

ECTI-CON 2008

*Proceedings of the 2008 5th International Conference on
Electrical Engineering/Electronics, Computer,
Telecommunications and Information Technology*

*Wednesday May 14 – Saturday May 17, 2008
Maritime Park & Spa Resort, Krabi, Thailand*

Organized by

***Electrical Engineering/Electronics, Computer,
Telecommunications and Information Technology (ECTI)
Association***

Technical Program Contents

Volume I

Computer and Information Technology		
15-May-08	TAM1-1: Machine Learning I	
10:40-11:00	A Cellular Compact Genetic Algorithm for Evolvable Hardware	I-1
TAM1-1-1	Yutana Jewajinda and Prabhas Chongstitvatana	
11:00-11:20	Solving Constrained Engineering Optimization Problems by the Constrained PSO-DD	I-5
TAM1-1-2	Chukiat Worasuchep	
11:20-11:40	The Parallel Complexities of the K-Medians Related Problems	I-9
TAM1-1-3	Sirion Vittayakorn, Sanpawat Kantabutra and Chularat Tanprasert	
11.40-12.00	Estimating Road Traffic Congestion from Cellular Handoff Information using Cell-Based Neural Networks and K-Means Clustering	I-13
TAM1-1-4	Wirachat Hongsakham, Wasan Pattara-atikom and Ratchata Peachavanish	
15-May-08	TPM1-1: Machine Learning II	
14:20-14:40	A Web - Base Application Of Group Decision Making in a Fuzzy Environment	I-17
TPM1-1-1	Panida Subsorn, Jitian Xiao and Kuki Singh	
14:40-15:00	Using Accuracy-Based Learning Classifier Systems for Imbalance Datasets	I-21
TPM1-1-2	Sornchai Udomthanapong, Kreangsak Tamee and Ouen Pinnern	
15:00-15:20	Learner Corpora and its Application to Automatic Level Checking using Machine Learning Algorithms	I-25
TPM1-1-3	Md Maruf Hasan and Hnin Khaing	
15:20-15:40	Rice Yield Prediction using a Support Vector Regression method	I-29
TPM1-1-4	Sansanee Auephanwiriyaikul, Ratchaphum Jaikla and Attachai Jintrawet	
15.40-16.00	A Corpus-based Approach for Keyword Identification using Supervised Learning Techniques	I-33
TPM1-1-5	Jakkrit TeCho, Cholwich Nattee and Thanaruk Theeramunkong	
15-May-08	TPM2-1: Algorithms and Computational Theory	
16:20-16:40	The Design and Implementation of a Role Model Based Language, <i>EpsilonJ</i>	I-37
TPM2-1-1	Supasit Monpratarnchai and Tamai Tetsuo	
16:40-17:00	Distributed Transaction Semantic for Binary Vote Assignment Grid	I-41
TPM2-1-2	Noraziah Ahmad, Mustafa Mat Deris, Norhayati Rosli and Yazid Mat Saman	
17:00-17:20	Degree Reduction and Multiple Degree Reduction for the DP Curves	I-45
TPM2-1-3	Kan Itsariyawanich and Natasha Dejdumrong	
17:20-17:40	The Graph Relabeling Problem and Its Variants	I-49
TPM1-2-4	Geir Agnarsson, Raymond Greenlaw and Sanpawat Kantabutra	
16-May-08	FAM1-1: Computer Hardware and Image Processing	
08:30-08:50	A Simple and Effective Software Distributed Shared Memory System	I-53
FAM1-1-1	Htway Htway Hlaing, Thein Thein Aye and Win Aye	
08:50-09:10	Image Annotation Using Label Propagation Algorithm	I-57
FAM1-1-2	Sanparith Marukatat	
09:10-09:30	Development of a Three Dimensional Geographic Information System for Visualizing Distributed Transmission Lines at 115 kV	I-61
FAM1-1-3	Weerapat Tanya and Wiwat Vatanawoot	

09:30-09:50	Object Oriented Change Detection of Buildings after the Indian Ocean Tsunami Disaster	I-65
FAM1-1-4	Supanee Tanathong, Kurt T. Rudahl and Sally E. Goldin	
16-May-08	FAM2-1: Medical Applications	
10:30-10:50	Wireless Intelligent Incontinence Management System using Smart Diapers	I-69
FAM2-1-1	L. M. Ang, S. H. Ow, K. P. Seng, Z. H. Tee, B. W. Lee, M. K. Thong, P. J. H. Poi and S. Kunanayagam	
10:50-11:10	Computerized Design for Implant Position Guide from Any Commercial Implant Planning Software	I-73
FAM2-1-2	Apipon Visetvitsakul, Teeraporn Kusalanukhun, Chanjira Sinthanayothin and Wichit Tharanon	
11:10-11:30	PACS (Picture Archiving Communication System) for Dentistry	I-77
FAM2-1-3	Nakintorn Patanachai, Bunyarit Uyyanonvara, Chanjira Sinthanayothin, Wichit Tharanon, Palakon Sompot and Krikamol Muandet	
11:30-11:50	Orthodontics Treatment Simulation by Teeth Segmentation and Setup	I-81
FAM2-1-4	Chanjira Sinthanayothin and Wichit Tharanont	
11:50-12:10	Cross-Section Algorithm for Checking Overjet and Overbite	I-85
FAM2-1-5	Apipon Visetvitsakul, Teeraporn Kusalanukhun, Chanjira Sinthanayothin and Wichit Tharanon	
16-May-08	FPM1-1: Wireless Computer Networks and Voice Applications	
13:30-13:50	Time-Optimal User Communication and Source Reachability Algorithms in a Two-Dimensional Grid Wireless Mobility Model	I-89
FPM1-1-1	Pattama Longani and Sanpawat Kantabutra	
13:50-14:10	A POMDP Framework for Data Acquisition in Wireless Sensor Networks	I-93
FPM1-1-2	Sunisa Chobsri and Wipawee Usaha	
14:10-14:30	Index Distribution Technique for Efficient Search on Unstructured Peer-to-Peer Networks	I-97
FPM1-1-3	Sumeth Lerthirunwong, Naoya Maruyama and Satoshi Matsuoka	
14:30-14:50	Thai Voice Application Gateway	I-101
FPM1-1-4	Dararut Kaitrungrit, Matthew N. Dailey and Chai Wutiwiwatchai	
15-May-08	TAM1-2: Special Session on Modern Information Security	
10:40-11:00	A Simplified Graph-based Methodology for Analyzing Firewall Rules	I-105
TAM1-2-1	Yongyuth Permpoontanalarp and Sarawut Pipattanasakul	
11:00-11:20	Experimental Studies on Pornographic Web Filtering Techniques	I-109
TAM1-2-2	Chantana Chantrapornchai, C. Promsombat, T. Charuenrutsatien and K. Suttirut	
11:20-11:40	Naïve Bayes based Language-Specific Web Crawling	I-113
TAM1-2-3	Ekkasit Srisukha, Supakpong Jinarat, Choochart Haruechaiyasak and Arnon Rungsawang	
11:40-12:00	Optimizing RSA Encryption for ARM Microprocessor	I-117
TAM12-4	Pitcha Tyoviriyakul and Surin Kittitornkun	
15-May-08	TPM1-2: Natural Language Processing	
14:20-14:40	Thai Q-Cor: Integrating Word Approximation and Soundex for Thai Query Correction	I-121
TPM1-2-1	Niran Angkawattanawit, Choochart Haruechaiyasak and Sanparith Marukatat	

