

SDSE
2008

2nd
ANNOUNCEMENT

INTERNATIONAL CONFERENCE on the
Occasion of the 4th Cycle Celebration of KMUTT
**Sustainable Development
to Save the Earth**
Technologies and Strategies Vision 2050

SDSE 2008

Millennium Hilton Bangkok Hotel
Bangkok, Thailand 11 - 13 December 2008

ORGANIZED BY



KING MONGKUT'S
UNIVERSITY of
TECHNOLOGY
THONBURI

Invitation

Welcome to SDSE 2008

KMUTT would like to invite you to Thailand to join us celebrate our 4th Cycle or 48th Anniversary in our Commemorative International Conference: Sustainable Development to Save the Earth: Technologies and Strategies Vision 2050. The conference will be held from 11-13 December 2008 in Bangkok.

This conference covers range of topics in science, technology and engineering to address the past achievement and to message the vision of technologies and strategies in term of sustainable development concerns in the future world. In this regard, it is our delight to announce that Professor Hideki Shirakawa, 2000 Nobel Laureate in Chemistry, will deliver special lecture to our event. The conference will be divided into various topics and sessions or sub-conferences covering energy, engineering, architecture and science.

We would like to invite you to submit a paper or expression of interest and we look forward to welcoming you to Bangkok in December.

Assoc. Prof. Dr. **Kraiwood Kiattikomol**
KMUTT President



Conference Venue

Millenium Hilton Bangkok Hotel
123 Charoennakorn Road, Klongsan, Bangkok, Thailand 10600
Tel: 66 2 442 2000 Fax: 66 2 442 2020
<http://www.bangkok.hilton.com>

Conference Dates

11 – 13 December 2008

Honorable Speaker



Professor **Hideki Shirakawa**

The Nobel Prize in Chemistry 2000, for the discovery and development of conductive polymers with Dr. Alan J. Heeger (University of California, Santa Barbara, USA) and Dr. Alan G. MacDiarmid (University of Pennsylvania, USA)



History

King Mongkut's University of Technology Thonburi (KMUTT) was initially established as the Thonburi Technology Institute under the Ministry of Education, later become King Mongkut's Institute of Technology Thonburi and then King Mongkut's University of Technology Thonburi as it is today. The University has provided academic and research services for 48 years or 4 cycles in 2008. During this nearly half a century period, KMUTT has accumulated a wealth of experience as well as many initiatives. The most outstanding achievement was that KMUTT, since 1998, became the first fully autonomous public university in Thailand.

KMUTT has put prime emphasis on teaching and technological research both at undergraduate and graduate levels. Its wide range of research work, patents and inventions are evident both in national and international arenas and it has been deemed by the Commission on Higher Education to be both an excellent research university and an outstanding teaching university.

OBJECTIVE

1. To be a part of KMUTT 4th cycle celebration.
2. To exchange information on technologies and new knowledge development among scientists and researchers in related area in order to promote and initiate sustainable sound technologies and strategies in Asian and Southeast Asian region.
3. To enhance and strengthen academic cooperation among Asian countries, and search for further cooperation in term of technologies and strategies development.

STRUCTURE OF CONFERENCE

The main conference of SDSE 2008 addresses the vision to save the earth with an emphasis on both technologies and strategies by Nobel laureates and world class invited speakers during the plenary session. Four parallel sessions or sub-conferences will be conducted under the umbrella theme of sustainable development to save the earth. These sub-conferences fall within KMUTT's expertise and are co-organized by various faculties. The final day will include a panel discussion to summarize how the technologies and strategies proposed in these important sub-conferences can be integrated towards a 2050 vision to save the earth. Participants can expect to benefit from all of the sub-conferences, as well as the main conference and the panel discussion on the last day. Poster sessions as well as a major technology exhibition will be held throughout the conference period in specific provided areas.



