

School of Bio-Chemical Engineering and Technology

2008 Publications

International Journals

1. Chakguy Prakasvudhisarn and Luckhana Lawtrakul (2008). Feature set selection in QSAR of 1-[(2-hydroxyethoxy)methyl]-6-(phenylthio)thymine (HEPT) analogues by using swarm intelligence, *Monatshefte für Chemie*, Vol. 139, No. 3, March 2008, pp. 197-211.
2. Dacera, Dominica Del Mundo and Sandhya Babel (2008). Removal of heavy metals from contaminated sewage sludge using *Aspergillus niger* fermented raw liquid from pineapple wastes, *Bioresource Technology*, Vol. 99, No. 6, April 2008, pp. 1682-1689.
3. Liu, Xinyu; Reiko Wada; Siwarutt Boonyarattanakalin; Bastien Castagner; and Peter H. Seeberger (2008). Automated synthesis of lipomannan backbone α (1-6) oligomannoside via glycosyl phosphate: glycosyl tricyclic orthoester revisited, *Chemical Communications*, No. 30, 2008, pp. 3510-3512.
4. Nuchanat Chamchoi; Suwanchai Nitisoravut; and J. E. Schmidt (2008). Inactivation of ANAMMOX communities under concurrent operation of anaerobic ammonium oxidation (ANAMMOX) and denitrification, *Bioresource Technology*, Vol. 99, No. 9, June 2008, pp. 3331-3336.
5. Paweena Panichayapichet; Suwanchai Nitisoravut; Wijarn Simachaya; and Arpa Wangkiat (2008). Source identification and speciation of metals in the topsoil of the Khli Ti watershed, Thailand, *Water, Air, & Soil Pollution*, October 2008, Vol. 194, Nos. 1-4, pp. 259-273.
6. Siwarutt Boonyarattanakalin; Xinyu Liu; Mario Michieletti; Bernd Lepenies; and Peter H. Seeberger (2008). Chemical synthesis of all phosphatidylinositol mannoside (PIM) glycans from *Mycobacterium tuberculosis*, *Journal of the American Chemical Society*, Vol. 130, No. 49, 2008, pp. 16791-16799.

National Journals

1. Rapeepong Suwanwarangkul and Sumittra Charojrochkul (2008). Modeling of methanol steam reformer for hydrogen production in fuel cell application, *Thammasat International Journal of Science and Technology*, Vol. 13, Special Edition, November 2008, pp. 67-74.
2. Thitimaporn Duangmanee; Suda Wannakitti; Rapeepong Suwanwarangkul; and Sumittra Charojrochkul (2008). Electrical property of thick film electrolyte for solid oxide fuel cell, *Journal of Metals, Materials and Minerals*, Vol. 18, No. 2, December 2008, pp. 7-11.

International Conferences

1. Amin, M. and Alice Sharp (2008). Model to predict health impact due to flood: a case study of Bangladesh. In *Proceedings of the International Conference 2008: Sustainable Environmental Technology and Sanitation for Tropical Region*, 18-19 November 2008, Surabaya, Indonesia. pp. 452-463.
2. Babel, Sandhya and Satoshi Takizawa (2008). Membrane fouling and cake behavior during algal filtration. In *Proceedings of the 6th Regional Symposium on Membrane Science & Technology*, 13-15 August 2008, Phuket, Thailand. 8 p.
3. Babel, Sandhya; Alice Sharp; Amornpong Thongbhakdi; and Zebunessa Shoma (2008). Community participation in pollution abatement and water quality conservation through bio monitoring. In *Proceedings of the 3rd WEPA International Forum on Water Environmental Governance in Asia*, 23-24 October 2008, Putrajaya, Malaysia. pp. 132-137.
4. Burin Khemthong; Rapeepong Suwanwarangkul; Sumittra Charojrochkul; and A. Manonukul (2008). Catalytic steam reforming of simulated biogas for use in solid oxide fuel cell system, In *Proceedings of the 15th Regional Symposium on Chemical Engineering (RSCE) in conjunction with the 22nd Symposium of Malaysian Chemical Engineering (SOMChE)*, 2-3 December 2008, Kuala Lumpur, Malaysia. pp. 511-515.
5. Chakguy Prakasvudhisarn and Luckhana Lawtrakul (2008). Particle swarm optimization in quantitative structure-activity relationship of anti-HIV HEPT analogues. In *Proceedings of Pure and Applied Chemistry*

