

School of Bio-Chemical Engineering and Technology

2009 Publications

International Journals

1. Abeysundara, U. G. Yasantha and Sandhya Babel (2009). Selecting sustainable materials for ceilings in Sri Lanka, *Proceedings of ICE, Construction Materials*, Vol. 162, No. 2, pp. 49-58.
2. Abeysundara, U.G. Yasantha; Sandhya Babel; and Mongkut Piantanakulchai (2009). A matrix for selecting sustainable floor coverings for buildings in Sri Lanka, *Journal of Cleaner Production*, Vol. 17, No. 2, January 2009, pp. 231-238.
3. Abeysundara, U.G. Yasantha; Sandhya Babel; and Shabbir Gheewala (2009). A matrix in life cycle perspective for selecting sustainable materials for buildings in Sri Lanka, *Building and Environment*, Vol. 44, No. 5, May 2009, pp. 997-1004.
4. Babel, Sandhya; J. Sae-Tang; Athapol Pecharaply (2009). Anaerobic co-digestion of sewage and brewery sludge for biogas production and land application, *International Journal of Environmental Science and Technology*, Vol. 6, No. 1, Winter 2009, pp. 131-140.
5. Chakguy Prakasvudhisarn; Peter Wolschann; and Luckhana Lawtrakul (2009). Predicting complexation thermodynamic parameters of β -cyclodextrin with chiral guests by using swarm intelligence and support vector machines, *International Journal of Molecular Sciences*, Vol. 10, No. 5, May 2009, pp. 2107-2121.
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7. Jenjira Saetang and Sandhya Babel (2009). Effect of leachate loading rate and incubation period on the treatment efficiency by *T. versicolor* immobilized on foam cubes, *International Journal of Environmental Science and Technology*, Vol. 6, No. 3, pp. 457-466.
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9. Paiboon Sreearunothai; Sadayuki Asaoka; Andrew R. Cook; and John R. Miller (2009). Length and time dependent rates in diffusion-controlled reactions with conjugated polymers, *Journal of Physical Chemistry A*, Vol. 113, No. 12, pp. 2786-2795.
10. PornTip Wimonsong and Suwanchai Nitorisravut (2009). Pretreatment evaluation and its application on palm oil mill effluent for bio-hydrogen enhancement and methanogenic activity repression, *Pakistan Journal of Biological Sciences*, Vol. 12, No. 16, 2009, pp. 1127-1133.
11. Yuthana Tantirungrotechai; Supacharee Roddech; Kraiwan Punyain; and Pisanu Toochinda (2009). Assessment of mixed basis set and ONIOM methods on the activation energy of ring opening reactions of substituted cyclobutenes, *Journal of Molecular Structure: THEOCHEM*, Vol. 893, Nos. 1-3, January 2009, pp. 98-105.

National Journal

1. Suparoek Henpraserttae and Pisanu Toochinda (2009). Effects of preparation of Cu/Zn over Al₂O₃ catalysts for hydrogen production from methanol reforming, *Suranaree Journal of Science and Technology*, Vol. 16, No. 2, pp. 103-112.

International Conferences

1. Auttapol Kordach; Atitsa Petchsuk; Mantana Opaprakasit; and Pakorn Opaprakasit (2009). Preparation and characterization of controlled-release materials for urea fertilizer from poly(lactic acid). In *Proceedings of the World Renewable Energy Congress 2009 – Asia: The 3rd International Conference on Sustainable Energy and Environment (SEE 2009)* [CD-ROM], 19-22 May 2009, Bangkok, Thailand. Paper No. F2-003, pp. 1281-1286.
2. Auttapol Kordach; Atitsa Petchsuk; Mantana Opaprakasit; and Pakorn Opaprakasit (2009). Preparation and properties of controlled-release materials for urea fertilizer from copolyester and its blends. In *Proceedings of*

the Pure and Applied Chemistry International Conference (PACCON 2009), 14-16 January 2009, Phitsanulok, Thailand. pp. 178-181.