***Energy* Sub-conference A**

Integrated Approach to Sustainable Energy, Environment and Materials

Topic A1: Sustainable Energy

The theme for this topic is a multi-disciplinary focus on activities relating to the development, assessment and management of energy-related subjects. It is intended to provide some unison in seeking alternative energy solutions in terms of both technology and management to address both current issues and to look beyond to the future effects of energy use, such as the greenhouse effect and depletion of the ozone layer. The following topics are among the areas in which important contributions are solicited:

A1.1 Clean Energy

- Fossil fuels (clean & cleaner)
- Combustion, cogeneration and gasification
- New technologies in power generation and distribution
- Advanced batteries
- Hydrogen and fuel cells

A1.2 Renewable Energy Technologies

- Hydropower
- Solar Energy
- Bioenergy: Biofuels, Biogas and Biodiesel
- Wind Energy

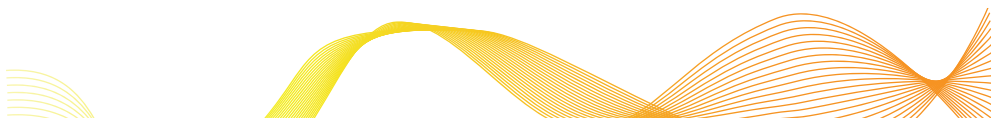
A1.3 Energy Efficiency and Management

- Energy survey and audit
- Energy efficiency improvement
- Energy-intensive process control systems
- Energy storage management
- Energy education
- Energy policy and environment
- Materials supporting energy and environment
- Special topic on closing the energy and environment cycles
- Heating, ventilation and cooling: Issues, application and analysis
- Electrical power and energy
- Reduction of energy waste
- Recycling technology
- Heat and mass transfer
- Integrated resource management
- Transportation
- Materials science technology

Topic A2: Atmospheric and Climate Change

This theme is dedicated to investigation and better understanding of observable change of the atmosphere and climate, and the resultant implications. This theme, together with possible alleviation options will include the following and related topics:

- Local and regional air pollution
- Air pollutants and greenhouse gas emissions (biogenic, anthropogenic and natural sources)
- Long-range and trans-boundary transport of air pollutants (acid deposition, ASEAN trans-boundary haze, etc.)
- Air pollution and climate change (impacts of climate change on air quality, impacts of air pollution on climate change, etc.)
- Atmospheric and air quality modelling (meteorological modelling, regional weather modelling, etc.)
- Atmospheric and oceanic modelling (atmosphere-ocean interaction, atmosphere-ocean exchange, etc.)
- Climate modelling (global and regional climate modelling)
- Impacts of climate change on local and regional environment and economy (agriculture, industry, communities, etc.)
- Air pollution and climate change mitigation options
- Regional environment adaptation to climate change



Engineering Sub-conference B

Emerging Trends in Engineering and Technology

Topic B1: Emerging Trends in Engineering and Technology

All innovative engineering and technologies are invited to join in this session. The theme is dedicated to the novel findings of frontier technology and the integration of multi-disciplinary knowledge, all providing future sustainable development. Topics include, but are not limited to:

- Systems engineering
- Chemical engineering
- Mechanics and robotics
- Material science and engineering
- Food engineering and technology
- Simulation, computational and modeling
- Nanotechnology, smart materials and structures
- Genetic algorithms and evolutionary computation
- Intelligent control, sensor network, microelectronics
- Artificial intelligence, neural networks, image processing
- Thermal engineering and heat transfer
- Biological/biomedical engineering
- Industrial and manufacturing process
- Computer software and applications
- Electronics and devices technology
- Civil and infrastructure engineering

Topic B2: Intelligent Environments

The Intelligent Environment envisages a location that is equipped with sensors, actuators and computers that are networked with each other and the Internet. Types of Intelligent Environments range from private to public and from fixed to mobile objects. The theme of this topic is not limited to only one discipline, rather the convergence and integration of different skills and technologies, all addressing the requirements for living in an Intelligent Environment. This will include management of resources and the provision of security at all levels, from individuals to the public at large.

- Computer science
- Ambient intelligence
- Knowledge management
- Human-computer interaction
- Networking and communications
- Solutions, information technology
- Rehabilitation devices and systems
- Robotic systems
- Virtual environments
- Smart sensors and actuators
- Transportation
- Software engineering
- Context aware computing

Topic B3: Environmental Protection

The theme of this topic will feature promising management and technology solutions incorporating sustainable concepts for environmental protection. The focus will be on practical management, innovative technologies and analytical assessments. Other topics relevant to this theme are also welcome:

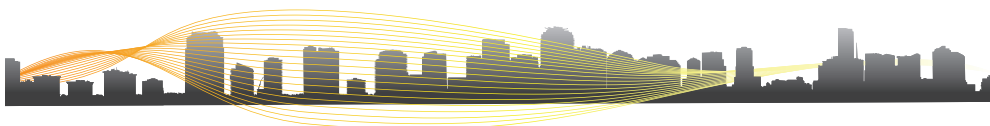
- Pollution abatement technology
- Life cycle analysis
- Impact and risk assessments
- Contaminated site remediation
- Environment, health and safety technology
- Measurement and analysis in environmental protection
- Point and non-point source pollution
- Cleaner production technology
- Fate and transport of pollutants
- Environmental management systems