14:40-15:00 TPM1-2-2	A Comparative Study on Thai Word Segmentation Approaches Choochart Haruechaiyasak, Sarawoot Kongyoung and Matthew Dailey	I-125
15:00-15:20 TPM1-2-3	Recognizer for Thai Complex Sentences including Relative Pronouns: /thii/, /sɯflŋ/ or /an/ Yingyot Kanchina, Tipraporn Thanakulwarapas, Krit Kosawat and Sunant Anchaleenukoon	I-129
15:20-15:40 TPM1-2-4	Steganography in Thai Text Nattawut Samphaiboon and Matthew N Dailey	I-133
15:40-16:00 TPM1-2-5	Constructing Term Thesaurus using Text Association Rule Mining Alisa Kongthon, Choochart Haruechaiyasak and Santipong Thaiprayoon	I-137
15-May-08	TPM2-2: HPC and Grid Systems	
16:20-16:40 TPM2-2-1	On Performance Study of The Global Arrays Toolkit on Cluster and Grid Computing Environments Sirod Sirisup and Suriya U-ruekolan	I-141
16:40-17:00 TPM2-2-2	Co-Allocation Strategy with Variable Block Size in Grid Environment Worawut Teeratanon, Sasipa Panthuwadeethorn and Jaruloj Chongstitvatana	I-145
17:00-17:20 TPM2-2-3	A Fault Tolerant Approach in Cluster Computing System Thanda Shwe and Daw Win Aye	I-149
17:20-17:40 TPM2-2-4	Meteorological Simulation Portal on the Thagrid System Surachade Vittayasermasathian, Komsan Wongjumpa, Worraluk Yamwong and Rajchawit Sarochawikarit	I-153
17:40-18:00 TPM2-2-5	The Grid Desktop for Signal Processing Research Narong Prugsupachart and Tiranee Achalakul	I-157
16-May-08	FAM1-2: Collaborative Applications	
08:30-08:50 FAM1-2-1	E-Framework for Virtual Collaborative Community Prasitchai Boonserm, Anucha Jitsupap, Nalinrat Thongsamrith and Tiranee Achalakul	I-161
08:50-09:10 FAM1-2-2	Improving Query Expansion Using Link Analysis Wirith Leelapatra and Ponrudee Netisopakul	I-165
09:10-09:30 FAM1-2-3	Mobile Agent for Distributed Information Retrieval System Htoon Htoon and Mie Mie Thet Thwin	I-169
09:30-09:50 FAM1-2-4	ERP Application Development Frameworks: Case Study and Evaluation Nattanicha Rittammanart, Wisut Wongyeud and Matthew N.Dailey	I-173
09:50-10:10 FAM1-2-5	A Study of Possibility to Use A Ceramic Tile Composed of Waste Sludge as Pathway for The Blind Dusit Thanapatay and Nadda Chawalarat	I-177
16-May-08	FAM2-2: E-Learning and Software Tools	
10:30-10:50 FAM2-2-1	Adaptive Multi-Language Code Generation Using YAMDAT Kurt T. Rudahl and Sally E. Goldin	I-181
10:50-11:10 FAM2-2-2	LearnSquare: Thai Open-Source Learning Management System Pornchai Tummarattananont, Orrawin Mekpiroon, Buntita Pravalpruk, Neetiwit Buasroung and Narasak Apitiwongmanit	I-185
11:10-11:30 FAM2-2-3	SCORM Based Link Hiding Technique in e-Learning System Orrawin Mekpiroon, Pornchai Tummarattananont, Buntita Pravalpruk, Neetiwit Buasroung and Narasak Apitiwongmanit	I-189
11:30-11:50 FAM2-2-4	Mobile Agent Based Online Examination System Moe Moe Aye and Mie Mie Thet Thwin	I-193

16-May-08	FPM1-2: Novel IT Applications	
13:30-13:50	Web Services with Poultry Traceability System	I-197
FPM1-2-1	Sitdhibhong Laokok and Urachada Ketprom	
13:50-14:10	The Conceptual Framework for the Development of Thailand Economic Animal Traceability System	I-201
FPM1-2-2	Suvimol Mukviboonchai, Piya Kovintaweewat and Dech Thammasiri	
14:10-14:30	Ontology Development for Pharmaceutical Tablet Production Expert System	I-205
FPM1-2-3	Nopphadol Chalortham, Phuriwat Leesawat, Marut Buranarach and Thepchai Supnithi	
14:30-14:50	A Multimedia-Based and Time-Sensitive Interactive Web Survey for Road User Opinion on Traffic Condition	I-209
FPM1-2-4	Pitiphoom Posawang, Satidchoke Phosaard, Wasan Pattara-atikom and Weerapong Polnigongit	

Communication

15-May-08	TAM1-3: Special Session on Antenna Technology	
10:40-11:00	Monopole Antennas with Modified Minkowski Fractal Geometry	I-213
TAM1-3-1	Somchai Saleekaw, Chatree Mahatthanajatuphat, Prayoot Akkaraekthalin, and Monai Krairiksh	
11:00-11:20	A simple switched beam antenna system for a beacon node localization in wireless sensor networks	I-217
TAM1-3-2	Denchai Worasawate, Teerasit Kasetkasem, Vuttichai Kesornpatumanun, Anukool Noymai, Phuwaphat Klongpramong, and Atitaya Ampungart	
11:20-11:40	Dielectric-Property Determination from Measurement of Magnitude of Reflection and Coupling Coefficients of Coupled Antennas	I-221
TAM1-3-3	Jhirat Mearmchu, Thunyawat Limpiti, Danai Torrungrueng, Prayoot Akkaraekthalin, and Monai Krairiksh	
11:40-12:00	A Reconfigurable Aperture Planar Array Antenna Based on Sepated Feeding Network	I-225
	M. T. Ali, T. A. Rahman, M. R. Kamarudin and M.N. Md Tan	
15-May-08	TPM1-3: Special Session on Microwave Technology	
14:20-14:40	Phenomena of Electrical Memory Effects on the Device Level and Their Relations	I-229
TPM1-3-1	Suramate Chalermwisutkul	
14:40-15:00	An Alternative Approach in Deriving Associated Circle Equations for Microwave Transistor Amplifiers	I-233
TPM1-3-2	Rardchawadee Silapunt and Danai Torrungrueng	
15:00-15:20	Miniaturized Lumped-Distributed Narrowband Ring Filter Design	I-237
TPM1-3-3	Ratthaya Suwanbunyaporn, Amornthep Jirathiticharoen, Ravee Phromloungsri, and Mitchai Chongcheawchamnan	
15:20-15:40	Short-Distance and Near-Ground Signal Measurements in a Car Park of Wireless Sensor Network System at 433 MHz	I-241
TPM1-3-4	Kittisak Phaebua, Chuwong Phongcharoenpanich, Danai Torrungrueng, and Jatuporn Chinrungrueng	
15:40-16:00	A Microstrip Folded Resonator Sensor for Measurement of Dielectric Constant	I-245
TPM1-3-5	Somporn Seewattanapon, Thanakit Wattakeekamthorn, Tanee Somwong, and Prayoot Akkaraekthalin	