3. Babel, Sandhya; Massalin Suksai and Phattaraporn Sarikkha (2009). Lignin recovery from pulp and paper mill wastewater. In *Proceedings of International Conference on Biotechnology "Biotechnology for Better Life"* [CD ROM], 15-16 June 2009, Bandung, Indonesia. pp. 103-109.
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5. Burin Khemthong; Rapeepong Suwanwarangkul; A. Manonukul; and Sumittra Charojrochkul (2009). Optimization of biogas reformer for hydrogen production to fuel solid oxide fuel cell by using computer simulation. In *Proceedings of the Pure and Applied Chemistry International Conference (PACCON 2009)*, 14-16 January 2009, Phitsanulok, Thailand. pp. 687-690.
6. Chaichan Siriuang and Pisanu Toochinda (2009). Development of low cost amine-enriched solid sorbent for CO₂ capture. In *Proceedings of the Pure and Applied Chemistry International Conference (PACCON 2009)*, 14-16 January 2009, Phitsanulok, Thailand. pp. 108-111.
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8. Jenjira Saetang and Sandhya Babel (2009). Effect of glucose on enzyme activity and color removal by *T. versicolor* for high strength landfill leachate. In *Proceedings of International Conference "3rd Specialized Conference on Decentralized Water and Wastewater International Network (IWA Conference)"* [CD-ROM], 10-13 November 2009, Kathmandu, Nepal.
9. Luckhana Lawtrakul; Peter Wolschann; and Chakguy Prakasvudhisarn (2009). Quantitative structure-thermodynamics parameters relationship of beta-cyclodextrin inclusion complexes. In *Proceedings of the Pure and Applied Chemistry International Conference (PACCON 2009)*, 14-16 January 2009, Phitsanulok, Thailand. pp. 476-479.
10. N. Nakruangsri; P. Sukpuang; Atitsa Petchsuk; Pakorn Opaparakasit; and Mantana Opaparakasit (2009). Glycolysis reaction as a chemical recycling process for poly(lactic acid). In *Proceedings of the 2nd International Conference on Green and Sustainable Innovation (ICGSI 2009)* [CD-ROM], 2-4 December 2009, Chiang Rai, Thailand. 6 p.
11. Nunnarpas Yongvongsoontorn and Wanwipa Siriwatwechakul (2009). Microspheres of poly(acrylamide) hydrogels with semiinterpenetrating networks of poly(*N*-isopropylacrylamide). In *Proceedings of the 4th International Symposium on Biomedical Engineering (IEEE ISBME 2009)* [CD-ROM], 14-18 December 2009, Bangkok, Thailand. 4 p.
12. P. Sukpuang; Atitsa Petchsuk; Pakorn Opaparakasit; and Mantana Opaparakasit (2009). Lactic acid-ethylene terephthalate copolymers from glycolyzed products: synthesis and characterizations. In *Proceedings of the 2nd International Conference on Green and Sustainable Innovation (ICGSI 2009)* [CD-ROM], 2-4 December 2009, Chiang Rai, Thailand. 6 p.
13. Paranee Sriromreun; Atitsa Petchsuk; Mantana Opaparakasit; and Pakorn Opaparakasit (2009). Miscibility and hydrolytic degradability of poly(ethylene terephthalate-co-lactic acid) (PET-co-PLA)/poly(butylene succinate) (PBS) blends. In *Proceedings of the 2nd International Conference on Green and Sustainable Innovation (ICGSI 2009)* [CD-ROM], 2-4 December 2009, Chiang Rai, Thailand. 7 p.
14. Paranee Sriromreun; Atitsa Petchsuk; Mantana Opaparakasit; Pramuan Tangboriboonrat; and Pakorn Opaparakasit (2009). Properties and degradability of poly(ethylene terephthalate-co-lactic acid) copolymer and its blends. In *Proceedings of the Pure and Applied Chemistry International Conference (PACCON 2009)*, 14-16 January 2009, Phitsanulok, Thailand. pp. 570-573.
15. Phrutsadee Sukpuang; Atitsa Petchsuk; Pakorn Opaparakasit; and Mantana Opaparakasit (2009). Synthesis and characterizations of poly(lactic acid-co-ethylene terephthalate) from glycolysed products. In *Proceedings of the Pure and Applied Chemistry International Conference (PACCON 2009)*, 14-16 January 2009, Phitsanulok, Thailand. pp. 582-585.
16. Pornpip Wimonsong and Suwanchai Nitisoravut (2009). Bio-hydrogen production from palm oil mill effluent using heat-enriched anaerobic mixed microflora. In *Proceedings of the World Renewable Energy Congress 2009 – Asia: The 3rd International Conference on Sustainable Energy and Environment (SEE 2009)* [CD-ROM], 19-22 May 2009, Bangkok, Thailand. Paper No. A3-007, pp. 387-392.

