mitsuhiro Namekawa,
Kaetsu University, JapanMetropolis Monte-Carlo Computer
Simulation of the Phase Behavior of
Quaternary
Water/Reactant/Oil/Surfactant Systems
by *Bilkis Jamal Ferdosi and Yusuf
Jamal Ferdos*

1330-1350

A.I-5

Numerical Simulation of Turbulent
Flow with Free Surface Movement of
Molten Steel in Tundish by *S.
Kongnual, B. Wiwatanapataphee and
Y. H. Wu*

1350-1410

A.I-6

The Parallel Simulation Model for
Thin Film Deposition Using the
DSMC Method by *Anan
Banharsakun, Rardchawadee
Silapunt, Tiranee Achalakul*

1410-1430

A.I-7

Turbulent Flow and Heat transfer
under Electromagnetic Force in
Continuous Steel Casting Process by
B. Wiwatanapataphee, Y-H. Wu

1430-1450

A.I-8

**Natural Resource and Agricultural
Resource Management I (C)**

Room

Lanna

Chair

Dr. Benchaphun Ekasingh,
Chiang Mai University, Thailand

C-1

Water Allocation Management
Information System by *Kasem Pinthong
and Suwatana Chittaladakorn*

C-2

A Water Allocation Modelling
Framework for the Musi Catchment,
India by *Biju George, Hector M Malano,
Brian Davidson and Anju Gaur*

C-3

System Dynamics Modeling for Water
Savings and Conjunctive Water
Management by *Shahbaz Khan, Luo
Yufeng and Aftab Ahmad*

C-4

Using simple models to accommodate
multiple interests in water management :
a companion modelling approach by
*Cécile Barnaud, Tanya Promburom, Guy
Trébuil, François Bousquet*

Chair

Prof. Shabaz Khan,
CSIRO, Australia

C-5

Provincial crop production estimation
using crop models and GIS interface: A
case of rice production systems by
Attachai Jintrawet and Prakarn Sringam

C-6

Coupling crop simulation models with
generated weather data to asses crop
management options by *Afshin Soltani
and Gerrit Hoogenboom*

C-7

Artificial Neural Network Model for
Rainfall-Runoff Relationship by *P.
Junsawang, J. Asavanant and C.
Lursinsap*

C-8

Spatial Modeling for Assessing Potential
Land Use Options by *Chalernpol
Samranpong and Benchaphun Ekasingh*

January 9, 2007

		Applications and implementation I (A.I)	Natural Resource and Agricultural Resource Management I (C)
1450-1530	Break		
		Room: Nanta A	Room : Lanna
	Chair	Prof. F. Ueda, Toyo University, Japan	Susan Cuddy, CSIRO, Australia
		An Optimized Back-analysis Technique for No-tension Elastic- plastic Analysis by <i>Yong Hong Wu, Cheng Xiang Yang, Benchawan Wiwatanapataphee, Tung Hon</i>	Modeling Farmers' Crop Choice Using Data Mining Approach: a revisit by <i>Kamol Ngamsomsuke and Benchaphun Ekasingh</i>
1530-1550	A.I-9	A Hierarchical Model for Heat Transfer in Built-up Structures by <i>P. Toghaw, Y. Lenbury and H. Kaneko</i>	C-9 Best Management Strategies for the Australian Dairy Industry Using Multiple Linear Regression Techniques by <i>Daniel Zamykal, Michael Steele, Don Kerr and Janet Chaseling</i>
1550-1610	A.I-10		C-10
		Convection in Liquids with Temperature-dependent Viscosity Under Terrestrial Gravity by <i>V. Ramachandramurthy and D. Uma</i>	Logistics System in Braided Tree's Business by <i>Ninlawan Choomrit and Mitmanee Triwatanawong</i>
1610-1630	A.I-11	The Vehicle Junction Model and its Verification in Traffic Simulation by <i>Namekawa, M., F.Ueda, Y.Hioki, Y.Ueda and A.Satoh</i>	C-11
1630-1650	A.I-12		C-12
		Design and Simulation of Automatic Suspension Control System of the Fourwheel Vehicle by <i>Wayan Widhiada</i>	Business Process Modeling and Analysis in White Shrimp Industry Using Simulation by <i>Ninlawan Choomrit and Walailak Atthirawong</i>
1650-1710	A.I-13		
		Simulation and Benchmark of an Automotive Underbody Cross Member Panel by <i>Thaweepat Buranathiti</i>	
1710-1730	A.I-14		
1830-2100	Conference dinner (Lanna Style, Kum Khuntok Place with Northern Thai performances)		

