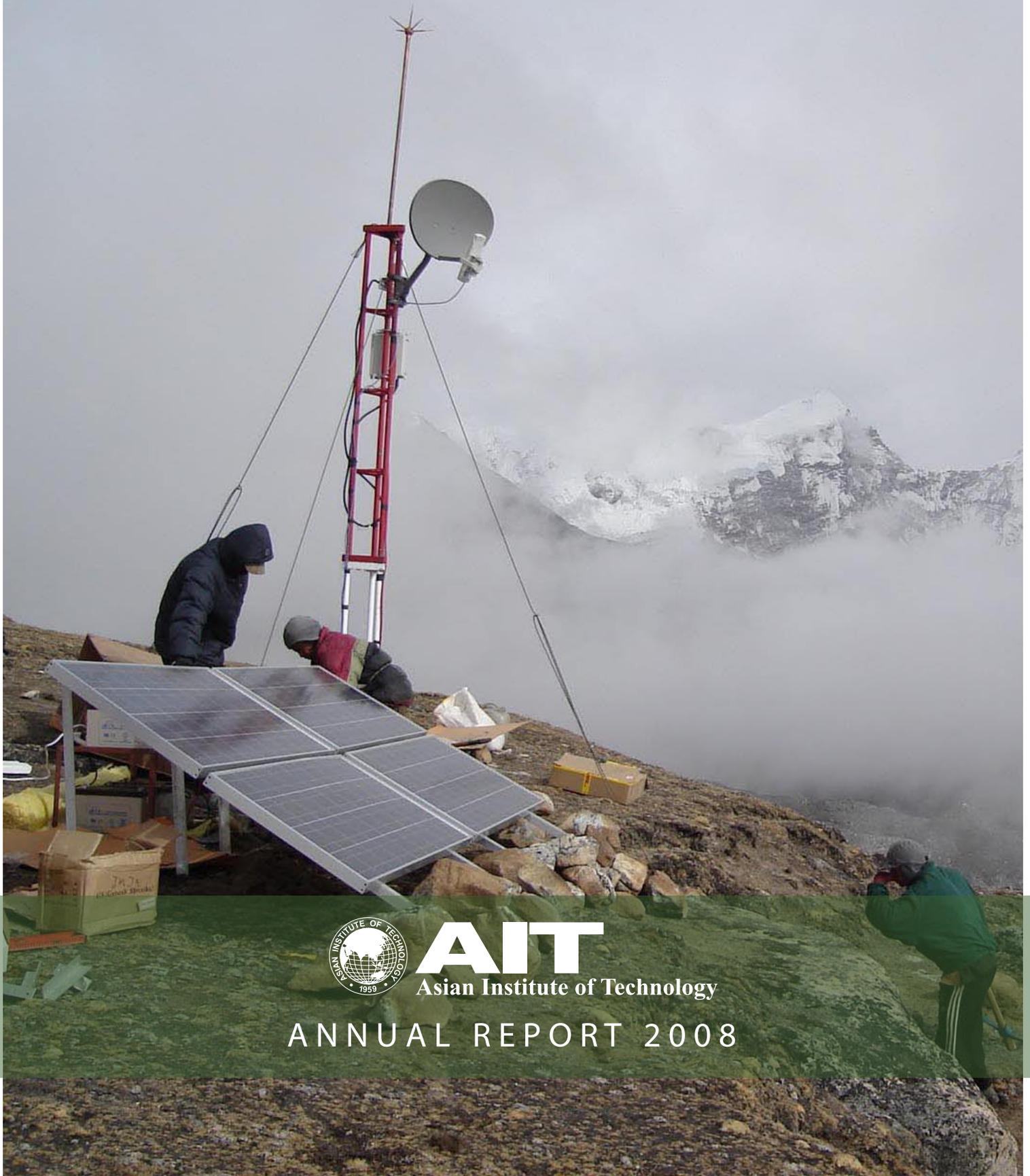


# ASIAN INSTITUTE OF TECHNOLOGY

Networked to New Frontiers in **2008**



# AIT

Asian Institute of Technology

ANNUAL REPORT 2008



**Cover photo: Scaling new heights in the Himalayas**

An AIT Remote Sensing & Geographic Information Systems study team and researchers from Japan's Keio University monitor glacial lake outbursts by applying ubiquitous geo-informatics and sensor technologies. Their research and outreach activities are intended to warn and mobilize rural dwellers and affected communities of the possibility of catastrophic floods owing to melting glaciers in the Himalaya mountain range.

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# CHAIRMAN'S MESSAGE

On behalf of the Board of Trustees, please allow me to share my pride and sense of accomplishment that comes with the conclusion of another successful year at the Asian Institute of Technology.

The year 2008 was highly significant for AIT. It saw the final evolution of the new Charter, which will be open for signing and ratification by states and international entities, including those which are currently on the AIT Board as well as new states and international entities. Under this new AIT Charter, the Institute will fully operate as a non-profit, non-political, autonomous, regional organization, international / inter-governmental in status, and respectful of diversity in management, staffing and operations.

This is of vital importance since it is education which serves as the foundation for positive social and economic development of any society, country or region. Founded in 1959, AIT has played an important role in the development of scientific and technological competence and capacity for the Asian region and beyond.

In an interconnected world, AIT's internationality is its true strength. The Institute's international vocation and its close interactions with institutions throughout the region and the world have uniquely positioned it to reach out to stakeholders at all levels in Asia and around the world. By acting as a bridge between the local, regional and global, AIT enhances opportunities for partners to lift their knowledge base, raise their technological and scientific expertise, analyze needs and set priorities that would propel them into regional and global agendas.

While continuing to serve Southeast Asia, South Asia, and East Asia, AIT is expanding its coverage to Central and West Asia as well as to the Middle East and Africa. It is by extending learning, research and outreach in this way, through mutually beneficial partnerships into areas in need of expertise and education, that AIT proves its uniqueness and value as a force for progressive change and sustainable development for the world as a whole.

Even as much was accomplished in 2008, many challenges lie ahead, but with every new challenge comes an opportunity. As Chairman of the Board of Trustees, I wish to thank the members of the Board, the faculty, staff, students, alumni, partners, stakeholders and friends for their valuable contributions over the course of the year. It is their dedication and support which keeps the Institute dynamic and sustains its move forward in the years to come.

**H.E. Dr. Tej Bunnag**  
CHAIRMAN OF THE BOARD OF TRUSTEES  
ASIAN INSTITUTE OF TECHNOLOGY



# PRESIDENT'S MESSAGE

This Annual Report presents an overview of the main work and activities of the Asian Institute of Technology in 2008. The year was full of memorable highlights and some landmark initiatives that bode well for the future of our Institute. It is hoped that this report tells some of the story of the dedicated work done by our faculty, staff, students, alumni, partners and stakeholders who contribute to making AIT such a special and unique institution of higher learning.

I am pleased to report several favorable outcomes in terms of finances, student enrolments and in the development of new and innovative approaches to academics and research. By stressing overall efficiency and quality in terms of our administrative structure, we were able to preserve vital resources for AIT's core work of research, education and outreach activities. Indeed, AIT aimed to build on its successful past performances by strengthening its ability to deliver quality teaching and learning against the backdrop of a rapidly changing landscape for higher learning. In response to changing priorities of our funding and development partners active in the region, AIT emphasized strategic public-private partnerships across key domains.

As an "Asian Institute of Technology" situated in the region experiencing the greatest growth in demand for higher education, AIT availed of encouraging opportunities in emerging markets in Central Asia, West Asia, and Africa. In the 21st century, learning is very much a lifetime endeavor, and AIT worked during the year to capitalize on the increased demand for education for professionals. Consequently, we committed ourselves to working closely with the professions by launching a number of new professional programs as well as unified or integrated bachelor-master and master-Ph.D. programs with partner institutions. To respond to the emerging needs of the region, AIT also initiated work on developing a new five-year strategic framework for 2009 to 2013 to be called Strategy 2013. The new AIT Charter, which will accord our Institute full-fledged international and intergovernmental organization status, will contribute to our long term success by enabling AIT to take on a much stronger and proactive regional as well as global role, together with our partners.

During the year we undertook bold steps to deliver appropriate education and expertise to new frontiers of the continent through progressive approaches for building capacity of people and institutions. AIT reaffirmed its core strength as a Regional Network Institute by assisting people and institutions to participate in economic and development networks. A notable example of this approach was the Poverty Reduction and Agriculture Management (PRAM) initiative, which was the Greater Mekong Sub-region's first international professional bachelors program. With AIT acting as the bridge, Asia-Africa collaboration in science and technology also took hold during the year in partnership with the Ministry of Foreign Affairs of Thailand. Moreover, through our partnership with the Ministry of Higher Education, Islamic Republic of Afghanistan, and the World Bank, in 2008 AIT supported the strategic planning, and implementation of the development and reform program of higher education institutions in Afghanistan.