15-May-08	TPM2-3: RF, Propagation and Devices	
16:20-16:40	Comparison between foF2 observations and IRI-2001 model predictions at Thailand equatorial latitude station	I-249
TPM2-3-1	Noraset Wichaipanich, Thikumporn Boonchuk, Nipa Leelaruji, Narong Hemmakorn, and Pornchai Supnithi	
16:40-17:00	A 2.5 Gb/s Electro-Absorption Modulator Integrated Laser Optical Transmitter in Long-Haul Dense Wavelength Division Multiplexing Transmission	I-253
TPM2-3-2	Palatorm Sricham, Pattarakamon Rangsee, and Duang-rudee Worasuchep	
17:00-17:20	Measurement of BCITL Parameters	I-257
TPM2-3-3	Suthasinee Lamultree, Danai Torrungrueng, and Chuwong Phongcharoenpanich	
17:20-17:40	A Body-Shadowing Model for Indoor UWB Communication Environments	I-261
TPM2-3-4	Waraporn Seesai, Monchai Chamchoy, and Sathaporn Promwong	
16-May-08	FAM1-3: Microwave Techniques	
08:30-08:50	Performance Evaluation of User Terminal Array Antenna (Invited Lecture)	
FAM1-3-1	Jun-ichi Takada	
08:50-09:10	Broadband Bandpass Filters Using Slotted Stepped Impedance Resonators for Improving Upper Stopband Performances	I-265
FAM1-3-2	Mongkol Meeloon, Sarawuth Chaimool, and Prayoot Akkaraekthalin	
09:10-09:30	Wideband Dual Mode Microstrip Bandpass Filters Using a New Perturbation with Notch Rectangular Slots	I-269
FAM1-3-3	Surin Ahonnom and Prayoot Akkaraekthalin	
09:30-09:50	Characteristics of a Microstrip Semi-Circular Patch Resonator Filter	I-273
FAM1-3-4	Kittisak Phaebua and Chuwong Phongcharoenpanich	
09:50-10:10	Microwave Filter Education Supported by Wave Iterative Simulation Program	I-277
FAM1-3-5	Sommart Kamklieng and Somsak Akatimagool	
16-May-08	FAM2-3: Antenna I	
10:30-10:50	Bandwidth Analysis of Dual-band Asymmetric Y-shaped Slit-loaded MSA	I-281
FAM2-3-1	Usa Kongmuang	
10:50-11:10	On the Use of Switched-Beam Antennas for a Beacon Node Localization in Wireless Sensor Networks	I-285
FAM2-3-2	Teerasit Kasetkasem, Vuttichai Kesornpatumanun, and Denchai Werasowate	
11:10-11:30	Simple Initialization Scheme for CMA Adaptive Antenna by Using Digital Beam Synthesis	I-289
FAM2-3-3	Tanawut Tantisoparak, Akkarat Boonpoonga, Phaophak Sirisuk, and Monai Krairiksh	
11:30-11:50	Array of Quasi-Rhomboid Antenna for Ultra Wideband Applications	I-293
FAM2-3-4	Sivilai Thanormsuay, Phairat Thosdee, and Chanchai Thongsopa	
11.50-12.10	Microstrip-Fed Slot Antenna with Rectangular-Shaped Tuning Stub for WLAN Application	I-297
FAM2-3-5	weerathep Kueathaweekun, chavalit Benjangkaprasert, Noppin Anantrasrichai, and Toshio Wakabayashi	
16-May-08	FPM1-3: Antenna II	
13:30-13:50	Performance Improvement of Broad-Beam Quadratic Reflector Antenna	I-301
FPM1-3-1	Vanvisa Thaivirot and Rangsarn Wongsan	

13:50-14:10	Design of a Perpendicular Slots Antenna on a Sectoral Cylindrical Cavity Excited by a Probe	I-305
FPM1-3-2	Warakorn Sarikha, Vanvisa Thiviro, and Rangsan Wongsan	
14:10-14:30	A Two-Square-Aperture Antenna Excited by a Probe on Rectangular Ground Plane with Elliptical Parasitic Patch for UHF-RFID Reader	I-309
FPM1-3-3	Rattapong Suwalak and Chuwong Phongcharoenpanich	
14:30-14:50	A Four-Aperture Antenna with Flare Plates Radiating Omnidirectional Beam	I-313
FPM1-3-4	Itthiphol Rattanachote and Chuwong Phongcharoenpanich	
15-May-08	TAM1-4: MIMO	
10:40-11:00	Space-Time Coded Adaptive Protocol for Cooperative Wireless Communication Systems	I-317
TAM1-4-1	Charnvit Yaibua and Chaiyod Pirak	
11:00-11:20	Performance of M-PSK Modulation in Double Rician Fading Channels with MRC Diversity	I-321
TAM1-4-2	Wannaree Wongtrairat, Pornchai Supnithi, and Sawasd Tantaratana	
11:20-11:40	Tree-Structured Random Vector Quantization for Beamforming in a Multiantenna Channel	I-325
TAM1-4-3	Wiroonsak Santipach	
11:40-12:00	MISO Mixed Phase Precoding and its Applications with Turbo Coding Schemes	I-329
TAM1-4-4	Ditsapon Chumchewkul, Keattisak Sripimanwat, and Attasit Lasakul	
15-May-08	TPM1-4: CDMA	
14:20-14:40	Neurofuzzy Controller for Closed Loop Power Control of Reverse Link DS-CDMA System on Rayleigh Fading Channel	I-333
TPM1-4-1	Chaiporn Wongsathan	
14:40-15:00	Theoretical Analysis for the Downlink Spectral Efficiency of DS/CDMA Cellular Systems in Rayleigh Fading Environment	I-337
TPM1-4-2	Pongsatorn Sedtheetorn	
15:00-15:20	Variable Step-Size Algorithm for Modified Decision Feedback Equalizer Turbo Code DS/CDMA System Based on SOVA Decoding	I-341
TPM1-4-3	T. Udomsripaiboon, S. Rattarom, S. Hunta, V. Sanpote and C. Benjangkrasert	
15:20-15:40	Performance Analysis of SPE-OCDMA over WDM Networks	I-345
TPM1-4-4	Kidsanapong Puntsri, Suvepol Sittichivapak, and Hossam M. H. Shalaby	
15:40-16:00	Conjugate Gradient Method for Power Updates in CDMA Wireless Networks	I-349
TPM1-4-5	Chaiporn Wongsathan	
15-May-08	TPM2-4: Network	
16:20-16:40	Performance of Bacteriologic Algorithm in Path Finding of Wireless Sensor Network.	I-353
TPM2-4-1	Sutichart Pattarangoon	
16:40-17:00	Vulnerability Analysis in Multicommodity Stochastic Networks by Game Theory	I-357
TPM2-4-2	Piyanan Satayapiwat, Kalika Suksomboon, and Chaodit Aswakul	
17:00-17:20	Performance Evaluation of Anomaly Detection in Cellular Networks using Self-Organizing Map	I-361
TPM2-4-3	Pichanun Sukkhawatchani and Wipawee Usaha	
17:20-17:40	Game-theoretic approach to prevent selfish path provisioning in interdomain networks	I-365
TPM2-4-4	Kalika Suksomboon, Panita Pongpaibool, and Chaodit Aswakul	

17:40-18:00 TPM2-4-5	Game-Theoretic Approach to Service Level Agreement for Resource Sharing Chayakrit Charoensiriwath	I-369
16-May-08	FAM1-4: Protocol	
08:30-08:50 FAM1-4-1	Effect of Packetization on VoIP Performance Boonchai Ngamwongwattana	I-373
08:50-09:10 FAM1-4-2	Maximum-SNR-Based Adaptive Protocol with Subcarrier Selection for OFDM Cooperative Communications Wanakorn Swasdio and Chaiyod Pirak	I-377
09:10-09:30 FAM1-4-3	Revisiting the Impact of Encryption on Performance of IEEE 802.11 WLAN Siwaruk Siwamogsatham, Kridakorn Hiranpruek, Chanin Luangingkasut, and Songrit Srilasak	I-381
09:30-09:50 FAM1-4-4	Performance Comparison of Multicast-encouraging Explicit Rate Adjustment and Packet-pair Layered Multicast Somnuk Puangpronpitag and Jaturapad Pratum	I-385
16-May-08	FAM2-4: Wireless Communication	
10:30-10:50 FAM2-4-1	PAPR Reduction in OFDM Systems Using SLM Cascade with APPR Methods Kongsit Eupree, Sorawat Chivapreecha, kobchai Dejhan, and Chusit Pradabpet	I-389
10:50-11:10 FAM2-4-2	Real-Time Tracking Management System Using GPS, GPRS and Google Earth Noppadol Chadil, Apirak Russameesawang and Phongsak Keeratiwintakorn	I-393
11:10-11:30 FAM2-4-3	Thai Encoding for Traffic Report System via SMS Message Apirak Rusameesawang and Phongsak Keeratiwintakorn	I-397
11:30-11:50 FAM2-4-4	Proposal of Improved PTS Method for OFDM Signal in the Multi-path Fading Channel Pisit Boonsrimuang, Pornpawit Boonsrimuang, and Tawil Paungma	I-401
11:50-12:10 FAM2-4-5	Low-Complexity Turbo Equalization Using E-BAD Detector Combine with LDPC Codes for High-Density Magnetic Recording S. Moodleah, C. Benjangkrasert, T. Udomsripaiboon, S. Sa-ad, and K. Janchitrapongvej	I-405
16-May-08	FPM1-4: Coding and RFID	
13:30-13:50 FPM1-4-1	Design of Random Interleavers for the Variable Length of MPEG-4 Packets in Rician Fading Channels Srijidtra Mahapakulchai and Itsaree Sapisirisopon	I-409
13:50-14:10 FPM1-4-2	Performance Study of Dynamic Framed Slotted ALOHA for RFID Systems Sarunya Kaewsirisin, Pichaya Supanakoon, Sathaporn Promwong, Nikorn Sukutamanti, Urachada Ketpromand	I-413
14:10-14:30 FPM1-4-3	Effects of IEEE 802.15.1 Interference on A RFID Communication System at 2.45 GHz Usman R-yohsae, Sathaporn Promwong, and Nikorn Sukutamanti	I-417
14:30-14:50 FPM1-4-4	Indoor Measurement and Modeling of RFID Transmission Loss at 5.8 GHz with Human Body Phissanu Malison, Sathaporn Promwong, Nikorn Sukutamanti, and Thanawat Banpotjitt	I-421