Architecture Sub-conference C

Integrated Approach in Design and Planning

A sustainable future will not be realized with the developments in science and technology alone. It is rather the integration of appropriate technologies with the needs - both physical and emotional - of people and society that will count. Design and planning is a field dedicated to investigating and to better understanding of human needs and behaviour in order to create appropriate media, products, buildings, or an environment that can support people's activities and improve their quality of life. This sub-theme thus focuses on how design and planning educators and practitioners can contribute to sustainable development through design education, design and thinking processes and production. Ranging from the product used, the media viewed and the built environment enjoyed in people's everyday life, thinking processes that can be used in creating the design to make the outcome sustainable.

- Communication design
- Design for humanity
- Design education
- Human centered design
- Design management
- Innovative building systems design and construction
- Indoor environment quality (acoustics, IAQ, thermal comfort, lighting)
- Remote sensing, geographic information, modelling and decision support systems
- Design theories and criticism
- Green architecture
- Conservation and preservation
- Urban management and planning
- Social and public participation



Science Sub-Conference D

Pure and Applied Science Approaches to Save the Earth

Science, both pure and applied knowledge, plays an initial and basic role in all aspects of technology and development. Advances in science create a better living for mankind, however, without thoughtful application they could end up with negative impacts to the earth and its ecology. The main propose of this sub-conference is to initiate and stimulate international discussion on potential sustainable development through the use of knowledge gained from the pure and applied sciences that could contribute towards saving the earth. It is hoped that the conference will generate shared solutions to the SDSE.

- Applied statistics
- Pure and applied biology
- Pure and applied mathematics, computation
- Environmental science and applications
- Agricultural science and applied microbiology
- Pure and applied chemistry, computational chemistry
- Environmental impact assessment, risk assessments and LCA
- Pure and applied physics, theoretical and computational physics
- Nanoscience and materials
- Polymer science and applications
- Food science and technology
- Science education (all disciplines)

Call for Papers

Interested contributors to the International Conference “SDSE 2008” are invited to submit abstracts in English for oral/and or poster presentation by 31 July 2008. The submitted abstracts will be subject to peer review. Notification of acceptance will be delivered after 15 August 2008. The author(s) will then be requested to submit the full paper no later than 31 October 2008.

Papers accepted for oral presentation will be given 15 minutes presentation time and 5 minutes questions and answers. Authors of papers accepted for poster presentation will be given 5 minutes presentation time during special sessions organized to this end.

Authors wishing to submit a contribution should carefully read the following instructions and send their abstract(s) online through the conference website (www.SDSE2008.com)

Intending authors are invited to submit an **ABSTRACT** (in MS word format) on topics within the scope of the conference in not more than 1 page of A4 size paper. The abstract should indicate the topic under which it is being submitted (A, B, C, D) and include a maximum of 5 key words. The abstract should clearly indicate the purpose of the work, approach and significant results. Abstract must be prepared on single side, single column, (all margins should be set at 2.5cm), single space type written form and must include the following information:

- Applicable topic (12-point font size, Times New Roman font)
- Full title of the paper (14-point font size, Times New Roman font)
- Full names of the author and co-author(s) (11-point font size, Times New Roman font), and respective affiliation (10-point font size, Times New Roman font)
- Tel, fax and e-mail address of the corresponding author (10-point font size, Times New Roman font)
- Main text (11-point font size, Times New Roman font)

Under no circumstances should the extended abstract exceed 1 page (size A4, 210 mm × 297 mm). Only contributions complying with the above specifications will be considered for review.

The authors are required to submit a full paper once the abstract is accepted. Final acceptance of the full paper is subject to confirmation of registration of the author presenter of the paper at the congress. Any author who does not meet all announced deadlines and requirements will not be allowed to present the paper at the conference. In this case, the corresponding paper will not be included in the conference proceedings.

Full Paper Submission

Authors notified of the acceptance of their abstract(s) for presentation at the “SDSE 2008” Conference are required to submit the full paper of their manuscript(s) for publication in the proceedings within the deadline for complete manuscript submission of 31 October 2008.