The year 2008 may well be remembered as a watershed moment when global warming and collapsing economies jarred the planet's collective consciousness to consider sustainable approaches to living. As AIT approached its 50th anniversary, it responded to these great challenges by positioning itself as a regional educational and research thought leader to combat climate change and poverty. Significantly, in March, AIT was designated by the United Nations as the world's first Regional Center of Excellence on the Millennium Development Goals (MDGs). This recognized AIT as the permanent regional site dedicated to the promotion and achievement of the MDGs in Southeast Asia (ASEAN) through education and training. AIT also began to focus its research on climate change. Together with a number of partners, AIT laid the groundwork for an eventual center of excellence for the study of climate change adaptation and mitigation in the developing world.

Finally, it remains for me to express my deep appreciation to the members of the Board of Trustees, the Executive Committee, and all faculty, staff, students, alumni, partners, and friends for their hard work and dedication to making the Asian Institute of Technology great in 2008.

**Professor Said Irandoust**  
PRESIDENT  
ASIAN INSTITUTE OF TECHNOLOGY



# AIT Overview

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For nearly fifty years the Asian Institute of Technology has served the Asia-Pacific region and beyond with high-level academic education and research in engineering, technology, environment, development and management. AIT's vision is to be the continent's knowledge center and thought leader in technological innovation for sustainable development to foster a vibrant, prosperous Asia that leads the world in innovative responses to the greatest challenges of the 21st century: global climate change and poverty.

Situated 40 kilometers north of Bangkok, Thailand, in Pathumthani province, AIT is home to approximately 2300 students from more than 40 countries, some 150 academics from 30 countries, 100 research staff, 500 support staff, centers in Vietnam and Indonesia, and about 250 research and outreach projects. The AIT community extends far beyond its campus, including an extensive network of partners, over 16,000 alumni, and former faculty and staff working in a wide range of sectors within the region and around the world.

AIT is comprised of the School of Engineering and Technology, the School of Environment, Resources and Development, the School of Management, more than 30 established postgraduate programs, several research and outreach centers, and a continuing professional development center called the AIT Extension. Today, AIT's beautiful 160-hectare campus contains all the necessary facilities and elements for graduate students from many different cultures to live, study, learn, work, and thrive together.

### Climate Change Research

Studying ways to mitigate the impacts of climate change on threatened rural areas in Asia was high on AIT's agenda in 2008. Research conducted by the Asian Regional Research Program on Environmental Technology (ARRPET) (pictured) at the School of Environment, Resources and Development, was a prime example of AIT's approach.



# INSTITUTIONAL HIGHLIGHTS

## January

### NEW ALUMNI PRESIDENT AND ALUMNI ASSOCIATION ACTIVITIES

Mr. Somprasong Boonyachai, Executive Chairman of Shin Corporation Plc. and Advanced Info Service Plc, became the new AIT Alumni Association (AITAA) President, succeeding General Boonsrang Niumpradit, Commander-in-Chief of The Royal Thai Army. In 2008, the Alumni Association forged relationships between its 27 national chapters through meaningful exchanges and projects. AITAA embarked on several social responsibility activities ranging from an outreach program conducted with the AIT Student Union at a primary school in Chantaburi province, Thailand, to various charitable events held in Bangkok. AITAA also formally recognized two outstanding graduates, Mr. Cesar Ortinero (Philippines) and Mr. Nguyen Phan Bach Su (Vietnam), for their high academic achievements during the year.

## March

### KIDS-D: AIT TO BUILD DIGITAL LIBRARY FOR SCHOOLS

On March 17, 2008, AIT entered into a Memorandum of Understanding with Thailand's Office of Basic Education Commission (OBEC) and Srinakharinwirot University (SWU) to build a digital repository called KIDS-D, for use by primary and secondary schools. AIT's functions as the system developer by performing installations, capability training of staff, management and administration while OBEC and SWU supervise the content creation.



Mr. Somprasong Boonyachai (second from left) succeeds General Boonsrang Niumpradit (far left) as President of the AIT Alumni Association.

## May

### [V]THESIS COMPETITION AND YOUTUBE LAUNCH

In the run-up to the planned launch of AIT's video sharing YouTube site, a video competition for students called [v]thesis was organized by the Office of the Vice President for Academic Affairs (VPAA), the Student Union (SU) and the Media and Communications Unit (MCU). The competition measured contestants' abilities to convey an academic idea or research focus through video in a clear, concise and entertaining way. Eight graduating students presented creative visual interpretations of their research.

## June

### AIT OFFICIALS MEET NOBEL LAUREATE PROF. MUHAMMAD YUNUS

A delegation of officials representing the Asian Institute of Technology called on 2006 Nobel Peace Prize winner, Professor Muhammad Yunus, during his brief stay in Bangkok. The delegation, led by Acting AIT President Prof. Peter Haddawy, offered its welcome to the Nobel Laureate and exchanged a number of possibilities for future collaboration.

### AIT EMPOWERS THAILAND'S PROVINCIAL ELECTRICITY AUTHORITY

The Asian Institute of Technology partnered with the Provincial Electricity Authority (PEA) of Thailand by providing master's degree level scholar-



Professor Vilas Wuwongse, VP External Relations, (left) spearheaded the KIDS-D initiative.

ship opportunities for up to 40 PEA staff for the next four years. The education and research partnership was formalized with the signing of a Memorandum of Agreement at a ceremony on June 16 at the headquarters of PEA in Bangkok. PEA will provide opportunities for up to 10 staff per year to study in the Energy Field of Study at the School of Environment, Resources and Development (SERD). PEA and AIT also formalized an alliance for research and technology development for practical applications and transfer spin-offs.

During the year AIT housed the ASAIHL International Office to stimulate more initiatives, promote the organization, and increase the quality of service to members. Another key activity was the 2008 ASAIHL-Scopus Young Scientist Awards, a competition open to outstanding young scientists and researchers in the Asia-Pacific region who made significant contributions to scholarship and research.

## August

### ALUMNI TRACER STUDY BEGINS

A comprehensive survey by the External Relations and Communications Office (ERCO) of AIT's alumni began in August 2008. The Alumni Tracer Study sampled the opinions of one-quarter of AIT's more than 16,000 alumni. The study aimed to solicit empirical evidence of its performance to inform future strategic planning. AIT's first tracer study was completed in 1971. The periodic survey of alumni focuses on updating the alumni directory and gathering certain information required for the improvement of AIT's curriculum, teaching, learning, research, extension, and networking. This latest tracer study, which will be completed in January 2009, will include two reports. The first report focuses on all AIT graduates, and the second is specific to AIT graduates supported by Norwegian scholarships. The Government of Norway financed a major part of the Alumni Tracer Study.

## July

### SEMINAR ON "BECOMING A WORLD CLASS UNIVERSITY" WITH ASAIHL

AIT and the Association of Southeast Asian Institutions of Higher Learning (ASAIHL) conducted a seminar on "Becoming a World Class University Through Benchmarking & Innovation" in cooperation with Scopus and Quacquarelli Symbols (QS). The conference brought together over 70 participants from prestigious universities in Thailand and within the region. This knowledge exchange put forth current tools and technologies that gauge, compare and rank universities all over the world. Representatives from recognized independent agencies like QS, Elsevier and experts from top universities such as Kyushu University, Japan, delivered talks on topics on new university ranking methodologies, management strategy mapping, and emerging solutions for academic administrators. Originally based in Thailand, ASAIHL has since expanded beyond Southeast Asia to include 166 member universities in 17 countries across the Asia-Pacific region.



Professor Peter Haddawy, VP Academic Affairs, (left) and Prof. Muhammad Yunus.



President Said Irandoust (right) signs agreement with Thailand's Provincial Electricity Authority.



## Partnership with United Nations

March

### UN Secretary-General Ban Ki-moon endorses ASEAN Regional Center of Excellence on MDGs for AIT

This year the Secretary-General of the United Nations, H.E. Ban Ki-moon, gave his full endorsement for the creation of the ASEAN Regional Center of Excellence on Millennium Development Goals (MDGs) at the Asian Institute of Technology. The UN Head's message of endorsement was presented in a video address on March 25 to an international stakeholders meeting held at AIT titled "ECOSOC's Promotion and Achievement of Millennium Development Goals through Education and Outreach".

The creation of the ASEAN Regional Center of Excellence took place during a regional roundtable meeting on 24-25 March 2008 which was co-organized by the NGO section of the United Nations Department of Economic and Social Affairs (UNDESA), the United Nations Institute for Training and Research (UNITAR), UN-ECOSOC and AIT.

The two-day ASEAN Region Roundtable brought together over 100 high-level civil society members, including policy experts, opinion makers, as well as representatives of the United Nations, international organizations, nongovernmental organizations and academia, to deliberate on the challenges facing South-East Asian countries in achieving the eight Millennium Development Goals in time for 2015.