Signal Processing

15-May-08	TAM1-6: Video Processing	
10:40-11:00 TAM1-6-1	Transcoding of H.264, MPEG-2 and AVS (Invited Lecture) Kamisetty R. Rao	

11:00-11:20	Image Sequence Segmentation Using the Gradient Structure Tensor Method and Self-Organizing Map	I-425
TAM1-6-2	Tin Mon Mon Swe, Toshiaki Kondo, and Waree Kongprawechnon	
11:20-11:40	Abrupt Video Scene Change Detection Using Structural Similarity Measure	I-429
TAM1-6-3	Wuttipong Kumwilaisak and Anon Wasurutpaisan	
11:40-12:00	Outdoor vehicle and shadow segmentation by temporal edge density information of adjacent frames	I-433
TAM1-6-4	Chanchai Techawatcharapaikul, Pakorn Kaewtrakulpong, and Supakorn Siddhichai	
12:00-12:20	Pedestrian Detection using Color Symmetry Phases	I-437
TAM1-6-5	Jakawut Janta, Prayoth Kumsawat, Kitti Attakitmongcol, and Arthit Srikaew	
15-May-08	TPM1-6: Biometrics/ Pattern Recognition	
14:20-14:40	Facial Expression Recognition from a Partial Face Image by Using Displacement Vector	I-441
TPM1-6-1	Theekapun Charoenpong, Shogo Tokai, and Hiroyuki Hase	
14:40-15:00	Circular and Elliptical Modeling for Pupil Boundary in Closed-up Human Eye Images	I-445
TPM1-6-2	Chirayuth Sreecholpech and Somying Thainimit	
15:00-15:20	New Face Segmentation Technique Insusceptible To Illumination	I-449
TPM1-6-3	King Lim Hann, Li-Minn Ang , and Kah Phooi Seng	
15:20-15:40	M-Band Wavelet Transform in Face Recognition System	I-453
TPM1-6-4	Yee Wan Wong, Kah Phooi Seng, Li-Minn Ang	
15:40-16:00	Transient Feature Extraction for Machine Olfaction based on Wavelet Decomposition	I-457
TPM1-6-5	Ekachai Phaisangittisagul	
15-May-08	TPM2-6: Image & Video Coding, SRR, and Compression	
16:20-16:40	CONTEXT ADAPTIVE IMAGE CODING USING LAPPED TRANSFORM	I-461
TPM2-6-1	Poonlap Lamsrichan	
16:40-17:00	Fast Deblocking Filter Implementation Method and it's architecture for H.264/AVC	I-465
TPM2-6-2	Yoshinori Hayashi, Tian Song, Eiji Koeta, and Takashi Shimamoto	
17:00-17:20	MPEG-4 Video Mobile Uplink Caching Algorithm	I-469
TPM2-6-3	Chatchaphong Mathong and Surin Kittitornkun	
17:20-17:40	A Robust Iterative Multiframe SRR using Stochastic Regularization Technique based on Hampel Estimation	I-473
TPM2-6-4	Vorapoj Patanavijit	
17:40-18:00	Information Signs Compression and Classification Using Vector Quantization and Neural Network for Blind man Tourisms Navigation System	I-477
TPM2-6-5	Songkran Kran Kantawong and Thnasak Panprasit	
16-May-08	FAM1-6: Biomedical Signal & Image Processing	
08:30-08:50	Design of Portable Stroke Monitoring Care in Old Human	I-481
FAM1-6-1	Suranan Noimanee, Tawee Tunkasiri, Kingkeo Siriwitayakorn, and Jerapong Tuntrakoon	
08:50-09:10	Computer-Aided Analysis of Nuclear Stained Breast Cancer Cell Images	I-485
FAM1-6-2	Pornchai Phukpattaranont and Pleumjit Boonyaphiphat	
09:10-09:30	Detection and Follow-Up Assessment of Pleural Thickenings from 3D CT Data	I-489
FAM1-6-3	Kraisorn Chaisaowong, Benjamin Bross, Achim Knepper, Thomas Kraus, and Til Aach	

09:30-09:50	Metal Artifact Reduction in Cone-Beam X-Ray Computed Tomography Using Statistical Iterative Reconstruction	I-493
FAM1-6-4	Sorapong Aootaphao, Chuchart Pintavirooj, and Saowapak Sotthivirat	
16-May-08	FAM2-6: Image Processing and Recognition	
10:30-10:50	Wavelet-Based Image Denoising using NeighShrink and BiShrink Threshold Functions	I-497
FAM2-6-1	Pichid Kittisuwan and Widhyakorn Asdornwised	
10:50-11:10	Image interpolation by Estimation and Deconvolution of Haar Wavelet Approximate Subband	I-501
FAM2-6-2	Hiroshi Yasuno, Werapon Chiracharit, and Kosin Chamnongthai	
11:10-11:30	Enhancements in Robust Feature Matching	I-505
FAM2-6-3	San Ratanasanya, David M. Mount, Nathan S. Netanyahu, and Tiranee Achalakul	
11:30-11:50	Optimum Shape Representation Based on Fisher's Discriminant Analysis	I-509
FAM2-6-4	Yuttana Kitjaidure, Kritsana Yawichai, and Thourn Kosorl	
11:50-12:10	Grape leaf disease detection from color imagery using hybrid intelligent system	I-513
FAM2-6-5	Angkachut Meunkaewjinda, Prayoth Kumsawat, Kitti Attakitmongcol, and Arthit Srikaew	
16-May-08	FPM1-6: Image Acquisition & Analysis	
13:30-13:50	Comparative Analysis of Eigenvalues-Based and Tchebichef Moments-Based Focus Measures	I-517
FPM1-6-1	Chong-Yaw Wee and Raveendran Paramesran	
13:50-14:10	Fuzzy Controller and Image Enhancement for Slit Lamp Microscopy	I-521
FPM1-6-2	Pailin Jiewpaibul, Busara Piriyanont, Waree Kongprawechon, Toshiaki Kondo, and Suthee Phoojaruenchanachai	
14:10-14:30	Fabrication of Eyepieces Lens Scale for Optical Microscope	I-525
FPM1-6-3	Nithi Atthi, Somchai Meerot, Anucha Keawpoonsuk, Wutthinan Jeamsaksiri, Charndet Hruanun, and Amporn Poyai	
14:30-14:50	The Study of Using RGB Color Sensor to Measure the Curcuminoids Amount in Turmeric (<i>Curcuma longa</i> Linn.) and Zedoary (<i>Curcuma Zedoarie</i> Rose.) by Comparing Colors with HSL System	I-529
FPM1-6-4	Dusit Thanapatay and Sarawut Supannarach	
14:50-15:10	Robustness of Novel Surface Invariance to Geometric Transformation	I-533
FPM1-6-5	Prasong Tosranon, Arthorn Sanpanich, Sonthaya Bunluechokchai, and Chuchart Pintavirooj	
16-May-08	FPM1-7: Speech Processing	
13:30-13:50	Improvement of Endpoint Detection for Thai Isolated Word Recognition	I-537
FPM1-7-1	Narongrit Sae-ngan and Narong Buabthong	
13:50-14:10	On-Line Writer Dependent Character Recognition for Khmer based on FIR System Characterizing Handwriting Motion	I-541
FPM1-7-2	Pitak Thumwarin, Sochenda Khem, Kanok Janchitraponvej, and Takenobu Matsuura	
14:10-14:30	Implementing Thai Text-to-Speech Synthesis for Hand-held Devices	I-545
FPM1-7-3	Nipon Chinathimatmongkhon, Atiwong Suchato, and Proadpran Punyabukkana	
14:30-14:50	Automatic Duration Weighting in Thai Unit-selection Speech Synthesis	I-549
FPM1-7-4	Sittipong Saychum, Anocha Rugchatjaroen, Nattanun Thatphithakkul, Chai Wutiwiwatchai, and Ausdang Thangthai	
14:50-15:10	Nonlinear Ultrasound System Modeling Based on the Volterra Filter	I-553
FPM1-7-5	Pornchai Phukpattaranont and Tojsaporn Nilmanee	

