

# Detailed Program

## DAY ONE: 28 March 2012

### 13:30 – 14:30 Opening Ceremony & Keynote Addresses 1 Tubtim

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| 13:30 – 13:45 | Introductory speech by Dr. Weerakorn Ongsakul, GMSARN Secretary General  |  |
| 13:45 – 14:00 | Welcome address by Assoc. Prof. Supat Sinawat, Assistant to the President for International Relations and Cooperation Strategy, Khon Kaen University, Khon Kaen City, Thailand   |  |
| 14:00 – 14:30 | Keynote Address I: “Mekong Hydro Project Management”<br><i>Dr. Subin Pinkayan, Chief Honorary Advisor, SEATEC (Southeast Asia Technology Company Limited) Group of Companies &amp; MDX Group of Companies, Bangkok, Thailand</i> |  |

### 14:30 – 14:45 Coffee / Tea Break

### 14:45 – 17:30 Day One Parallel Sessions (Afternoon Session)

#### 14:45 – 17:30 ENERGY I Tubtim

Session Chairman: Asst. Prof. Dr. Pornrapeepat Bhasaputra, Department of Electrical and Computer engineering, faculty of engineering, Thammasat University, Pathumthani, Thailand

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| E-01 | The Optimal Combination of RVC-electrodes Coated with Catalytic Metal Ions in Fixed-biofilm Microbial Fuel Cells<br><i>Chun-Sheng Wu, Jau-Hang Du, and Pornpimol Ouichanpagdee</i> | Taiwan, ROC |
| E-02 | Development of Hydropower Projects at Irrigation Dams for Renewable Energy in Thailand<br><i>Wiboon Pongtepupathum and Anuparp Wonglakorn</i>                                      | Thailand    |
| E-04 | Economy-Wide Impacts on Energy Efficiency in Thai Sugar Industries<br><i>Paiboon Limpitipanich, Pawinee Suksuntornsiri, Warunee Tia, and Bundit Limmeechokchai</i>                 | Thailand    |
| E-05 | Bio-Gasoline Production from Bio-Diesel via Catalytic Cracking Reaction on Platinum Zeolite Catalyst<br><i>Nantawat Usomboon, Malee Santikunaporn, and Suchada Butnart</i>         | Thailand    |
| E-10 | The Solar Power Plant planning for postponed Nuclear Power Plant in Thailand<br><i>Vivat Chutiprapat, Wichit Krueasuk, Pornrapeepat Bhasaputra, and Woraratana Pattaraprakorn</i>  | Thailand    |

#### 14:45 – 17:30 ENVIRONMENT I & SUSTAINABLE DEVELOPMENT I Morrakot

Session Chairman: Asst. Prof. Dr. Chongchin Polprasert, Department of Sanitary Engineering, Faculty of Public Health, Mahidol University, Bangkok, Thailand

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| Env-01 | Utilization of Silk Sericin and Powder Silk Sericin as Coagulant Aid for Turbidity Removal<br><i>Sidxay Makvilay, Tassamorn Hlongsamarn, Waritta Jaiman, Wipada Sanongraj, and Wipawee Khamwichit</i> | Thailand |
| Env-02 | An Investigation of Hg Deposition Using MM5/HYSPLIT-Hg: A Case Study on Contribution of Thermal Power Plants in Thailand<br><i>Pham Thi Bich Thao and Savitri Garivait</i>                            | Thailand |
| Env-03 | Estimation of Emission from Open Burning of Sugarcane Residues before Harvesting<br><i>Kanittha Kanokkanjana and Savitri Garivait</i>   | Thailand |
| Env-04 | Structure and Carbon Storage in Aboveground Biomass of Mixed Deciduous Forest in Western Region, Thailand<br><i>Ubonwan Chaiyo, Savitri Garivait and Kobsak Wanthonchai</i>                           | Thailand |
| Env-05 | Quality Assessment of Soil and Rice from Good Agricultural Practice Rice  | Thailand |

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*Khin Moe Phyu, Pravate Tuitemwong, Kooranee Tuitemwong, Worapot Suntornsuk, and Panthira Ketkaew*