In his video message to the international meeting, Secretary-General Ban Ki-moon welcomed the launch of the ASEAN Regional Center of Excellence on MDGs at AIT. Secretary-General Ban said: "The new Center and its local and regional affiliates will provide continuity for your initiatives. They will also serve as key MDG hubs promoting development activities throughout the region."



## Corporate social responsibility

November

### CSR Asia Summit 2008

The Asian Institute of Technology was the final destination for representatives of global corporate giants and civil society who arrived to participate at the CSR Asia Summit 2008, Asia's most notable annual conference on corporate social responsibility (CSR).

Organized by Hong Kong-based partner CSR Asia, the two-day conference was hosted by AIT Extension from 3-4 November. The event brought together over 350 participants from Europe, North America and Asia, representing a wide array of social enterprises and private sector interests interested in advancing the cause of CSR in Asia. AIT was the first academic institution in Southeast Asia to host the annual summit.

CSR Summit 2008 targeted global and Asian experts and practitioners in the fields of social, environmental and corporate governance. Attracting delegates from more than 20 countries, practi-

tioners, experts and like-minded people explored emerging topics unique to the Asian context, which brought new insights for businesses, governments, NGOs and other CSR practitioners.

In 2008 the unfolding global economic crisis and its potential adverse implications for CSR activities struck a chord with participants. CSR Asia Chairman, Dr. Richard Welford, told the large opening day audience that companies engaging in innovative and meaningful CSR initiatives would be better able to cope with the economic downturn than those ignoring social responsibility. Each international summit delegate arriving in Thailand was required to purchase renewable energy offsets to ensure a zero carbon footprint for the event. Carbon offset sponsors were Anemone Green Capital, Climate Care, RESET (HK) Ltd.

## September

### ORGANIC SYMPOSIUM AND REGIONAL WORKSHOP

AIT is one of the main institutes in Thailand spearheading efforts in organic farming. By partnering with the National Innovation Agency (NIA), the Ministry of Science and Technology Thailand and the Thai Organic Trade Association (TOTA), AIT organized a national symposium that aimed to assist formulation of policies to enhance the development of the Thai organic produce market. The symposium concluded with a declaration on the application and promotion of organic agriculture within the South-East Asian region titled the "Bangkok Declaration on Cooperation to Facilitate Organic Agriculture".

### TWO-STAGE MASTER'S DEGREE PROGRAM LAUNCHED WITH INDIA'S VSIS

During the year, AIT partnered with India-based Vishwakarma School of International Studies (VSIS) to offer a new Two-Stage Master's Degree Program. The program will allow participating students to benefit from an international curricula taught by world-class faculty and scientists. Participating students will be exposed to the teaching, research and academic life of both institutions. The programs were initially offered in mechatronics and energy

technology. Both programs will be conducted in two stages; with the initial stage at AIT and the latter at VSIS, depending on each individual's work plan. Students will be eligible to compete for AIT scholarships, fellowships and student assistantships. Graduating students will earn a master's degree awarded by AIT.

### AIT AND ASIAN UNIVERSITY LAUNCH THAILAND'S FIRST UNIFIED BACHELOR – MASTER'S PROGRAM

AIT entered into a unique academic partnership with Thailand's Asian University (AU) to launch a five-year-long 'Unified International Bachelor – Master's Degree Program'. The new joint program is the first of its kind in Thailand and provides a fast-track opportunity for students to complete a bachelor's degree and master's degree (recognized by both schools) in less time and at lower cost than traditional programs. The new partnership was formalized through a Memorandum of Agreement signed during Asian University's 10th Anniversary celebrations held in Bangkok on September 27. The strategic tie-up will initially cover the academic fields of systems engineering and electrical and electronic engineering.

### AIT Chairman Thailand Tatler magazine's "Person of the Year"

September

AIT Chairman of the Board of Trustees Dr. Tej Bunnag, was recognized as Thailand Tatler magazine's "Person of the Year" for 2008 for his brief but significant tenure as Minister of Foreign Affairs of the Kingdom of Thailand. He left his post as AIT Chairman to lead Thailand in its negotiations with Cambodia for a diplomatic solution to the Thai-Cambodian crisis over the Preah Vihear temple. Dr. Tej Bunnag was sworn in as Foreign Minister by His Majesty the King Bhumibol Adulyadej who issued a royal command on July 26, 2008. After the completion of his duties, Dr. Tej Bunnag was reinstated back as the Chairman of the AIT Board of Trustees.

H.E. Dr. Tej Bunnag was the former Ambassador of Thailand to the United States, France, and Permanent Representative of Thailand to the United Nations. He had an illustrious diplomatic career in the foreign service of Thailand, first joining the Ministry of Foreign Affairs in 1969.



Dr. Tej Bunnag (third from right).

## November

### HRH PRINCESS MAHA CHAKRI SIRINDHORN VISITS AIT BOOTH AT CRMA EDUCATION EXHIBITION 2008

AIT was one of nineteen educational institutions from around Thailand invited to join the Chulachomklao Royal Military Academy (CRMA) Education Exhibition 2008 on 12 November in Nakhon Nayok, Thailand. Her Royal Highness Princess Maha Chakri Sirindhorn of Thailand presided over the opening ceremony of the event organized to promote public awareness of knowledge derived from research in engineering, science, social sciences, and the military. AIT's Vice President for Research, Prof. Sudip Rakshit, led AIT's delegation which included Prof. Chongrak Polprasert, Dr. Preeda Parkpian and Dr. Kiyoshi Honda. Faculty members were given a brief opportunity to explain the main elements of their research to HRH Princess Maha Chakri Sirindhorn as she toured the various exhibits.

### CAREER FAIR

Despite indications of an economic slowdown impacting the region, Career Center organizers reported that more companies participated at this year's November event than the year before. The AIT Career Center also recorded more job and internship postings on its website than at any time in the past. Close to eight hundred job seekers attended AIT's largest ever single day on-campus Career Fair. This year, NGOs, UN agencies and scholarship donor organizations, participated with presentations and information sharing sessions on internships and further education opportunities available to AIT students.



HRH Maha Chakri Sirindhorn reviews the AIT exhibit at the CRMA Education Exhibition 2008. The AIT presentation was led by Prof. Sudip Rakshit, Vice President for Research (pictured center).

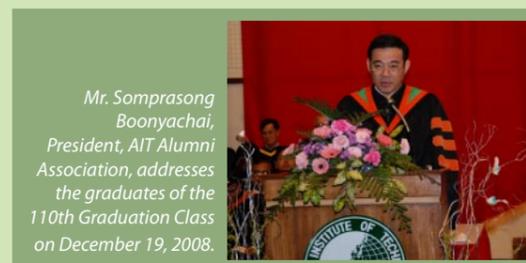
## December

### PARTNERSHIP WITH CHULABHORN RESEARCH INSTITUTE AND MAHIDOL UNIVERSITY

AIT signed a second Memorandum of Agreement with the Chulabhorn Research Institute (CRI) and Mahidol University (MU) for an inter-university post-graduate education program in environmental toxicology, technology and management.

HRH Princess Chulabhorn, Ph.D., President, Chulabhorn Research Institute, presided over the official partnership signing ceremony on 22 December 2008 at the Chulabhorn Research Institute in Bangkok. The AIT and CRI / MU international program is intended to foster academic cooperation between three of Thailand's leading research institutions and facilitate jointly-conferred master's and doctoral degrees in the field of environmental toxicology, technology and management.

The new joint program builds on an earlier AIT-CRI partnership signed in 1996 which supports the training of scientists in basic and applied research in the area of environmental toxicology, technology and management.



Mr. Somprasong Boonyachai, President, AIT Alumni Association, addresses the graduates of the 110th Graduation Class on December 19, 2008.



HRH Princess Chulabhorn, Ph.D. Princess of Thailand (center) presides over new agreement between AIT, MU and CRI.

# AWARDS AND DISTINCTION

## VP RESEARCH JOINS EDITORIAL BOARD OF RECENT PATENTS ON BIOTECHNOLOGY

Professor Sudip Rakshit, Vice President for Research, joined the editorial board of the new journal *Recent Patents on Biotechnology* published by Bentham Science Publishers. Bentham Science Publishers are indexed by the major indexing media such as, Medline / PubMed, and the Science Citation Index.

## AIT MBA TEAM REPRESENTS SOUTH-EAST ASIA AT THE GLOBAL SOCIAL VENTURE COMPETITION: ASIAN REGIONAL FINALS

March 2008

An academic team of AIT MBA students led by faculty members Dr. Barbara Igel from the School of Management (SOM), and Dr. Joydeep Dutta from the School Engineering and Technology (SET), took the runners-up prize at the Global Social Venture Competition: South-East Asia (GSVC-SEA). The School of Management students then represented the South-East Asia region at the Asian Regional Finals held at the Indian School of Business, Hyderabad, India in March 2008. The winning business plan was based on a new type of solar technology (Dyesensitized Solar Cell) developed by Dr. Joydeep Dutta and his team at the AIT Nanotechnology Center of Excellence. This was an effort to formulate the commercialization of technologies developed from AIT's basic and applied research. GSVC is a global MBA student business plan competition that began in 1999 at the Haas School of Business of the University of California at Berkeley, USA. GSVC was the first competition to promote entrepreneurial start-ups which not only offered financial returns, but also provided measurable social or environmental benefits. The competition has grown to be one of the most prestigious globally through the participation of the top schools such as Columbia Business School, London Business School, Indian School of Business and the Yale School of Management.

