

ECTI-CON 2010

19 – 21 May 2010

The Empress Hotel & Convention Centre

Wednesday May 19, 2010

- 16:00 – 18:00 Registration
Location: Lobby of Empress Convention Centre
- 18:00 – 21:00 Welcome Party
Location: Lobby of Empress Convention Centre

Thursday May 20, 2010

- 8:00 – 16:00 Registration
Location: Lobby of Empress Convention Centre
- 8:30 – 9:00 Opening Ceremony
Location: Grand Hall
- 9:00 – 9:40 Keynote Speech I
Topic: “Optical Trapping & Manipulation for Biomedical Applications”
by Prof. Arthur E. T. Chiou, Ph.D.
Location: Grand Hall

9:40 – 10:20 Keynote Speech II
Topic: “Wearable and Implantable Bionics: from Managing Chronic Disease to Therapies for Blindness”
by Prof. Nigel Lovell, Ph.D.
Location: Grand Hall

10:20 – 10:30 Coffee break

10:30 – 12:10 Parallel Sessions

| <i>Session</i> | <i>TAM1-1</i> | <i>TAM1-2</i> | <i>TAM1-3</i> | <i>TAM1-4</i> |
|------------------------|---------------------------------------|--------------------------|---|----------------------------|
| <i>Topic</i> | <i>Nonlinear Circuits and Systems</i> | <i>Analog Circuits I</i> | <i>Wireless/Mobile Communications & Technologies -I</i> | <i>Energy Conversion I</i> |
| <i>Chair</i> | <i>Phumin Kirawanich</i> | <i>Boonying Charoen</i> | <i>Nattapong Swangmuang</i> | <i>Werachet Khan-ngern</i> |
| <i>Location</i> | <i>Chiang Mai Room 1</i> | <i>Chiang Mai Room 2</i> | <i>Chiang Mai Room 3</i> | <i>Chiang Mai Room 4</i> |
| 10:30 – 10:50 | TAM1-1-1 | TAM1-2-1 | TAM1-3-1 | TAM1-4-1 |
| 10:50 – 11:10 | TAM1-1-2 | TAM1-2-2 | TAM1-3-2 | TAM1-4-2 |
| 11:10 – 11:30 | TAM1-1-3 | TAM1-2-3 | TAM1-3-3 | TAM1-4-3 |
| 11:30 – 11:50 | TAM1-1-4 | TAM1-2-4 | TAM1-3-4 | TAM1-4-4 |
| 11:50 – 12:10 | TAM1-1-5 | TAM1-2-5 | TAM1-3-5 | TAM1-4-5 |

| <i>Session</i> | <i>TAM1-5</i> | <i>TAM1-6</i> | <i>TAM1-7</i> | <i>TAM1-8</i> |
|-----------------|--|---------------------------------------|---|---|
| <i>Topic</i> | <i>High Voltage Engineering and Insulation I</i> | <i>Knowledge and Data Engineering</i> | <i>Adaptive Signal Processing & Filter Design</i> | <i>Fault Detections and Industrial Applications</i> |
| <i>Chair</i> | <i>Kei Eguchi</i> | <i>Juggapong Natwichai</i> | <i>Pornchai Phukpattaranont</i> | <i>Kasemsak Uthaichana</i> |
| <i>Location</i> | <i>Chiang Mai Room 5</i> | <i>Board Room 2</i> | <i>Board Room 3</i> | <i>Board Room 4</i> |
| 10:30 – 10:50 | TAM1-5-1 | TAM1-6-1 | TAM1-7-1 | TAM1-8-1 |
| 10:50 – 11:10 | (Moved to TPM3-5-6) | TAM1-6-2 | TAM1-7-2 | TAM1-8-2 |
| 11:10 – 11:30 | TAM1-5-3 | TAM1-6-3 | TAM1-7-3 | TAM1-8-3 |
| 11:30 – 11:50 | TAM1-5-4 | TAM1-6-4 | TAM1-7-4 | TAM1-8-4 |
| 11:50 – 12:10 | TAM1-5-5 | | TAM1-7-5 | TAM1-8-5 |

12:10 – 13:00 Lunch Break

13:00 – 14:40 Parallel Sessions

| <i>Session</i> | <i>TPM1-1</i> | <i>TPM1-2</i> | <i>TPM1-3</i> | <i>TPM1-4</i> |
|------------------------|--|---------------------------|--|-----------------------------|
| <i>Topic</i> | <i>Digital and Mixed Signal Circuits I</i> | <i>Analog Circuits II</i> | <i>Wireless/Mobile Communications & Technologies –II</i> | <i>Energy Conversion II</i> |
| <i>Chair</i> | <i>Akachai Sang-In</i> | <i>Sermsak Uatrongjit</i> | <i>Yuthapong Somchit</i> | <i>Niphat Jantharamin</i> |
| <i>Location</i> | <i>Chiang Mai Room 1</i> | <i>Chiang Mai Room 2</i> | <i>Chiang Mai Room 3</i> | <i>Chiang Mai Room 4</i> |
| 13:00 – 13:20 | TPM1-1-1 | TPM1-2-1 | TPM1-3-1 | TPM1-4-1 |
| 13:20 – 13:40 | TPM1-1-2 | TPM1-2-2 | TPM1-3-2 | TPM1-4-2 |
| 13:40 – 14:00 | TPM1-1-3 | TPM1-2-3 | TPM1-3-3 | TPM1-4-3 |
| 14:00 – 14:20 | TPM1-1-4 | TPM1-2-4 | TPM1-3-4 | TPM1-4-4 |
| 14:20 – 14:40 | TPM1-1-5 | TPM1-2-5 | TPM1-3-5 | TPM1-4-5 |

| <i>Session</i> | <i>TPM1-5</i> | <i>TPM1-6</i> | <i>TPM1-7</i> | <i>TPM1-8</i> |
|-----------------|---|--|--|---|
| Topic | <i>High Voltage Engineering and Insulation II</i> | <i>Parallel/Distributed Computing and Grid Computing</i> | <i>Medical Signal Processing & Medical Imaging I</i> | <i>Model Predictive and Learning Control System</i> |
| Chair | <i>Peerapol Jirapong</i> | <i>Pruet Boonma</i> | <i>Sansanee Auephanwiriyaikul</i> | <i>Manop Aorpimai</i> |
| Location | <i>Chiang Mai Room 5</i> | <i>Board Room 2</i> | <i>Board Room 3</i> | <i>Board Room 4</i> |
| 13:00 – 13:20 | TPM1-5-1 | TPM1-6-1 | TPM1-7-1 | TPM1-8-1 |
| 13:20 – 13:40 | TPM1-5-2 | TPM1-6-2 | TPM1-7-2 | TPM1-8-2 |
| 13:40 – 14:00 | TPM1-5-3 | TPM1-6-3 | TPM1-7-3 | TPM1-8-3 |
| 14:00 – 14:20 | TPM1-5-4 | TPM1-6-4 | TPM1-7-4 | TPM1-8-4 |
| 14:20 – 14:40 | TPM1-5-5 | | TPM1-7-5 | TPM1-8-5 |

14:40 – 14:50 Coffee break

14:50 – 16:30 Parallel Sessions

| <i>Session</i> | <i>TPM2-1</i> | <i>TPM2-2</i> | <i>TPM2-3</i> | <i>TPM2-4</i> |
|-----------------|---|----------------------------|---|--|
| Topic | <i>Digital and Mixed Signal Circuits II</i> | <i>Analog Circuits III</i> | <i>Wireless/Mobile Communications & Technologies -III</i> | <i>Power Engineering and Power Systems I</i> |
| Chair | <i>Varakorn Kasemsuwan</i> | <i>Ajay Kumar Singh</i> | <i>Poompat Saengudomlert</i> | <i>Yuttana Kumsuwan</i> |
| Location | <i>Chiang Mai Room 1</i> | <i>Chiang Mai Room 2</i> | <i>Chiang Mai Room 3</i> | <i>Chiang Mai Room 4</i> |
| 14:50 - 15:10 | TPM2-1-1 | TPM2-2-1 | TPM2-3-1 | TPM2-4-1 |
| 15:10 – 15:30 | TPM2-1-2 | TPM2-2-2 | TPM2-3-2 | TPM2-4-2 |
| 15:30 – 15:50 | TPM2-1-3 | TPM2-2-3 | TPM2-3-3 | TPM2-4-3 |
| 15:50 – 16:10 | | TPM2-2-4 | TPM2-3-4 | TPM2-4-4 |
| 16:10 – 16:30 | | TPM2-2-5 | TPM2-3-5 | TPM2-4-5 |

| <i>Session</i> | <i>TPM2-5</i> | <i>TPM2-6</i> | <i>TPM2-7</i> | <i>TPM2-8</i> |
|------------------------|--|-----------------------------|---|--------------------------------|
| <i>Topic</i> | <i>High Voltage Engineering and Insulation III</i> | <i>Software Engineering</i> | <i>Medical Signal Processing & Medical Imaging II</i> | <i>Robotics and Automation</i> |
| <i>Chair</i> | <i>Thanapong Thanasaksiri</i> | <i>Lachana Ramingwong</i> | <i>Pornchai Phukpattaranont</i> | <i>Itthisek Nilkhamhang</i> |
| <i>Location</i> | <i>Chiang Mai Room 5</i> | <i>Board Room 2</i> | <i>Board Room 3</i> | <i>Board Room 4</i> |
| 14:50 - 15:10 | TPM2-5-1 | TPM2-6-1 | TPM2-7-1 | TPM2-8-1 |
| 15:10 – 15:30 | TPM2-5-2 | TPM2-6-2 | TPM2-7-2 | TPM2-8-2 |
| 15:30 – 15:50 | TPM2-5-3 | TPM2-6-3 | TPM2-7-3 | TPM2-8-3 |
| 15:50 – 16:10 | (Moved to FAM1-4-6) | | TPM2-7-4 | TPM2-8-4 |
| 16:10 – 16:30 | | | TPM2-7-5 | TPM2-8-5 |