16-May-08	FPM1-8: DSP in Communication	
13:30-13:50	Performance Enhancement for Cooperative Communications Using Smart Antenna Systems	I-557
FPM1-8-1	Chaturong Charoenphap and Chaiyod Pirak	
13:50-14:10	Adaptive Forgetting-factor Gauss-Newton inverse QR-RLS Per-Tone Equalisation for Discrete Multitone Systems	I-561
FPM1-8-2	Suchada Sitjongsataporn and Peerapol Yuvapoositanon	
14:10-14:30	A Blind Adaptive Step-Size Time-Domain Receiver for MC-CDMA Systems	I-565
FPM1-8-3	Peerapol Yuvapoositanon and Sutat Suwannajan	
14:30-14:50	Power Prediction in Reverse Link for Mobile DS/CDMA Systems Using Support Vector Regression	I-569
FPM1-8-4	Naret Suyaroj, Nipon Theera-Umpon, and Sansanee Auephanwiriyaikul	

Technical Program Contents

Volume II

Controls

15-May-08	TAM1-5: Control Theory I	
10:40-11:00	Structure-Specified Mixed H_2/H_∞ Control for Balancing of Bicyrobo: A Particle Swarm Optimization Approach	II-573
TAM1-5-1	Bui Trung Thanh and Manukid Parnichkun	
11:00-11:20	2-DOF Smith Predictor Control System Design by Root Locus Technique	II-577
TAM1-5-2	Tianchai Suksri and Satean Tunyasrirut	
11:20-11:40	The Closed-Form Solution for the Worst-Case Norm of Linear Systems Subject to Inputs with Magnitude Bound and Rate Limit	II-581
TAM1-5-3	Wathanyoo Khaisongkram and David Banjerdpongchai	
11:40-12:00	Implementation of Model Predictive Control and Decoupling PI by Distributed Control System	II-585
TAM1-5-4	Siripong Permpornsri and Manop Wongsaisuwan	
15-May-08	TPM1-5: Control Theory II	
14:20-14:40	Robust Constrained Model Predictive Control for Linear Time-Varying Systems with Norm-Bounded Uncertainty	II-589
TPM1-5-1	Vorapon Kunnee and David Banjerdpongchai	
14:40-15:00	Global Output Feedback Stabilization of a Class of MIMO Nonlinear Systems	II-593
TPM1-5-2	Long Thanh Vu and Phuoc Doan Nguyen	
15:00-15:20	A Design Method for Simple Repetitive Controllers for Time-Delay Plants	II-597
TPM1-5-3	Kou Yamada, Hiroshi Tanaka, Hiroshi Takenaga and Masahiko Kobayashi	
15:20-15:40	Robust Stability Condition for a Class of Time-Delay Plants with Uncertainty	II-601
TPM1-5-4	Kou Yamada, Takaaki Hagiwara and Hideharu Yamamoto	
15:40-16:00	Fast Time-Response Algorithm for Heat Conduction Feedback Systems Using I_{MN} Approximants	II-605
TPM1-5-5	Suchin Arunsawatwong and Kornkanok Ngamsiritanakul	
15-May-08	TPM2-5: Mechatronics and Manufacturing	
16:20-16:40	Balancing of U-Shape Assembly Lines using Tabu Search Method	II-609
TPM2-5-1	Supaporn Suwannarongsri and Deacha Puangdownreong	
16:40-17:00	Feedback Linearization Controller Design for Continuous Stirred-Tank Reactor (CSTR) in Biodiesel Production Process	II-613
TPM2-5-2	Peerayot Sanposh, Wasin Leenanithikul, Suthee Phoojaruenchanachai, Penjit Srinophakun, Thongchai Srinophakun and Chanin Panjapornpon	
17:00-17:20	Design of Calibrating Controllers for Heliostats	II-617
TPM2-5-3	Thanart Vachiraprakarnsakul and Manop Wongsaisuwan	
17:20-17:40	Eye Tele-Analyzer System	II-621
TPM2-5-4	Kamonwan Tanta-ngai, Teesid Leelasawassuk, Prakob Komeswarakul and Wuttikorn Chaopramualkul	

17:40-18:00	A System Identification Model for Ultrasonic Characterization of A Swollen PVA Hydrogel	II-625
TPM2-5-5	M. Lohakan, T. Jamnongkan, S. Kaewpirom and S. Boonsang	
16-May-08	FAM1-5: Robotics and Automation I	
08:30-08:50	High Building Exterior Mirror Cleaning Robot based on Image Detection and Compression Analysis with Fuzzy Ladder Control System	II-629
FAM1-5-1	Songkran Kantawong and Tanasak Phanprasit	
08:50-09:10	Cooperative Behavior-based Control of Decentralized Mobile Robots on an Overhead Box Carrying Task	II-633
FAM1-5-2	Mahitthidetch Udomkun and Poj Tangamchit	
09:10-09:30	The Application of Nonlinear Model Reference PID Controller for a Planar Robot Arm	II-637
FAM1-5-3	Kanjanapan Sukvichai and Andrew Fish, Jr.	
09:30-09:50	Robotic Arm Controller Using Muscular Contraction Classification Based on Independent Component Analysis	II-641
FAM1-5-4	Theerasak Chanwimalueang, Direk Sueaseenak, Niyom Laoopugsin and Chuchart Pintavirooj	
09:50-10:10	A Low-Cost Solution of Motor Control System for Robocup Robots	II-645
	Wang Xianwei, Montri Kamjanadecha and Thanate Khaorapong	
16-May-08	FAM2-5: Robotics and Automation II	
10:30-10:50	Automatic Ruler Scale Calibration using a Rotary Machine	II-649
FAM2-5-1	Suricha Kraiprawes, Anusorn Tonmueanwai and Poj Tangamchit	
10:50-11:10	Low Cost Sensory Based Autonomous Vehicle Algorithm	II-653
FAM2-5-2	Salilthip Vatcharadejsakul, Sanchai Thumrungsaisakul, Worameth Tachaplalert, Kroeksak Tangmankhong and Surapont Toomnark	
11:10-11:30	Detection of Hazardous Driving Behavior using Fuzzy Logic	II-657
FAM2-5-3	Pichet Saensom, Tospol Imkamon, Poj Tangamchit and Panita Pongpaibool	
11:30-11:50	Teleoperation System Using Neural Network Based Multiple Model Adaptive Predictive Control	II-661
FAM2-5-4	Bui Van Bien, Vu Trieu Minh, Anan Suebsomran and Suwat Kuntanapreeda	
16-May-08	FPM1-5: Process Control and Adaptive Learning	
13:30-13:50	Portable Polymerease Chain Reaction System with Thermoelectric Cooling	II-665
FPM1-5-1	Tawee Pokai, Krongkamol Wong-ek, Suriya Mongpraneet, Anurat Wisitsora-at and Adisorn Tuantranont	
13:50-14:10	Temperature Control of Koji Process by using Fuzzy PD Controller	II-669
FPM1-5-2	Nakorn Threesinghawong, Peerayot Sanposh, Nutthawut Chinthaned and Penjit Srinophakun	
14:10-14:30	Torsional Resonance Suppression via PIDA Controller Designed by Particle Swarm Optimization	II-673
FPM1-5-3	Deacha Puangdownreong and Supaporn Suwannarongsri	
14:30-14:50	A Particle Swarm Optimization Approach for Optimal Design of PID Controller for Position Control Using Shape Memory Alloys	II-677
FPM1-5-4	Rujisak Muangsong, Diew Koolpiruck, Anak Khantachawana and Panadda Niranatlumpong	