- International Conference 2008 (PACCON 2008)* [CD-ROM], 30 January – 1 February 2008, Bangkok, Thailand. pp. 98-103.
6. Dacera, Dominica del Mundo and Sandhya Babel (2008). Evaluation of heavy metal from removal by unfermented and naturally fermented pineapple wastes from Bangkok sewage sludge. In *Proceedings of the Second International Symposium on Food and Water Sustainability in Asia 2008*, 7-8 October 2008, Macau, China. pp. 121-128.
 7. Luckhana Lawtrakul; Peter Wolschann; and Chakguy Prakasvudhisarn (2008). Predicting complexation thermodynamics of β -cyclodextrin with enantiomeric pairs of chiral guests by using swarm intelligence and support vector machines. In *Proceedings of the 14th International Cyclodextrins Symposium*, 8-11 May 2008, Kyoto, Japan. pp. 421-424.
 8. Nonglak Rungruang and Sandhya Babel (2008). Treatment of natural rubber processing wastewater by combination of ozonation and activated sludge process. In *Proceedings of International Conference on Environmental Research and Technology (ICERT 2008)*, 28-30 May 2008, Parkroyal Penang, Malaysia. pp. 259-263.
 9. Pakorn Opaprakasit and Luckhana Lawtrakul (2008). Intra-molecular hydrogen bonding in calixarene-like structures of phenolic resins: phenolic analogue models. In *Proceedings of Pure and Applied Chemistry International Conference 2008 (PACCON 2008)* [CD-ROM], 30 January – 1 February 2008, Bangkok, Thailand. pp. 675-680.
 10. Rapeepong Suwanwarangkul; Sumittra Charojrochkul; Pisanu Toochinda; Nawat Kujareevanich; Opart Sanmontrikul; and Sakchai Kanchananiyom (2008). Modeling of methanol steam reformer to produce hydrogen for fuel cell application. In *Proceedings of the 1st Thammasat University International Conference on Chemical, Environmental and Energy Engineering (TU ChEEE 2008)* [CD-ROM], 4 March 2008, Bangkok, Thailand. 6 p.
 11. Thitimaporn Duangmanee; Rapeepong Suwanwarangkul; and Sumittra Charojrochkul (2008). Electrical property of thick film electrolyte for solid oxide fuel cell applications. In *Proceedings of the 15th Regional Symposium on Chemical Engineering (RSCE) in conjunction with the 22nd Symposium of Malaysian Chemical Engineers (SOMChE)*, 2-3 December 2008, Kuala Lumpur, Malaysia. pp. 621-626.
 12. Thitimaporn Duangmanee; S. Wanakitti; Rapeepong Suwanwarangkul; and Sumittra Charojrochkul (2008). Electrical property of thick film electrolyte for solid oxide fuel cell. In *Proceedings of the 5th Thailand Materials Science and Technology Conference: Materials Technology for Climate Change*, 16-19 September 2008, Bangkok, Thailand. pp. 106-108.
 13. Wanwipa Siriawatwechakul; Nutte Teraphongphom; Vatcharani Ngaotheppitak; and Sureeporn Kunataned (2008). Thermo-sensitive hydrogel: control of hydrophilic-hydrophobic transition. In *Proceedings of World Academy of Science, Engineering and Technology*, 4-6 July 2008, Paris, France. Vol. 30, pp. 1046-1051.

School of Bio-Chemical Engineering and Technology Faculty Members, 2008

1. Dr. Luckhana Lawtrakul	Associate Professor
2. Dr. Pisanu Toochinda	Lecturer
3. Dr. Rapeepong Suwanwarangkul	Lecturer (Deceased in October 2008)
4. Dr. Sandhya Babel	Associate Professor
5. Dr. Siwarutt Boonyarattanakalin	Lecturer (Joined SIIT in June 2008)
6. Dr. Suwanchai Nitisoravut	Associate Professor
7. Dr. Wanwipa Siriawatwechakul	Lecturer



School of Civil Engineering and Technology

2008 Publications

International Journals

1. Amorn Pimanmas and Teeraphot Supaviriyakit (2008). Cyclic behavior of non-seismically designed interior reinforced concrete beam-column connections, *Songklanakarin Journal of Science and Technology*, Vol. 30, No. 3, May-June 2008, pp. 323-332.
2. Preecha Soparat and Pruettha Nanakorn (2008). Analysis of anchor bolt pullout in concrete by the element-free Galerkin method, *Engineering Structures*, Vol. 30, No. 12, December 2008, pp. 3574-3586.
3. Preecha Soparat and Pruettha Nanakorn (2008). Analysis of cohesive crack growth by the element-free Galerkin method, *Journal of Mechanics*, Vol. 24, No. 1, March 2008, pp. 45-54.
4. Ratchayut Kasemchaisiri and Somnuk Tangtermsirikul (2008). Deformability prediction model for self-compacting concrete, *Magazine of Concrete Research*, Vol. 60, No. 2, March 2008, pp. 93-108.
5. Ratchayut Kasemchaisiri and Somnuk Tangtermsirikul (2008). Properties of self-compacting concrete incorporating bottom ash as a partial replacement of fine aggregate, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 34, No. 1, March 2008, pp. 87-95.
6. Sontaya Tongaroonsri and Somnuk Tangtermsirikul (2008). Influence of mixture condition and moisture on tensile strain capacity of concrete, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 34, No. 1, March 2008, pp. 59-68.
7. Teeraphot Supaviriyakit and Amorn Pimanmas (2008). Comparative performance of sub-standard interior reinforced concrete beam-column connection with various joint reinforcing details, *Materials and Structures*, Vol. 41, No. 3, April 2008, pp. 543-557.
8. Teeraphot Supaviriyakit; Amorn Pimanmas; and Pennung Warnitchai (2008). Nonlinear finite element analysis of non-seismically detailed interior RC beam-column connection under reversed cyclic load, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 34, No. 1, March 2008, pp. 49-58.
9. Winyu Rattanapitikon (2008). Verification of significant wave representation method, *Ocean Engineering*, Vol. 35, Nos. 11-12, August 2008, pp. 1259-1270.
10. Winyu Rattanapitikon and Sangapol Sawanggun (2008). Energy dissipation model for a parametric wave approach based on laboratory and field experiments, *Songklanakarin Journal of Science and Technology*, Vol. 30, No. 3, May-June 2008, pp. 333-341.

National Journals

1. Mongkut Piantanakulchai (2008). Modeling the multi-criteria highway corridor selection with uncertainties using the stochastic analytic network process, *Research and Development Journal of The Engineering Institute of Thailand*, Vol. 19, No. 2, pp. 33-39.
2. Nguyen Trong Lam; Raktipong Sahamitmongkol; and Somnuk Tangtermsirikul (2008). Expansion and compressive strength of concrete with expansive additive, *Research and Development Journal of The Engineering Institute of Thailand*, Vol. 19, No. 2, pp. 40-49.
3. Nguyen Trong Lam; Taweechai Sumranwanich; Pitsan Krammart; Dujthep Yodmalai; Raktipong Sahamitmongkol; and Somnuk Tangtermsirikul (2008). Durability properties of concrete with expansive additive, *Research and Development Journal of The Engineering Institute of Thailand*, Vol. 19, No. 4, pp. 8-15.

International Conferences

1. Amorn Pimanmas and Preeda Chaimahawan (2008). Relocation of plastic hinge of substandard beam-column joint by joint planar expansion. In *Proceedings of the Eleventh East Asia-Pacific Conference on Structural Engineering & Construction (EASEC-11) "Building a Sustainable Environment" [CD-ROM]*, 19-21 November 2008, Taipei, Taiwan. 6 p.