January 10, 2007

900-1000	Keynote address "How numerical simulations may contribute to Tsunami risk preparedness; the 26 December 2004 Indian Ocean event and Thailand case study" by Dr. Mansour Ioualalen, Institut de Recherche pour le Developpement,IRD, Géosciences Azur, Villefranche-sur-mer, France		
1000-1030	Coffee Break		
	Applications and implementation II (A.II)		Economic and finance modeling (E)
Room	Nanta A	Room	Lanna
	Population, education, health and services		
	Chair Prof. Chidchanok Lursinsup, Chulalongkorn University, Thailand	Chair	Dr. Suhejla Hoti, University of Western Australia The Economics of Distributing Water in the Musi Catchment of the Krishna Basin: Assessing the Private Costs and Benefits by <i>Brian Davidson, Petra Hellegers, Paul Glennie, Biju George and Hector Malan</i>
1030-1050	A.II-1 Systems modelling in university education by <i>Subana Shanmuganathan</i>	E-1	
1050-1110	A.II-2 Problem-based Learning Approach for Simulation and Modeling by <i>Oon- Seng Tan</i>	E-2	A negative log likelihood function-based nonlinear neural network approach by <i>Porntip Dechpichai and Pamela Dayv</i> Modelling Tourist Arrivals to Spain from the Top Five Source Markets by <i>Gabriela Alvarez, Suhejla Hoti and Michael McAleer</i>
1110-1130	A.II-3 Implicit Level Set Methods for a Fire Spread Model by <i>Pallop Huabsomboon</i>	E-3	
1130-1150	A.II-4 Fire Drill Design by An Optimization Model: A Case Study of Perry High School by <i>Thaweepat Buranathiti and Nate J. Van Wey</i>	E-4	Modelling Multivariate International Tourism Demand and Uncertainty in Maldives and Seychelles by <i>Riaz Shareef and Michael McAleer</i>
1150-1330	Lunch		
	Chair Dr. Benjawan <i>Wiwatanapataphee</i> , Mahidol University, Thailand	Chair	Dr. Supakorn Soontornkit, MSC Assets Management Public Co.Ltd., Thailand
1330-1350	A.II-5 Dynamic Modelling of a Continuous Process Permitting Stable Coexistence of Sensitive Microbial Population and Resistant Microbial Population in a Gastrointestinal Tract by <i>Tippawan Puttasontiphot, Yongwimon Lenbury, Chontita Rattanakula, Sahattaya Rattanamongkonkul, John R. Hotchkiss and Philip S. Crooke</i>	E-5	Modelling Seasonal Macroeconomic Consumption Behavior and Structural Breaks in Thailand by <i>Songsak Sriboonchitta, Aree Wiboonpongse and Yaovarate Chaovanapoonpho</i>
1350-1410	A.II-6 Traveling Wave Front Solutions in a Neuronal Model with Lateral- inhibition Type of Connection Function by <i>Sittipong Ruktamatkul, Yongwimon Lenbury, and Jonathan Bell</i>	E-6	Modelling a Hedonic Price of Northern Thai Handicraft Products by <i>Aree Wiboonpongse, Songsak Sriboonchitta and Yaovarate Chaovanapoonphol</i>
1410-1430	A.II-7 Effect of oblique magnetic field on temperature and concentration dependent surface tension driven convection in the absence of gravity by <i>I.F.Mudagall and V. Ramachandramurthy</i>	E-7	Economic Modeling of Technology Differences and Global Competitiveness of the Abaca Fiber Industry in the Philippines by <i>Antonio Pajo Abamo and Corazon T. Aragon</i>
1430-1450	A.II-8 Numerical Simulation of Water Distribution System of Thungmahamek Branch, Bangkok, Thailand by <i>Adichai Pornprommin, Surachai Lipiwattanakarn and Suwatana Chittaladakorn</i>	E-8	Protection of Intellectual Property in the USA by <i>Suhejla Hoti, Michael McAleer and Dan Slottje</i>
1450-1530	Coffee Break		