## "LOW ENERGY HOUSE" WINS AT THAILAND ENERGY AWARDS 2008

July, 2008

AIT alumnus Dr. Juntakan Taweekun won a prestigious award from the Ministry of Energy of the Royal Thai Government for her innovative project "Low Energy House". She developed various technologies for use in a low energy house, such as "daylighting" through light pipes, a radiant cooling system, electricity generation for lighting system from solar cells and wireless illumination controls. Currently working as an Assistant Professor at the Prince



AIT alumnus Dr. Juntakan Taweekun (left) won a prestigious award for her project "Low Energy House".

of Songkla University (PSU), Dr. Juntakan Taweekun, completed both her master's (1996) and doctoral (2003) degrees from the Energy Field of Study at the School of Environment, Resources and Development (SERD).

## DETECTING DEADLY SALMONELLA PATHOGEN EASIER, AWARD-WINNING AIT STUDENT SAYS

July 2008

Mr. Udaya Rathnayaka, a student in the Food Engineering and Bioprocess Technology (FEBT) field of study at the School of Environment, Resources and Development, won top honors at an international symposium for his study on the Normal Fluorescent In-Situ Hybridization (FISH) Method. By adding an antibiotic treatment, Udaya Rathnayaka reported a more reliable method to detect viable salmonella. His research was based on an earlier breakthrough method initiated by his adviser and AIT's Vice President for Research Sudip K. Rakshit.

## AIT PROFESSOR TRANSLATES PORTION OF "A BRIEF HISTORY OF COMMUNICATIONS" INTO THAI

August 2008

Dr. Poompat Saengudomlert was one of a small group of professionals selected to translate the book "A Brief History of Communications" into the Thai language. He translated the third part of the book which outlines the history of world's communications technologies and their influential inventors. The book was published to commemorate the 30th Anniversary of The Institute of Electrical and Electronics Engineers (IEEE), which was supported by premiere agencies such as Thailand's Institute for the Promotion of Teaching Science and Technology, and the National Science and Technology Development Agency (NSTDA).

## NANOTECHNOLOGY RESEARCHER RECEIVES AWARD

August 2008

Mr. Rungrot Kitsaboonloha, who is an AIT alumnus (2008) and a former researcher at AIT's Center of Excellence (CoE) in Nanotechnology, was awarded for his work on the "Direct Writing Growth of ZnO Rods through Ink Jet Techniques" during the second Thailand Nanotechnology Conference in August. He placed second place overall. His work was also featured in Bangkok Biz News, a product of the Thai newspaper, *The Nation*. Mr. Rungrot Kitsaboonloha is currently pursuing his doctorate at the University of California, Berkeley.



Dr. N.T. Kim Oanh was awarded the "Extra Mile" Special Award at the Better Air Quality 2008 (BAQ08).

## ALUMNUS PRESENTED WITH NEPAL ACADEMIC EXCELLENCE AWARD

September, 2008

Mr. Uttam Shrestha was presented with the Nepal Bidhya Bhusan Padak-Kha or Nepal Academic Excellence Award by the President of Federal Republic of Nepal Ram Baran Yadav, during World Literacy Day and National Education Day celebrations. This prestigious honor is awarded to Nepali citizens who achieve academic excellence in their postgraduate-level studies, either from a program in Nepal's university system or abroad. Mr. Shrestha graduated from AIT in August 2006 with an outstanding CGPA of 4.00/4.00. He also produced excellent research work on regional disparities in Nepal as part of his master's degree in the Regional and Rural Development Planning Field of Study, School of Environment, Resources and Development (SERD).

## TWO AIT STUDENTS WIN AWARDS AT SYMPOSIUM

September 2008

Mr. Troung Hoang Minh and Mr. Chavan Balu Ramdas won the first and third-place awards respectively for oral presentation made during the International Symposium on Sustaining Fish Diversity, Fisheries and Aquacultures in the Mekong Basin. Both doctoral students are enrolled in AIT's Aquaculture and Aquatic Resources Management (AARM) field of study at the School of Environment, Resources and Development. The symposium was jointly organized by Ubon Rachathani University (Thailand); Universite Paul Sabatier (UPS), France; Department of Fisheries (DoF), Thailand; Network of Aquaculture Centers in Asia-Pacific (NACA); and Mekong River Commission (MRC), and was fully endorsed by Thailand's Commission of Higher Education, Ministry of Education.

## AWARD-WINNING DOCTORAL THESIS LOOKS AT BRIDGING THE DIGITAL DIVIDE

November 2008

Dr. Areeyata Sripetch received a second-level award from the Thailand Research Fund (TRF) for her doctoral thesis "Design of DWDM Networks for Power Utilities". Her award-winning doctoral thesis provided a systematic approach to creating communication networks on top of power grids as an effective means to bridge the digital divide between urban and rural environments. Her design approach was based on the power grid topology of the Electricity Generation Authority of Thailand (EGAT). Dr. Areeyata Sripetch recently graduated from the Telecommunications Field of Study at the School of Engineering and Technology.



Mr. Uttam Shrestha (left) with the President of Federal Republic of Nepal, Ram Baran Yadav.

## DEAN OF SCHOOL OF ENGINEERING AWARDED FIRST NISHINO MEDAL

November 2008

Professor Worsak Kanok-Nukulchai, Dean of the School of Engineering and Technology (SET), was awarded the first Nishino Medal for his internationally recognized contributions in the fields of structural engineering and construction. The medal was presented to Professor Worsak at the opening ceremony of the Eleventh East Asia Pacific Conference on Structural Engineering and Construction (EASEC-11) on November 19 in Taipei, Taiwan. After receiving the award, Professor Worsak gave a presentation for the Nishino Lectures in honor of the late Professor Fumio Nishino. A former AIT faculty member, Professor Fumio Nishino also served as AIT's Vice President for Academic Affairs during the mid-1980s. He founded the series of EASEC Conferences in 1986 while he served as the Vice President for Academic Affairs. At that time Professor Worsak served as the Conference Secretary.

## AIT PAIR SHINE AT THAI NATIONAL BEST BUSINESS ENGLISH SPEAKER COMPETITION

November 2008

Two AIT students, Ms. Thitikan Satchabut and Ms. U-thumporn H.A., took top places at the Thai National Best Business English Speaker Competition held at the Sasin Institute of Business Administration (SIBA), Chulalongkorn University in Bangkok, Thailand. Thitikan Satchabut placed third in the entire competition and was awarded a cyber dictionary, a mobile phone, and a free English Course at Cambridge ESOL's Business Language Testing Service (BULATS).

## AIT CLIMATE CHANGE EXPERT AWARDED FOR GOING THE "EXTRA MILE" IN AIR QUALITY RESEARCH

November 2008

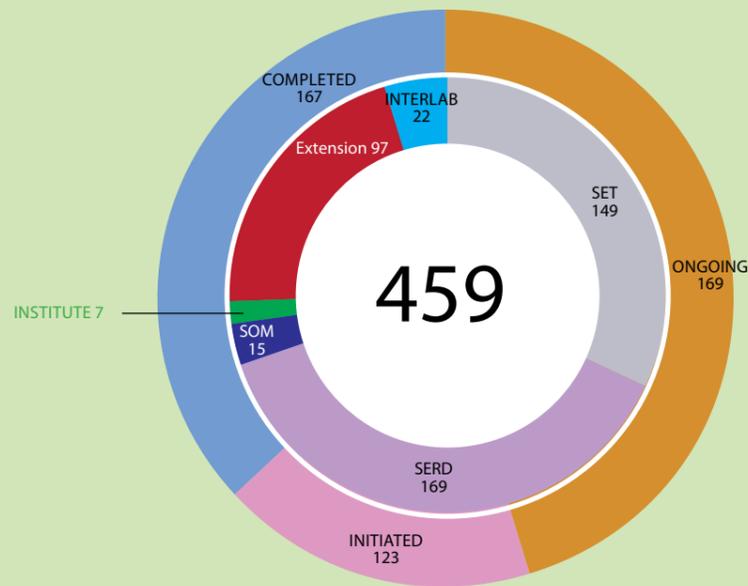
Dr. N.T. Kim Oanh was awarded the "Extra Mile" Special Award at the Better Air Quality 2008 (BAQ08) Conference Series organized from November 12-14 in Bangkok, Thailand, for her proactive academic contributions to the study of air quality and atmospheric pollution. Dr. N.T. Kim Oanh's team of master's and doctoral students was also the leading delegation in terms of the number presentations during conference. She presented one of her signature studies on black carbon in six Asian cities which highlighted the importance of addressing the situation of black carbon particulates in the air. These particles interact directly and indirectly with the earth's radiation energy balance and can subsequently impact global climate patterns, Dr. Kim Oanh warned.