17. Pornpip Wimonsong and Suwanchai Nitisoravut (2009). Pretreatment evaluation for enriching hydrogen producing bacteria from anaerobic mixed culture. In *Proceedings of the 2nd Thammasat University International Conference on Chemical, Environmental and Energy Engineering (TU ChEEE 2009)* [CD-ROM], 3-4 March 2009, Bangkok, Thailand. pp. 392-396.
18. Sharp, Alice; Alisa Khunchornyakong; and Amornpong Thongbhakdi (2009). Local capacity building in solid waste management through public participation in Ratchaburi Province, Thailand. In *the Proceedings of 2009 International Conference on Social Science and Humanities (ICSSH 2009)*, 9-11 October, 2009. Singapore. pp. 356-360.
19. Sharp, Alice and Amornpong Thongbhakdi (2009). Comparative study on leachate and anaerobic seed sludge to generate electricity using single chamber microbial fuel cells. In *Proceedings of the International Conference on Science, Technology and Innovation for Sustainable Well-Being (STISWB)*, 23-24 July 2009, Khon Kaen, Thailand. pp. 70-76.
20. Sittiwat Kitsatienkun; Pitak Laoratanakul; and Pakorn Opaprakasit (2009). Chitosan-coated alumina as Cr(VI) removal materials. In *Proceedings of the Pure and Applied Chemistry International Conference (PACCON 2009)*, 14-16 January 2009, Phitsanulok, Thailand. pp. 156-159.
21. Sittiwat Kitsatienkun; Pitak Laoratanakul; and Pakorn Opaprakasit (2009). Removal of heavy metals from wastewater by chitosan composite biosorbent: adsorption mechanisms. In *Proceedings of the World Renewable Energy Congress 2009 – Asia: The 3rd International Conference on Sustainable Energy and Environment (SEE 2009)* [CD-ROM], 19-22 May 2009, Bangkok, Thailand. Paper No. F1-004, pp. 1275-1280.
22. Siwarutt Boonyarattanakalin and Peter H. Seeberger (2009). Convergent synthesis of phosphatidylinositol hexamannoside glycan of *Mycobacterium tuberculosis*. In *Proceedings of the Pure and Applied Chemistry International Conference (PACCON 2009)*, 14-16 January 2009, Phitsanulok, Thailand. pp. 446-449.
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25. Wanwipa Siriwatwechakul (2009). Temperature-sensitive polyacrylamide hydrogels. In *Proceedings of the 2nd Thammasat University International Conference on Chemical, Environmental and Energy Engineering (TU ChEEE 2009)* [CD-ROM], 3-4 March 2009, Bangkok, Thailand. pp. 232.237.
26. Wilairat Supmak; Atitsa Petchsuk; Pakorn Opaprakasit; Alice Sharp; and Wanwipa Siriwatwechakul (2009). Synthesis and characterizations of copolymers of lactide and glycidyl methacrylate: effects of synthesis conditions. In *Proceedings of the 2nd International Conference on Green and Sustainable Innovation (ICGSI 2009)* [CD-ROM], 2-4 December 2009, Chiang Rai, Thailand. 7 p.

National Conferences

1. Dujthep Yodmalai; Thanikul Pattayanan; Raktipong Sahamitmongkol; Somnuk Tangtermsirikul; and Luckhana Lawtrakul (2009). Acid resistance of mortar with crystalline materials. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-52 to MAT-57.
2. Dujthep Yodmalai; Thanikul Pattayanan; Raktipong Sahamitmongkol; Somnuk Tangtermsirikul; and Luckhana Lawtrakul (2009). Carbonation resistance of concrete with crystalline material coating. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-46 to MAT-51.

School of Bio-Chemical Engineering and Technology Faculty Members, 2009

- | | |
|------------------------------|---------------------|
| 1. Dr. Alice Sharp | Associate Professor |
| 2. Dr. Chongrak Polprasert | Professor |
| 3. Dr. Luckhana Lawtrakul | Associate Professor |
| 4. Dr. Paiboon Sreearunothai | Lecturer |
| 5. Dr. Pakorn Opaprakasit | Assistant Professor |
| 6. Dr. Pisanu Toochinda | Assistant Professor |

7. Dr. Sandhya Babel	Associate Professor
8. Dr. Siwarutt Boonyarattanakin	Lecturer
9. Dr. Suwanchai Nitisoravut	Associate Professor
10. Dr. Wanwipa Siriwatwechakul	Lecturer