Authors are required to write the A4 size full-text manuscript (no longer than 6 camera-ready pages) using format of the template provided at www.SDSE2008.com. The full paper is to be submitted online through the conference website (www.SDSE2008.com).

Important Dates

31 July 2008	Deadline for extended abstract submission
15 August 2008	Notification of acceptance
31 October 2008	Deadline for full paper submission
31 October 2008	Deadline for early registration

Secretariat of SDSE2008

Ms. Anchana Boondarigpornpant

The Graduate and International Office

King Mongkut's University of Technology Thonburi

126 Pracha-Uthit Road, Bangmod, Tungkru, Bangkok 10140, Thailand

Tel: (662) 4708344

Conference website: www.SDSE2008.com, Email: SDSE2008@kmutt.ac.th

Tentative Program

Thursday 11.12.2008

8:00 - 9:00	On-site Registration
9:00 - 10:30	Plenary Session Opening Ceremony
10:30 - 11:00	Coffee Break
11:00 - 12:30	Plenary Session Keynote Address by Professor Hideki Shirakawa
12:30 - 14:00	Lunch & Poster
14:00 - 15:30	Parallel Session Sub-conference A Sub-conference B Sub-conference C Sub-conference D
15:30 - 16:00	Coffee Break & Poster
16:00 - 17:30	Parallel Session Sub-conference A Sub-conference B Sub-conference C Sub-conference D
18:00 - 20:00	Welcome Banquet

Friday 12.12.2008

8:00 - 9:00	On-site Registration
9:00 - 10:30	Parallel Session Sub-conference A Sub-conference B Sub-conference C Sub-conference D
10:30 - 11:00	Coffee Break
11:00 - 12:30	Parallel Session Sub-conference A Sub-conference B Sub-conference C Sub-conference D
12:30 - 14:00	Lunch & Poster
14:00 - 15:30	Parallel Session Sub-conference A Sub-conference B Sub-conference C Sub-conference D
15:30 - 16:00	Coffee Break & Poster
16:00 - 17:30	Parallel Session Sub-conference A Sub-conference B Sub-conference C Sub-conference D

Saturday 13.12.2008

8:00 - 9:00	On-site Registration
9:00 - 10:30	Parallel Session Sub-conference A Sub-conference B Sub-conference C Sub-conference D
10:30 - 11:00	Coffee Break
11:00 - 12:30	Parallel Session Sub-conference A Sub-conference B Sub-conference C Sub-conference D
12:30 - 14:00	Lunch & Poster
14:00 - 15:30	Plenary Session Closing Ceremony

Parallel Sessions

Outstanding invited speakers to the “SDSE 2008” Conference will launch the parallel sessions followed by authors whose paper was selected after peer by the Advisory and Technical Committees.

Poster Session

Papers selected for poster presentation after peer review by the Advisory and Technical Committees, will be displayed at the “SDSE 2008” Conference at an area specially reserved for this purpose. Special poster sessions will also be organised to accommodate short presentations by the authors of posters.

Selected papers will be elected to publish in International Journal of Environmental Engineering Sciences, Journal of Sustainable energy and environment, and KMUTT Research and Development Journal. See details in website.

Registration Fee

Categories	Early registration	Late registration
OECD countries	17,500 BHT	20,000 BHT
Other countries	8,800 BHT	11,000 BHT
Int. students	7,000 BHT	8,800 BHT
Local participants	6,000 BHT	7,500 BHT
Local students	3,000 BHT	3,000 BHT

The registration fee includes all scientific sessions of the conference, hard copy and CD-Rom of the proceedings, all conference materials, luncheons and coffee breaks.

A limited number of sponsorships for developing countries will be available.

Payment

Payment must be effected by CREDIT CARD for overseas participants, and pay-in slip for local participants. Registration online through our Website is recommended.

Details on the Payment are available on www.SDSE2008.com

The original receipt of payment will be given to the participant at the on-site registration counter.

Cancellation

The deposit will be refunded (less 50% for administration charges) only upon written cancellation addressed to the Secretariat, before November 10, 2008. No refunds will be made after that.