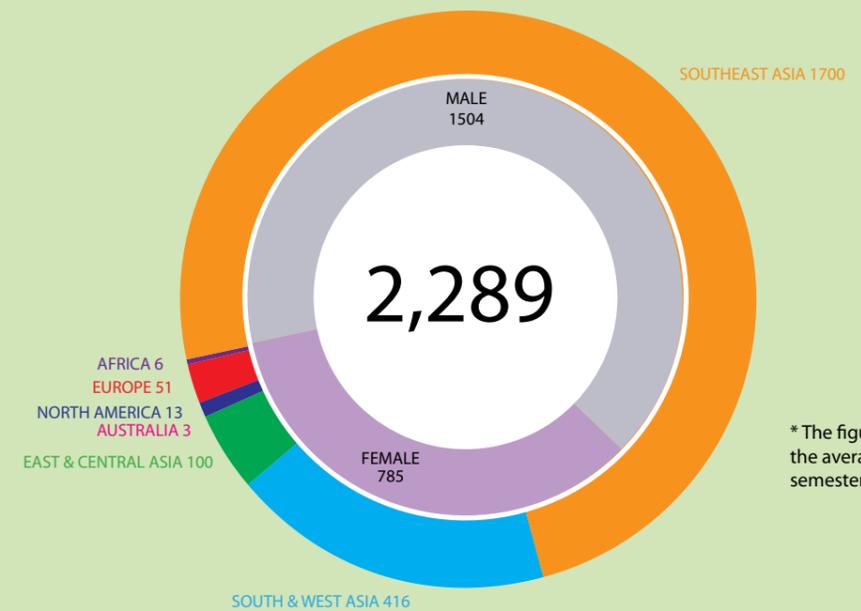
Mrs. Akiyo Nishino presented the Nishino Medal to Prof. Worsak Kanok-Nukulchai, Dean of School of Engineering and Technology.

# AT A GLANCE

## RESEARCH

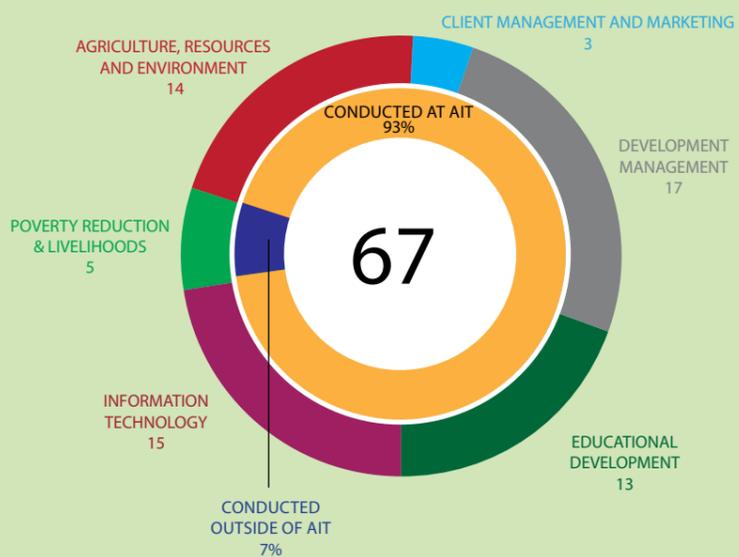


## STUDENTS\*

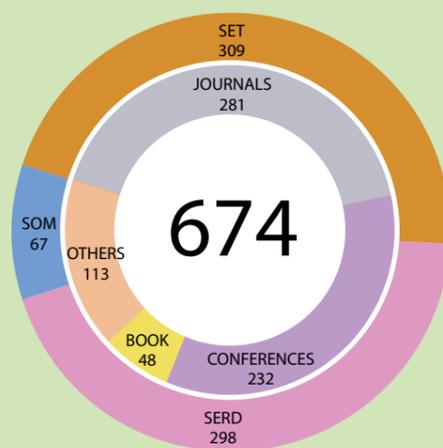


\* The figures are the average of two semesters in 2008.

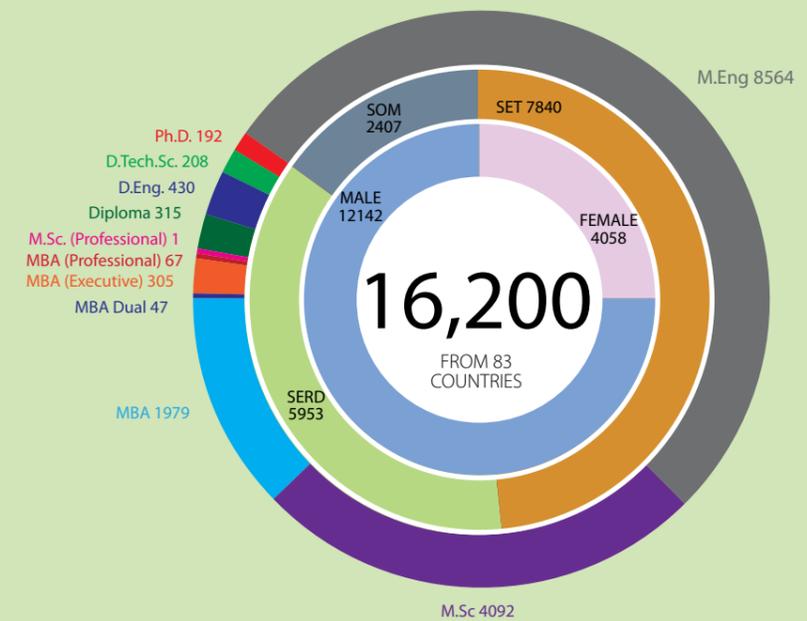
## TRAINING COURSES



## PUBLICATIONS



## ALUMNI\*



\*As of December 31, 2008.



## AIT'S REACH

### Legend

- Academic & Research
- ▲ Governments
- Associations & Organizations
- Private Sector
- ▣ Bangkok, Thailand

Please turn to *Page 51* for a comprehensive list of AIT's partners.

## New frontiers 2008

### Bridging continents through the Asia-Africa Initiative

AIT has engaged Africa through its Asia-Africa Initiative for Higher Education in Science and Technology for Sustainable Development, which is supported by the Ministry of Foreign Affairs, Thailand. By acting as a bridge between local, regional and global concerns, AIT enhances opportunities for potential partners in Africa to lift their knowledge base, raise their technological and scientific expertise, analyze needs and set priorities for progressive and sustainable development. In 2008, AIT counted 50 alumni from Africa.

# STRATEGY 2013



## Developing a Five Year Future Plan

AIT enjoys an international reputation based on the proven value of its work and its dedication to applying academic knowledge and skills to address the emergent challenges of the region. It exists to elevate the Institute's partners' understanding of global changes and their impact in Asia, and to influence and enable sustainable development for the better.

As a multicultural and multinational educational hub for a global network of development partners, AIT is dedicated to the generation and transfer of knowledge, and the strengthening of capacity across borders.

Building on the Asian Institute of Technology's core values, its capabilities in innovative teaching and learning, research and outreach, and a thorough analysis of emerging trends in the external environment for higher learning, the Institute will develop a five-year strategic framework for 2009 to 2013. During the year considerable focus was given to developing AIT's five year *Strategy 2013*, which is expected to comprise four Strategic Themes:

1. Internationality as a Regional Network Institute
2. Excellence and Relevance in Education, Research and Outreach
3. Positioning and Branding
4. Development and Resources Management

# Key Achievements in 2008



## AIT committed itself to assisting higher learning in conflicted Afghanistan

In 2008, the Asian Institute of Technology took a major step forward with its plans to assist the development of higher education in Afghanistan. It inaugurated a branch office at Balkh University (BU) to manage the US\$ 1.5 million University Partnership Program to assist the Faculty of Engineering at Balkh University in Mazar-i-Sharif.

The outreach initiative was the first for AIT in the war-torn country. The overall goal of the two-year program partnership with the Ministry of Higher Education, Islamic Republic of Afghanistan, which is financially supported by the World Bank, is to upgrade the teaching capability of Balkh University's Faculty of Engineering as a way to elevate the overall quality of its undergraduate engineering programs. AIT supports the strategic planning and implementation of the development and reform program of higher education institutions in Afghanistan.