School of Civil Engineering and Technology

2009 Publications

International Journals

1. Abeyundara, U.G. Yasantha; Sandhya Babel; and Mongkut Piantanakulchai (2009). A matrix for selecting sustainable floor coverings for buildings in Sri Lanka, *Journal of Cleaner Production*, Vol. 17, No. 2, January 2009, pp. 231-238.
2. Amorn Pimanmas; Sittisak Imsombat; and Knut Hj. Neilsen (2009). New Phra-Nangklao bridge – a balanced cantilever prestressed concrete bridge in Thailand, *Structural Engineering International*, Vol. 19, No. 1, February 2009, pp. 38-40.
3. Anan Nimtawat and Pruettha Nanakorn (2009). Automated layout design of beam-slab floors using a genetic algorithm, *Computers & Structures*, Vol. 87, Nos. 21-22, November 2009, pp. 1308-1330.
4. Ekachai Chaichanasiri; Pruettha Nanakorn; Wichit Tharanon; and Jos Vander Sloten (2009). A finite element study of the effect of contact forces between an implant-retained crown and its adjacent teeth on bone stresses, *Journal of Mechanics*, Vol. 25, No. 4, December 2009, pp. 441-450.
5. Ekachai Chaichanasiri; Pruettha Nanakorn; Wichit Tharanon; and Jos Vander Sloten (2009). Finite element analysis of bone around a dental implant supporting a crown with a premature contact, *Journal of the Medical Association of Thailand*, Vol. 92, No. 10, pp. 1336-1344.
6. Nattapon Chantarapanich; Pruettha Nanakorn; Bancha Chernchujit; and Kriskrai Sitthiseripratip (2009). A finite element study of stress distributions in normal and osteoarthritic knee joints, *Journal of the Medical Association of Thailand*, Vol. 92, Suppl. 6, pp. S97-S103.
7. Pannathat Rojanamon; Tawee Chaisomphob; and Thawilwadee Bureekul (2009). Application of geographical information system to site selection of small run-of-river hydropower project by considering engineering/economic/environmental criteria and social impact, *Renewable & Sustainable Energy Reviews*, Vol. 13, No. 9, December 2009, pp. 2336-2348.
8. Pongsak Choktaweekarn and Somnuk Tangtermsirikul (2009). A model for predicting the coefficient of thermal expansion of cementitious paste, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 35, No. 1, March 2009, pp. 57-63.
9. Pongsak Choktaweekarn; Warangkana Saengsoy; and Somnuk Tangtermsirikul (2009). A model for predicting the specific heat capacity of fly-ash concrete, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 35, No. 2, June 2009, pp. 178-182.
10. Pongsak Choketaweekarn; Warangkana Saengsoy; and Somnuk Tangtermsirikul (2009). A model for predicting thermal conductivity of concrete, *Magazine of Concrete Research*, Vol. 61, No. 4, May 2009, pp. 271-280.
11. Preeda Chaimahawan and Amorn Pimanmas (2009). Nonlinear FEM analysis of RC beam-column joint strengthened by cast in-situ joint expansion, *Journal of Advanced Concrete Technology*, Vol. 7, No. 3, October 2009, pp. 307-326.
12. Preeda Chaimahawan and Amorn Pimanmas (2009). Seismic retrofit of substandard beam-column joint by planar joint expansion, *Materials and Structures*, Vol. 42, No. 4, May 2009, pp. 443-459.
13. Sontaya Tongaroonsri and Somnuk Tangtermsirikul (2009). Effect of mineral admixtures and curing periods on shrinkage and cracking age under restrained condition, *Construction and Building Materials*, Vol. 23, No. 2, February 2009, pp. 1050-1056.

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National Journals

1. Amarasingha, R. P. Niranga U. and Mongkut Piantanakulchai (2009). Travel mode choice modeling using fuzzy extension of the analytic network process: a case study of Palinda Nuwara, *Research and Development Journal of The Engineering Institute of Thailand*, Vol. 20, No. 1, pp. 12-19.
2. Dam Xuan Thai and Amorn Pimanmas (2009). Modeling of RC column with lap splices strengthened by fiber reinforced polymer (FRP), *Research and Development Journal of The Engineering Institute of Thailand*, Vol. 20, No. 4, pp. 22-34.
3. Preeda Chaimahawan and Amorn Pimanmas (2009). Effect of connection reinforcement details on performance of full-scale precast concrete beam-column connection designed for gravity, *Research and Development Journal of The Engineering Institute of Thailand*, Vol. 20, No. 3, pp. 50-58.

International Conferences

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3. Mongkut Piantanakulchai (2009). Modeling travel mode choice using the analytic network process. In *Proceedings of the Sixth Regional Symposium on Infrastructure Development (RSID6)* [CD-ROM], 12-13 January 2009, Bangkok, Thailand. Paper No. TRT18, 6 p.
4. Mongkut Piantanakulchai (2009). Some characteristics of urban recreational parks and park users in Bangkok. In *Proceedings of the Sixth Regional Symposium on Infrastructure Development (RSID6)* [CD-ROM], 12-13 January 2009, Bangkok, Thailand. Paper No. TRT19, 6 p.
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9. Taweep Chaisomphob; Pannathat Rojanamon; and Thawilwadee Bureekul (2009). Study on feasible sites of small run-of-river hydropower project in Thailand: case study in Nan River Basin, Thailand. In *Proceedings of the International and Exhibition on Hydro 2009: Progress – Potential – Plans* [CD-ROM], 26-28 October 2009, Lyon, France. 5 p.
10. Taweep Chaisomphob; Praj-ya Sungsomboon; Nattakorn Bongochgetsakul; and Tetsuya Ishida (2009). Research and development on novel organic waste composting technology using “serial self-turning reactor (STR)”: case study at Thammasat University, Rangsit Campus, Thailand. In *Proceedings of ISWA/APESB World Congress 2009* [CD-ROM], 12-15 October 2009, Lisbon, Portugal. 10 p.
11. Thai Xuan Dam and Amorn Pimanmas (2009). Nonlinear analysis of RC column with short lap splice length strengthened by FRP jacketing. In *Proceedings of the 6th Asian Symposium on Polymers in Concrete*, 29-30 October 2009, Shanghai, China. pp. 373-380.