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| Env-06 | Determination of Carbon Equivalence in Municipal Solid Waste Management: A Case Study of Khon Kaen Municipality, Thailand<br><i>Kampol Nanthapong and Chongchin Polprasert</i>                                | Thailand |
| Env-16 | Emission of Formaldehyde from Particleboards<br><i>Taddao Pahasupanan, Wipada Sanongraj, and Wipawee Khamwichit</i>   | Thailand |
| SD-01  | Barriers to Border Trade along the Southern Economic Corridor: A Case of Thai-Cambodia Trade on the Border of Srakaew Province<br><i>Saran Ratanasithi and Pensri Jaroenwanit</i>                             | Thailand |
| SD-08  | Cost-Benefit of Safe Vegetable in Rainy Season: Case Study for Small Scale Production in Khon Kaen Province, Northeast Thailand<br><i>Pensri Jaroenwanit, Supatra Chadbunchachai, and Narawit Jaroenwanit</i> | Thailand |

### 18:30 – 21:00 Reception Dinner

## DAY TWO: 29 March 2012

### 06:30 – 20:00 Technical Visit: Nam Ngum Dam 2 by Boat

## DAY THREE: 30 March 2012

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| 08:30 – 09:00 | Keynote Address II: “The Mekong Basin: Environment and Development Challenge”<br><i>Dr. Chavalit Vidthayanon, Senior Aquatic Ecology Specialist, Mekong River Commission, Vientiane, Lao PDR</i> | Tubtim |
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### 09:00 – 12:00 Day Three Parallel Sessions (Morning Session)

#### 09:00 – 10:30 ENERGY II Tubtim

Session Chairman: Asst. Prof. Dr. Thanapong Suwanasri, Sirindhorn International Thai-German Graduate School of Engineering, (TGGS), King Mongkut's University of Technology North Bangkok, Bangkok, Thailand

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| E-07 | Effects of Nearby Auxiliary Grounding Imposed on Main Square and Rectangle Ground Grids of Distribution Substation<br><i>A. Phayomhom, T. Kasirawat, W. Pobporn, C. Pongsriwat, and A. Puttarach</i> | Thailand |
| E-08 | Base Oil Production from Hydrocracked Bottom<br><i>Phomiwiwat Phungphan, Malee Santikunaporn and Kornthape Prasirtsiriphan</i>   | Thailand |
| E-09 | SF <sub>6</sub> Capacitive Voltage Divider<br><i>Cattareeya Suwanasri and Thanapong Suwanasri</i>  | Thailand |
| E-11 | Touch Voltage Reduction in Distribution Substation by Compression Ratio Technique and Length Adjustment of Ground Rod in Two-Layer Soil<br><i>W. Pobporn, D. Rerkpreedapong, and A. Phayomhom</i>    | Thailand |
| E-24 | A Study on Tesla Turbine Performance of Organic Rankine Cycle Machine<br><i>K. Thawichsri, V. Monyakul, S. Thepa, Ch. Jivacate, and K. Sudaprasert</i>   | Thailand |

#### 09:00 – 10:30 ENVIRONMENT II Morrakot

Session Chairman: TBA

|        |  |          |
|--------|--|----------|
| Env-07 | Litter Production and Decomposition in Dry Dipterocarp Forest and Their Responses to Climatic Factors<br><i>Phongthep Hanpattanakit and Amnat Chidthaisong</i> | Thailand |
| Env-08 | Simulated Changes in Temperature and Precipitation over Thailand under IPCC Emission Scenarios A2 and B1<br><i>Kasemsan Manomaiphiboon and Mega Octaviani</i>  | Thailand |
| Env-09 | Improving Bioenergy Conversion of Market Waste   | Thailand |

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|        | <i>Panada Pibul, Sirintornthep Towprayoon, Pawinee Chairasert, and Saroch Boonyakitsombut</i>   |          |
| Env-10 | Effect of Burnt and Un-burnt Rice Straw Incorporated on Direct Nitrous Oxide Emission from Irrigated Rice Field<br><i>Tassanee Jiaphasuanan, Amnat Chidthaisong, and Sirintornthep Towprayoon</i> | Thailand |
| Env-11 | Ketonization of Long Chain Esters over Metal Oxide Catalyst<br><i>Siriporn Petlert, Malee Santikunaporn, and Suchada Butnart</i>  | Thailand |

**10:30 – 10:45 Coffee / Tea Break**

**10:45 – 12:00 ENERGY III Tubtim**  
**Session Chairman: Dr. Cattareeya Suwanasri, Department of Electrical and Computer Engineering, Faculty of Engineering, Naresuan University, Phitsanulok, Thailand**