Balkh University is one of six universities in Afghanistan receiving World Bank financial aid to strengthen higher education. The initiative aims to lift BU's current curriculum to the same standard of AIT. Emphasis is given to the capacity building of the current faculty members and includes strengthening the geology and mining, building construction, and design and chemical technology fields of study. Information and communication technology (ICT) is a key focus. Projects include enhancing BU's physical infrastructure to support information technology and the Internet, and enhancing faculty members' skills in Internet communications, online information search, and use of electronic library resources to conduct teaching, information retrieval and administration. An English-language enhancement program is to be developed and implemented.

Other plans include an effort to create a computer science undergraduate program as well as the possible upgrade of some general education courses in math and physics to full degrees.

The overarching aim of the landmark project is to improve the engineering curriculum of Balkh University to an international level of quality. AIT's physical presence in Afghanistan signals its intention to take a leading role in assisting the development of tertiary education in the country in partnership with the government of Afghanistan.

## Academics

As the leading network institution of higher learning in the region, AIT has always been at the forefront in initiating new ventures. Through the Institute's focused academic activities and new strategic directions, AIT continues its dedicated service to the region in partnership with like-minded stakeholders in the public and private sectors. The maximum potential for growth in higher learning lies in Asia, and AIT is situated at the crossroads of the continent. As development efforts in Africa and other countries intensify, AIT is committed to providing the highest quality teaching and learning to develop highly qualified and committed leaders for tomorrow.

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## Research

Most countries in the region face two critical challenges: poverty and climate change. By conducting basic and applied research, the Institute seeks to address today's crucial issues. Research skills have been the cornerstone of the Institute's success in partnering with international organizations and institutions of higher learning for education, research and development and outreach activities. AIT's research focus can play a role in achieving a new global paradigm that includes increased balance, inclusiveness, and sustainability in the Asia-Pacific region.

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## Extension, Outreach and Centers

AIT seeks to ensure that the broadest possible impact is reached by conducting innovative and responsive activities geared towards the needs of national governments, overseas development agencies, multilateral agencies, development institutions, the private sector, investment banks, consultants and nongovernmental organizations. AIT hosts several top centers that concentrate on emerging issues such as the achievement of the Millennium Development Goals (MDGs), nanotechnology as the twentieth century's manufacturing unit, trans-boundary water issues and sustainable agricultural practices. AIT operates international Centers in Vietnam and Indonesia and is involved in key academic consortia across the Asia-Pacific region.

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# ACADEMICS

This year AIT witnessed a 6% increase in applications and welcomed 4,577 new students. The increase came despite tighter admissions requirements, specifically for English language skills. A number of academic policies were enhanced in 2008. These included a new grading policy outlined by the Institute Education Council, and a reliable mode for credit transfer in the doctoral program. The average Student-To-Faculty ratio for the Institute was 22. Across the three schools the Student-to-Faculty ratios were as follows: at the School of Engineering and Technology (SET) the ratio was 18; at the School of Environment, Resources and Development (SERD) the ratio was 15; and at the School of Management (SOM) the ratio was 33.

### ACADEMIC DEVELOPMENTS

An Office of Summer Programs was established within AIT Extension and the coordinator was hired during the year. The new office will be responsible for developing, marketing, and coordinating the programs. The main target is study abroad students from the United States and Europe.

Directorships for specific academic initiatives were established and appointments made for: Director Undergraduate Programs, Director Unified Programs, Director Academic Quality Assurance and Accreditation, and Director Professional Programs.

A Masters Leading to PhD program was implemented, following the initial development of guidelines and their refinement by the Academic Senate.

New policies: Credit transfers, part-time programs, refinement of English language requirements, and streamlining of policy on extension of study limits for PhD students were all introduced.

### QUALITY ASSURANCE

Peer Teaching Review: AIT decided to formulate a uniform procedure of all Schools to implement peer teaching review.

Research Performance Evaluation and Benchmarking: A regional initiative on research quality assurance in partnership with leading universities and government research funding agencies began in 2008. This will take the form of workshops in each country. During the year, materials were developed in collaboration with National Taiwan University.

AIT Research Benchmarking: The Office of the Vice President for Academic Affairs began an exercise to benchmark AIT research productivity against peer institutions. The year saw Fields of Studies and the School of Management begin to provide lists of peer institutions.

Becoming a World-Class University: Seminars on university rankings and research quality issues were held at AIT, as well as in Indonesia and the Philippines, in collaboration with Elsevier, and the ministries and commissions of higher education in those respective countries.

Center for Learning Innovation and Quality (CLIQ): A proposal for this initiative was approved by AIT Investment Committee. A 1-day workshop was held at AIT on the topic of Change Management for Teaching and Learning.

### ADMISSIONS, FINANCIAL AID, AND REGISTRY

A new information analysis and visualization capability was added to the Admissions Information System, which provided important analysis of trends in applications over time broken down by country and field of study. The system has enabled the Schools to analyse and target their responses to fluctuations in applications.

### Poverty Reduction and Agricultural Management connects Laos

Together with partner Wetlands Alliance Programme (WAP), and with the support of the Swedish International Development Cooperation Agency (Sida), AIT spearheaded the region's first vocational and professional bachelor program to tackle poverty in Lao PDR called the Poverty Reduction and Agriculture Management (PRAM) initiative. By attempting to fill the gaps in education that exist marginalized areas, PRAM strives to equip rural leaders with skills and knowledge that they can readily apply in their villages. Fitness for purpose is a quality assurance measure used by AIT to ensure that this unique program achieves its goals.

# SET

## School of Engineering and Technology

The **School of Engineering and Technology** (SET) at AIT develops leaders for a sustainable and technologically-driven future. The School values creative research and a solid understanding of the fundamentals in many cutting-edge fields of study in engineering and technology. Together with our globe-spanning network of partners and alumni, SET graduates are engineering technological solutions to meet today's global challenges for a better tomorrow.

In 2008, SET's activities were focused on increasing the School's social impact regionally and internationally. This was achieved through several promotional and academic events in target countries such as China, India, Indonesia, Vietnam, Myanmar and Pakistan. By striving to maintain high quality faculty and staff from diverse backgrounds, SET continues to attract top students who are often endorsed by their home countries and current employers. This year, efforts were also concentrated on cultivating strategic alliances with partner universities, the private sector and governments. In a span of three years, SET initiated a total of 164 projects.

# SERD

## School of Environment, Resources and Development

A key strength of AIT is its ability to respond to regional needs by mobilizing and enhancing capabilities for socially, economically and environmentally sound development through the **School of Environment, Resources and Development** (SERD). The School emphasizes an interdisciplinary approach that integrates technology, and natural and social science knowledge in its academic, research and training activities.

This year over 50% of SERD's incoming students were women, many of whom focused on deepening their skills in sustainable development related fields. In addition to co-launching the Disaster Preparedness, Mitigation and Management (DPMM) Program with the School of Engineering and Technology, SERD also initiated two new programs: Agribusiness Management; and Gender Transportation and Development.

# SOM

## School of Management

At AIT's **School of Management** (SOM), students learn and embrace dynamic principles of management through experiential learning in an internationalized setting. The School provides education for the promotion of technological change and its management, and develops corporate leaders for the present and future. Academic programs are internationally recognized and adapted to the needs and challenges of an increasingly competitive region.

Special attention is given to the relationship between SOM alumni and the School's current students. Through regular exchanges and ongoing dialogue, lasting professional relationships are created and maintained which are integral to students' future careers. Some key activities implemented during the year were the Business Plan Competition Workshop and the International Exchange Students Meeting. There were also several promising discussions with prospective industry partners such as the Amata Group Thailand, Siam Commercial Bank, and Siemens Thailand.

### Intensified Presence in Vietnam

Vietnam is fast developing as one of the region's manufacturing hubs. Vietnamese professionals must elevate their competence to contribute more broadly to development scenarios. This year, programs in project management, industrial engineering and management, and geosystem exploration and petroleum geoengineering were initiated to respond to this need.

### Partnership with Kasetsart University

This year marked SERD's new alliance with Kasetsart University's Faculty of Forestry of Thailand for the establishment of a three-year multifaceted academic cooperation agreement. Kasetsart University, which was primarily established by the Royal Thai Government for specialized studies in agriculture related endeavors, is one of Thailand's top ranked universities. Through a Memorandum of Understanding (MoU), both institutes intend to widen their shared scope of academic exchange and collaboration, including joint research activities and publications and the possibility of a double degree program.

### Launch of Disaster Preparedness, Mitigation and Management (DPMM) Program

August 2008

The frequent occurrence of natural disasters in Asia leading to loss of life and destruction of infrastructure has called the Asian Institute of Technology to action.

DPMM is designed to equip civil servants, managers and engineers with the skills necessary to address these catastrophes. AIT's experts from SET and SERD have combined their efforts to offer a leading program designed to produce professionals able to deal with disasters and to reduce their cataclysmic effects on populations in the Asia-Pacific region.