National Conferences

1. Akekasak Rerkmahalikhit; Taweechai Sumranwanich; Pakawat Sancharoen; and Somnuk Tangtermsirikul (2009). Chloride penetration resistance of mortar with fly ash, limestone powder and expansive additives. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-267 to MAT-275.
2. Akekasak Rerkmahalikhit; Taweechai Sumranwanich; Pakawat Sancharoen; and Somnuk Tangtermsirikul (2009). Chloride resistance of portland cement mortar with fly ash, limestone powder and expansive additives. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1863-1869.
3. Dujthep Yodmalai; Thanikul Pattayanan; Raktipong Sahamitmongkol; Somnuk Tangtermsirikul; and Luckhana Lawtrakul (2009). Acid resistance of mortar with crystalline materials. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-52 to MAT-57.
4. Dujthep Yodmalai; Thanikul Pattayanan; Raktipong Sahamitmongkol; Somnuk Tangtermsirikul; and Luckhana Lawtrakul (2009). Carbonation resistance of concrete with crystalline material coating. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-46 to MAT-51.
5. Kitipoom Chansuriyasak; Chalermchai Wanichlamart; Pakawat Sancharoen; Warea Kongprawechnon; and Somnuk Tangtermsirikul (2009). Comparison between half-cell potential measurements of concrete exposed to carbon dioxide and chloride environment. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-58 to MAT-63.
6. Krittiya Kaewmanee; Pitsan Krammart; Taweechai Sumranwanich; and Somnuk Tangtermsirikul (2009). Properties of fly ash-cement mixtures with the addition of free lime. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-64 to MAT-69.
7. Pakawat Sancharoen; Patsiri Jaikawna; Pitch Trivisvavet; Withit Pansuk; and Somnuk Tangtermsirikul (2009). Prediction and estimation of structural repairing cost based on inspection results. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. REP-01 to REP-05.
8. Pakawat Sancharoen; Sheng-Hsiu Tsai; Jirayut Tangmitpracha; and Somnuk Tangtermsirikul (2009). Application of half-cell potential measurement to inspect corrosion of reinforcing steel. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1837-1841.
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10. Patsiri Jaikawna; Pitch Trivisvavet; Pakawat Sancharoen; Withit Pansuk; and Somnuk Tangtermsirikul (2009). Evaluate service life of reinforced concrete structure by non destructive method. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1901-1906.
11. Pongsak Choketaweekarn and Somnuk Tangtermsirikul (2009). Analysis of temperature and restrained strain in mass concrete. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1699-1704.
12. Sukachai Sukayanudist; Pitsan Krammart; Ittiporn Sirisawat; and Somnuk Tangtermsirikul (2009). Effect of limestone powder on expansion of mortar in sodium sulphate solution. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-241 to MAT-248.
13. Wachcharadej Boonlualohr; Praj-ya Sungsomboon; and Tawee Chaisomphob (2009). Modification of the serial self-turning reactor system for sludge composting at Thammasat University Rangsit Campus. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1441-1445. (in Thai).
14. Warangkana Saengsoy and Somnuk Tangtermsirikul (2009). Estimation of mix proportion of hardened fly ash concrete. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-34 to MAT-39.

School of Civil Engineering and Technology Faculty Members, 2009

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|----|-----------------------------|---------------------|
| 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. Taweep Chaisomphob | Associate Professor |
| 6. | Dr. Winyu Rattanapitikon | Associate Professor |