16:30 – 16:40 Coffee break

16:40 – 18:40 Parallel Sessions

| <i>Session</i> | <i>TPM3-1</i> | <i>TPM3-2</i> | <i>TPM3-3</i> | <i>TPM3-4</i> |
|-----------------|------------------------------------|---------------------------------|--|---|
| Topic | <i>Sensing and Sensor Networks</i> | <i>RF and Wireless Circuits</i> | <i>Wireless/Mobile Communications & Technologies -IV</i> | <i>Power Engineering and Power Systems II</i> |
| Chair | <i>Nattapong Swangmuang</i> | <i>Nipapon Siripon</i> | <i>Anan Phonphoem</i> | <i>Parnjit Damrongkulkamjorn</i> |
| Location | <i>Chiang Mai Room 1</i> | <i>Chiang Mai Room 2</i> | <i>Chiang Mai Room 3</i> | <i>Chiang Mai Room 4</i> |
| 16:40 – 17:00 | TPM3-1-1 | TPM3-2-1 | TPM3-3-1 | TPM3-4-1 |
| 17:00 – 17:20 | TPM3-1-2 | TPM3-2-2 | TPM3-3-2 | TPM3-4-2 |
| 17:20 – 17:40 | TPM3-1-3 | TPM3-2-3 | TPM3-3-3 | TPM3-4-3 |
| 17:40 – 18:00 | TPM3-1-4 | TPM3-2-4 | TPM3-3-4 | TPM3-4-4 |
| 18:00 – 18:20 | TPM3-1-5 | TPM3-2-5 | TPM3-3-5 | TPM3-4-5 |
| 18:20 – 18:40 | | TPM3-2-6 | TPM3-3-6 | |

| <i>Session</i> | <i>TPM3-5</i> | <i>TPM3-6</i> | <i>TPM3-7</i> | <i>TPM3-8</i> |
|------------------------|----------------------------|--|-------------------------|--------------------------------------|
| <i>Topic</i> | <i>Power Delivery</i> | <i>General Computer & Information Technology</i> | <i>Image Processing</i> | <i>Robust and Repetitive Control</i> |
| <i>Chair</i> | <i>Thanapong Suwanasri</i> | <i>Juggapong Natwichai</i> | <i>Karn Patanukhom</i> | <i>Boonsri Kaewkham-ai</i> |
| <i>Location</i> | <i>Chiang Mai Room 5</i> | <i>Board Room 2</i> | <i>Board Room 3</i> | <i>Board Room 4</i> |
| 16:40 – 17:00 | TPM3-5-1 | TPM3-6-1 | TPM3-7-1 | TPM3-8-1 |
| 17:00 – 17:20 | TPM3-5-2 | TPM3-6-2 | TPM3-7-2 | TPM3-8-2 |
| 17:20 – 17:40 | TPM3-5-3 | TPM3-6-3 | TPM3-7-3 | TPM3-8-3 |
| 17:40 – 18:00 | TPM3-5-4 | TPM3-6-4 | TPM3-7-4 | TPM3-8-4 |
| 18:00 – 18:20 | TPM3-5-5 | TPM3-6-5 | TPM3-7-5 | TPM3-8-5 |
| 18:20 – 18:40 | TAM1-5-2 | TPM3-6-6 | TPM3-7-6 | TPM3-8-6 |

18:40 – 21:00

Banquet

Location: Grand Hall

Friday May 21, 2010

8:00 – 14:00 Registration

Location: Lobby of the Convention Centre

8:10 – 10:10 Parallel Sessions

| <i>Session</i> | <i>FAM1-1</i> | <i>FAM1-2</i> | <i>FAM1-3</i> | <i>FAM1-4</i> |
|------------------------|---|---|---|--|
| <i>Topic</i> | <i>Filters and Data Conversion Circuits I</i> | <i>Advanced Technologies (MEMS and Nano-electronic Devices) I</i> | <i>Wireless/Mobile Communications & Technologies -V</i> | <i>Power Engineering and Power Systems III</i> |
| <i>Chair</i> | <i>Sermsak Uatrongjit</i> | <i>Chel-Jong Choi</i> | <i>Jason Gao</i> | <i>Peerapol Jirapong</i> |
| <i>Location</i> | <i>Chiang Mai Room 1</i> | <i>Chiang Mai Room 2</i> | <i>Chiang Mai Room 3</i> | <i>Chiang Mai Room 4</i> |
| 8:10 – 8:30 | FAM1-1-1 | FAM1-2-1 | FAM1-3-1 | FAM1-4-1 |
| 8:30 – 8:50 | FAM1-1-2 | FAM1-2-2 | FAM1-3-2 | FAM1-4-2 |
| 8:50 – 9:10 | FAM1-1-3 | FAM1-2-3 | FAM1-3-3 | FAM1-4-3 |
| 9:10 – 9:30 | FAM1-1-4 | FAM1-2-4 | | FAM1-4-4 |
| 9:30 – 9:50 | FAM1-1-5 | FAM1-2-5 | | FAM1-4-5 |
| 9:50 – 10:10 | | | | TPM2-5-4 |

| <i>Session</i> | <i>FAM1-5</i> | <i>FAM1-6</i> | <i>FAM1-7</i> | <i>FAM1-8</i> |
|-----------------|----------------------------|--|-------------------------|--|
| Topic | <i>Power Electronics I</i> | <i>Pattern Analysis and Machine Intelligence I</i> | <i>Video Processing</i> | <i>Networks Design, Network Protocols and Network Management</i> |
| Chair | <i>Kei Eguchi</i> | <i>Hideyuki Sawada</i> | <i>Karn Patanukhom</i> | <i>Anan Phonphoem</i> |
| Location | <i>Chiang Mai Room 5</i> | <i>Board Room 2</i> | <i>Board Room 3</i> | <i>Board Room 4</i> |
| 8:10 – 8:30 | FAM1-5-1 | FAM1-6-1 | FAM1-7-1 | FAM1-8-1 |
| 8:30 – 8:50 | FAM1-5-2 | FAM1-6-2 | FAM1-7-2 | FAM1-8-2 |
| 8:50 – 9:10 | FAM1-5-3 | FAM1-6-3 | FAM1-7-3 | FAM1-8-3 |
| 9:10 – 9:30 | FAM1-5-4 | FAM1-6-4 | FAM1-7-4 | FAM1-8-4 |
| 9:30 – 9:50 | FAM1-5-5 | FAM1-6-5 | FAM1-7-5 | FAM1-8-5 |
| 9:50 – 10:10 | | FAM1-6-6 | FAM1-7-6 | |

10:10 – 10:20

Coffee break

10:20 – 12:20

Parallel Sessions

| <i>Session</i> | <i>FAM2-1</i> | <i>FAM2-2</i> | <i>FAM2-3</i> | <i>FAM2-4</i> |
|------------------------|--|--|---|---|
| <i>Topic</i> | <i>Filters and Data Conversion Circuits II</i> | <i>Advanced Technologies (MEMS and Nano-electronic Devices) II</i> | <i>Modulation, Coding, and Channel Analysis I</i> | <i>Power Engineering and Power Systems IV</i> |
| <i>Chair</i> | <i>Boonsri Kaewkham-ai</i> | <i>Ukrit Mankong</i> | <i>Phumin Kirawanich</i> | <i>Thanapong Thanasaksiri</i> |
| <i>Location</i> | <i>Chiang Mai Room 1</i> | <i>Chiang Mai Room 2</i> | <i>Chiang Mai Room 3</i> | <i>Chiang Mai Room 4</i> |
| 10:20 – 10:40 | FAM2-1-1 | FAM2-2-1 | FAM2-3-1 | FAM2-4-1 |
| 10:40 – 11:00 | FAM2-1-2 | FAM2-2-2 | FAM2-3-2 | FAM2-4-2 |
| 11:00 – 11:20 | FAM2-1-3 | FAM2-2-3 | FAM2-3-3 | FAM2-4-3 |
| 11:20 – 11:40 | FAM2-1-4 | FAM2-2-4 | FAM2-3-4 | FAM2-4-4 |
| 11:40 – 12:00 | FAM2-1-5 | FAM2-2-5 | FAM2-3-5 | FAM2-4-5 |
| 12:00 – 12:20 | | FAM2-2-6 | | |

| <i>Session</i> | <i>FAM2-5</i> | <i>FAM2-6</i> | <i>FAM2-7</i> | <i>FAM2-8</i> |
|-----------------|-----------------------------|---|--|---|
| Topic | <i>Power Electronics II</i> | <i>Pattern Analysis and Machine Intelligence II</i> | <i>Audio, Speech and Language Processing</i> | <i>General Electrical Power Systems I</i> |
| Chair | <i>Werachet Khan-ngern</i> | <i>Sansanee Auephanwiriyaikul</i> | <i>Phongphan Danphitsanuphan</i> | <i>Cattareeya Suwanasri</i> |
| Location | <i>Chiang Mai Room 5</i> | <i>Board Room 2</i> | <i>Board Room 3</i> | <i>Board Room 4</i> |
| 10:20 – 10:40 | FAM2-5-1 | FAM2-6-1 | FAM2-7-1 | FAM2-8-1 |
| 10:40 – 11:00 | FAM2-5-2 | FAM2-6-2 | FAM2-7-2 | FAM2-8-2 |
| 11:00 – 11:20 | FAM2-5-3 | FAM2-6-3 | FAM2-7-3 | FAM2-8-3 |
| 11:20 – 11:40 | FAM2-5-4 | FAM2-6-4 | FAM2-7-4 | FAM2-8-4 |
| 11:40 – 12:00 | FAM2-5-5 | FAM2-6-5 | FAM2-7-5 | |
| 12:00 – 12:20 | | FAM2-6-6 | FAM2-7-6 | |

12:20 – 13:10

Lunch break

13:10 – 15:10

Parallel Sessions

| <i>Session</i> | <i>FPM1-1</i> | <i>FPM1-2</i> | <i>FPM1-3</i> | <i>FPM1-4</i> |
|------------------------|-------------------------------------|--|--|--|
| <i>Topic</i> | <i>General Circuits and Systems</i> | <i>Microwave & Optical Communications Technology</i> | <i>Modulation, Coding, and Channel Analysis II</i> | <i>Power Engineering and Power Systems V</i> |
| <i>Chair</i> | <i>Ukrit Mankong</i> | <i>Nipapon Siripon</i> | <i>Chaiyod Pirak</i> | <i>Kazem Mazlumi</i> |
| <i>Location</i> | <i>Chiang Mai Room 1</i> | <i>Chiang Mai Room 2</i> | <i>Chiang Mai Room 3</i> | <i>Chiang Mai Room 4</i> |
| 13:10 – 13:30 | FPM1-1-1 | FPM1-2-1 | FPM1-3-1 | FPM1-4-1 |
| 13:30 – 13:50 | FPM1-1-2 | FPM1-2-2 | FPM1-3-2 | FPM1-4-2 |
| 13:50 – 14:10 | FPM1-1-3 | FPM1-2-3 | FPM1-3-3 | FPM1-4-3 |
| 14:10 – 14:30 | FPM1-1-4 | FPM1-2-4 | FPM1-3-4 | FPM1-4-4 |
| 14:30 – 14:50 | | FPM1-2-5 | | FPM1-4-5 |
| 14:50 – 15:10 | | | | |

| <i>Session</i> | <i>FPM1-5</i> | <i>FPM1-6</i> | <i>FPM1-7</i> | <i>FPM1-8</i> |
|-----------------|------------------------------|---|--------------------------------|--|
| Topic | <i>Power Electronics III</i> | <i>Visualization and Computer Graphic</i> | <i>Antenna and Propagation</i> | <i>General Electrical Power Systems II</i> |
| Chair | <i>Yuttana Kumsuwan</i> | <i>Pruet Boonma</i> | <i>Supawat Supakwong</i> | <i>Parnjit Damrongkulkamjorn</i> |
| Location | <i>Chiang Mai Room 5</i> | <i>Board Room 2</i> | <i>Board Room 3</i> | <i>Board Room 4</i> |
| 13:10 – 13:30 | FPM1-5-1 | FPM1-6-1 | FPM1-7-1 | FPM1-8-1 |
| 13:30 – 13:50 | FPM1-5-2 | FPM1-6-2 | FPM1-7-2 | FPM1-8-2 |
| 13:50 – 14:10 | FPM1-5-3 | FPM1-6-3 | FPM1-7-3 | FPM1-8-3 |
| 14:10 – 14:30 | FPM1-5-4 | FPM1-6-4 | FPM1-7-4 | |
| 14:30 – 14:50 | FPM1-5-5 | | FPM1-7-5 | |
| 14:50 – 15:10 | | | FPM1-7-6 | |

ECTI-CON 2010

19 – 21 May 2010

The Empress Hotel & Convention Centre

Thursday May 20,2010

10:30 – 12:10 hr.