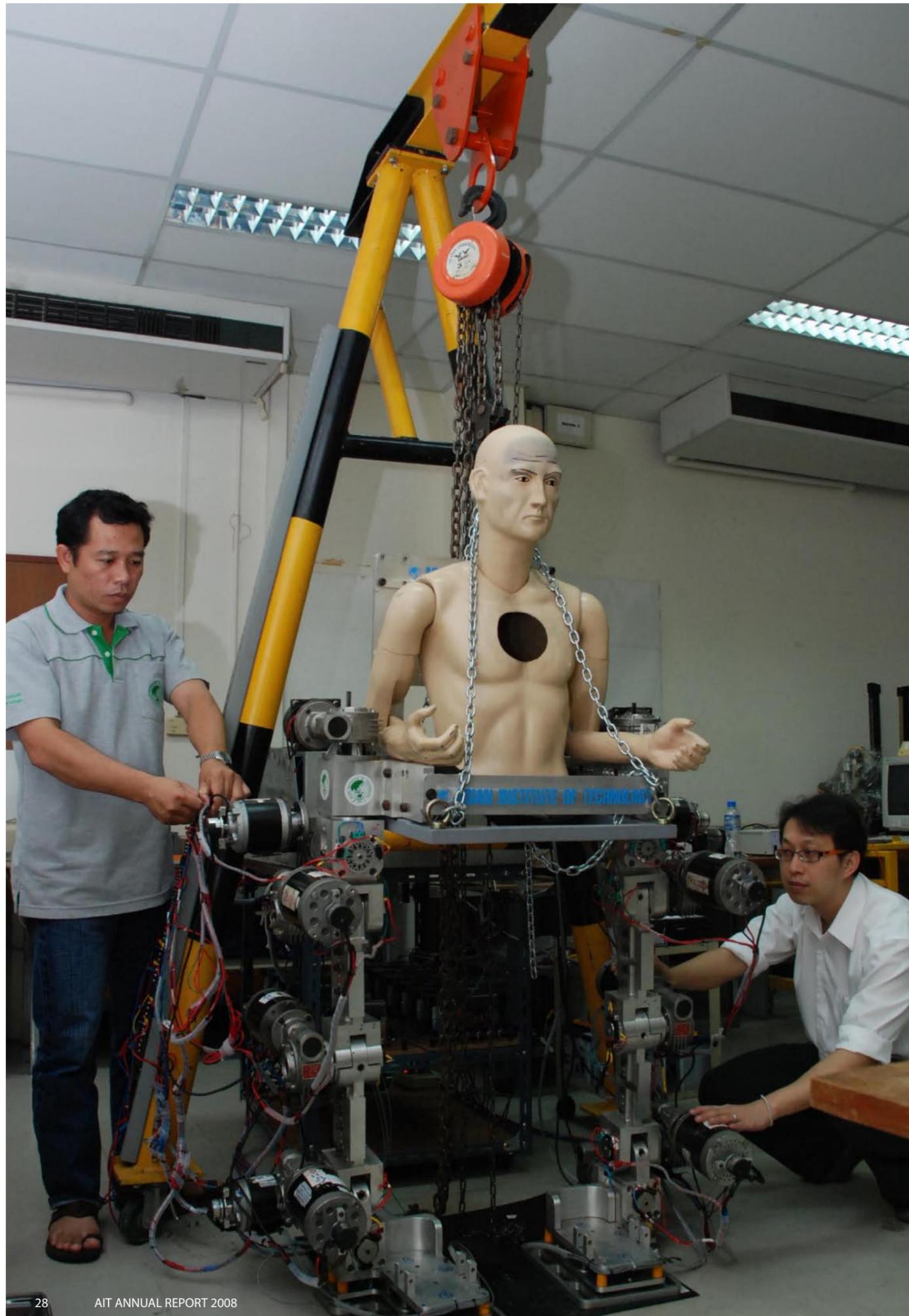


### CSR and Sustainability

SOM is working closely with the Office of the Vice President for Academic Affairs to integrate sustainability studies into AIT's post-graduate education and research. One of the School's priorities this year was to formulate a research agenda that reflects and integrates both the interests of the faculty and students respectively. Corporate Social Responsibility and sustainability were identified as the School's central research thrust for the years to come. These themes are communicated to aspiring students not only to respond to the global interest but, more importantly, to build competencies in these fields and improve SOM's research profile.

### New SOM Website

A new SOM website went live in April, primarily to attract a new breed of scholars interested in pursuing executive careers in international business and service as their field of choice. Online student ambassadors were employed to facilitate information exchange between the School and its applicants. A study showed that over 90% of the current students accessed the website before applying.



# ACADEMIC PROGRAMS

## SCHOOL OF ENGINEERING AND TECHNOLOGY

### CIVIL & INFRASTRUCTURE ENGINEERING GROUP

- Construction, Engineering & Infrastructure Management
- Geotechnical & Geoenvironmental Engineering
- Structural Engineering
- Transportation Engineering
- Water Engineering & Management

### INDUSTRIAL SYSTEMS ENGINEERING GROUP

- Industrial & Manufacturing Engineering
- Mechatronics
- Microelectronics

### INFORMATION & COMMUNICATIONS GROUP

- Computer Science
- Information Management
- Remote Sensing & Geographic Information Systems
- Telecommunications

### INTERDISCIPLINARY PROGRAMS

- Disaster Preparedness, Mitigation & Management
- Geosystem Exploration & Petroleum Geoengineering
- Offshore Technology & Management
- Information & Communications Technologies
- Nanotechnology

## SCHOOL OF ENVIRONMENT, RESOURCES AND DEVELOPMENT

- Agricultural Systems & Engineering
- Aquaculture & Aquatic Resources Management
- Energy
- Environmental Engineering & Management
- Food Engineering & Bioprocess Technology
- Gender & Development Studies
- Natural Resources Management
- Pulp & Paper Technology
- Regional & Rural Development Planning
- Urban Environmental Management

### INTERDISCIPLINARY PROGRAMS

- Agribusiness Management
- Cleaner Production
- Disaster Preparedness, Mitigation & Management
- Integrated Coastal Zone Management
- Sustainable Development

## SCHOOL OF MANAGEMENT

- Full-time MBA Program with specializations in Finance, Human Resources Management, Marketing, Technology Management, Entrepreneurship, Strategy, Public Management, International Management
- Executive MBA Program
- EMBA in Bangkok, EMBA - Human Resources Management (EMBA-HRM), International EMBA in Vietnam (iEMBA Vietnam)
- Dual Degree Arrangements
- Two degrees - AIT's MBA degree and a specialized degree from one of Europe's premier business schools
- Exchange Program Arrangements with partner institutions in Asia or Europe
- Doctor of Philosophy (PhD) Program
- Doctor of Business Administration (DBA) Program
- Professional Doctoral Program in AIT Thailand, Sri Lanka, Vietnam, Taiwan, and India



# RESEARCH

In 2008, AIT initiated 123 research projects and programs, including grants for sponsoring conferences and capacity building trainings. The majority of sponsored projects were undertaken in developing countries. AIT faculty members accumulated 674 publications, which included peer-reviewed journals, book chapters, conference proceedings and mainstream media articles.

During the year, considerable work was completed to re-orient AIT's research under the emerging thematic research knowledge area to called Sustainable Development in the Context of Climate Change.

Overall, 459 sponsored and contracted projects were conducted by the faculty and staff from Fields of Study (FoS) of the three Schools: School of Engineering and Technology (SET); School of Environment, Resources and Development (SERD); and School of Management (SOM); as well as from AIT Extension, Internet Education and Research Laboratory (IntERLab), and Institute-wide projects.

To encourage the development of innovation, and to help actualize original ideas into real world applications or ventures, the "IDEA" (Innovation Development to Entrepreneurship Actualized) fund was set up. IDEA 2009 was open to all students, faculty and staff. AIT proactively searched for new technologies, products, services and software programs that showed marketable potential. Consideration was given to establishing a specialized and possibly autonomous entity for providing professional consulting services.

One key development was the approval of the Erasmus Mundus External Cooperation Window (EMECW) mobility project. The mobility project grant involved 11 partner institutes of higher learning (including five Asian partners). The Office of the Vice President for Research made considerable efforts to increase project preparation and support by increasing infrastructure for projects' call searches.

### Third Annual AIT Master's Thesis Competition

The Third Annual AIT Master's Thesis Competition, organized by the Office of the Vice President for Research, was held on May 14. The annual competition is one of the most anticipated and prestigious scholarly campus events. In 2008, the competition was composed of seven categories, namely; Energy and Environment, Resources, Development, Industrial Systems Engineering, Information and Communications Technologies, Civil Engineering, and Management.

Students with excellent grades in their thesis were nominated to represent their respective field of study. The presentations were judged according to their relevance, originality, scientific and societal contribution, general knowledge of the field, future potential for innovation, and presentation. Invited judges from the public and private sectors, international organizations, academia and the media selected the winners. (Indicated below.)