2. Anan Nimitawat and Pruettha Nanakorn (2008). A genetic algorithm for beam-slab layout design. In *Proceedings of the 12th Annual Symposium on Computational Science and Engineering (ANSCSE 12)*, 27-29 March 2008, Ubon Ratchathani, Thailand. pp. 284-289.
3. Anan Nimitawat and Pruettha Nanakorn (2008). A genetic algorithm for solving layout design problems of rectilinear floor plans. In *Proceedings of the Eleventh East Asia-Pacific Conference on Structural Engineering & Construction (EASEC-11) "Building a Sustainable Environment"* [CD-ROM], 19-21 November 2008, Taipei, Taiwan. 6 p.
4. Anan Nimitawat and Pruettha Nanakorn (2008). Automated layout design of beam-slab floors. In *Proceedings of the 4th International Conference on Advances in Structural Engineering and Mechanics (ASEM'08)* [CD-ROM], 26-28 May 2008, Jeju, Korea. pp. 415-424.
5. Ekachai Chaichanasiri; Pruettha Nanakorn; Wichit Tharanon; and J. Vander Sloten (2008). A numerical study on a premature contact of an implant-retained crow. In *Proceedings of the 3rd International Symposium on Biomedical Engineering (ISBME 2008)* [CD-ROM], 10-11 November 2008, Bangkok, Thailand. pp. 48-51.
6. Kanchana Suranga Kahatadeniya; Pruettha Nanakorn; and Krishna M. Neaupane (2008). Ant colony optimization for slope stability analysis. In *Proceedings of Geo-Chiangmai 2008: An International Conference on Geotechnical Engineering (GT08)*, 10-12 December 2008, Chiangmai, Thailand. CI-Premier, pp. 195-202.
7. Jaturong Sa-nguanmanasak; Tawee Chaisomphob; and Eiki Yamaguchi (2008). Shear lag effect on simply supported box girders with longitudinal stiffeners. In *Proceedings of the 4th International Conference on Advances in Structural Engineering and Mechanics (ASEM'08)* [CD-ROM], 26-28 May 2008, Jeju, Korea. pp. 2095-2105.
8. Krittiya Kaewmanee; Wittawat Pattaranawic; Chalermchai Wattanalamlerd; and Somnuk Tangtermsirikul (2008). Modified slump and slump loss prediction models for ternary blended concrete with lignosulfonate based water reducers. In *Proceedings of Papers of the 3rd ACF International Conference on Sustainable Concrete Technology and Structures in Local Climate and Environment Conditions (ACF/VCA 2008)* [CD-ROM], 11-13 November 2008, Ho Chi Minh City, Vietnam. Paper No. A.58, pp. 559-565.
9. Panuwat Joyklad and Amorn Pimanmas (2008). The seismic behavior of reinforced concrete bridge pier with debonded reinforcements and interface dowels. In *Proceedings of the Eleventh East Asia-Pacific Conference on Structural Engineering & Construction (EASEC-11) "Building a Sustainable Environment"* [CD-ROM], 19-21 November 2008, Taipei, Taiwan. 6 p.
10. Praj-ya Sungsomboon; Tawee Chaisomphob; Nattakorn Bongochgetsakul; and Ishida Tetsuya (2008). Simulation-oriented design for composting operation. In *Proceedings of the 5th Asian-Pacific Landfill Symposium (APLAS Sapporo 2008)* [CD-ROM], 22-24 October 2008, Hokkaido, Japan. 8 p.
11. Raktipong Sahamitmongkol; Nguyen Trong Lam; Dujthep Yodmalai; and Somnuk Tangtermsirikul (2008). Cracking analysis for shrinkage-compensating concrete under high restraint. In *Proceedings of Papers of the 3rd ACF International Conference on Sustainable Concrete Technology and Structures in Local Climate and Environment Conditions (ACF/VCA 2008)* [CD-ROM], 11-13 November 2008, Ho Chi Minh City, Vietnam. Paper No. B14, pp. 714-720.
12. Tawee Chaisomphob; Jaturong Sa-nguanmanasak; and Eiki Yamaguchi (2008). Finite element analysis of a composite steel-concrete bridge. In *Proceedings of the Ninth International Conference on Computational Structures Technology* [CD-ROM], 2-5 September 2008, Athens, Greece. Paper No. 286, 12 p.

National Conferences

1. Amorn Pimanmas and Panuwat Joyklad (2008). Design concepts for evacuation shelter in tsunami hazard areas. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. STR-059, pp. 301-306. (in Thai)
2. Amorn Pimanmas and Preeda Chaimahawan (2008). Seismic retrofit of substandard beam-column joint by joint planar expansion. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. STR-044, pp. 235-240. (in Thai)
3. Anan Nimitawat and Pruettha Nanakorn (2008). Design automation for beam-slab layouts. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. STR-005, pp. 25-30.