School of Information, Computer, and Communication Technology

2009 Publications

International Journals

1. Akara Sopharak; Bunyarit Uyyanonvara; and Sarah Barman (2009). Automatic exudate detection for diabetic retinopathy screening, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 35, No. 1, March 2009, pp. 80-88.
2. Akara Sopharak; Bunyarit Uyyanonvara; and Sarah Barman (2009). Automatic exudate detection from non-dilated diabetic retinopathy retinal images using fuzzy C-means clustering, *Sensors*, Vol. 9, No. 3, March 2009, pp. 2148-2161.
3. Akara Sopharak; Bunyarit Uyyanonvara; Sarah Barman; Tom Williamson (2009). Comparative analysis of automatic exudate detection between machine learning and traditional approaches, *IEICE Transactions on Information and Systems*, Vol. E92-D, No.11, November 2009, pp. 2264-2271.
4. Annupan Rodtook and Stanislav S. Makhanov (2009). Selection of multiresolution rotationally invariant moments for image recognition, *Mathematics and Computers in Simulation*, Vol. 79, No. 8, April 2009, pp. 2458-2475.
5. Buncha Munmuangsaen and Banlue Srisuchinwong (2009). A new five-term simple chaotic attractor, *Physics Letters A.*, Vol. 373, No. 44, October 2009, pp. 4038-4043.
6. Chalie Charoenlarnopparut (2009). Applications of Gröbner bases to the structural description and realization of multidimensional convolutional code, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 35, No. 1, March 2009, pp. 95-105.
7. Jakkrit TeCho; Cholwich Nattee; and Thanaruk Theeramunkong (2009). A corpus-based approach for automatic Thai unknown word recognition using boosting techniques, *IEICE Transactions on Information and Systems*, Vol. E92-D, No.12, December 2009, pp. 2321-2333.
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2. Banlue Srisuchinwong, C. H. Liou; and T. Klongkumnuankan (2009). "Prediction of dominant frequencies of CFOA-based Sprott's sinusoidal and chaotic oscillators", *Topics on Chaotic Systems: Selected Papers from CHAOS 2008 International Conference*, edited by Christos H. Skiadas, Ioannis Dimotikalis and Charilaos Skiadas, Word Scientific Publishing. pp. 331-337.
3. Sawasd Tantaratana; Chalie Charoenlarnpparut; Phakphoom Boonyanant; and Yong Ching Lim (2009). "IIR Filters", *The Circuits and Filters Handbook: Passive, Active and Digital Filters*, edited by Chen, Wai-Kai, CRC Press, 2009, pp. 19-1 to 19-45.
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School of Information, Computer, and Communication Technology Faculty Members, 2009

1. Dr. Banlue Srisuchinwong	Associate Professor
2. Dr. Boontawe Suntasivaraorn	Lecturer (Joined SIIT in June 2009)
3. Dr. Bunyarit Uyyanonvara	Associate Professor
4. Dr. Chalio Charoenlarnpparut	Assistant Professor
5. Dr. Cholwich Nattee	Assistant Professor
6. Dr. Duangrat Eungdamrong	Assistant Professor (Until March 2009)
7. Dr. Ekawit Nantajeewarawat	Associate Professor
8. Dr. Gun Srijuntongsiri	Lecturer
9. Dr. Itthisek Nilkhamhang	Lecturer
10. Dr. Komwut Wipusitwarakun	Associate Professor
11. Dr. Nirattaya Khamsemanan	Assistant Professor
12. Dr. Pakinee Suwannajan	Lecturer
13. Dr. Philippe Meunier	Lecturer
14. Dr. Prapun Suksompong	Lecturer
15. Dr. Sawasd Tantaratana	Professor (Until May 2009)
16. Dr. Somsak Kittipiyakul	Lecturer
17. Dr. Stanislav S. Makhanov	Associate Professor
18. Dr. Steven Gordon	Assistant Professor
19. Dr. Surapa Thiemjarus	Lecturer
20. Dr. Thanaruk Theeramunkong	Associate Professor
21. Dr. Toshiaki Kondo	Assistant Professor
22. Dr. Waree Kongprawechnon	Associate Professor



School of Management Technology 2009 Publications

International Journal

1. Sherali, Hanif D.; Antoine G. Hobeika; and Chawalit Jeenanunta (2009). An optimal constrained pruning strategy for decision trees, *INFORMS Journal on Computing*, Vol. 21, No. 1, Winter 2009, pp. 49-61.

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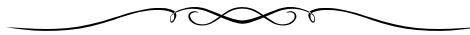
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School of Management Technology Faculty Members, 2009

1.	Dr. Aussadavut Dumrongsiri	Lecturer
2.	Dr. Chawalit Jeenanunta	Assistant Professor
3.	Dr. Morrakot Raweewan	Lecturer (Joined SIIT in July 2009)
4.	Dr. Nattharika Rittippant	Lecturer
5.	Dr. Pisit Chanvarasuth	Lecturer
6.	Dr. Pornpimol Chongphaisal	Lecturer
7.	Dr. Somrote Komolavanij	Associate Professor
8.	Dr. Suebsak Nanthavanij	Associate Professor
9.	Dr. Suthathip Suanmali	Lecturer
10.	Dr. Thanwadee Chinda	Lecturer
11.	Dr. Veeris Ammarapala	Assistant Professor



School of Manufacturing Systems and Mechanical Engineering

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33. Yod Sukamongkol; Supachart Chungpaibulpatana; and Bundit Limmeechokchai (2009). A hybrid PV/Th air heating system for regenerating desiccant used in an air conditioning room: simulation and experimental validation. In *Proceedings of the World Renewable Energy Congress 2009 – Asia: The 3rd International Conference on Sustainable Energy and Environment (SEE 2009)* [CD-ROM], 19-22 May 2009, Bangkok, Thailand. Paper No. B4-007, pp. 645-650.