TAM1-1

Nonlinear Circuits and Systems

Chair(s): Phumin Kirawanich

Location: Chiang Mai Room 1

TAM1-1-1 (1005) The Stochastic Based Model of Monolithic Active Inductor

R. Banchuin and R. Chaisricharoen

TAM1-1-2 (1208) Numerical Schemes of Nanosecond Pulsed Electric Field Systems for Cell Apoptosis Applications

P. Kirawanich, N. Pausawasdi, C. Srisawat, D. Wilairat and C. Neatpisarnvanit

TAM1-1-3 (1361) Understanding and Optimizing Weight Factors in Multi-Objective Geometric Programming

Theerachet Soorapanth

TAM1-1-4 (1070) Compound Structures of Five New Chaotic Attractors Based on $\sin^{-1}(x)$ in a Modified Sprott's Jerk Model

Banlue Srisuchinwong, Teerachot Siriburanon and Teera Nontapradit

TAM1-1-5 (1071) A Box-splitting Strategy of Interval Newton Method for Finding All DC Solutions of BJT Circuits

Sermasak Uatrongjit

TAM1-2

Analog Circuits I

Chair: Chiranut Sa-ngiamsak

Location: Chiang Mai Room 2

TAM1-2-1 (1450) Current-mode Multiphase Sinusoidal Oscillator based on Log-domain Filtering

Pipat Prommee and Montri Somdunyanok

TAM1-2-2 (1141) Electronically Tunable Quadrature Oscillator with Voltage and Current Outputs

Boonying Knobnob and Montree Kumngern

TAM1-2-3 (1301) An Active-only High Output-impedance Current-mode Universal Biquad Filter and Quadrature Oscillator Based on Lossless Differentiators

Adirek Jantakun, Nitiphat Pisutthipong and Montree Siripruchyanun

TAM1-2-4 (1265) Single Element Based-Novel Temperature insensitive/Electronically Controllable Floating Capacitance Multiplier and Its Application

Adirek Jantakun, Nitiphat Pisutthipong and Montree Siripruchyanun

TAM1-2-5 (1189) Capacitance Multipliers Using Tunable Four Terminal Floating Nullors

Winai Jaikla, Abhirup Lahiri and Montree Siripruchyanun

TAM1-3

Wireless/Mobile Communications & Technologies –I

Chair: Nattapong Swangmuang

Location: Chiang Mai Room 3

TAM1-3-1 (1025) QoS-aware Routing for Mobile Ad hoc Networks Based on Multiple Metrics: Connectivity Index (CI) and Delay

Kunagorn Kunavut and Teerapat Sanguankotchakorn

TAM1-3-2 (1120) Connectivity Analytical Modelling for a Single Flight Path Ad hoc Aeronautical Network

Nguyen Thi Xuan My, Yoshikazu Miyanaga and Chaiyachet Saivichit

TAM1-3-3 (1324) An Adaptive Generalized RAKE CDMA Receiver for Layered Space Time Coded Systems in Multipath Fading Channels

T. Keovkolyan, D. Nugrahani, P. Thumwarin, C. Teekapakvisit and T. Matsuura

TAM1-3-4 (1392) AODV with Sufficient Intermediary Bandwidth Aware

Pattana Wannawilai and Chanboon Sathitwiriawong

TAM1-3-5 (1506) OHO: OverHearing On-Demand Route Repair Mechanism for Mobile Ad Hoc Networks

Jirawat Sirilar and Kultida Rojviboonchai

TAM1-4

Energy Conversion I

Chair: Werachet Khan-ngern

Location: Chiang Mai Room 4

TAM1-4-1 (1082) Effect of Spectral Irradiance Distribution on the Outdoor Performance of Photovoltaic Modules

Nitinan Pooltananan, Patamaporn Sripadungtham, Amornrat Limmanee and Ekkachart Hattha

TAM1-4-2 (1442) Outdoor performance of polycrystalline and amorphous silicon solar cells based on the influence of irradiance and module temperature in Thailand

Kitiphop Thongpao, Patamaporn Sripadungtham, Pisut Raphisak, Kobsak Sriprapha and Ekkachart Hattha

TAM1-4-3 (1278) Novel Battery Charging and Discharging Control System for Solar Panel using One-by-One Controllers and Maximum Power Point Tracker

Suchart Janjornmanit, Sakorn Panta

TAM1-4-4 (1495) Model-Based Maximum Power Point Tracking

N. Jantharamin and L. Zhang

TAM1-4-5 (1418) Effect of Hydrogen Purging Period on System performance of PEMFC

T. Pokphet, W. Khan-ngern and J. Charoensuk

TAM1-5

High Voltage Engineering and Insulation I

Chair: Suttichai Premrudeepreechacharn

Location: Chiang Mai Room 5

TAM1-5-1 (1051) Calculating Effective Frequency Spectrum of Measuring Equipments for Non-Periodic Standard Voltage Impulses with high Accuracy

Chuong Ho Van Nhat

TAM1-5-2 (1052) Analyzing a Noise Suppression Circuit for Impulse Dividers Using Haar Wavelets

Chuong Ho Van Nhat

TAM1-5-3 (1105) The Study of Ageing of EPDM Insulation under Industrial Dust with Ozone

Apisit Chaisaengsukkul, Vijit Kinnares and Norasage Pattanadech

TAM1-5-4 (1177) Analysis of Insulating Oil to Evaluate the Condition of Power Transformer

Rattanakorn Phadungthin, Ekkachai Chaidee, Juthathip Haema and Thanapong Suwanasri

TAM1-5-5 (1497) Frequency Response Analysis (FRA) for Diagnosis of Power Transformers

Suwarno and Donald Fransisco

TAM1-6

Knowledge and Data Engineering

Chair: Juggapong Natwichai

Location: Board Room 2

TAM1-6-1 (1247) IDGBDD: The novel use of ID3 to improve Genetic algorithm in BDD reordering

Misagh Takapoo and M.B Ghaznavi-Ghouschi

TAM1-6-2 (1274) Towards Context-Adaptive Affective Computing

Abdul Rehman Abbasi, Akhtar Hussain and Nitin V. Afzulpurkar

TAM1-6-3 (1410) An Approximation Algorithm for Privacy Preservation of Associative Classification

Juggapong Natwichai

TAM1-6-4 (1039) Internet Worms Identification through Serial Episodes Mining

Ming-Yang Su

TAM1-7

Adaptive Signal Processing & Filter Design

Chair: Pornchai Phukpattaranont

Location: Board Room 3

TAM1-7-1 (1145) Statistical Performance of the Direct Frequency Estimation Algorithm for the Adaptive FIR Notch Filter

V. Silaphan, R. Punchalard, W. Loetwassana, J. Koseeyaporn, P. Wardkein

TAM1-7-2 (1272) An NLMS Algorithm with Variable Step-Size Updates through Selective Inputs

In-sun Song, Moonsoo Chang and PooGyeon Park

TAM1-7-3 (1424) A High-Throughput and Small ADALINE based Adaptive Noise Canceller for 50-Hz Noise in Surface Electromyography on an FPGA

Sainan-Abeedin Chewae, Nattha Jindapetch, and Pornchai Phukpattaranont

TAM1-7-4 (1479) First Order Complex Adaptive FIR Notch Filter

R. Punchalard, V. Silaphan, J. Koseeyaporn, and P. Wardkein

TAM1-7-5 (1026) 1-Bit Digital Filter Design Using a 2-Degree-of-Freedom Control

Y. Hayashi, K. Higuchi, K. Nakano, T. Kajikawa and Kosin Chamnongthai

TAM1-8

Fault Detections and Industrial Applications

Chair: Kasemsak Uthaichana

Location: Board Room 4

TAM1-8-1 (1318) Development of engine control technique for flex-fuel motorcycle
A. Keawtubtimthong, D. Koolpiruck, S. Wongsas, Y. Laonual and A. Kaewpunya

TAM1-8-2 (1436) Model-based Fatigue Identification of NiTiCu Shape Memory Alloys under Thermomechanical Cyclic Loading
P. Lekhakul, S. Wongsas, D. Koolpiluck and A. Khantachawana

TAM1-8-3 (1175) Ultrasonic Inspection System for Detecting Small Flaws at Far Surface of Steel Plate
T. Vilasmongkolchai, M. Noipitak, P. Kaewtrakulpong and A. Prateepasen

TAM1-8-4 (1357) Parameter Identification of a Linear Permanent Magnet Motor Using Particle Swarm Optimization
Tithiwat Therdbanker, Peerayot Sanposh, Nattapon Chayopitak and Hideaki Fujita

TAM1-8-5 (1246) Friction Feedforward Compensation and Position Feedforward in CNC Machines
Wijin Suteeratanapirom, Rapepong Rattanawaorahirankul, Chutima Laosapan, Peerayot Sanposh, Nattapon Chayopitak, Kanokvate Tungpimolrut and Hiroaki Kunieda

Thursday May 20,2010

13:00 – 14:40 hr.