January 10, 2007

		Sustainable production and development (D)			Economic and finance modeling (E)
	Chair	Dr. Brian Davidson, University of Melbourne, Australia	Chair		Dr. Kamol Ngamsomsuke, Chiang Mai University, Thailand
Room		Nanta A			Lanna
1530-1550	D-1	Environmental sustainability practices in corporate and public enterprises: a review by <i>Subana Shanmuganathan</i>	E-9		Modeling Conditional Correlations Across International Stock, Bond and Foreign Exchange Markets by <i>Abdul Hakim, Michael McAleer and Felix Chan</i>
1550-1610	D-2	Discrete Choice Model For Public Transport Development in Kuala Lumpur by <i>Abdullah Nurdden, Riza Atiq O.K.Rahmat and Amiruddin Ismail</i>	E-10		Modelling the Interactions Across International Stock, Bond and Foreign Exchange Markets: Evidence from Emerging Markets by <i>Abdul Hakim and Michael McAleer</i>
1610-1630	D-3	Governing Teak Furniture Business: A Global Value-Chain System Dynamic Modelling Approach by <i>Herry Purnomo, Philippe Guizol, Dwi R. Muhtaman</i>	E-11		Country Risk and Innovation? An Application to Foreign Patents Registered in the USA by <i>Suhejla Hoti and Michael McAleer</i>
1630-1650	D-4	Intercropping of medicinal and aromatic herbs with multipurpose tree species for improved production and higher economic benefits under upland agroforestry systems in northwestern India by <i>P S Thakur, Vaishnu Dutt, Raj Kumar and Sonam Singh</i>	E-12		On the Estimation of Varying β Parameter in the Capital Asset Pricing Model (CAPM) by <i>Songsak Sriboonchitta, Aree Wiboonpongse</i>
1650-1710	D-5	Modeling of Light Oil Recovery through Air Injection in Malaysian Reservoirs by <i>Zeeshan Mohiuddin, Ismail Mohd. Saaid, D.M Anwar Raja and Nor Aidil B Anua</i>	E-13		Modelling Abstention of and Expenditure Shares on Alcohol and Tobacco in Thailand by <i>Songsak Sriboonchitta, Aree Wiboonpongse and Yaovarate Chaovanapoonpho</i>
1710-1730	D-6	Optimisation Scenarios of Tree Growing Under Partnership Schemes for Future Community Based Forest Management in Sumbawa District, Indonesia by <i>Aritta Suwarno, Ani Adiwinata Nawir, Julmansyah and Kurniawan</i>			

Special Announcement: Mini-symposium on International Consortium for Agricultural Systems Applications (ICASA) and Information and Communication Technology (ICT) Tools for sustainable agriculture in Room Nanta II from 1030-1530. All are welcome. See separate program announcement for this Mini-symposium.