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1. Thawatchai Onjun; Supachart Chungpaibulpatana; Bundit Limmeechokchai; Sujin Suwanna; Orasa Onjun; Nopporn Polyarat; and Roppon Picha (2009). Preliminary study on siting of nuclear power plants in Thailand. In *Proceedings of the 13th Traditional Academic Conference of Thammasat University (TU), Mahidol University (MU), the Royal Thai Navy (RTN) and Kasetsart University (KU) on “Thailand Alternative Energy: Overcome the Crisis and Build up the Opportunities”*, 22 December 2009, Bangkok, Thailand. pp. 164-193. (in Thai) [การศึกษาเบื้องต้นสำหรับสถานที่ตั้งโรงไฟฟ้าพลังนิวเคลียร์ของประเทศไทย เอกสารประกอบการประชุมวิชาการประเพณี ธรรมศาสตร์-มหิดล-กองทัพเรือ-เกษตรศาสตร์ ครั้งที่ 13 “พลังงานทางเลือกของไทย: ฝ่าวิกฤต สร้างโอกาส” 22 ธันวาคม 2552 ณ โรงแรมสยามซิตี้ พญาไท กรุงเทพฯ]
2. Yod Sukamongkol; Supachart Chungpaibulpatana; and Bundit Limmeechokchai (2009). Use of a PV/T air heating collector with condenser waste heat to reduce energy consumption of an air conditioning room in tropical climate, In *Proceedings of the 13th Traditional Academic Conference of Thammasat University (TU), Mahidol University (MU), the Royal Thai Navy (RTN) and Kasetsart University (KU) on “Thailand Alternative Energy: Overcome the Crisis and Build up the Opportunities”*, 22 December 2009, Bangkok, Thailand. pp. 56-75. (in Thai) [การใช้แผงรับพลังงานแสงอาทิตย์ผลิตไฟฟ้าร่วมความร้อนควบคู่กับการใช้ความร้อนทิ้งของระบบปรับอากาศในการลดการใช้พลังงานไฟฟ้าในห้องปรับอากาศภายใต้สภาพภูมิอากาศแบบร้อนชื้น เอกสารประกอบการประชุมวิชาการประเพณี ธรรมศาสตร์-มหิดล-กองทัพเรือ-เกษตรศาสตร์ ครั้งที่ 13 “พลังงานทางเลือกของไทย: ฝ่าวิกฤต สร้างโอกาส” 22 ธันวาคม 2552 ณ โรงแรมสยามซิตี้ พญาไท กรุงเทพฯ]

Book

1. Thananchai Leephakpreeda and Kanchana Crishan Wickramatunge (2009). “Pneumatic artificial muscle actuation and modelling”. In *IAENG Transactions on Engineering Technologies Volume 3: Special Edition of the International Multiconference of Engineers and Computer Scientists 2009* edited by Sio-long Ao, et. al.; New York: American Institute of Physics, 1st Edition, 2009, pp. 282-296.

School of Manufacturing Systems and Mechanical Engineering Faculty Members, 2009

1. Dr. Boontariga Kasemsontitum	Lecturer (Joined SIIT in October 2009)
2. Dr. Bundit Limmeechokchai	Associate Professor
3. Dr. Jirachai Buddhakulsomsiri	Assistant Professor
4. Dr. Navee Chiadamrong	Associate Professor
5. Dr. Pisal Yenradee	Associate Professor
6. Dr. Pisut Pongchairerks	Lecturer
7. Dr. Ruengsak Kawtummachai	Associate Professor (Until September? 2009)
8. Dr. Satha Aphornratana	Associate Professor
9. Dr. Sujin Suwanna	Lecturer
10. Dr. Supachart Chungpaibulpatana	Associate Professor
11. Dr. Thananchai Leephakpreeda	Associate Professor
12. Dr. Thawatchai Onjun	Assistant Professor
13. Dr. Vladimir I. Kuprianov	Associate Professor



Construction and Maintenance Technology Research Center

2009 Publications

International Journals

1. Pongsak Choktaweekarn, Somnuk Tangtermsirikul (2009). A model for predicting the coefficient of thermal expansion of cementitious paste, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 35, No. 1, March 2009, pp. 57-63.
2. Pongsak Choktaweekarn; Warangkana Saengsoy; and Somnuk Tangtermsirikul (2009). A model for predicting the specific heat capacity of fly-ash concrete, *ScienceAsia: Journal of the Science Society of Thailand*, Vol. 35, No. 2, June 2009, pp. 178-182.
3. Pongsak Choketaweekarn; Warangkana Saengsoy; and Somnuk Tangtermsirikul (2009). A model for predicting thermal conductivity of concrete, *Magazine of Concrete Research*, Vol. 61, No. 4, May 2009, pp. 271-280.