TPM1-1

Digital and Mixed Signal Circuits I

Chair: Sermsak Uatrongjit

Location: Chiang Mai Room 1

TPM1-1-1 (1019) Reconfiguring the Carry Look-Ahead Adder Using Application Behavior in EmbeddedProcessors

Mohammad Hossein Hajkazemi, Alireza Haghdoost and Amirali Baniyadi

TPM1-1-2 (1248) An Interleaving Switch-based Crossbar Architecture for MP SoC on FPGA

S. Pongyupinpanich, S. Singhaniyom and Manfred Glesner

TPM1-1-3 (1455) A Multi-Gigabit DLL-based CMOS PWM Demodulator Using Delay Vernier Sampler

Danaipon Cheewasrirungraung and Kasin Vichienchom

TPM1-1-4 (1314) Parallel LFSR Reseeding for Mixed-mode BIST

P. Kongtim and T. Reungpeerakul

TPM1-1-5 (1251) A Regulated Supply Tuning Voltage-Controlled Oscillator with Built-In Test and Calibration

Wimol San-Um and Tachibana Masayoshi

TPM1-2

Analog Circuits II

Chair: Chiranut Sa-ngiamsak

Location: Chiang Mai Room 2

TPM1-2-1 (1153) A Fully-Differential Noise-Canceling CMOS Front-End Amplifier
Puttachai Chimpleekul and Varakorn Kasemsuwan

TPM1-2-2 (1202) Simple and Accurate Frequency to Voltage Converter

A. Lorsawatsiri, W. Kiranon, V. Silaruam, W. Sangpisit, and P. Wardkein
TPM1-2-3 (1406) Improved Differential Voltage-to-Frequency Converter for Telemetry

Teerawat Thepmanee, Amphawan Julsereewong and Thaksin Sangsuwan

TPM1-2-4 (1255) A Current-mode CCCII-based Analog Multiplier/Divider

W. Petchakit, W. Kiranon, P. Wardkien and S. Petchakit

TPM1-2-5 (1183) A Four-Quadrant Multiplier Based on CCII+s

W. Narksarp, P. Pawarangkoon, S. Buakaew, W. Kiranon, and P. Wardkein

TPM1-3

Wireless/Mobile Communications & Technologies –II

Chair: Yuthapong Somchit

Location: Chiang Mai Room 3

TPM1-3-1 (1092) A Novel Relaying Protocol in a Cooperative Network with Decode-and-Forward Relays

Sara Efazati and Paeiz Azmi

TPM1-3-2 (1178) Modified AODV for Multi-Constrained QoS Routing and Performance Optimization in MANET

Amina Akhter and Teerapat Sanguankotchakorn

TPM1-3-3 (1425) Connectedness Analysis of Wireless Relay Placement with Regular String Topology by Ordinary Generating Function

Teerapol Silawan, Jatuporn Chinrungrueng and Chaodit Aswakul

TPM1-3-4 (1306) Neuro-Fuzzy (NF) based Relay Selection and Resource Allocation for Cooperative Networks

M. Shamim Kaiser, M. Hasanain Chaudary, Raza Ali Shah and Kazi M. Ahmed

TPM1-3-5 (1360) A Neural Network based Optimization for Wireless Sensor Node Position Estimation in Industrial Environments

Kittikhun Thongpull, Nattha Jindapetch and Wiklom Teerapakajornret

TPM1-4

Energy Conversion II

Chair: Niphat Jantharamin

Location: Chiang Mai Room 4

TPM1-4-1 (1108) Design and Analysis of Zero Cogging Brushless DC Motor for Spacecraft Applications

Praveen R.P., Ravichandran M.H., V. T. Sadasivan Achari, Dr.Jagathy Raj V. P., Dr.G.Madhu and Dr.G.R. Bindu

TPM1-4-2 (1388) Control Performance of Active Damp LCL Filter of Three Phase PWM Boost Rectifier

Surasak Nuilers and Bunlung Neammanee

TPM1-4-3 (1365) Performance Comparison of an Asymmetrical Parameter Type Two-Phase Induction Motor Supplied with Balanced and Unbalanced Phase Voltages

W. Piyarat, P. Hothongkham and V. Kinnares

TPM1-4-4 (1399) Speed Closed-Loop Drive System of Permanent Magnet Synchronous Motor Using Low-Count QEP

Sittichai Munggonrit, Mongkol Konghirun and Kanokvate Tungpimolrut

TPM1-4-5 (1498) Simple Speed Control of an Asymmetrical Type Two-Phase Induction Motor Drive

Wekin Piyarat, P. Hothongkham, C. Charumit and V. Kinnares

TPM1-5

High Voltage Engineering and Insulation II

Chair: Peerapol Jirapong

Location: Chiang Mai Room 5

TPM1-5-1 (1112) Application of a Time-domain Partial Element Equivalent Method to Lightning Surge Analysis

P. Yutthagowith, A. Ametani, N. Nagaoka and Y. Baba

TPM1-5-2 (1339) Lightning Performance of Covered Conductors Overhead Distribution Lines

T. Thanasaksiri

TPM1-5-3 (1012) Bifurcation Diagram with Electromagnetic Transient Program (EMTP) for Ferroresonance Analysis

Preecha Sakarung

TPM1-5-4 (1053) A Computer Software for Insulation Co-Ordination According to IEC 60071-2

Sakon Sangkakool and Komson Petcharaks

TPM1-5-5 (1453) Safety Design Planning of Ground Grid for Outdoor Substations in MEA's Power Distribution System

A. Phayomhom, S. Sirisumrannukul, T. Kasirawat and A. Puttarach

TPM1-6

Parallel/Distributed Computing and Grid Computing

Chair: Pruet Boonma

Location: Board Room 2

TPM1-6-1 (1099) Multi-level Topology-Aware and Multi-level Parallelism on Grid Computing Environments: A Comparison of Global Arrays and OpenMP Implementations

Sirod Sirisup and Suriya U-ruekolan

TPM1-6-2 (1232) Magnetic Sounding from Multilayered Earth Equations Solver Using Job Distributor Based on Message Passing Interface.

B. Dolwithayakul, C. Pongpensri and S. Yooyeunyong

TPM1-6-3 (1429) Improving the Performance of a Parallel Data Mining Algorithm using Communication Message Scheduling

Nunnapus Benjamas and Putchong Uthayopas

TPM1-6-4 (1434) Adaptive Resource Allocation for Back-end Mashup Applications on a Heterogeneous Private Cloud

Waheed Iqbal, Matthew N. Dailey, Imran Ali, Paul Janecek and David Carrera

TPM1-7

Medical Signal Processing & Medical Imaging I

Chair: Sansanee Auephanwiriyaikul

Location: Board Room 3

TPM1-7-1 (1038) EMG Signal Estimation Based on Adaptive Wavelet Shrinkage for Multifunction Myoelectric Control

A. Phinyomark, C. Limsakul and P. Phukpattaranont

TPM1-7-2 (1294) EMG Signal Feature Extraction Based on Wavelet Transform

K. Mahaphonchaikul, D. Sueaseenak, C. Pintavirooj, M. Sangworasil and S. Tungjitkusolmun

TPM1-7-3 (1149) Temporal Variability of the ECoG Signal During Epileptic Seizures

Supareerk Janjarasjitt and Kenneth A. Loparo

TPM1-7-4 (1163) A New Bivariate Model with Log-normal Density Prior for Local Variance Estimation in AWGN

Pichid Kittisuwan, Thitiporn Chanwimaluang, Sanparith Marukatat and Widhyakorn Asdornwised

TPM1-7-5 (1192) Prediction of Paroxysmal Atrial Fibrillation Occurrence with Wavelet-based Markers

M. Panusittikorn, N.Uchaipichat, C. Tantibundhit and A. Buakamsri

TPM1-8

Model Predictive and Learning Control System

Chair: Manop Aorpimai

Location: Board Room 4

TPM1-8-1 (1146) Robust Iterative Learning Control for Linear Systems Subject to Time-Invariant Parametric Uncertainties and Repetitive Disturbances

Dinh Hoa Nguyen and David Banjerdpongchai

TPM1-8-2 (1021) Robust Constrained Model Predictive Control for Piece-Wise Affine Systems Using Saturated Linear Feedback Controller

Santo Wijaya and Manop Wongsaisuwan

TPM1-8-3 (1130) A Design Method for Modified Smith Predictive Control System to Attenuate Periodic Disturbances

Kou Yamada, Nghia Thi Mai, Takaaki Hagiwara, Iwanori Murakami and Tatsuya Hoshikawa

TPM1-8-4 (1333) Regression Function and Back-propagation through Time Training Method for Wind Turbine Neural Network Pitch-Controller

Anant Oonsivilai and Kenedy A. Greyson

TPM1-8-5 (1395) Proximity Motion Control of Satellite Cluster using Impulsive Thrust

Manop Aorpimai and Chonrat Tatiyaworanant

Thursday May 20,2010

14:50 – 16:30 hr.

TPM2-1

Digital and Mixed Signal Circuits II

Chair: Varakorn Kasemsuwan

Location: Chiang Mai Room 1

TPM2-1-1 (1135) A Comparative Analysis of Behavioral Simulation for Third-Order Cascaded Multi-Bit Delta-Sigma Modulator with Interstage Feedback Paths

Sarayut Amornwongpeeti, Mongkol Ekpanyapong and Chumnarn Punyasai

TPM2-1-2 (1199) Worst-Case Timing Analysis in UDSM Era

Ji Yeon An, Taehoon Kim, Hyung Gyun Yang, and Young Hwan Kim

TPM2-1-3 (1132) A Compatibility SHA Series Design Based on FPGA

Jianhua He, Hu Chen and Huaqiang Huang

TPM2-2

Analog Circuits III

Chair: Ajay Kumar Singh

Location: Chiang Mai Room 2

TPM2-2-1 (1122) Integrated Signal Processing Circuits for Silicon Microphones
Kritsada Borisuttirattana, Chumnarn Punyasai, Lertsak Lekawat, and Nitin V. Afzulpurkar

TPM2-2-2 (1069) A Proposed 10-T Full Adder Cell for Low Power Consumption
Ajay Kumar Singh, C.M.R. Prabhu, Khaldon M. Almadhagi, Saeed F. Farea and Khaled Shaban

TPM2-2-3 (1464) A Low Voltage, Low Power, Wide Gain-Range VGA Design Using gm/ID Method
Laksono Widyo Isworo, Hiroshi Ochi and Cosy Muto

TPM2-2-4 (1396) A Fully Electronically Controllable Current-mode Derivative PWM Signal Generator Employing MO-CTTAs
Jongcharoen Kumbun, Phamorn Silapan and Montree Siripruchyanun

TPM2-2-5 (1138) Commercially Available ICs-Based DDCC Practical Implementation
Montri Somdunyanok and Montree Kumngern

TPM2-3

Wireless/Mobile Communications & Technologies –III

Chair: Poompat Saengudomlert

Location: Chiang Mai Room 3

TPM2-3-1 (1050) Performance Evaluation Scheme of Ultra Wideband Impulse Radio Transmission
Thawatchai Sereewattanapong and Sathaporn Promwong

TPM2-3-2 (1154) Dynamic Subcarrier Allocation with Transmit Diversity for OFDMA-Based Wireless Multicast Transmissions
Natasha Shrestha, Poompat Saengudomlert and Yusheng Ji