EXHIBITION

The Organizing Committee would like to extend an invitation to all exhibitors interested in showcasing their products. The Exhibition will be open during 11 - 13 December 2008 from 10.00am to 6.00pm. Every effort will be made to make sure that participation at the Exhibition be fulfilling and productive for attendees and exhibitors. The Commercial Exhibition will be an integral part of the Scientific Program of the conference. Companies offering innovative products in this field are encouraged to seize the opportunity to exhibit. The Scientific Program of the congress is guaranteed to attract top professionals in the field. The exhibition will provide an opportunity for all delegates to gain insight innovative technologies and to network with major industry contacts. Also, participants will be given time during the event to visit the Exhibition.

Booth Rental and Fee

Standard booth rental	100,000 BHT	eight square meters space with one table and chairs
Small booth rental	50,000 BHT	four square meters space

Rental for the exhibition space also includes:

Full registration for 2 persons for standard booth and 1 person for small booth (coffee break, luncheons, conference program and proceedings as well as list of attendees), and the exhibitor logo insertion in the program of the event.

ACCOMMODATION

Millenium Hilton Bangkok Hotel

ROOM CATEGORY	YOUR RATE (BHT)	
	Single	Double
Deluxe Room	4,000	4,400
Executive Room	5,600	6,000
Executive Suite	6,400	6,800

* Room reservation through conference website only.

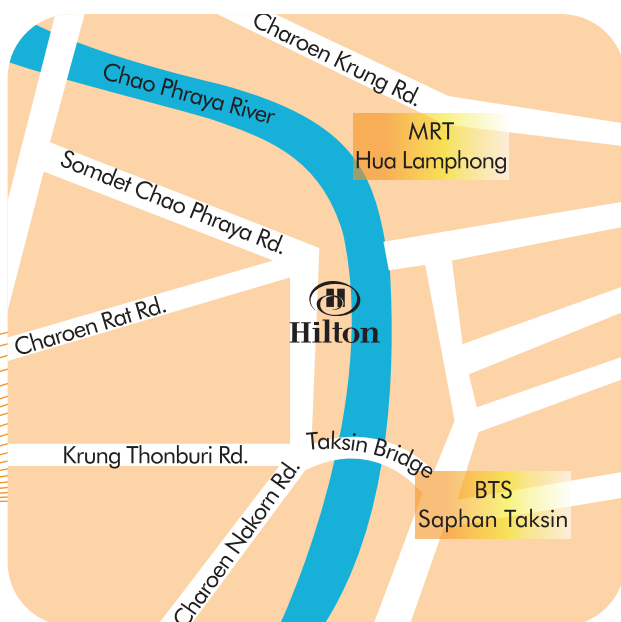
Payment

Payment must be effected by CREDIT CARD (VISA/Master Card). For other details, please refer to hotel's website.

For alternative accommodation address, please refre to website.

Direction to Conference venue

Millennium Hilton Bangkok Hotel is located on Chao Praya River in central Bangkok, with 45 minutes' drive from Suvarnabhumi Airport. From Saphan Taksin BTS SkyTrain Station or City shopping center, use free shuttle boat (10 minute) to the hotel.



About Bangkok

For Tourists, Bangkok has a feast of attractions to offer. The city is dotted with 400 glittering Buddhist temples of great beauty and fascination, magnificent palaces, classical dance extravaganzas, numerous shopping centers and traditional ways of life, especially along the "Venice of the East" timeless canals and the Chao Phraya River of the "River of Kings" winding through the city. It is worth taking a trip along its waters before exploring further into different canals to take a glimpse of old Bangkok.

Useful tourist information on Bangkok can be obtained from the official website of the Bangkok Tourism. Division: www.bangkoktourist.com

From Suvarnabhumi Airport to Bangkok

Taxi from airport to hotel is approximately 300 baht or take shuttle bus (express route) to bus terminal and take city bus to Bangkok. City bus No. 552 (yellow route) leave Suvarnabhumi airport to On Nut BTS station where you can connect to BTS skytrains.