Circuits and Systems

15-May-08	TAM1-7: Digital circuits and systems	
10:40-11:00	Enhancing Multimedia Processing by Wave-Pipelining Integer Units and Floating Point Units in Whole	II-681
TAM1-7-1	Masa-aki Fukase, Kazunori Noda, Atsuko Yokoyama, Tomoaki Sato	
11:00-11:20	BCH-based Compactors with Data Compression	II-685
TAM1-7-2	Taweesak Reungpeerakul, Xiaoshu Qian, Samiha Mourad	
11:20-11:40	Translating a Microprogram to Hardwire Control	II-689
TAM1-7-3	Aye Thiri Ri Wai, Phyu Phyu Tar	
11:40-12:00	Testing of Asynchronous Circuit using Time Petri-Net Specification	II-693
TAM1-7-4	Tawan Phurat, Arthit Thongtak	
15-May-08	TPM1-7: Analogue circuits I	
14:20-14:40	Pulse Width Modulation Based On Phase Locked Loop	II-697
TPM1-7-1	Pichet Wisartpong, Jeerasuda Koseeyaporn, Pramote Wardkein	
14:40-15:00	A Linearized Source-Couple Pair Transconductor Using a Low-Voltage Square Root Circuit	II-701
TPM1-7-2	W. Ngamkham, N. Kiatwarin, W. Narksap, W. Sangpisit and W. Kiranon	
15:00-15:20	A Wide Tunable Range CMOS OTA	II-705
TPM1-7-3	Khanittha Kaewdang, Wanlop Surakamponorn	
15:20-15:40	Simple CMOS Current-Mode Exponential Function Generator Circuit	II-709
TPM1-7-4	Montree Kumngern, Jirasak Chanwutitum, Kobchai Dejhan	
15-May-08	TPM2-7: Analogue Circuits II	
16:20-16:40	Improvement of Sensitivity Band Technique for Worst Case Tolerance Analysis of Linear Circuits	II-713
TPM2-7-1	Manas Sunun and Sermsak Uatrongjit	
16:40-17:00	Current-Mode Universal Filter Using Translinear Current Conveyors	II-717
TPM2-7-2	Montree Kumngern, Phichet Moungnoul, Somyot Junnapiya, Kobchai Dejhan	
17:00-17:20	Resistorless current-mode first-order allpass filter using CDTAs	II-721
TPM2-7-3	Wason Tanjaroen and Worapong Tangsrirat	
17:20-17:40	A 2.4-GHz 43-dB CMOS Logarithmic Amplifier for RF Signal Level Detection	II-725
TPM2-7-4	SITTHIPONG WONGNAMKUM, Apinunt thanachayanont, Monai Krairiksh	
17:40-18:00	Multi-Objective Analog Design via Geometric Programming	II-729
TPM2-7-5	Theerachet Soorapanth	
16-May-08	FAM1-7: Special Session on RFID I: Technologies	
08:30-08:50	A New Anti-Collision Based on A-Priori Information	II-733
FAM1-7-1	Sarawut Makwimanloy, Piya Kovintavewat, Urachada Ketprom, Charturong Tantibundhit, Chaichana Mitrpant	
08:50-09:10	An Improved Proof for RFID Tags	II-737
FAM1-7-2	Thiti Nuamcherm, Piya Kovintavewat, Charturong Tantibundhit, Urachada Ketprom, Chaichana Mitrpant	
09:10-09:30	A Study on Performance of UHF RFID Tags in a Package for Animal Traceability Application	II-741
FAM1-7-3	Pornanong Pongpaibool	

09:30-09:50	Increasing Memory in FAT 16 Removable Media of RFID Handheld Reader	II-745
FAM1-7-4	Anukool Noymai, Urachada Ketprom, Chaichana Mitrpant	
09:50-10:10	Effects of Ruminal Magnets in the Vicinity of a Bolus Tag of an LF-RFID System	II-749
FAM1-7-5	Sanchai Eardprab, Phairote Wouchoum, Chuwong Phongcharoenpanich, Danai Torrungrueng	
16-May-08	FAM2-7: Special Session on RFID II: Applications	
10:30-10:50	RFID for Poultry Traceability System at Animal Checkpoint	II-753
FAM2-7-1	Weerachai Chansud, Juthatip Wisanmongkol, Urachada Ketprom	
10:50-11:10	Automatic Vehicle Identification with Sensor-Integrated RFID System	II-757
FAM2-7-2	Juthatip Wisanmongkol, Taweesak Sanpechuda, Urachada Ketprom	
11:10-11:30	Security System against Asset Theft by using Radio Frequency Identification Technology	II-761
FAM2-7-3	Nakrop Jinaporn, Sodsai Wisadsud, Prasit Nakonrat and Atipong Suriya	
11:30-11:50	A Blind Navigation System Using RFID for Indoor Environments	II-765
FAM2-7-4	Sakmongkon Chumkamon, Peranitti Tuvaphanthaphiphat, Phongsak Keeratiwintakorn	
11:50-12:10	A Review of RFID Localization: Applications and Techniques	II-769
FAM2-7-5	T. Sanpechuda, L. Kovavisaruch	
15-May-08	TAM1-8: Material I	
10:40-11:00	Impact of Lithography Overlay on 0.8 Micron CMOS Layout Design Rules	II-773
TAM1-8-1	PAWADEE MEESAPAWONG, RATTANAWAN SONBOONTON	
11:00-11:20	Effect of Exposure Energy, Focus Range, and Surface Reflection on the Photolithography Process of Contact Hole Patterning	II-777
TAM1-8-2	Rattanawan Sonboonton, Ekalak Chaowicharat , Pawadee Measapawong, Jakgarin.Latthidech, Wisut Titiroongruang , Charndet Hruanun, Amporn Poyai	
11:20-11:40	Effect of Cobalt Silicide to the Sentivity of p-n Junction Temperature Sensor	II-781
TAM1-8-3	A. Poyai, E. Ratanaudomphisut, J. Supadech, N. Klunngien, C. Hruanan and S. Sopitpan	
11:40-12:00	Study on temperature effect on p-n and Zener junction for PTAT temperature sensor	II-785
TAM1-8-4	P. Songmalai, T. Phetchakul, W. Pengchan, E. Ratanaudomphisut and J. Supadech	
12:00-12:20	Comparison of Characterization Methods for Statistical Analysis of SoC Designs	II-789
TAM1-8-5	Wook Kim, Dai Joon Hyun, Young Hwan Kim, Kyung Tae Do	
15-May-08	TPM1-8:P Material II	
14:20-14:40	Fabrication of Three-Dimensional Microstructures by One-Step Lithography with Multi-Film Thickness Mask	II-793
TPM1-8-1	Nithi Atthi, Chuckaphun Aramphongphun, Patcharaporn Yanpirat, Peerayuth Charnsetthikul	
14:40-15:00	Effect of Annealing Temperature on Dark Current Density of Silicon Nanocrystals Embedded in a Nitride matrix for Photovoltaic Application	II-797
TPM1-8-2	Fangsuwannarak T.a, and Scardera G.	
15:00-15:20	Photoconductor Diamond film Detector	II-801