TPM2-3-3 (1212) Enhancing PAPR reduction for Tone Reservation Algorithms by Deep Clipping
Satana Suppitux, Soonthorn Tangkachavana, Thipvadee Vinichhayakul and Prapun Sukksompong

TPM2-3-4 (1477) Performance Analysis of Rice-Lognormal Channel Model for Spectrum Sensing
Haroon Rasheed, Farah Haroon and Nandana Rajatheva

TPM2-3-5 (1215) Performance Analysis of MIMO Based Multi-User Cooperation Diversity System using Hybrid FDMA-TDMA Technique
Zuhaib Ashfaq Khan, Imran Khan and Nandana Rajatheva

TPM2-4

Power Engineering and Power Systems I

Chair: Yuttana Kumsuwan

Location: Chiang Mai Room 4

TPM2-4-1 (1048) Optimal Power Flow by using Bees Algorithm
S.Anantasate, C.Chokpanyasuwan and P. Bhasaputra

TPM2-4-2 (1142) Biogeography-Based Optimization for Solution of Optimal Power Flow Problem
Aniruddha Bhattacharya and Pranab Kumar Chattopadhyay

TPM2-4-3 (1160) Power Loss Minimization Using Optimal Power Flow Based on Particle Swarm Optimization

U. Leeton, D. Uthitsunthorn, U. Kwannetr, N. Sinsuphun and T. Kulworawanichpong

TPM2-4-4 (1474) Optimal Power Flow Problem Solved by Using Distributed Sobol Particle Swarm optimization

P. Wannakarna, S. Khamsawangb, S. Pothiya b and S. Jiriwibhakornb

TPM2-4-5 (1295) Improving Transmission Line Loss by Using Interline Power Flow Controllers

S. Jangjit, P. Kumkratug and P. Laohachai

TPM2-5

High Voltage Engineering and Insulation III

Chair: Suttichai Premrudeepreechacharn

Location: Chiang Mai Room 5

TPM2-5-1 (1157) Effects of System Configuration on Switching Overvoltage and Insulation Strength of High Voltage Equipment

Thanapong Suwanasri, Somchai Homklinkaew and Cattareeya Suwanasri

TPM2-5-2 (1198) Multi-Step Back-to-Back Capacitor Bank Switching in a 115 kV Substation

Thanapong Suwanasri, Sarawut Wattanawongpitak and Cattareeya Suwanasri

TPM2-5-3 (1364) High voltage SF6 Circuit Breaker Modeling for Capacitor Bank Controlled Switching Simulation

Yotaka Chompusri, Srawut Kleesuwan, Noppadol Charbkaew and Teratam Bunyagul

TPM2-5-4 (1469) Performance Study of Single Phase Reclosing Using Simplified Arc Model on the Thailand 500 kV System

K. Ngamsanroj and S. Premrudeepreechacharn

TPM2-6

Software Engineering

Chair: Lachana Ramingwong

Location: Board Room 2

TPM2-6-1 (1221) Assuring Integrity and Confidentiality for Pseudonymized Health Data

Bernhard Riedl and Veronika Grascher

TPM2-6-2 (1236) Detecting Deadlock and Multiple Termination in BPMN Model Using Process Automata

Nasi Tantitharanukul and Prompong Sugunnasil

TPM2-6-3 (1503) Characteristic Sets for Learning k-Acceptable Languages

A. Jitpattanukul and A. Surarerks

TPM2-7

Medical Signal Processing & Medical Imaging II

Chair: Pornchai Phukpattaranont

Location: Board Room 3

TPM2-7-1 (1253) Small-Size Computed Tomography System with Rotating Gantry

V. Jantanayingyong, T.Chanwimalueang, N. Srisuk and C. Pintavirooj

TPM2-7-2 (1277) A Real-time Eye-tracking Method using Time-varying Gradient Orientation Patterns

Wattanit Hotrakool, Prarinya Siritanawan and Toshiaki Kondo

TPM2-7-3 (1283) Fractal Dimension Based Electroencephalogram Analysis of Drowsiness Patterns

Suchada Tantisirapong, Wongwit Senavongse and Montri Phothisonothai

TPM2-7-4 (1287) Increase Accuracy in Fall Detection Algorithm Based on Free Fall Characteristic

P. Jantaraprim, P. Phukpattaranont, C. Limsakul and B. Wongkittisuksa

TPM2-7-5 (1350) Automatic Retinal Vessel Tortuosity Measurement

Chanjira Sinthanayothin

TPM2-8

Robotics and Automation

Chair: Itthisek Nilkhamhang

Location: Board Room 4

TPM2-8-1 (1034) Unmanned Ground Vehicle Localization by Dead-reckoning/GPS sensor fusion

Veerachai Malyavej and Peerapong Torteeka

TPM2-8-2 (1113) High-speed nanorobot position control inside a scanning electron microscope

Daniel Jasper, Claas Diederichs, Christoph Edeler and Sergej Fatikow

TPM2-8-3 (1323) A Robust Adaptive Algorithm for Bilateral Control System without Force sensor

Suangsamorn Nurung and Itthisek Nilkhamhang

TPM2-8-4 (1347) Adaptive Inverse Dynamics Control For Triple Rotary Joint Manipulator

Jadesada Maneeratanaporn, Pakpoom Patompak, Siripong Varongkriengkrai, Itthisek Nilkhamhang and Kanokvate Tungpimolrut

TPM2-8-5 (1356) Autonomous Path Tracking and Disturbance Force Rejection of UAV Using Fuzzy Based Auto-Tuning PID Controller

Theerasak Sangyam, Pined Laohapiengsak, Wonlop Chongcharoen, and Itthisek Nilkhamhang

Thursday May 20,2010

16:40 – 18:40 hr.

TPM3-1

Sensing and Sensor Networks

Chair: Nattapong Swangmuang

Location: Chiang Mai Room 1

TPM3-1-1 (1143) Portable Artificial Nose System for Assessing Air Quality in Swine Buildings

Panida Lorwongtragool, Chatchawal Wongchoosuk and Teerakiat Kerdcharoen

TPM3-1-2 (1276) Optical Electronic Nose Based on Porphyrin and Phthalocyanine thin films

Sumana Kladsomboon, Sirapat Pratontep and Teerakiat Kerdcharoen

TPM3-1-3 (1328) Development of Wireless Electronic Nose for Environment Quality Classification

T. Pogfay, N.Watthanawisuth, W.Pimpao, A.Wisitsoraat, S.Mongpraneet, T.Lomas, M.Sangworasil and A.Tuantranont

TPM3-1-4 (1305) Electronic Tongue Based on Modified Carbon Nanotube Electrochemical Sensor Array

Weerayut Srichaisiriwech, Anurat Wisitsoat, Ditsayut Phokharatkul, Chanpen Karuwan, Adisorn Tuantranont and Teerakiat Kerdcharoen

TPM3-1-5 (1363) Design and Simulation of Flow Cell Chamber for Quartz Crystal Microbalance Sensor Array

Kata Jaruwongrungrsee, Thitima Maturos, Pornpimol Sritongkum, Anurat Wisitsora-at, Chuchart Pintavirooj, Manas Sangworasil and Adisorn Tuantranont

TPM3-2

RF and Wireless Circuits

Chair: Nipapon Siripon

Location: Chiang Mai Room 2

TPM3-2-1 (1027) A Performance Comparison of Energy Conservation between Idle Mode and Power down Mode for Microcontroller in Wireless Mobile Node

T. Krongtripop

TPM3-2-2 (1233) A Broadband Low Noise Amplifier with ± 0.09 dB Noise Flatness Using Active Input Matching

Che-Cheng Liu, Mei-Fen Chou, Che-Sheng Chen, Wen-An Tsou and Kuei-Ann Wen

TPM3-2-3 (1411) Development of a GaN HEMT Class-AB Power Amplifier for an Envelope Tracking System at 2.45 GHz

P. Suebsombut, O. Koch and S. Chalermwisutkul

TPM3-2-4 (1432) 2.45 GHz GaN HEMT Class-AB RF Power Amplifier Design for Wireless Communication Systems

G. Monprasert, P. Suebsombut, T. Pongthavornkamol and S. Chalermwisutkul

TPM3-2-5 (1439) Design of 140-170 MHz Class E Power Amplifier with Parallel Circuit on GaN-HEMT

Ekkaphol Khansalee, Nutdechatorn Puangngernmak and Suramate Chalermwisutkul

TPM3-2-6 (1326) Wireless Wearable Pulse Oximeter for Health Monitoring Using ZigBee Wireless Sensor Network

N. Watthanawisuth, T. Lomas, A. Wisitsoraat and A. Tuantranont

TPM3-3

Wireless/Mobile Communications & Technologies –IV

Chair: Anan Phonphoem

Location: Chiang Mai Room 3

TPM3-3-1 (1375) Real-time monitoring of GPS-tracking tractor based on ZigBee multi-hop mesh network

N. Watthanawisuth, N. Tongrod, T. Kerdcharoen and A. Tuantranont

TPM3-3-2 (1354) Increase a Standalone GPS Positioning Accuracy by Using Proximity Sensors

S. Khoomboon and T. Kasetkasem

TPM3-3-3 (1352) Comparison of UWB Fingerprinting with Vertical and Horizontal Polarizations for Indoor Localization

Jirapat Sangthong, Sathaporn Promwong and Pichaya Supanakoon

TPM3-3-4 (1386) Framework for Network Selection Transparency on Vehicular Networks

Inthawadee Chantaksinopas, Phoemphun Oothongsap and Akara Prayote

TPM3-3-5 (1280) DECA: Density-Aware Reliable Broadcasting in Vehicular Ad Hoc Networks

Nawut Na Nakorn and Kultida Rojviboonchai

TPM3-3-6 (1509) The Vertical Handoff between GSM and Zigbee Networks for Vehicular Communication

Sakmongkon Chumkamon, Peranitti Tuvaphanthaphiphat and Phongsak Keeratiwintakorn

TPM3-4

Power Engineering and Power Systems II

Chair: Parnjit Damrongkulkamjorn

Location: Chiang Mai Room 4

TPM3-4-1 (1417) Analysis of Electricity Supply Worth on Generation System Reliability

Yod Nitikitpaiboon, Raksanai Nidhiritdhikrai and Bundhit Eua-arporn

TPM3-4-2 (1269) Transmission Cost Allocation for Mixed Pool and Bilateral Markets

Warit Anthonng and Kulyos Audomvongseree

TPM3-4-3 (1353) Solving various types of economic dispatch problem using Bees algorithm

S. Tiacharoen, S.potiya and P. Polratanasuk

TPM3-4-4 (1407) Multiobjective Bees Algorithm with clustering technique for Environmental/Economic Dispatch