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|------|---|----------|
| E-06 | Case Study of Ground Potential Rise on Two Neighboring Substations<br><i>W. Pobporm and A. Phayomhom</i>  | Thailand |
| E-12 | Study on Capacitance from Sweeping Time Measurement an Effect of I-V Curves of Amorphous Silicon PV Module<br><i>Nitikorn Silsirivanich, Dhirayut Chenvidhya, Krissanapong Kiratikara, Kobsak Sriprapha, Jaran Sritharathikhun, Chaya Jivacate, and Chamnan Limsakul</i>                          | Thailand |
| E-13 | The Optimal Design of Lighting System for Designated Office Building in GMS<br><i>Surasak Panjavarant, Pornrapeepat Bhasaputra, Woraratana Pattaraprakorn, Kitti Tirawannavit, Chaiyapat Kumpeerakupt, Somkuan Rimsmutchai, Natapongkorn Pawanawichien, Wichit Krueasuk and Panupon Samerpark</i> | Thailand |
| E-14 | The Optimal Energy Management for Lighting of Bank in GMS countries<br><i>Chaiyapat Kumpeerakupt, Somkuan Rimsmutchai, Pornrapeepat Bhasaputra, Woraratana Pattaraprakorn, Natapongkorn Pawanawichien, Surasak Tirawannavit, Kitti Tirawannavit, Panupon Samerpark, and Wichit Krueasuk</i>       | Thailand |
| E-15 | A Study and design of Organic Rankine Cycle Machanine<br><i>K. Thawichsri, V. Monyakul, S. Thepa, C. Jivacate and K. Sudaprasert</i>  | Thailand |

**10:45 – 12:00 SUSTAINABLE DEVELOPMENT II / BIOTECHNOLOGY Morrakot**

**Session Chairman: TBA**

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| SD-02  | Towards a Unified Strategy for the Economic Development of Indigenous Ethnobotanicals in the GMS, Via a Global Market Review and Best Practice Analysis<br><i>Dominic Darbyshire</i> | Thailand |
| SD-03  | Strategic CSR for Thai Multinational Corporate in ASEAN<br><i>Sirintorn Liengjindathaworn</i>  | Thailand |
| SD-04  | Future of Functional Foods and Nutraceutical Products: The Challenge and Potential of Thailand to ASEAN<br><i>Pornpirat Kantatasiri</i>  | Thailand |
| SD-05  | Development Dynamics in the Greater Mekong Sub-Region – Trans-Boundary Routes of Human Insecurity –<br><i>Gianluca Bonanno</i>   | Japan    |
| Bio-01 | Comparison on Cultivation of <i>Lentinus polychrous</i> Lev. on Log of 5 Species of Tree<br><i>Somchai Rattanamalee</i>  | Thailand |

**12:00 - 13:00 Lunch**

**13:00 – 13.30** Keynote Address III: “Smart Grid Initiative and Roadmap in Tubtim

Thailand”  
 Mr. Weerachai Koykul, Deputy Governor (Network Operation), PEA, Bangkok, Thailand

**13:30 – 15:00 Day Three Parallel Sessions (Afternoon Session)**

**13:30 – 15:00 ENERGY IV Tubtim**  
**Session Chairman: TBC**

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| E-16 | Economic Rent from Hydropower Development In the Case of Lao PDR<br><i>Chansaveng Boungnon and Daovong Phonekeo</i>  | Laos     |
| E-17 | Production of Synthetic Hydrocarbons from Palm Oil<br><i>Tattep Techopittayakul, Malee Santikunaporn, and Suchada Butnart</i>  | Thailand |
| E-18 | A Cheap Synthetic Route to Commercial Ruthenium N3 Dye for Sensitizing Solar Cell Applications<br><i>Yuranaan Thathong, Kittiya Wongkhan, and Rukkiat Jitchati</i>   | Thailand |
| E-19 | Applications LED Lamps for Lighting System in the Thailand Convenience Stores<br><i>Kitti Tirawannavit, Panupon Samerpark, Wichit Krueasuk, Pornrapeepat Bhasaputra, and Woraratana Pattaraprakorn</i>   | Thailand |
| E-20 | Communication Disaster Recovery in Thailand<br><i>Kreingkrai Chongkhanpond, Pornrapeepat Bhasaputra, Woraratana Pattaraprakorn, Somkuan Rimsamutthai, and Wichit Krueasuk</i>  | Thailand |
| E-23 | Sliding Mode Control Using Particle Swarm Optimization Technique<br><i>Somporn Tiacharoen</i>  | Thailand |
| E-25 | The Optimal Energy Management of Hybrid Cooling System for Telephone Exchange in Thailand<br><i>Somkuan Rimsmutchai, Pornrapeepat Bhasaputra, Woraratana Pattaraprakorn, Natapongkorn Pawanawichien, Surasak Panjavarant, Chaiyapat Kumpeerakupt, Kitti Tirawannavit and Wichit Krueasuk</i> | Thailand |