TPM1-8-3	Sarawut Jesen, Ladthai Thaiyotin, Somsak Cheirsirikul, and Toempong Phetchakul	
15:20-15:40	Multi-Step Powder Casting and X-ray Lithography of SU-8 Resist for Complicated 3D Microstructures	II-805
TPM1-8-4	Rungruang Phatthanakun, Prayoon Songsiriritthigul, Prapong Klysubun, and Nimit Chomnawang	
15:40-16:00	White Noise in silicon-based planar metal-semiconductor-metal photodiodes	II-809
TPM1-8-5	S.Khunkhao, P.Nanthivatana, S.Niemcharoen, W. Titiroongruang, A.Ruangphanit, N.Phongphanchanthra and K.Sato	
15-May-08	TPM2-8: Material & Devices	
16:20-16:40	Effect of Temperature to Characteristics of Polysilicon Based Surface Micromachining Piezoresistive Pressure Sensor	II-813
TPM2-8-1	K. Saejok, B. Phinyo E. Chaowicharat, E. Ratanaudomphisut, O. Treethaveesak, C. Hruanun, and A. Poyai	
16:40-17:00	Study of defect generated in PN Junction for 0.8 um CMOS Fabrication	II-817
TPM2-8-2	Weera Pengchan, Toempong Phetchakul, Amporn Poyai	
17:00-17:20	Investigation of Efficiency and Accuracy on Incremental SSTA	II-821
TPM2-8-3	Jinwook Kim, Wook Kim, Young Hwan Kim	
17:20-17:40	Comparison of Conventional and LDD NMOSFETs Hot-Carrier Degradation in 0.8 μm CMOS Technology	II-825
TPM2-8-4	Nopphon Phongphanchanthra, Anucha Ruangphanit, Nipapan Klunngien, Wittawat Yamwong, Surasak Niemcharoen	
17:40-18:00	An effect of TiO₂ morphology on performance of ITO/TiO₂/MEH-PPV/Au solar cells	II-829
TPM2-8-5	Kroekchai Inpor, Somjai Reabanko, Praty Boonchan, Nuntiya Mahingsupan, Somboon Sahasithiwat, Pimpa Limthongkul, Chaiyuth Sae-Kung, Porponth Sichanugrist, Chanchana Thanachayanont	
16-May-08	FAM1-8: Devices I	
08:30-08:50	The innovative AlN-ISFET based pH sensor	II-833
FAM1-8-1	WIN BUNJONGPRU, S. Porntheeraphat, O. Trithaveesak, N. Somwang, P. Khomdet, W. Jeamsaksiri, C. Hruanun, A. Poyai, J. Nukeaw	
08:50-09:10	Development of Traveling Wave Dielectrophoretic (twDEP) Microfluidic System	II-837
FAM1-8-2	Kata Jaruwongrungrsee, Thitima Maturros, Sorawut Bunthawil, Anurat Wisitsorarat, Tanom Lomas, Assawapong Sappat, Adisorn Tuantranont	
09:10-09:30	Optically Linearized Electrooptic Light Modulator using Coated Dielectric Thin Films	II-841
FAM1-8-3	Somboon Damsa-ard, Apichai Bhatranand, Auapong Yaicharoen	
09:30-09:50	Correction of Humidity Effect for Detection of Human Body Odor	II-845
FAM1-8-4	Chatchawal Wongchoosuk, Mario Lutz, Teerakiat Kerdcharoen	
16-May-08	FAM2-8: Devices II	
10:30-10:50	Optical Gas Sensor Based on MgTPP Thin Film for the Detection of Alcohol Vapors	II-849
FAM2-8-1	Johannes Philipp Mensing, Sumana Kladsomboon, Teerakiat Kerdcharoen	

10:50-11:10 FAM2-8-2	Characteristics of silicon thin film thermistors Jakrapong Supadech, Eakkarach Ratanaudomphisut, Charndet Hruanun, Amporn Poyai	II-853
11:10-11:30 FAM2-8-3	Hybrid Quantum Cellular Automata Memory Kanjanawit Yanggratoke, Songphol Kanjanachuchai	II-857
11:30-11:50 FAM2-8-4	Fabrication and Modeling of Organic Thin-Film Transistor on Glass Substrate Tossapol Tipppo, Chanchana Thanachayanont, Somboon Sahasithiwat, Apinunt Thanachayanont	II-861
11:50-12:10 FAM2-8-5	Development of Electrochemical Sensing System with Carbon Nanotube Based Electrode Anurat Wisitsoraat, Chanpen Karuwan, Assawapong Sapphat, Kata J aruwongrungee, Adisorn Tuantranont	II-865

Electrical Power System

15-May-08	TAM1-9: Power System Analysis I	
10:40-11:00 TAM1-9-1	Generation System Planning with Consideration of Load Forecast Uncertainty and Energy Limited Units Pornthep Tiabrat and Bundhit Eua-arporn	II-869
11:00-11:20 TAM1-9-2	Revenue Based Maintenance Scheduling of A GENCO in Restructured Power Systems Nima Mohammadi tabari, M. Pirmoradian, and S. B. Hassanpour	II-873
11:20-11:40 TAM1-9-3	Security-Based Transmission System Planning Using Transmission Line Performance Indices Komson Daroj and Bundhit Eua-Arpor	II-877
11:40-12:00 TAM1-9-4	Multi-Zone Transmission Expansion Planning using Genetic Algorithm Wanlapha Tangkananuruk and Parnjit Damrongkulkamjorn	II-881
15-May-08	TPM1-9: Power System Analysis II	
14:20-14:40 TPM1-9-1	Solving Economic Dispatch Using Particle Swarm Optimization Combined with Gaussian mutation Pichet Sriyanyong	II-885
14:40-15:00 TPM1-9-2	Economic Dispatch with Nonsmooth Cost Function using Hybrid Method Wilasinee Sugsakarn and Parnjit Damrongkulkamjorn	II-889
15:00-15:20 TPM1-9-3	Unit Commitment considering Security-Constrained Optimal Power Flow by Lagrangian Relaxation with Genetic Algorithm Weeraya Poommalee and Parnjit Damrongkulkamjorn	II-893
15:20-15:40 TPM1-9-4	Area-based Transfer Capability Evaluation Nopparoeek Pimsan and Kulyos Audomvongseree	II-897
15-May-08	TPM2-9: High Voltage I	
16:20-16:40 TPM2-9-1	Mechanical Defect Detection of SF6 High Voltage Circuit Breaker Using Wavelet Based Vibration Signal Analysis Noppadol Charbaew, Thanapong Suwanasri, and Teratam Bunyagul	II-901
16:40-17:00 TPM2-9-1	Ground Potential Rise from Lightning Overvoltage in Communication Station Thanaphong Thanasaksiri	II-905
17:00-17:20 TPM2-9-2	Protection of Lightning Caused Interruptions on Transmission Line Zar Ni Tun	II-909
17:20-17:40 TPM2-9-3	Comparison of DC Breakdown Voltage between Multiple level test and Successive discharge test Methods Surasak Phontusa and Supakit Chotigo	II-913