N. Leeprechanon and P. Polratanasuk

TPM3-4-5 (1374) Security-Constrained Unit Commitment using Mixed-Integer Programming with Benders Decomposition

Nalan Laothumyingyong and Parnjit Damrongkulkamjorn

TPM3-5

Power Delivery

Chair: Seyed Hossein Hosseini

Location: Chiang Mai Room 5

TPM3-5-1 (1292) Examination of Iterative Two-End Fault Location Algorithm Performance Using Field Measurements from Digital Fault Recorders

Yossawin Bureetan and Naebboon Hoonchareon

TPM3-5-2 (1296) Fault Classification for Thailand's Transmission Lines Based on Discrete Wavelet Transform

Panat Sawatpipat and Thavatchai Tayjasant

TPM3-5-3 (1079) Power Quality Improvement Using a New Structure of Fault Current Limiter

Seyed Hossein Hosseini, M. Tarafdar Hagh, M. Jafari, S. B. Naderi, S. Gassemezadeh

TPM3-5-4 (1016) Kernel Principal Component Analysis for Power Quality Problem Classification

Jonglak Pahasa and Issarachai Ngamroo

TPM3-5-5 (1044) A Study on the Wind as a Potential of Renewable Energy Sources in Malaysia

M.B. Farriz, A.N Azmi, N.A.M Said, A. Ahmad, K.A.Baharin

TPM3-6

General Computer & Information Technology

Chair: Juggapong Natwichai

Location: Board Room 2

TPM3-6-1 (1245) An Activity Profile Model and Dynamic-Matching Results for Social Networks Regarding Wellness Applications

Raymond Greenlaw

TPM3-6-2 (1217) Path Level Traffic Grooming Strategies for Multi-Objective Design in WDM Networks

Pakorn Leesutthipornchai, Chalernpol Charnsripinyo and Naruemon Wattanapongsakorn

TPM3-6-3 (1310) Enhanced FPGA-based architecture for regular expression matching in NIDS

Le Hoang Long, Tran Trung Hieu, Vu Tan Tai, Nguyen Hoa Hung, Tran Ngoc Thinh and Dinh Duc Anh Vu

TPM3-6-4 (1488) Proximity Neighbor Selection using IP Prefix Matching in Kademia-based Distributed Hash Table

Chayanon Sub-r-pa and Chotipat Pornavalai

TPM3-6-5 (1023) Optimizing Portfolio of SET stocks using Convex Quadratic Programming

Neeranat Chuenchomphu, Chayanuch Nopparat, and Gun Srijuntongsiri

TPM3-6-6 (1249) Microwave Ablation with Cap-Choke Antenna: Result in Computer Simulation

M. Chaichanyut

TPM3-7

Image Processing

Chair: Karn Patanukhom

Location: Board Room 3

TPM3-7-1 (1009) Improved Performance of Image Watermarking by Removing Luminance Bias in YCbCr Channel

N. Mettripun, K. Surachat, R. Lhawchaiyapark and T. Amornraksahor

TPM3-7-2 (1216) Performance Evaluation of L1, L2 and SL0 on Compressive Sensing based on Stochastic Estimation Technique

Pham Hong Ha and Vorapoj Patanavijit

TPM3-7-3 (1254) Image Restoration Based on a Pair of Noisy and Motion Blurred Images

Karn Patanukhom

TPM3-7-4 (1304) A binarization technique using local edge information

Sanparith Marukatat, Sarin Watcharabutsarakham and Wasin Sinthupinyo

TPM3-7-5 (1467) New Spatial Error Concealment with Texture Modeling and Adaptive Directional Recovery

Prateep Nangam, Wuttipong Kumwilaisak and Saowalak Keawkumnerd

TPM3-7-6 (1512) 3D Missing Point Estimation using Fuzzy Support Vector Regression

Sirinnared Winaipanich, Sansanee Auephanwiriyaikul and Nipon Theera-Umpon

TPM3-8

Robust and Repetitive Control

Chair: Boonsri Kaewkham-ai

Location: Board Room 4

TAM3-8-1 (1068) Robust Attitude Control of Low Earth Orbit Small Satellite Subject to Actuator Saturation

Peerawat Artitthang, Veerachai Malyavej and Manop Aorpimai

TAM3-8-2 (1129) The parameterization of all stabilizing multi-period repetitive controllers for multiple-input/multiple-output plants with the specified input-output frequency characteristic

Kou Yamada, Nobuaki Nakazawa, Tatsuya Sakanushi, Shun Yamamoto and Nhan Luong Thanh Nguyen

TAM3-8-3 (1131) A design method for simple multi-period repetitive controllers for multiple-input/multiple-output plants

Tatsuya Sakanushi, Kou Yamada, Yoshinori Ando, Tuan Manh Nguyen and Shun Matsuura

TAM3-8-4 (1164) Input-Output Stability of Lur'e Systems with Inputs Satisfying Bounding Conditions on Magnitude and Slope

Van Sy Mai, Suchin Arunsawatwong and Eyad H. Abed

TAM3-8-5 (1427) Performance Analysis of Lur'e Systems with Time Delay Using Linear Matrix Inequalities

Thapana Nampradit and David Banjerdpongchai

TAM3-8-6 (1091) Less Conservative Delay-Dependent Robust Stability Criteria for Linear Time-Delay Systems

Fatemeh Eghbal SarabiE and Hamid Reza Momeni

Friday May 21, 2010

8:10 – 10:10 hr.

FAM1-1

Filters and Data Conversion Circuits I

Chair: Sermsak Uatrongjit

Location: Chiang Mai Room 1

FAM1-1-1 (1137) Single-Input Multiple-Output Universal Filter Using Translinear Current Conveyors

Montree Kumngern and Phichet Moungnoul

FAM1-1-2 (1139) Voltage-Mode Universal Filter with Three-Input Single-Output Using DDCCs

Montree Kumngern and Somyot Junnapiya

FAM1-1-3 (1140) Electronically Tunable Voltage-Mode Universal Filter Using Simple CMOS OTAs

Montree Kumngern

FAM1-1-4 (1197) High-input Impedance Voltage-mode Universal Filter Using CCCCTAs

Winai Jaikla, Abhirup Lahiri, Adisorn Kwawsibsame and Montree Siripruchyanun

FAM1-1-5 (1284) Voltage-Mode Electronically Tunable Universal Filter Employing Single CFTA

Jamaree Sirirat, Worapong Tangsrirat and Wanlop Surakampontrorn

FAM1-2

Advanced Technologies (MEMS and Nano-electronic Devices) I

Chair: Ukrit Mankong

Location: Chiang Mai Room 2

FAM1-2-1 (1171) Low Power Magnetotransistor

Panyakorn Sottip, Toempong Phetchakul, Chana Leepattarapongpan, Naritchapan Penpondee, Putapon Pengpad, Arckom Srihapat, Charndet Hruanun and Amporn Poyai

FAM1-2-2 (1182) Effect of Substrate Position on the Formation of ZnO Nanostructures Synthesized by Thermal Evaporation of ZnO-CNTs Mixture

S. Pitayapiboonpong, S. Kanjanachuchai, D. Phokharatkul, A. Tuantranont and A. Wisitsoraat

FAM1-2-3 (1195) Low Cost X-ray Lithographic Mask Based on Microsputtered Lead Film on Transparencies

A. Wisitsora-at, S. Mongpraneet, R. Phatthanakun, N.Chomnawang, V. Patthanasettakul and A. Tuantranont

FAM1-2-4 (1220) Fabrication, Characterization and Analysis of ITO/n-Si Schottky Photodetector

Surada Ueamanapong, Itsara Srithanachai, Narin Atiwongsangthong, Putapon Pengpad, Surasak Niemcharoen, Amporn Poyai, and Somkiet Supadech

FAM1-2-5 (1235) Generation Lifetime Analysis of p-n Junction X-Ray Detector

Poopol Rujanapich, Amporn Poyai, Itsara Srithanachai, Putapon Pengpad, Charndet Hruanan, Suwat Sophitpan and Wisut Titiroongruang

FAM1-3

Wireless/Mobile Communications & Technologies –V

Chair: Jason Gao

Location: Chiang Mai Room 3

FAM1-3-1 (1307) Improvement of the Tracking Accuracy Through the Use of the Support Vector Machine

D. Meetit and T. Kasetkasem

FAM1-3-2 (1463) Adaptive Clustering in MANETs Using Graph Theoretical Algorithms

Wandee Wongsason, Chaiyod Pirak and Rudolf Mathar

FAM1-3-3 (1237) Throughput Comparison in Cognitive Radio Networks

Jason Gao, Waqas Ahmed, Junjie Yang and Michael Faulkner

FAM1-4

Power Engineering and Power Systems III

Chair: Peerapol Jirapong

Location: Chiang Mai Room 4

FAM1-4-1 (1058) Indexes of Area Operation Centers (AOC) Optimal Allocation in Power Network

Seyed Siavash Karimi Madahi, Saeid Amir Araghi, Farzad Razavi and Ali Asghar Ghadimi

FAM1-4-2 (1126) Optimal Placement of PMUs in Power Systems Using Heuristic Algorithms and Mixed Integer Non Linear Programming Methods

K.Mazlumi, H. Vahedi and S. M. Ezzati

FAM1-4-3 (1150) Multi-Objective Optimal Distributed Generation Placement Using Simulated Annealing

T. Sutthibun and P. Bhasaputra

FAM1-4-4 (1421) Determination of Optimal Location and Sizing of Distributed Generation using Ant Colony Search

Bongkoj Sookananta, Pattana Utaton and Rungson Khongsila

FAM1-4-5 (1422) Determination of Optimal location and sizing of Distributed Generation using Particle Swarm Optimization

Bongkoj Sookananta, Werasuk Kuanprab and Sutiya Hanak

FAM1-5 Power Electronics I

Chair: Kei Eguchi

Location: Chiang Mai Room 5

FAM1-5-1 (1136) Z-Source Grid-Connected Inverter for Solving the photovoltaic cell Shading problem

Anucha Pattanaphol, Surin Khomfoi and Prapart Paisuwanna

FAM1-5-2 (1162) A Vector Control of a Grid-Connected 3L-NPC-VSC with DFIG Drives

W. Srirattanawichaikul, Y. Kumsuwan, S. Premrudeepreechacharn and B. Wu

FAM1-5-3 (1322) Design of a Controller for DFIG-Based Wind Power Generation Using Model Predictive Control

Pisitpol Chirapongsananurak and Naebboon Hoonchareon

FAM1-5-4 (1420) A Half-Bridge Resonant Inverter with Three-Phase PWM rectifier for Induction Heating

Vichian Hathairatsiri, Saichol Chudjuarjeen, Panithan Chakkuchan, Anawach Sangswang and Chayant koompai