International Conference

1. Mongkhon Narmluk; Warangkana Saengsoy; and Toyoharu Nawa (2009). Influence of curing temperature on autogenous shrinkage and hydration reaction of cement paste at very early age. In *Proceedings of the 4th International Conference on Construction Materials: Performance, Innovations and Structural Implications (ConMat'09)*, 24-26 August 2009, Nagoya, Japan. pp. 1199-1204.

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1. Akekasak Rerkmahalikhit; Taweechai Sumranwanich; Pakawat Sancharoen; and Somnuk Tangtermsirikul (2009). Chloride penetration resistance of mortar with fly ash, limestone powder and expansive additives. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-267 to MAT-275. (in Thai)
2. Akekasak Rerkmahalikhit; Taweechai Sumranwanich; Pakawat Sancharoen; and Somnuk Tangtermsirikul (2009). Chloride resistance of Portland cement mortar with fly ash, limestone powder and expansive additives. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1863-1869. (in Thai)
3. Dujthep Yodmalai; Thanikul Pattayanan; Raktipong Sahamitmongkol; Somnuk Tangtermsirikul; and Luckhana Lawtrakul (2009). Acid resistance of mortar with crystalline materials. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-52 to MAT-57.
4. Dujthep Yodmalai; Thanikul Pattayanan; Raktipong Sahamitmongkol; Somnuk Tangtermsirikul; and Luckhana Lawtrakul (2009). Carbonation resistance of concrete with crystalline material coating. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-46 to MAT-51.
5. Kitipoom Chansuriyasak; Chalermchai Wanichlamlart; Pakawat Sancharoen; Waree Kongprawechnon; and Somnuk Tangtermsirikul (2009). Comparison between half-cell potential measurements of concrete exposed to carbon dioxide and chloride environment. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-58 to MAT-63.
6. Krittiya Kaewmanee; Pitsan Krammart; Taweechai Sumranwanich; and Somnuk Tangtermsirikul (2009). Properties of fly ash-cement mixtures with the addition of free lime. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-64 to MAT-69.
7. Pakawat Sancharoen; Patsiri Jaikawna; Pitch Trivisvavet; Withit Pansuk; and Somnuk Tangtermsirikul (2009). Prediction and estimation of structural repairing cost based on inspection results. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. REP-01 to REP-05.
8. Pakawat Sancharoen; Sheng-Hsiu Tsai; Jirayut Tangmitpracha; and Somnuk Tangtermsirikul (2009). Application of half-cell potential measurement to inspect corrosion of reinforcing steel. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1837-1841.

9. Patsiri Jaikawna; Pitch Trivisvavet; Pakawat Sancharoen; Withit Pansuk; and Somnuk Tangtermsirikul (2009). Evaluate service life of reinforced concrete structure by non destructive method. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1901-1906. (in Thai)
10. Pipat Solihe; Krittaphon Suwansawang; Napaphach Juleang; Taweechai Sumranwanich; and Chalermchai Wanichlamlert (2009). Chloride content at surface layer and chloride penetration of reinforced concrete structures in marine environment of Thailand case study: Rayong and Chanthaburi provinces. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-285 to MAT-291. (in Thai)
11. Pongsak Choketaweekarn and Somnuk Tangtermsirikul (2009). Analysis of temperature and restrained strain in mass concrete. In *Proceedings of the 14th National Convention on Civil Engineering (NCCE 14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1699-1704.
12. Sontaya Tongaroonsri, Pongsak Choktaweekarn and Somnuk Tangtermsirikul, Investigation of Cracked Flat Slab due to Restrained Shrinkage, In *Proceedings of the 5th Annual Concrete Conference*, 20-22 October 2009, Nakhon Ratchasima, pp. MAT-40 to MAT-45.
13. Sukachai Sukayanudist; Pitisan Krammart; Ittiporn Sirisawat; and Somnuk Tangtermsirikul (2009). Effect of limestone powder on expansion of mortar in sodium sulphate solution. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-241 to MAT-248. (in Thai)
14. Warangkana Saengsoy and Somnuk Tangtermsirikul (2009). Estimation of mix proportion of hardened fly ash concrete. In *Proceedings of Annual Concrete Conference 5*, 20-22 October 2009, Nakhon Ratchasima, Thailand. pp. MAT-34 to MAT-39.
15. Warangkana Saengsoy, Toyoharu Nawa, and Mongkhon Narmluk (2009). Influence of relative humidity on hydration reaction and compressive strength of fly ash cement paste. In *Proceeding of the 14th National Convention on Civil Engineering (NCCE14)*, 13-15 May 2009, Nakhon Ratchasima, Thailand. pp. 1763-1768.

Book

1. Raktipong Sahamitmongkol; and Yoshitaka Kato (2009), *Corroded Flexural RC Members with Patching Repair – Structural Behaviors and FEM Simulation*, LAP LAMBERT Academic Publishing, 98 pages, ISBN: 978-3-8383-0352-9

Construction and Maintenance Technology Research Center Researchers and Faculty Member, 2009

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