January 11, 2007

900-1000		Keynote address “Scientific Computings for Real World by TFlops Supercomputer” by Takayuki Aoki, Global Scientific Information and Computing Center, Tokyo Institute of Technology, Japan		
1000-1030		Coffee Break		
		Advanced modelling concepts		Natural Resource and Agricultural Resource Management II
Room:	Nanta A		Room	Lanna
	Chair	Prof. Yonwimon Lenbury, Mahidol University, Thailand		Dr. Attachai Jintawet, Chiang Mai University, Thailand
		Mathematical modelling for double-walled carbon nanotube oscillators: Gigahertz oscillatory behaviour by <i>Duangkamon Baowan, Ngamta Thamwattana and James M. Hill</i>		Use participatory modelling to validate and build Multi-Agent System model regarding rainfed lowland rice and labour management in lower northeast Thailand by <i>Warong Naivinit, Christophe Le Page, M. Thongnoi, Guy Trébuil and N. Srisombat</i>
1030-1050	B-1		C-13	
		Modelling of Travel Time Variability of Transport Systems by <i>Upali Vandebona and Eli Ismutulla</i>		Participatory Simulations of Competing Aquacultural and Agricultural Land Uses in Bac Lieu Province, Mekong Delta, Vietnam by <i>Le Canh Dung, Christophe Le Page, Chu Thai Hoanh</i>
1050-1110	B-2		C-14	
		Pedestrian Navigation Simulation in Virtual Environment by <i>Haider Ali, Masum Billah and Soheli Farhana</i>		Participatory modelling for razor clam management at Don Hoi Lord Ramsar site, Thailand by <i>Kobchai Worrapimphong, Nantana Gajaseni and Francois Bousquet</i>
1110-1130	B-3		C-15	
		A 3D Tire/Road Interaction Simulation by a Developed Model (ABAQUS code) by <i>M.Zamzamzadeh and M.Negarestani</i>		Companion modelling to facilitate adaptive forest management in Nam Haen sub-watershed, Nan Province, northern Thailand by <i>Pongchai Dumrongrojwatthan., Cécile Barnaud, Nantana Gajaseni, and Guy Trébuil</i>
1130-1150	B-4		C-16	
1150-1330	Lunch			
	Chair	Prof. M. Manajjemi, Isramic Azad University, Iran		Dr. Somjate Pratummintra, Thailand Department of Agriculture
		Numerical Simulation of Blood Flow in the Stenosed Coronary Artery by <i>S. Amornsamankul, B. Wiwatanapataphee, Y-H. Wu, Y. Lenbury</i>		Data-Driven Modeling for Deriving Coastal Gates Operating Rules by <i>Pakorn Dithakit and Suwatana Chittaladakorn</i>
1330-1350	B-5		C-17	
		Random Search Methods for Large-Scale Optimization via Simulation Problems by <i>Noocharin Tippyawannakorn and Juta Pichitlamken</i>		A Presentation of the Effects of Fertilizers on Surface Water Quality Using Spatial Information by <i>Alizadeh Shabani, Afshin, Sergei Schreider, Panlop Zeephongsekul, Julia Schlap</i>
1350-1410	B-6		C-18	
		Comparing the simulated power of discrete goodness-of-fit tests for small sample sizes by <i>Michael Steele, Janet Chaseling and Cameron Hurst</i>		Evaluation of Environment Impacts and Project Design for the construction of Breakwater and Groin in Kao Dang, Kuiburi, Prachuap Khiri Khan, Thailand by <i>Phinai Jinchai and Suwatana Chittaladakorn</i>
1410-1430	B-7		C-19	
		Covariance Matrix Interpolations for Laplace’s Equation by with Correlated Boundary Values by <i>Nattapong Moonpluck and Peerayuth Charnsethikul</i>		Embedding an Optimization Module within a 3D Density Dependent Groundwater and Solute Transport Model to determine an effective Groundwater Management Scheme in the Bangkok Aquifers System by <i>Phatcharasak ARLAI, M. Koch. And S. Koontanukulvong</i>
1430-1450	B-8		C-20	
1450-1530		Coffee Break		Coffee break

January 11, 2007

**Natural Resource and Agricultural Resource
Management II (C)**

	Room	Lanna
	Chair	Dr. Biju George, University of Melbourne, Australia
1530-1550	C-21	Modelling the cadmium flows in Australia by <i>Suphaphat Kwonpongsagoon, Ruth Scheidegger, and Hans-Peter Bader</i>
1550-1610	C-22	Regional Analysis of Sediment Yield in the Part of Caspian Sea Coastal Basins by <i>Engr. M. Vafakhah</i>
1610-1630	C-23	Estimating of Forest Productive Areas from High Resolution Remote Sensing Imagery in Thungkwain Forest Plantation, Lumpang Province by <i>Somporn Sangawongse, H. Vu Duc, C. Prangkio, T. Pancharat and N. Termpongpan</i>
1630-1650	C-24	Comparing Different Environmental Variables in Predictive Models of Bird Distribution by <i>Afshin Alizadeh Shabani, Lynne C. MacArthur, Mali Abdollahian</i>
1700-2000	Farewell drinks and dinner (Riverside compound, the Sheraton Hotel)	