4. Jaturong Sa-nguanmanasak; Tawee Chaisomphob; and Eiki Yamaguchi (2008). Analysis of shear lag in stiffened box girders. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. STR-080, pp. 386-390.
5. Krittiya Kaewmanee; Sonam Wangchuk ; and Somnuk Tangtermsirikul (2008). Modified slump and slump loss prediction models for ternary concrete. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. MAT-042, pp. 209-214.
6. Pakawat Sancharoen; Tamyod Somyapakdee; Raktipong Sahamitmongkol; and Somnuk Tangtermsirikul (2008). Inspection and service life evaluation of cracked RC structure due to drying shrinkage. In *Proceedings of the 4th Annual Concrete Conference (ACC4)* [CD-ROM], 20-22 October 2008, Ubolrachathani, Thailand. Paper No. REP-02, pp. REP-7 to REP-12.
7. Panuwat Joyklad and Amorn Pimanmas (2008). Structural evaluation and strengthening of existing buildings in tsunami hazard areas. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. STR-060, pp. 307-312. (in Thai)
8. Panuwat Joyklad and Amorn Pimanmas (2008). The seismic behavior of reinforced concrete bridge pier with debonded reinforcements. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. STR-066, pp. 326-331. (in Thai)
9. Pongsak Choktaweekarn and Somnuk Tangtermsirikul (2008). Analysis of restrained strain of mass concrete with different casting methods. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. MAT-054, pp. 275-280.
10. Pongsak Choktaweekarn and Somnuk Tangtermsirikul (2008). The use of computer software in the analysis for prevention of thermal crack during construction of mass concrete. In *Proceedings of the 4th Annual Concrete Conference (ACC4)* [CD-ROM], 20-22 October 2008, Ubolrachathani, Thailand. Paper No. MAT-39, pp. Mat -236 to Mat -241.
11. Praj-ya Sungsomboon; Tawee Chaisomphob; Nattakorn Bongochgetsakul; and Ishida Tetsuya (2008). Simulation-based decision methodology for practical composting. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. ENV-007, pp. 18-23. (in Thai)
12. Preeda Chaimahawan and Amorn Pimanmas (2008). Seismic retrofit beam-column joint by steel bracket joint planar expansion. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. STR-045, pp. 241-246. (in Thai)
13. Raktipong Sahamitmongkol; Chollada Rojrungtaevee; Kamonsri Arunrukthavorn; Krittiya Kaewmanee; and Somnuk Tangtermsirikul (2008). Effect of mix proportion, materials, and condition of concrete on measurement of ultrasonic pulse velocity. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. MAT-056, pp. 287-293.
14. Raktipong Sahamitmongkol; Pongsak Choktaweekarn; Pakawat Sancharoen; and Somnuk Tangtermsirikul (2008). Damage analysis of RC column under long-term fluctuating high temperature. In *Proceedings of the 4th Annual Concrete Conference (ACC4)* [CD-ROM], 20-22 October 2008, Ubolrachathani, Thailand. Paper No. REP-04, pp. REP-20 to REP-26.
15. Worsak Kanok-Nukulchai; Pruettha Nanakorn; Anan Nimtawat; Chinapat Buachart; and Thanh Tam Bui (2008). Finite element modelling of tsunami propagation on the west coast of Thailand. In *Proceedings of the 13th National Conference on Civil Engineering (NCCE13)* [CD-ROM], 14-16 May 2008, Pattaya, Thailand. Paper No. WRE-004, pp. 21-26.

School of Civil Engineering and Technology Faculty Members, 2008

1.	Dr. Amorn Pimanmas	Associate Professor
2.	Dr. Mongkut Piantanakulchai	Assistant Professor
3.	Dr. Pruettha Nanakorn	Associate Professor
4.	Dr. Somnuk Tangtermsirikul	Professor
5.	Dr. Tawee Chaisomphob	Associate Professor
6.	Dr. Winyu Rattanapitikon	Associate Professor

School of Communications, Instrumentations and Control

2008 Publications

International Journals

1. Amnart Chaichoet and Chalie Charoenlarnopparut (2008). New approaches to improve WCDMA SIR estimator by employing different post-processing stages, *Songklanakarin Journal of Science and Technology*, Vol. 30, No. 6, November-December 2008, pp. 775-785.
2. Saravuth Pothiya; Issarachai Ngamroo; and Waree Kongprawechnon (2008). Application of multiple tabu search algorithm to solve dynamic economic dispatch considering generator constraints, *Energy Conversion and Management*, Vol. 49, No. 4, April 2008, pp. 506-516.
3. Sirisak Wongsura and Waree Kongprawechnon (2008). Discrete-time feedback error learning and nonlinear adaptive controller, *ECTI Transaction on Electrical Engineering, Electronics and Communications*, Vol. 6, No. 2, August 2008, pp. 9-16.

International Conferences

1. Amnart Thamrongmas and Chalie Charoenlarnopparut (2008). Finite support 2-D FIR QMF PR filter bank design By spectral factorization using Gröbner basis. In *Proceedings of the 14th Asia-Pacific Conference on Communications (APCC2008)* [CD-ROM], 14-16 October 2008, Tokyo, Japan. 5 p.
2. Banlue Srisuchinwong; Chun-Hung Liou; and Tepdumrong Klengkumnuankan (2008). Prediction of dominant frequencies of CFOA-based Sprott sinusoidal and chaotic oscillators. In *Proceedings of the Chaotic Modeling and Simulation International Conference (CHAOS 2008)* [CD-ROM], 3-6 June 2008, Chania, Greece. 7 p.
3. Chalie Charoenlarnopparut and Pramote Jangisarakul (2008). Constructive algorithms for determining inverses and syndrome matrices of multidimensional convolutional encoders using the Gröbner basis approach. In *Proceedings of the 14th Asia-Pacific Conference on Communications (APCC2008)* [CD-ROM], 14-16 October 2008, Tokyo, Japan. 4 p.
4. Duangporn Puttadilok; Duangrat Eungdamrong; and Smith Amornsasak (2008). A microstrip diplexer filter using stepped-impedance resonators. In *Proceedings of the SICE Annual Conference 2008 – International Conference on Instrumentation, Control and Information Technology* [CD-ROM], 20-22 August 2008, Tokyo, Japan. Paper No. 1A03-3, pp. 59-62.
5. Itthisek Nilkhamhang and Akira Sano (2008). Model-based adaptive friction compensation for accurate position control. In *Proceedings of the 47th IEEE Conference on Decision and Control (CDC2008)* [CD-ROM], 9-11 December 2008, Cancun, Mexico. pp. 1346-1351.
6. Kondo, Toshiaki ; Pramuk Boonsieng; and Waree Kongprawechnon (2008). Improved gradient-based methods for motion estimation in image sequences. In *Proceedings of the SICE Annual Conference 2008 – International Conference on Instrumentation, Control and Information Technology* [CD-ROM], 20-22 August 2008, Tokyo, Japan. Paper No. 1C02-3, pp. 1120-1123.
7. Naratch Phaoharuhansa; Katekeaw Krishnamra; Suebsak Nanthavanij; and Waree Kongprawechnon (2008). Computer workstation evaluation approach by neural network (NN). In *Proceedings of the Sixth International Conference on Manufacturing Research (ICMR08)*, 9-11 September 2008, West London, UK. pp. 867-872.
8. Noppanan Suwanjatuporn; Mes Napaamporn; Waree Kongprawechnon; and Sirisak Wongsura (2008). Nonlinear discrete-time feedback error learning with PI controller for AC servo motor. In *Proceedings of the SICE Annual Conference 2008 – International Conference on Instrumentation, Control and Information Technology* [CD-ROM], 20-22 August 2008, Tokyo, Japan. Paper No. 1C12-4, pp. 1385-1389.
9. Pailin Jiewpaibul; Busara Piriyanont; Waree Kongprawechnon; Toshiaki Kondo; and Suthee Phoojaruenchanachai (2008). Fuzzy controller and image enhancement for slit lamp microscopy. In *Proceedings of the 2008 Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI) International Conference (ECTI-CON 2008)* [CD-ROM], 14-17 May 2008, Krabi, Thailand. Vol. 1, pp. I-521 to I-524.
10. Piya Mekanand; Puripath Prawatrungruang; and Duangrat Eungdamrong (2008). 0.5 μ CMOS 2.4 GHz RF-switch for wireless communications. In *Proceedings of the 10th International Conference on Advanced*