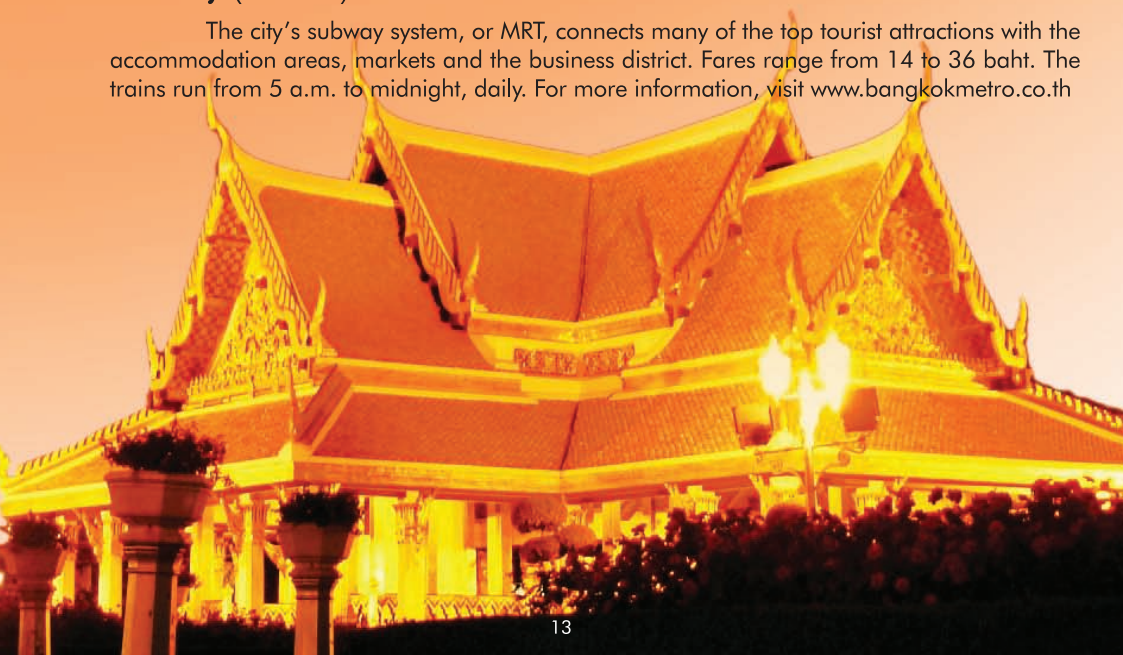
Travel inside Bangkok

BTS Sky Trains

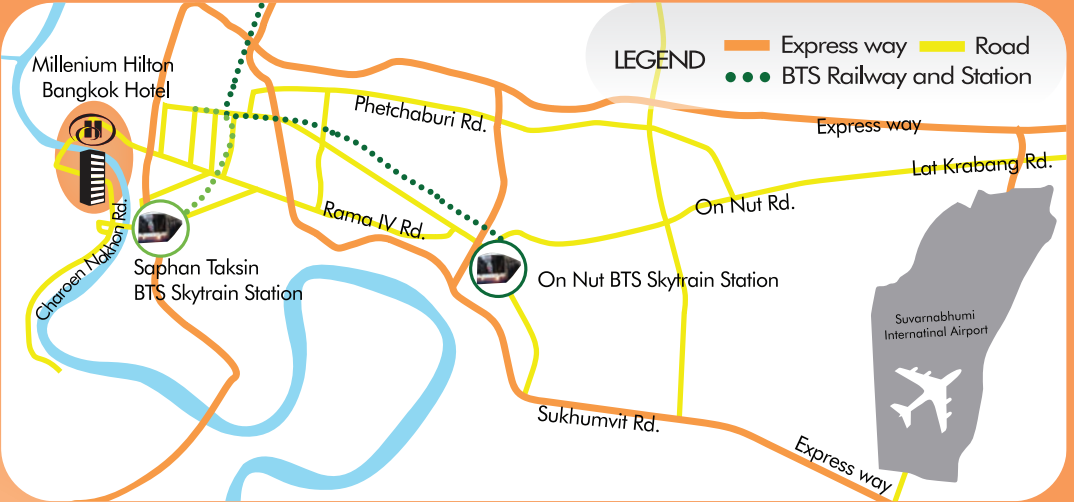
BTS sky trains fly along Sukhumvit, Silom and Phahonyothin roads. The routes connect Bangkok's leading hotels and major shopping areas such as Siam Square, Silom, Ratchaprasong and Chatuchak Weekend Market. The fare ranges from 15-40 Baht according to the distance. For more information, contact the Bangkok Mass Transit System at tel: 0 2617 7300 or visit www.bts.co.th

Subway (Metro)

The city's subway system, or MRT, connects many of the top tourist attractions with the accommodation areas, markets and the business district. Fares range from 14 to 36 baht. The trains run from 5 a.m. to midnight, daily. For more information, visit www.bangkokmetro.co.th



Map from Suvarnabhumi airport to Conference venue



Sky Train (BTS) and Subway (MRT) Map