FAM1-5-5 (1261) A Two-Output High Frequency Series-Resonant Induction Heater

Pattanapong Kongsakorn and Anuwat Jangwanitlert

FAM1-6 Pattern Analysis and Machine Intelligence I

Chair: Hideyuki Sawada

Location: Board Room 2

FAM1-6-1 (1315) An Improvement of Iris-Blob Map Approach for Iris Identification

Ungkarn Jarujareet and Nongluk Covavisaruch

FAM1-6-2 (1243) A Simple Shape-Based Approach to Hand Gesture Recognition

Amornched Jinda-apiraksa, Warong Pongstiensak and Toshiaki Kondo

FAM1-6-3 (1262) Evaluation of EMG Feature Extraction for Hand Movement Recognition Based on Euclidean Distance and Standard Deviation

A. Phinyomark, S. Hirunviriya, C. Limsakul and P. Phukpattaranont

FAM1-6-4 (1252) Integration of Sound and Image Information for Active Tracking of Particular Person

Hideyuki Sawada and Atsushi Todo

FAM1-6-5 (1378) Estimation of Slag Foaming Height using Furnace Vibration Signal in the Electric Arc Furnaces

Jae Jin Jeong, Sung Jun Ban and Sang Woo Kim

FAM1-6-6 (1267) High Performance Pattern Matching using Bloom–Bloomier Filter

Nguyen Duy Anh Tuan, Bui Trung Hieu and Tran Ngoc Think

FAM1-7 Video Processing

Chair: Karn Patanukhom

Location: Board Room 3

FAM1-7-1 (1060) Video Enhancement Using A Robust Iterative SRR Based On A Geman&McClure Stochastic Estimation With A General Observation Model

Vorapoj Patanavijit

FAM1-7-2 (1134) Adaptive Background Modeling from an Image Sequence by Using K-Means Clustering

Theekapun Charoenpong, Ajaree Supasuteekul and Chaiwat Nuthong

FAM1-7-3 (1148) Clustering Human Behaviors with Dynamic Time Warping and Hidden Markov Models for a Video Surveillance System

Kan Ouivirach and Matthew N. Dailey

FAM1-7-4 (1430) Automatic Region of Interest Detection in Multi-View Video

Thanaphat Thummanuntawat, Wuttipong Kumwilaisak and Jatuporn Chinrungrueng

FAM1-7-5 (1437) Improving of Mean Shift Tracking Algorithm Using Adaptive Candidate Model

Matee Boonsin, Wiphada Wettayaprasit and Ladda Preechaveerakul

FAM1-7-6 (1223) A Variable Luminance-Chrominance Gain Equalizer

V. Chutchavong, S. Pounpayom, O. Sangaroon, C. Benjangkprasert and K. Janchitrapongvej

FAM1-8

Networks Design, Network Protocols and Network Management

Chair: Anan Phonphoem

Location: Board Room 4

FAM1-8-1 (1065) Mobile IPv6 without Home Agent

Cui Bo, Robert Elz and Sinchai Kamolphiwong

FAM1-8-2 (1094) A Heuristic Approach for Bandwidth Constraint Path Selection in MPLS Based Networks

Ranju Pant and Teerapat Sanguankotchakorn

FAM1-8-3 (1123) An Adaptive Type-2 Fuzzy for Control Policing Mechanism over High Speed Networks

Preecha Pangsub and Somchai Lekcharoen

FAM1-8-4 (1271) Performance Evaluation of NTPv4 When SPIK State Cannot Step Frequency

Yuthapong Somchit

FAM1-8-5 (1435) Buffer Size Estimation for Different Start Video Broadcasting

H. Ketmaneechairat, P. Oothongsap and A. Mingkhwan

Friday May 21, 2010

10:20 – 12:20 hr.

FAM2-1

Filters and Data Conversion Circuits II

Chair: Boonsri Kaewkham-ai

Location: Chiang Mai Room 1

FAM2-1-1 (1384) Simple RC Low Pass Filter Circuit Fabricated by Unmodified Desktop Inkjet Printer

C. Sriprachuabwong, C. Srichan, T. Lomas and A. Tuantranont

FAM2-1-2 (1263) Ultra-Wideband Bandpass Filter With Notch Implementation

Wichai Krongkitsiri and Prayoot Akkaraekthalin

FAM2-1-3 (1224) Design and Simulation of a down-conversion CMOS mixer for UWB applications

Mostafa Jouri, Abbas Golmakani, Mohsen Yahyabadi and Hojat Khosrowjerdi

FAM2-1-4 (1054) An Efficient VLSI Architecture for the Rader Algorithm based DFT When the Number of Data Samples Is Prime

Xiaoyin Zhang and Nattha Jindapetch

FAM2-1-5 (1055) An Efficient VLSI Architecture for Discrete Wavelet Transform based on the Daubechies Architecture

Xiaoyin Zhang and Nattha Jindapetch

FAM2-2

Advanced Technologies (MEMS and Nano-electronic Devices) II

Chair: Chel-Jong Choi

Location: Chiang Mai Room 2

FAM2-2-1 (1239) Design, Analysis and Fabrication of MEMS-based Silicon Microneedles for Bio-Medical Applications

M. W. Ashraf, S. Tayyaba, N. Afzulpurkar, T. Lomas, A. Tuantranont, A. Nisar, and E. L. J. Bohez

FAM2-2-2 (1273) Improved Effective One-Dimensional Electronic Structure of InGaAs Quantum Dot Molecules

N. Pattanemakul, N. Thongkamkoon, N.Thudsalingkarnsakul, N. Siripitakchai, S. Thainoi, S. Panyakeow and S. Kanjanachuchai

FAM2-2-3 (1288) Carbon Nanotubes in Anodized Alumina Templates for Electrochemical Sensing

D. Phokharatkul, A. Wisitsoraat, C. Karuwan, V. Patthanasettakul and A. Tuantranont

FAM2-2-4 (1298) Electrical properties of Bismuth Potassium Titanate-Strontium Titanate Ferroelectric Ceramics

Prapapim Phetnoi, Surasak Niemcharoen, Rangson Muanghlua, Manoon Sutapun and Naratip Vittayakorn

FAM2-2-5 (1300) Ink-jet printed optical gas sensing layers based on metallo-phthalocyanine

Johannes Ph. Mensing, Tanom Lomas, Teerakiat Kerdcharoen, Adisorn Tuantranont

FAM2-2-6 (1117) Electrical and Structural Properties of Ge Metal-Oxide-Semiconductor Devices with Pt/HfO₂ Gate Stacks

Chel-Jong Choi, Kyu-Sang Shin, Myung-Il Jeong, and S. V. Jagadeesh Chandra

FAM2-3

Modulation, Coding, and Channel Analysis I

Chair: Phumin Kirawanich

Location: Chiang Mai Room 3

FAM2-3-1 (1037) Lab Prototype of a List-of-2 Viterbi Decoder: A Diversity Inner Decoder for the Outer Vector Symbol Decoder

Usana Tuntoolavest and Pongpisut Noradee

FAM2-3-2 (1158) Design of reconfigurable random interleavers with MAP decoding for MPEG-4 image transmission system over rician block-fading channel

Srijidtra Mahapakulchai and Nukoon Phimsen

FAM2-3-3 (1196) Iterative Channel Estimation Using Joint Zero Padding and Nonzero Padding for TDS-OFDM Systems

Raza Ali Shah and Poompat Saengudomlert

FAM2-3-4 (1372) Evaluation Scheme RFID Channel in Library with Wooden and Metal Book Shelves Based on Measurement Data

Jiratchaya Pitukwerakul Pichaya Supanakoon and Sathaporn Promwong

FAM2-3-5 (1207) Performance of 10 Gb/s Optical Receiver in 50-GHz DWDM Transmission over 40-km SSMF

Wanee Srisuwarat, Jirawut Akaranuchat and Duang-rudee Worasucheeep

FAM2-4

Power Engineering and Power Systems IV

Chair: Thanapong Thanasaksiri

Location: Chiang Mai Room 4

FAM2-4-1 (1222) Wide Area Robust TCSC Controller Design Considering Communication Delay Uncertainty

Mongkol Saejia and Issarachai Ngamroo

FAM2-4-2 (1032) Power system state estimation using equivalent measurement models and rectangular coordinates

C. Rakpenthai, S. Uatrongjit, I. Ngamroo and N.R. Watson

FAM2-4-3 (1408) Optimal Load Shedding Scheme under Contingency Condition Considering Voltage Stability Problem

Bundit Charoenphan and Kulyos Audomvongseree

FAM2-4-4 (1015) GA-based Support Vector Machines for Adaptive Power System Damping Controller of SMES

Jonglak Pahasa and Issarachai Ngamroo

FAM2-4-5 (1351) Implementation of a Three Phase Grid Synchronization for Doubly-fed Induction Generators in Wind Energy System

Wara Sadara and Bunlung Neammanee

FAM2-5

Power Electronics II

Chair: Werachet Khan-ngern

Location: Chiang Mai Room 5

FAM2-5-1 (1205) A Direct Drive of Multiple Multi-pole Permanent Magnet Synchronous Generators for Wind Energy Conversion System

Phanxay Chanthavong, Surapong Suwankawin and Hirofumi Akagi

FAM2-5-2 (1366) Current gradient based sensorless control for switched reluctance drives with torque boosting technique

Nisai H. Fuengwarodsakul and Bundit Tanboonjit

FAM2-5-3 (1371) Position Control of a Linear Variable Reluctance Motor with Magnetically Coupled Phases

Ruchao Pupadubsin, Nattapon Chayopitak, Niyom Nulek, Suebsuang Kachapornkul, Prapon Jitkreeyarn, Pakasit Somsiri and Kanokvate Tungpimolrut

FAM2-5-4 (1494) Comparison of Switching Schemes for Brushless DC Motor Drives

S.S.Bharatkar, Raju Yanamshetti, D.Chatterjee, and A.K.Ganguli

FAM2-5-5 (1405) A Hybrid Cascaded Multilevel Inverter

Nattapat Praisuwanana and Surin Khomfoi

FAM2-6

Pattern Analysis and Machine Intelligence II

Chair: Sansanee Auephanwiriyaikul

Location: Board Room 2

FAM2-6-1 (1193) A Particle Swarm Optimization for High-Dimensional Function Optimization

Chukiat Worasucheep

FAM2-6-2 (1402) FPGA-based Online-learning using Parallel Genetic Algorithm and Neural Network for ECG Signal Classification

Yutana Jewajinda, and Prabhas Chongstitvatana

FAM2-6-3 (1468) Classifying Semantic Orientation of Domain-Dependent Words with Unknown Sentiments