Communication Technology (ICTACT 2008) [CD-ROM], 17-20 February 2008, Gangwon-Do, Korea. pp. 447-450.

11. Tin Mon Mon Swe; Toshiaki Kondo; and Waree Kongprawechnon (2008). Image sequence segmentation using the gradient structure tensor method and self-organizing map. In *Proceedings of the 2008 Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI) International Conference (ECTI-CON 2008)* [CD-ROM], 14-17 May 2008, Krabi, Thailand. Vol. 1, pp. I-425 to I-428.
12. Wannaree Wongtrairat; Pornchai Supnithi; and Sawasd Tantaratana (2008). Performance of M-PSK modulation in double Rician fading channels with MRC diversity. In *Proceedings of the 2008 Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI) International Conference (ECTI-CON 2008)* [CD-ROM], 14-17 May 2008, Krabi, Thailand. Vol. 1, pp. I-321 to I-324.

School of Communications, Instrumentations and Control Faculty Members, 2008

1. Dr. Banlue Srisuchinwong	Associate Professor
2. Dr. Chalie Charoenlarnopparut	Assistant Professor
3. Dr. Duangrat Eungdamrong	Assistant Professor
4. Dr. Itthisek Nilkhamhang	Lecturer (Joined SIIT in May 2008)
5. Dr. Prapun Suksompong	Lecturer (Joined SIIT in November 2008)
6. Dr. Sawasd Tantaratana	Professor
7. Dr. Somsak Kittipiyakul	Lecturer (Joined SIIT in October 2008)
8. Dr. Toshiaki Kondo	Assistant Professor
9. Dr. Waree Kongprawechnon	Associate Professor



School of Information and Computer Technology 2008 Publications

International Journals

1. Akama, Kiyoshi and Ekawit Nantajeewarawat (2008). Extension of logical structures by safe extension of specialisation systems, *International Journal of Automation and Control*, Vol. 2, Nos. 2-3, December 2008, pp. 340-364.
2. Akara Sopharak; Bunyarit Uyyanonvara; Sarah Barman; and Thomas H. Williamson (2008). Automatic detection of diabetic retinopathy exudates from non-dilated retinal images using mathematical morphology methods, *Computerized Medical Imaging and Graphics*, Vol. 32, No. 8, December 2008, pp. 720-727.
3. Chutima Pisarn and Thanaruk Theeramunkong (2008). Thai spelling analysis for automatic spelling speech recognition, *Information Sciences*, Vol. 178, No. 1, January 2008, pp. 122-136.
4. Hasan, Md Maruf and Ekawit Nantajeewarawat (2008). Towards intelligent and adaptive digital library services, *Lecture Notes in Computer Science*, Vol. 5362, December 2008, pp. 104-113.
5. Lassada Sukkaew; Bunyarit Uyyanonvara; Stanislav S. Makhanov; Sarah Barman; and Pannet Pangputhipong (2008). Automatic tortuosity-based retinopathy of prematurity screening, *IEICE Transactions on Information and Systems*, Vol. E91-D, No. 12, December 2008, pp. 2868-2874.
6. Peerasak Intarapaiboon; Ekawit Nantajeewarawat; and Thanaruk Theeramunkong (2008). Extracting semantic frames from Thai medical-symptom phrases with unknown boundaries, *Lecture Notes in Computer Science*, Vol. 5367, December 2008, pp. 390-404. (Originally presented at the Third Asian Semantic Web Conference (ASWC'08), Bangkok, Thailand)

7. Thanaruk Theeramunkong; Kritsada Sriphaew; and Manabu Okumura (2008). Applying latent semantic indexing in frequent itemset mining for document relation discovery, *Lecture Notes in Computer Science, Advances in Knowledge Discovery and Data Mining*, Vol. 5012, 2008, pp. 731-738.
8. Uttapong Ruangrit; Metawee Srikumool; Anuchai Assawamakin; Chumpol Ngamphiw; Suparat Chuechote; Vilasinee Thaiprasarnsup; Gallissara Agavatpanitch; Ekawat Pasomsab; Pa-thai Yenchitsomanus; Surakameth Mahasirimongkol; Wasun Chantratita; Prasit Palittapongarnpim; Bunyarit Uyyanonvara; Chanin Limwongse; and Sissades Tongsim (2008). Thailand mutation and variation database (ThaiMUT), *Human Mutation*, Vol. 29, No. 8, August 2008, pp. E68-E75.
9. Weerachai Anotaipaboon and Stanislav S. Makhanov (2008). Curvilinear space-filling curves for five-axis machining, *Computer-Aided Design*, Vol. 40, No. 3, March 2008, pp. 350-367.