**13:30 – 15:00 ENVIRONMENT III Morrakot**  
**Session Chairman : Mr. Cherid Kalayanamitr, Chief of Environmental Impact Assessment Department, Project Environmental Division, Electricity Generating Authority of Thailand (EGAT), Thailand**

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| Env-12 | Removal of Methyl Orange from Synthetic Wastewater onto Chitosan-Coated-Montmorillonite Clay in Fixed-Beds<br><i>C. Umpuch and S. Sakaew</i>  | Thailand |
| Env-13 | Recycling Solid Plastic Waste: A Review of Property Improvements<br><i>Tiammanee Weerasak, Sompop Sanongraj, Wipada Sanongraj, and Adun Janyalertadun</i>   | Thailand |
| Env-14 | Comparison of Characteristics and Qualities of Pyrolytic Oil and Distilled Pyrolytic Oil from Municipal Plastic Wastes<br>Case Study: Warinchamrap Municipality<br><i>Rungnapa Tubnonghee, Sompop Sanongraj, Wipada Sanongraj, and Adun Janyalertadun</i> | Thailand |
| Env-15 | Alternative Fuels and Their Roles on Surface Ozone: A Case Study of Chon Buri City, Thailand<br><i>Thayukorn Prabamroong, Kasemsan Manomaiphiboon, Chatinai Chusai, and Sirapong Sooktawee</i>  | Thailand |
| Env-19 | Effect of Calcination Temperature on Strength and Microstructure of Synthetic Geopolymer from Water Treatment Residue<br><i>N. Waijarean, S. Asavapisit and K. Sombatsompop</i>   | Thailand |

**15:00 – 15:15 Coffee / Tea Break**

**15:15 – 17:00 ENVIRONMENT IV / NRM Tubtim**  
**Session Chairman: Mr. Cherid Kalayanamitr, Chief of Environmental Impact Assessment Department, Project Environmental Division, Electricity Generating Authority of Thailand (EGAT), Thailand**

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| Env-17 | Arsenic Contamination in Environment in Gold Mine Vicinity<br><i>Thanes Veerasiri, Wanpen Wirojanagud, and Thares Srisatit</i>                                   | <i>Thailand</i>  |
| Env-18 | Green Organization Model from Life Cycle Assessment of Hard Disk Drive<br><i>Jitti Nimmuch, Vorapoch Angkasith, Dhirananta Rithmanee</i>                         | <i>Thailand</i>  |
| NRM-01 | Drought Index Prediction Model for Khon Kaen Province<br><i>Titinun Pongnam and Vichian Plermkamom</i>   | <i>Thailand</i>  |
| NRM-02 | Coastal Residents and Coastal Erosion: Socio-Demographic Characteristics and Patterns of Response<br><i>Chatchai Intatha, Pierre Horwitz, and Andrea Hinwood</i> | <i>Australia</i> |

**15:15 – 17:00**      **SUSTAINABLE DEVELOPMENT III /**      **Morarakot**  
**MECHANICAL ENGINEERING**

**Session Chairman: Assoc. Prof. Dr. Wanpen Wirojanagud, Department of Environmental Engineering, Faculty of Engineering, Khon Kaen University, Khon Kaen, Thailand**

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| SD-06 | The Establishment of Sustainable Competitive Advantage of Rice Exporter through ASEAN's Market: A Case Study<br><i>Tawamin Kruasom</i>  | <i>Thailand</i> |
| SD-07 | Are We Walking Hand in Hand? The Case of AEC: Accounting Harmonization in Measurement Practices<br><i>Napaporn Likitwongkajon</i>   | <i>Thailand</i> |
| SD-09 | Community Participation on Water Resource Conflict Management of the Pong Watershed<br><i>Chanya Apipalakul, Wanpen Wirojanagud, and Srirat Suwannakom</i>  | <i>Thailand</i> |
| SD-10 | Thai Alcoholic Beverage and ASEAN Economics Community<br><i>Jarun Boonachai and Sirirak Khaochaimaha</i>  | <i>Thailand</i> |
| ME-01 | Combustion Characteristics of a Dual Fuel Compression Ignition Engine Operation with Pilot Diesel Fuel and Producer Gas<br><i>Pisarn Sombatwong, Prachasanti Thaiyasuit and Kulachate Pianthong</i> | <i>Thailand</i> |

**17:00 – 17:15**      **Closing Remark by** Assoc. Prof. Dr. Weerakorn Ongsakul,      **Tubtim**  
GMSARN Secretary General