Suthasinee Tangyotkhajorn, Onpapim Luchaichana and Warrapat Korkerd

FAM2-6-4 (1401) Robust Vehicle Detection Algorithm with Magnetic Sensor

Pisit Kanathantip, Wuttipong Kumwilaisak and Jatuporn Chinrungrueng

FAM2-6-5 (1214) Intelligent Traffic Cone based on Vehicle Accident Detection and Identification Using Image Compression Analysis and RFID System

Songkran Kantawong and Tanasak Phanprasit

FAM2-6-6 (1062) A software tool to explore the structure of high dimensional biomolecular data

Giulio Pavesi, Federico Zambelli, Matteo R`e and Giorgio Valentini

FAM2-7

Audio, Speech and Language Processing

Chair: Phongphan Danphitsanuphan

Location: Board Room 3

FAM2-7-1 (1011) Rate-Distortion Modeling of Spherical Vector Quantization Performance in Transform Excitation Audio Coding

Wisarn Patchoo and Thomas R. Fischer

FAM2-7-2 (1266) Toward Benchmarking a General-domain Thai LVCSR System

A. Chotimongkol, K. Saykhum, N. Thatphithakkul and C. Wutiwiwatchai

FAM2-7-3 (1336) Effective Complexity Reduction for G.729 Standard

Cheng-Yu Yeh

FAM2-7-4 (1345) A Hybrid Diphone Speech Unit and a Speech Corpus Construction Technique for a Thai Text-to-Speech System on Mobile Devices

K. Wongpatikaseree, A. Ratikan, A. Chotimongkol, P. Chootrakool, C. Nattee, T. Theeramunkong and T. Kobayashi

FAM2-7-5 (1381) Automatic Audio Indexing Alignment for Thai Broadcast News

C. Tantibundhit, T. Jarasboonpaisan, A. Natenee, N. Thatphithakkul, K. Saykhum

FAM2-7-6 (1508) Scalp Electrical Potential Microstates for Musical Sound Perception and Cognition

W. Sittiprapaporn

FAM2-8

General Electrical Power Systems I

Chair: Seyed Hossein Hosseini

Location: Board Room 4

FAM2-8-1 (1206) Feasible lighting system with Light Emitting Diode(LED)

Golam Kafi Mustafa, Vashwar Tajdidur Rouf and Juni Khisha

FAM2-8-2 (1380) A Data-Envelopment-Analysis Inspired Method for Reliability Target Setting

J. Klunvaree and P. Raphisak

FAM2-8-3 (1173) Real-Time Power Signal Processing System for Distorted and Unbalanced Conditions, Part 1: Theoretical Feasibility

Thip Manmek and Chathura P. Mudannayake

FAM2-8-4 (1174) Real-Time Power Signal Processing System for Distorted and Unbalanced Conditions, Part 2: Simulations Results

Thip Manmek and Chathura P. Mudannayake

Friday May 21, 2010

13:10 – 15:10 hr.

FPM1-1

General Circuits and Systems

Chair: Ukrit Mankong

Location: Chiang Mai Room 1

FPM1-1-1 (1445) A Novel Low Cost Magnetron Power Control for Microwave Heating Applications

K.Nuanyai, N.Puangngernmak and S.Chalermwisutkul

FPM1-1-2 (1319) Development of Optical Characteristic Measurement System for Optical Fiber Coupler Fabrication Using 3-Wavelength Light Simultaneously

Sira Ponprasert, Sermsak Uatrongjit, Puntada Narakorn and Ukrit Mankong

FPM1-1-3 (1331) The Study of Experimental Results of Scattering Light compared to BRDF Simulation for the Measurement System Design of Particle Size on Surface of Components of Hard Disk Drive

M. Wannaprapa, N. Rungcharoen and W. Pijitrojana

FPM1-1-4 (1475) Shot Noise Behavior of Planar Mo/n-Si/Mo Photodetector Structure in Avalanche Mode

S. Khunkhaoa, C. Umjaruan, A. Thaworn, S. Nuanloy, S. Niemcharoenb, A. Ruangphanitc, N. Phongphanthra and K. Sato

FPM1-2

Microwave & Optical Communications Technology

Chair: Nipapon Siripon

Location: Chiang Mai Room 2

FPM1-2-1 (1066) Analysis of Transmission Line Resonators Using Minimax Polynomials

Chatrpol Lertsirimit and Danai Torrungrueng

FPM1-2-2 (1095) A Novel Multi-Band Frequency Selective Surface Design and Its Application in a Compact 60-GHz Folded Dipole Array

W. L. Chang, J. Y. Luo, Yuki Kawakami and Jinfeng Lin

FPM1-2-3 (1340) Improvement of Square Ring Resonator with Lumped Compensation Inductors

Ravee Phromloungsri, P. Arunvipas, and Mitchai Chongcheawchamnan

FPM1-2-4 (1348) Development of efficiency EM Simulation Tool for Capacitive and Inductive Obstacle Analysis

Sarun Choocadee and Somsak Akatimagool

FPM1-2-5 (1313) Demonstration of Visible Light Communications Using RGB LEDs in an Indoor Environment

Natasha Shrestha, Muhammad Sohail and Charusluk Viphavakit

FPM1-3

Modulation, Coding, and Channel Analysis II

Chair: Chaiyod Pirak

Location: Chiang Mai Room 3

FPM1-3-1 (1022) Accurate BER Analysis of Downlink DS/CDMA Multicellular Systems in Nakagami Fading

Pongsatorn Sedtheetorn

FPM1-3-2 (1459) Intercarrier Interference Cancellation Using Complex Conjugate Technique for Alamouti-Coded MIMO-OFDM Systems

Aurupong Yiwleak and Chaiyod Pirak

FPM1-3-3 (1419) MRC-MMSE Detection in DF-Cooperative Communications with Rate 2/4 Trellis Code

Settakorn Kamuang and Suvepon Sittichivapak

FPM1-3-4 (1451) On the Performance of QO-STBC in Cooperative Communications with Relay Selection

Nikorn Sutthisangiam and Chaiyod Pirak

FPM1-4

Power Engineering and Power Systems V

Chair: Kazem Mazlumi

Location: Chiang Mai Room 4

FPM1-4-1 (1159) Control of STATCOM by Using Optimal Reactive Power Flow Solutions

D. Uthitsunthorn, U. Kwannetr, N. Sinsuphun, U. Leeton and T. Kulworawanichpong

FPM1-4-2 (1342) Instantaneous Power Control of D-STATCOM with Consideration of Power Factor Correction

K. Somsai and T. Kulworawanichpong

FPM1-4-3 (1204) TCPS Controller Design Using PSO and Chaos Algorithm to Damping the Power System Oscillations

M.Reza Safari Tirtashi, Kazem Mazlumi and Mohsen Sadeghi

FPM1-4-4 (1203) Adaptive Fuzzy PI Controller for TCPST to Improve Power System Stability Optimized by Ant Colony Method

Reza Navabi, Heidar Ali Shayanfar and Reza Etemad

FPM1-4-5 (1010) State Space Analysis of Power System Stability Enhancement with Used the STATCOM

M. Mahdavian and G. Shahgholian

FPM1-5

Power Electronics III

Chair: Yuttana Kumsuwan

Location: Chiang Mai Room 5

FPM1-5-1 (1244) Design, Modeling and Simulation of Point of Load Converter (niPOL)

Subhash Chander, Pramod Agarwal and Indra Gupta

FPM1-5-2 (1362) A Study of EMI and Switching Loss Reductions of Unipolar and Improved Limited Unipolar Switching Circuits

Arnon Srisawang

FPM1-5-3 (1414) An Asymmetrical Half-Bridge Forward Converter with Current Doubler

A. Jangwanitlert and J. Songboonkaew

FPM1-5-4 (1075) A Cross-Coupled 3x/4x Step-Up AC-DC Converters for RFID Tags

Kei Eguchi, Sawai Pongswatd, Toshiya Watanabe, Kuniaki Fujimoto, Kittitirasesth and Hirofumi Sasaki

FPM1-5-5 (1073) Design of a Switched-Capacitor-Based Serial DC-DC Converter Using Clean Energy Power Supplies

Kei Eguchi, Sawai Pongswatd, Tatsuya Sugimura, Teerawat Thepmanee, Kittitirasesth and Hirofumi Sasaki

FPM1-6

Visualization and Computer Graphics

Chair: Pruet Boonma

Location: Board Room 2

FPM1-6-1 (1179) Electrical Distribution Grid Visualization using Programmable GPUs

Javier Novo Rodríguez, Mariano Cabrero Canosa and Elena Hernández Pereira

FPM1-6-2 (1400) An Approach to the Determination of DP Triangular Surfaces with Its Quadratic Complexity

Podcharid Krungkarnchana and Natasha Dejrumrong

FPM1-6-3 (1109) Finding all intersections between planar curves

Gun Srijuntongsiri

FPM1-6-4 (1240) Graph Relabeling with Stacked Labels

Pochara Patthamalai and Sanpawat Kantabutra

FPM1-7

Antenna and Propagation

Chair: Supawat Supakwong

Location: Board Room 3

FPM1-7-1 (1061) A Wide Band Non-Symmetric Open Slot Microstrip Antenna

Tanawat Pantui

FPM1-7-2 (1085) Antenna Configuration Effect on EGC Diversity Performance in WLAN systems

T. Ngamjaroen, M. Uthansakul and P. Uthansakul

FPM1-7-3 (1187) Analysis of Terminated Lossless Planar Multilayer Periodic EBG Structures Using an Equivalent CCITL Model

Varittha Sanphuang and Danai Torrungrueng

FPM1-7-4 (1210) Modified Laplacian-Spatial Cluster Model based UWB Uniform Linear Arrays

Khajitpan Makaratat

FPM1-7-5 (1493) Electromagnetic Wave Scattering on 2D PEC Cylinders Using Complex Source Point Techniques and Uniform Geometrical Theory of Diffraction

T. Lertwiryaprapa, K. Phaebua, C. Phongcharoenpanich and M. Krairiksh

FPM1-7-6 (1334) The Significance of Vector Sensor Positioning on the Array's Ultimate Detection Capability
Supawat Supakwong

FPM1-8

General Electrical Power Systems II

Chair: Parnjit Damrongkulkamjorn

Location: Board Room 4

FPM1-8-1 (1090) Waste-Heat Thermoelectric Power Source for Industrial Wireless Transmitters

Teerawat Thepmanee, Prasit Julsereewong and Naruchit Taratanaphol

FPM1-8-2 (1423) High Power Density and High Efficient Wireless Energy Transfer by Resonance Coupling

H. Zenkner and W. Khan-ngern

FPM1-8-3 (1317) Application Outage Cost To Evaluate Value of Economic for Construction 115/22 kV Substation of Electronic Industrial Customers

T. Detmote, P. Teansri, P. Bhasaputra and W. Pattaraprakorn