International Conferences

1. Akama, Kiyoshi and Ekawit Nantajeewarawat (2008). Meaning-preserving Skolemization on logical structures. In *Proceedings of the 9th International Conference on Intelligent Technologies (InTech'08)* [CD-ROM], 7-9 October 2008, Samui, Thailand. pp. 115-124.
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5. Jakkrit TeCho; Cholwich Nattee; and Thanaruk Theeramunkong (2008). A corpus-based approach for automatic Thai unknown word recognition using group-based evaluation by ranking. In *Proceedings of the Third International Conference on Knowledge, Information and Creativity Support Systems (KICSS 2008)*, 22-23 December 2008, Hanoi, Vietnam. pp. 90-97.
6. Jakkrit Techo; Cholwich Nattee; and Thanaruk Theeramunkong (2008). A corpus-based approach for keyword identification using supervised learning techniques. In *Proceedings of the 2008 Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI) International Conference (ECTI-CON 2008)* [CD-ROM], 14-17 May 2008, Krabi, Thailand. Vol. 1, pp. 1-33 to 1-36.
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School of Information and Computer Technology Faculty Members, 2008

1.	Dr. Bunyarit Uyyanonvara	Assistant Professor
2.	Dr. Cholwich Nattee	Lecturer
3.	Dr. Ekawit Nantajeewarawat	Associate Professor
4.	Dr. Gun Srijuntongsiri	Lecturer (Joined SIIT in May 2008)
5.	Dr. Komwut Wipusitwarakun	Assistant Professor
6.	Dr. Pakinee Suwannajan	Lecturer
7.	Dr. Philippe Meunier	Lecturer
8.	Dr. Stanislav S. Makhanov	Associate Professor
9.	Dr. Steven Gordon	Assistant Professor
10.	Dr. Surapa Thiemjarus	Lecturer (Joined SIIT in June 2008)
11.	Dr. Thanaruk Theeramunkong	Associate Professor



School of Management Technology

2008 Publications

International Journals

1. Krisada Asawarungsaengkul and Suebsak Nanthavanij (2008). Heuristic genetic algorithm for workforce scheduling with minimum total worker-location changeover, *International Journal of Industrial Engineering - Theory, Applications and Practice*, Vol. 15, No. 4, 2008, pp. 373-385.
2. Krisada Asawarungsaengkul and Suebsak Nanthavanij (2008). Optimization approach to hazard prevention budgeting problem, *International Journal of Industrial Engineering - Theory, Applications and Practice*, Vol. 15, No. 4, 2008, pp. 330-334.
3. Nuchrawee Jamjumrus and Suebsak Nanthavanij (2008). Ergonomic intervention for improving work postures during notebook computer operation, *Journal of Human Ergology*, Vol. 37, No. 1, pp. 23-33.
4. Sorawit Yaoyuenyong and Suebsak Nanthavanij (2008). Heuristic job rotation procedures for reducing daily exposure to occupational hazards, *International Journal of Occupational Safety and Ergonomics*, Vol. 14, No. 2, 2008, pp. 195-206.
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3. Sorawit Yaoyuenyong and Suebsak Nanthavanij (2008). Unconstrained and constrained job rotation procedures for noise hazard exposure reduction, *Asian Journal of Ergonomics*, Vol. 8, pp. 1-18.

International Conferences

1. Anwida Prompijit; Chawalit Jeenanunta; Aussadavut Dumrongsiri; Somrote Komolavanij; and Pisal Yenradee (2008). Optimization model for daily load dispatch scheduling of electricity generation system. In *Proceedings of the 10th IMAC Conference on Regional Innovation System and Manufacturing Culture (IMAC2008)* [CD-ROM], 15-17 October 2008, Hyogo, Japan. 9 p.
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3. Aussadavut Dumrongsiri; Apurva Jain; and Kamran Moinzadeh (2008). Analysis of an inventory model in subscription-based rental service with two-classes of customers. In *Proceedings of the 2008 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2008)*, 8-11 December 2008, Singapore. pp. 1055-1059.
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5. Chawalit Jeenanunta; Pisal Yenradee; Somrote Komolavanij; and Veeris Ammarapala (2008). Optimization model for daily load dispatch scheduling of electricity generation system. In *Proceedings of the 4th International Congress on Logistics and SCM Systems (ICLS 2008)* [CD-ROM], 26-28 November 2008, Bangkok, Thailand. pp. 89-97.

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17. Suthathip Suanmali (2008). Maple in mathematics. In *Proceedings of the Fifth International Conference on Information Technology: New Generations, 2008 (ITNG 2008)*, 7-9 April 2008, Las Vegas, NV, USA. pp. 528-533.
18. Thanwadee Chinda (2008). Factors influencing the development of safety cultures in the construction industry. In *Proceedings of the Fourth International Global Academy of Business & Economic Research (GABER) Conference [CD-ROM]*, 27-30 December 2008, Bangkok, Thailand. pp. 413-432.
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20. Veeris Ammarapala; Pornpimol Chongphaisal; Chawalit Jeenanunta; and Somrote Komolvanij (2008). Analysis of factors influencing industrial agglomeration in Thailand. In *Proceedings of the 10th IMAC Conference on Regional Innovation System and Manufacturing Culture (IMAC2008) [CD-ROM]*, 15-17 October 2008, Hyogo, Japan. 13 p.