16-May-08	FAM1-9: High Voltage II	
08:30-08:50	Atmospheric Factor under the Negative Impulse Voltages on Various Test Gaps	II-917
FAM1-9-1	S.Kanchana, S. Chotigo and B. Pungsiri	
08:50-09:10	Pattern Classification of Partial Discharge in High Voltage Equipment by Regression Analysis	II-921
FAM1-9-2	Savinee Ludpa, Norasage Pattanadech, Monthon Leelachindakailak, and Pearawut Yutthagowith	
09:10-09:30	Equivalent Circuit Approximation of Transformer Insulation by Using PDC Measurement	II-925
FAM1-9-3	Chalermpol Roongroj, Norasage Pattanadech, Prapas Praisuwanna, Pearawut Yutthagowith, and Kritsawat Thongkaemkaew	
09:30-09:50	A New Type of the VLF High Voltage Generator	II-929
FAM1-9-4	S.Seesanga, W.Kongnun, A.Sangswang and S. Chotigo	
16-May-08	FAM2-9: Power System Analysis I	
10:30-10:50	A Unified Newton-Raphson Technique for AC–DC Power Flow Analysis with Thyristor Controlled Series Capacitor	II-933
FAM2-9-1	Jutanon Kaewmanee and Somporn Sirisumrannukul	
10:50-11:10	Network Reconfiguration for Reliability Worth Enhancement in Distribution Systems By Simulated Annealing	II-937
FAM2-9-2	Apirug Rug Skoonpong and Somporn Sirisumrannukul	
11:10-11:30	Performance Analysis of the Enhanced Zone 3 Distance Relay on WSCC Test System	II-941
FAM2-9-3	Kanok Suwannakarn and Naebboon Hoonchareon	
11:30-11:50	Sensitivity Analysis and Its Applications in Power System Improvements	II-945
FAM2-9-4	Jessada Chureemart and Phanwadee Churueang	
16-May-08	FPM1-9: Power System Analysis II	
13:30-13:50	Impact of Demand Uncertainty on Short-term Operating Cost	II-949
FPM1-9-1	Sarjiya Sarjiya and Bundhit Eua-arporn	
13:50-14:10	Cross-Substation Short Term Load Forecasting Using Support Vector Machine	II-953
FPM1-9-2	Jonglak Pahasa and Nipon Theera-Umpon	
14:10-14:30	Optimal Preventive Maintenance Budget Setting for Electric Power Distribution Utilities	II-957
FPM1-9-3	Nipon Phoothong, Prathana Vanittanakom, Noppada Teera-achariyakul, and Dulpichet Rerkpreedapong	
14:30-14:50	Evaluations of Bilateral Transactions in Electricity Markets in Aspects of Optimal Dispatch and Transmission Pricing	II-961
FPM1-9-4	Narongsak Ruangchom and Parnjit Damrongkulkamjorn	
14:50-15:10	H_∞ Loop Shaping-based Robust Control Design of PSS and TCSC for Dynamic Stability Enhancement	II-965
FPM1-9-5	Cuk Supriyadi Ali Nandar, Issarachai Ngamroo, S. Kaitwanidvilai, A. Kunakorn, T. Hashiguchi, and T. Goda	
15-May-08	TAM1-10: Power Electronics I	
10:40-11:00	Dynamic Modeling of a Zeta Converter with State-Space Averaging Technique	II-969
TAM1-10-1	Eng Vuthchhay and Chanin Bunlaksananusorn	

11:00-11:20	Feedback Control Design of Zero-Voltage-Switched Quasi-Resonant DC-DC Converters	II-973
TAM1-10-2	Sira Eaksuwan and Chanin Bunlaksananusorn	
11:20-11:40	Robust Digital Control of DC-DC Converter at Remote Sensing	II-977
TAM1-10-3	Kohji Satoh, Eiji Takegami, Kohji Higuchi, Kazushi Nakano, and Tatsuyoshi Kajikawa	
11:40-12:00	Constant Power Control for High Power Factor Electronic Ballast High Power Metal Halide Lamp	II-981
TAM1-10-4	Sakul Fongrut and Itsda Boonyaroonate	
15-May-08	TPM1-10: Power Electronics and Energy Conversion	
14:20-14:40	The Modeling and Control of Fuel Cell Emulators	II-985
TPM1-10-1	Siriroj Sirisukprasert and Trin Saengsuwan	
14:40-15:00	Design Considerations of DSTATCOM for Voltage Sag Compensation without Interaction	II-989
TPM1-10-2	Sumate Naetiladdanon	
15:00-15:20	A Reconfiguration Technique for Cascaded H-bridge Multilevel Inverter Drives	II-993
TPM1-10-3	Surin Khomfoi	
15:20-15:40	An Improved Single-Phase Inverter for Small PV-System Using Soft-Switching Technique	II-997
TPM1-10-4	Damrong Amorndechaphon and Suttichai Premrudeepreechacharn	
15:40-16:00	A Single-Phase Grid-Connected Inverter Using a Boost Two-Cell Switching Converter with Maximum Power Point Tracking Algorithm	II-1001
TPM1-10-5	Kamon Tabaiya, Wanchak Lenwari, and Cherdchai Prapanavarat	
15-May-08	TPM2-10: Power Electronics II	
16:20-16:40	Comparison of Switching Strategies for an Ultrasonic Cleaner	II-1005
TPM2-10-1	Chankit Buasri and Anuwat Jangwanitlert	
16:40-17:00	Performance Evaluation of an Ozone Generator Using a Phase Shift PWM Full Bridge Inverter	II-1009
TPM2-10-2	Prasopchok Hothongkham and Vijit Kinnares	
17:00-17:20	Asymmetrical Control with Phase Lock Loop for Induction Cooking Appliances	II-1013
TPM2-10-3	Saichol Chudjuarjeen and Chayant Koompai	
17:20-17:40	A Modify Technique to Actively Damp Oscillation in the Input LC Filter of Three-phase PWM Rectifier	II-1017
TPM2-10-4	Mongkol Kupimai, Seksan Phonsri, and Kumjud Jaitrong	
16-May-08	FAM1-10: Power Quality	
08:30-08:50	Distribution Voltage Regulation Under Single-Line-To-Ground Fault By Using D-STATCOM	II-1021
FAM1-10-1	Chaiyut Sumpavakup and Thanatchai Kulworawanichpong	
08:50-09:10	Parasitic Capacitance Cancellation of Filter in Power Supply Using Mutual Capacitance Technique	II-1025
FAM1-10-2	Krisanapun Piboonwattanakit and Werachet Khan-ngern	
09:10-09:30	An Analytical Approach for Stochastic Estimation of Voltage Sags in Power Systems	II-1029
FAM1-10-3	Le Viet Tien and Thavatchai Tayjasanant	
09:30-09:50	The Studies of a Transmission System and Distribution System Voltage Sags Correlations	II-1033
FAM1-10-4	Weerawoot Kanokbannakorn and Trin Saengsuwan	

16-May-08	FAM2-10: Power Electronics III	
10:30-10:50 FAM2-10-1	1MHz Class D Electronic Ballast for Metal Halide Lamp 250 Watt Vatanyoo Howhan and Itsda Boonyaroonate	II-1037
10:50-11:10	Design of Class E Resonant Inverter Electronic Ballast for 35 Watt Automotive HID Lamp	II-1041
FAM2-10-2 11:10-11:30	Chaiyan Thongsongyod, Adisak Nathakarakakule, and Itsda Boonyaroonate Class E ZVS Inverter with Matching Resonant Circuit and Resonant Gate Drive	II-1045
FAM2-10-3 11:30-11:50 FAM2-10-4	Wanida Boonyaroonate and Viboon Chunkag The Study of Input Impedance of Switched Mode Power Supply Katawoot Kiatgamjorn, Pattiwat Boonma, and Werachet Khan-ngern	II-1049
16-May-08	FPM1-10: Power System Analysis III and Machine	
13:30-13:50	Design of Robust SVC for Voltage Control in An Isolated Wind–Diesel Hybrid Power System	II-1053
FPM1-10-1 13:50-14:10	Sitthidet Vachirasricirikul, Issarachai Ngamroo, and Somyot Kaitwanidvilai Dynamic Stability Improvement of a Wind Farm Connected to Grid Using STATCOM	II-1057
FPM1-10-2 14:10-14:30	Mehrdad Tarafdar Hagh, Afshin Roshan Milani, and Amin Lafzi A Processing Unit for Tracking Estimating Voltage-Current Phasor and Frequency in Power System	II-1061
FPM1-10-3 14:30-14:50	Choowong Wattanasakpubal and Teratam Bunyagul Time Domain Models for Fixed-speed Induction Generators	II-1065
FPM1-10-4 14:50-15:10 FPM1-10-5	Sirarote Jaikhan and Anantawat Kunakorn Modular Learning Laboratory of AC Servo Drive Chachai Yumun, Mongkol Konghirun, and Kanokvate Tungpimolrut	II-1069