School of Management Technology Faculty Members, 2008

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|-----|----------------------------|------------------------------------|
| 1. | Dr. Aussadavut Dumrongsiri | Lecturer (Joined SIIT in May 2008) |
| 2. | Dr. Chawalit Jeenanunta | Lecturer |
| 3. | Dr. Nattharika Rittippant | Lecturer (Joined SIIT in May 2008) |
| 4. | Dr. Pisit Chanvarasuth | Lecturer |
| 5. | Dr. Pornpimol Chongphaisal | Lecturer |
| 6. | Dr. Somrote Komolavanij | Associate Professor |
| 7. | Dr. Suebsak Nanthavanij | Associate Professor |
| 8. | Dr. Suthathip Suanmali | Lecturer |
| 9. | Dr. Thanwadee Chinda | Lecturer (Joined SIIT in May 2008) |
| 10. | Dr. Veeris Ammarapala | Assistant Professor |



School of Manufacturing Systems and Mechanical Engineering

2008 Publications

International Journals

1. Apichat Praditsmanont and Supachart Chungpaibulpatana (2008). Performance analysis of the building envelope: A case study of the Main Hall, Shinawatra University, *Energy and Buildings*, Vol. 40, No. 9, pp. 1737-1746.
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3. Chumpol Monthatipkul and Pisal Yenradee (2008). Inventory/distribution control system in a one-warehouse/multi-retailer supply chain, *International Journal of Production Economics*, Vol. 114, No. 1, July 2008, pp. 119-133.
4. Jirachai Buddhakulsomsiri and Parthana Parthanadee (2008). Stratified random sampling for estimating billing accuracy in health care systems, *Health Care Management Science*, March 2008, Vol. 11, No. 1, pp. 41-54.
5. Kasama Janvijitsakul and Vladimir I. Kuprianov (2008). Major gaseous and PAH emissions from a fluidized-bed combustor firing rice husk with high combustion efficiency, *Fuel Processing Technology*, Vol. 89, No. 8, August 2008, pp. 777-787.
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8. Kuprianov, Vladimir I.; Watcharee Kaewboonsong; and Peter L. Douglas (2008). Minimizing fuel and environmental costs for a variable-load power plant (co-)firing fuel oil and natural gas: part 2. optimization of load dispatch, *Fuel Processing Technology*, Vol. 89, No. 1, pp. 55-61.
9. Navee Chiadamrong and Nathridee Suppakitjarak (2008). Relationships of supply chain management capability and manufacturing operations competence on organisational performance: a case study of Thai industries, *International Journal of Logistics Systems and Management*, Vol. 4, No. 5, 2008, pp. 551-573.
10. Navee Chiadamrong and Ruengsak Kawtummachai (2008). A methodology to support decision-making on sugar distribution for export channel: A case study of Thai sugar industry, *Computers and Electronics in Agriculture*, Vol. 64, No. 2, December 2008, pp. 248-261.

11. Passakorn Srisastra; Satha Aphornratana; and Thanarath Sriveerakul (2008). Development of a circulating system for a jet refrigeration cycle, *International Journal of Refrigeration*, Vol. 31, No. 5, August 2008, pp. 921-929.
12. Pupong Pongcharoen, W. Promtet, Pisal Yenradee; and C. Hicks (2008). Stochastic optimisation timetabling tool for university course scheduling, *International Journal of Production Economics*, Vol. 112, No. 2, April 2008, pp. 903-918.
13. Rachadaporn Kaewklum and Vladimir I. Kuprianov (2008). Theoretical and experimental study on hydrodynamic characteristics of fluidization in air-sand conical beds, *Chemical Engineering Science*, Vol. 63, No. 6, March 2008, pp. 1471-1479.
14. Thananchai Leephakpreeda (2008). Grey prediction on indoor comfort temperature for HVAC systems, *Expert Systems with Applications*, Vol. 34, No. 4, May 2008, pp. 2284-2289.
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4. Thananchai Leephakpreeda (2008). Experimental studies on flow characteristics of peristaltic pump, *Thammasat International Journal of Science and Technology*, Vol. 13, No. 4, October-December 2008, pp. 54-61.
5. Thananchai Leephakpreeda (2008). Model-based analysis for experimental parameter identification of micro DC motor, *Thammasat International Journal of Science and Technology*, Vol. 13, No. 1, January-March 2008, pp. 38-46.

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2. Busaba Phruksaphanrat; Pisal Yenradee; and Ario Ohsato (2008). Aggregate production planning with labor replacement in a parallel machine environment: possibilistic linear programming approach. In *Proceedings of the 4th International Congress on Logistics and SCM Systems (ICLS 2008)* [CD-ROM], 26-28 November 2008, Bangkok, Thailand. pp. 80-88.
3. Chawalit Jeenanunta; Pisal Yenradee; Somrote Komolavanij; and Veeris Ammarapala (2008). Optimization model for daily load dispatch scheduling of electricity generation system. In *Proceedings of the 4th International Congress on Logistics and SCM Systems (ICLS 2008)* [CD-ROM], 26-28 November 2008, Bangkok, Thailand. pp. 89-97.

4. Chumpol Monthatipkul; Charoenchai Khompatraporn; Parthana Parthanadee; and Jirachai Buddhakulsomsiri (2008). A study of supply chain for Thai tapioca starch products. In *Proceedings of the 4th International Congress on Logistics and SCM Systems (ICLS 2008)* [CD-ROM], 26-28 November 2008, Bangkok, Thailand. pp. 266-274.
5. Ekachai Chaichanasiri; Pruettha Nanakorn; Wichit Tharanon; and J. Vander Sloten (2008). A numerical study on a premature contact of an implant-retained crown. In *Proceedings of the 3rd International Symposium on Biomedical Engineering (ISBME 2008)* [CD-ROM], 10-11 November 2008, Bangkok, Thailand. pp. 48-51.
6. Kasama Janvijitsakul; Vladimir I. Kuprianov; and Poramet Arromdee (2008). Formation and reduction of CO and NO_x in a rice husk-fuelled fluidized-bed combustor using air staging. In *Proceedings of the International Conference on Environmental Research and Technology (ICERT'08)*, 28-30 May 2008, Penang, Malaysia. pp. 303-307.
7. Kuprianov, Vladimir I.; Rachadaporn Kaewklum; Kasama Janvijitsakul; Poramet Arromdee; and Songpol Chakritthakul (2008). A study of firing rice husk in a swirling fluidized-bed combustor using annular spiral air distributor. In *Proceedings of the 2nd WSEAS/IASME International Conference on Energy Planning, Energy Saving, Environmental Education (EPESE'08)*, 26-28 October 2008, Corfu, Greece. pp. 30-35.
8. Kuprianov, Vladimir I.; Watcharee Kaewboonsong; and Vicharn Tanetsakunvatana (2008). Assessment of major emissions from power generation units firing fossil fuels: part 1. validation of emission models for variable operating conditions. In *Proceedings of the International Conference on Environmental Research and Technology (ICERT'08)*, 28-30 May 2008, Penang, Malaysia. pp. 828-833.
9. Kuprianov, Vladimir I.; Watcharee Kaewboonsong; and Vicharn Tanetsakunvatana (2008). Assessment of major emissions from power generation units firing fossil fuels: part 2. predicted and experimental results for different fuel options. In *Proceedings of the International Conference on Environmental Research and Technology (ICERT'08)*, 28-30 May 2008, Penang, Malaysia. pp. 834-839.
10. Navee Chiadamrong and Nathrdee Suppakitjarak (2008). Linking supply chain management capability and manufacturing operations competence with organizational performance: a case study of Thai industries. In *Proceedings of the Sixth International Conference on Manufacturing Research (ICMR08)*, 9-11 September 2008, West London, UK. pp. 361-370.
11. Pisal Yenradee; Narissara Kitpipit; Eakphan Thangthong; and Suttichok Charoenpunthong (2008). Aggregate production planning in a sugar factory: fuzzy programming approach. In *Proceedings of the 9th Asia Pacific Industrial Engineering and Management Systems Conference (APIEMS 2008)* [CD-ROM], 3-5 December 2008, Bali, Indonesia. pp. 19-26.
12. Pradyaporn Tong-On; Parthana Parthanadee; and Jirachai Buddhakulsomsiri (2008). A new mathematical model for minimizing deadheading distance. In *Proceedings of the 4th International Congress on Logistics and SCM Systems (ICLS 2008)* [CD-ROM], 26-28 November 2008, Bangkok, Thailand. pp. 183-190.
13. Rachadaporn Kaewklum and Vladimir I. Kuprianov (2008). Hydrodynamics of air-sand flow in a conical swirling fluidized bed. In *Proceedings of the 1st Thammasat University International Conference on Chemical, Environmental and Energy Engineering (TU ChEEE 2008)* [CD-ROM], 4 March 2008, Bangkok, Thailand. 6 p.
14. Tantikorn Pichpibul and Ruengsak Kawtummachai (2008). Delivery routing optimization for an inbound-outbound logistic case. In *Proceedings of the Ninth International Conference on Industrial Management (ICIM' 2008)*, 16-18 September 2008, Osaka, Japan. pp. 286-292.
15. Wachiraporn Aunteejun; Parthana Parthanadee; and Jirachai Buddhakulsomsiri (2008). Effect of demand forecasting points on the performance of procurement planning for herbal products. In *Proceedings of the 4th International Congress on Logistics and SCM Systems (ICLS 2008)* [CD-ROM], 26-28 November 2008, Bangkok, Thailand. pp. 207-214.

School of Manufacturing Systems and Mechanical Engineering Faculty Members, 2008

1.	Dr. Bundit Limmeechokchai	Associate Professor
2.	Dr. Jirachai Buddhakulsomsiri	Assistant Professor
3.	Dr. Navee Chiadamrong	Associate Professor
4.	Dr. Pisal Yenradee	Associate Professor
5.	Dr. Pisut Pongchairerks	Lecturer (Joined SIIT in May 2008)
6.	Dr. Ruengsak Kawtummachai	Associate Professor
7.	Dr. Satha Aphornratana	Associate Professor

- | | |
|------------------------------------|---------------------|
| 8. Dr. Supachart Chungpaibulpatana | Associate Professor |
| 9. Dr. Thananchai Leephakpreeda | Associate Professor |
| 10. Dr. Vladimir I. Kuprianov | Associate Professor |



Common and Graduate Studies Department

2008 Publications

International Journals

1. C. Thammawong; K. Thongkhong; K. Iamtassana; Alice Sharp; and Pakorn Opaprakasit (2008). Production and characterization of polyhydroxyalkanoates (PHAs) from inexpensive substrates by *Alcaligenes latus*, *Advanced Materials Research*, 2008, Vols. 55-57, pp. 893-896.
2. Jutatip Papangkorn; Chatwadee Isaraphan; Salinee Phinhongthong; Mantana Opaprakasit; and Pakorn Opaprakasit (2008). Controlled-release material for urea fertilizer from polylactic acid, *Advanced Materials Research*, 2008, Vols. 55-57, pp. 897-900.
3. Montree Namkajorn; Atitsa Petchsuk; Mantana Opaprakasit; and Pakorn Opaprakasit (2008). Synthesis and characterization of PLA-based aliphatic-aromatic copolyesters: effect of diols, *Advanced Materials Research*, 2008, Vols. 55-57, pp. 785-788.
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Department of Common and Graduate Studies Faculty Members, 2008

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|------------------------------|--|
| 1. Dr. Alice Sharp | Assistant Professor |
| 2. Dr. Nirattaya Khamsemanan | Assistant Professor (Joined SIIT in November 2008) |
| 3. Dr. Paiboon Sreearunothai | Lecturer (Joined SIIT in November 2008) |
| 4. Dr. Pakorn Opaprakasit | Assistant Professor |
| 5. Dr. Sujin Suwanna | Lecturer |
| 6. Dr. Thawatchai Onjun | Assistant Professor |



Construction and Maintenance Technology Research Center

2008 Publications

International Journals

1. Pakawat Sancharoen; Yoshitaka Kato; and Taketo Uomoto (2008). Probability-based maintenance planning for RC structures attacked by chloride, *Journal of Advanced Concrete Technology*, Vol. 6, No. 3, pp. 481-495.
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Construction and Maintenance Technology Research Center Researchers and Faculty Member, 2008

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|----|--------------------------------|---------------------------|
| 1. | Dr. Chalermchai Wattanalamlerd | Researcher |
| 2. | Dr. Pakawat Sancharoen | Researcher |
| 3. | Dr. Raktipong Sahamitmongkol | Researcher |
| 4. | Dr. Somnuk Tangtermsirikul | Professor and Center Head |