Winner	Topic	Adviser	Category
Mr. Cesar Ortinero	Improvement of Nucleic Acid-Based Detection Techniques through the Use of Nanoparticles	Dr. Oleg V. Shipin	Energy & Environment
Mr. Mohammad Al-Amin Sadek	Feasibility of Improving Tillage Performance by Using Nanosurfaces on Tillage Tools	Dr. Hemantha P. Jayasuriya	Resources
Ms. Miruza Mohamed	Vulnerability of Maldives Islands to Climate Change and Extreme Weather Events: A Study of Perception, Impacts and Adaptation	Dr. LAS Ranjith Perera	Development
Mr. Niti Wiromrat	Gas Sensors Based on Zinc Oxide Nanorods	Prof. Joydeep Dutta	Industrial Systems Engineering
Kanthaiah Sivapragasam Vijayalayan	Channel assignment in wireless mesh networks-Emended election based transmission timing mechanism for coordinated distribution scheduling in IEEE 802.16 mesh networks	Prof. Kazi M Ahmed	Information and Communications Technologies
Mr. DPC Laknath	Assessment of fishery harbor for livelihood improvement: A case study of Hikkaduwa Harbor, Sri Lanka	Dr. Sutat Weesakul	Civil Engineering
Ms. Yiarayong Klangboonkrong	Enhancing Navigation Safety from the Perspective of Knowledge Management: The Case of a Shipping Company in Thailand	Dr. Barbara Igel	Management

The Asian Institute of Technology promotes technological change and sustainable development in the Asia-Pacific region and beyond through higher learning, research and outreach. Research programs at AIT are organized in closely linked interdisciplinary teams and are underpinned by the understanding that new knowledge and innovation should translate to societal benefits. Through highly collaborative ways of working, AIT establishes creative partnerships in which research agendas are driven by local perspectives. Backed by its critical mass of new knowledge and relevant experiential learning, AIT leads debate and discussion on some of today's most pressing issues of concern.

## SAMPLE | Initiated Research and Projects

### **Vision-based Industrial Robotic Bin-picking System**

Duration: 1 Oct 2008-30 Sep 2009  
Project Investigator: Dr. Matthew Dailey  
Sponsor: Solimac Co. Ltd.  
Total Contracted Amount: (Baht) 765,000

### **Product Design and Development for SCG Building Materials**

Duration: 1 Jul 2008-31 Dec 2008  
Project Investigator: Pisut Koomsap  
Sponsor: SCG Building Materials Co. Ltd.  
Total Contracted Amount: (Baht) 486,850

### **Development of Force Feedback Exoskeleton system for Virtual Reality**

Duration: 1 Nov 2008-31 Oct 2009  
Project Investigator: Manukid Parnichkun  
Sponsor: Royal Thai Government  
Total Contracted Amount: (Baht) 952,000

### **Disk Drive Automated Test Operation Modeling for Throughput Predicting Controlling and Monitoring**

Duration: 15 Sep 2008-15 Sep 2010  
Project Investigator: Nitin Afzulpurkar  
Sponsors: Seagate Technology Th Ltd, Royal Thai Government  
Total Contracted Amount: (Baht) 900,000

### **Photocatalytic thin film coating technology**

Duration: 16 Jun 2008-30 Jun 2009  
Project Investigator: Joydeep Dutta  
Sponsor: National Electronic and Computer Technology Center, National Science and Technology Development Agency, Thailand  
Total Contracted Amount: (Baht) 1,870,940

### **Poverty Mapping and Reduction Strategies**

Duration: 1 Aug 2008-30 Nov 2008  
Project Investigator: Lal Samarakoon  
Sponsor: Government of India  
Total Contracted Amount: (Baht) 2,438,818

### **Master Plan for Earthquake Disaster Mitigation in Thailand**

Duration: 29 Jul 2008-31 Aug 2009  
Project Investigators: Dr. Pennung Warnitchai, Dr. Kawin Worakanchana  
Sponsor: Panya Consultants Co. Ltd.  
Total Contracted Amount: (Baht) 1,600,000

### **Nigeria Crossing Bridge**

Duration: 25 Aug 2008-28 Feb 2009  
Project Investigator: Dr. Naveed Anwar  
Sponsor: Advance Engineering Consultants, Lagos, Nigeria  
Total Contracted Amount: (Baht) 1,020,000

### **Seismic Vulnerability and Risk Assessment of Dhaka, Chittagong and Sylhet City (Bangladesh) Corporation Areas**

Duration: 6 Jan 2008-31 Jul 2009  
Project Investigators: Dr. Pennung Warnitchai, Dr. Kawin Worakanchana  
Sponsor: Asian Disaster Preparedness Centre (ADPC)  
Total Contracted Amount: (Baht) 4,250,000

### **Climate Change impact and Adaptation Study for Bangkok Metropolitan region**

Duration: 1 Dec 2008-30 Nov 2009  
Project Investigator: Mukand S. Babel  
Sponsor: Panya Consultants Co. Ltd.  
Total Contracted Amount: (Baht) 686,940

### **Sustainable Aquaculture Research Networks in Sub-Saharan Africa**

Duration: 1 Feb 2008-31 Jan 2011  
Project Investigator: Ram C. Bhujel  
Sponsor: European Commission through University of Stirling, United Kingdom  
Total Contracted Amount: (Baht) 3,000,010

### **Development of Methodology Database for ABC Emissions Inventory of Selected Countries**

Duration: 1 Jan 2008-31 Jul 2009  
Project Investigators: Ram M Shrestha, Kim Oahn, Rajendra Shrestha  
Sponsor: UNEP RRC.AP  
Total Contracted Amount: (Baht) 4,235,945

### **Enabling Bio-innovation for poverty alleviation in Asia**

Duration: 8 Mar 2008-31 Dec 2011  
Project Investigators: Sudip Rakshit, Bernadette Resurreccion, Edsel Sajor  
Sponsor: International Development Research Centre, Canada  
Total Contracted Amount: (Baht) 17,232,280

### **Linking Thai Jasmine Rice Farmers with Markets using Participatory action research for sustainability of rain-fed lowland rice-based system in Northeast Thailand**

Duration: 1 Jan 2008-31 Dec 2010  
Project Investigators: Prabhat Kumar, Sudip Rakshit  
Sponsor: Consultative Group on International Agricultural Research (CGIAR) World Bank  
Total Contracted Amount: (Baht) 8,262,000

### **Production of instant rice using combined microwave fluidized bed drying**

Duration: 1 Nov 2008-31 Oct 2009  
Project Investigator: Athapol Noomhorm  
Sponsor: Royal Thai Government (RTG)  
Total Contracted Amount: (Baht) 2,000,000

### **Capacity Building for Gender, Poverty and Mobility Analysis of Road Transportation Development in the GMS Region**

Duration: 1 Jan 2008-01 Jul 2010  
Project Investigator: Kyoko Kusakabe  
Sponsor: ASEAN Foundation  
Total Contracted Amount: (Baht) 10,889,238

### **Socially and Gender Responsive Natural Resource Management in the Context of the Biodiversity Conservation Corridors Initiative Project**

Duration: 1 Jul 2008-31 Jan 2010  
Project Investigator: Julaikha B. Hossain  
Sponsor: Asian Development Bank  
Total Contracted Amount: (Baht) 3,400,000

### **Collaboration on Capacity Building of Hanoi Agricultural University and Hue University of Agriculture and Forestry in Initiating INRM and Poverty Alleviation**

Duration: 1 Jul 2008-31 Dec 2010  
Project Investigator: Ganesh P. Shivakoti  
Sponsor: The Ford Foundation  
Total Contracted Amount: (Baht) 6,536,600

### **Sustainable Communities-Bridging the Gap between Research and Action**

Duration: 1 Jun 2008-31 Dec 2008  
Project Investigator: Edsel Sajor  
Sponsor: Helsinki University of Technology, Lifelong Learning Institute Dipoli (TKK Dipoli)  
Total Contracted Amount: (Baht) 3,500,000

### **Part of the ProSPER.Net Joint Project on Integrating Sustainability in Business School Curricula (ProSPER.Net)**

Duration: 1 Nov 2008-1 Nov 2009  
Project Investigator: Mark Neal  
Sponsor: Participants, The Ministry of the Environment of Japan through UNU-IAS  
Total Contracted Amount: (US\$) 49,500

### **Methodologies and Tools for Food Consumer Market Research (Food Consumer Market Research)**

Duration: 2008-2010  
Project Investigator: Rian Beise-Zee  
Sponsor: Participants, Food and Agriculture Organization (FAO)  
Total Contracted Amount: (Baht) 1,382,276

## **Comprehensive List of Initiated Research and Projects**

Available online at <http://www.ait.asia/publications>

# EXTENSION, OUTREACH AND CENTERS

## AIT Extension

AIT Extension offers short courses for participants from around the Asia-Pacific region. Its activities aim to nurture a vibrant learning community around the region and to promote intellectual exploration and exchange. This year, AIT Extension hosted approximately 70 distinctive training programs and special events ranging from small classrooms to full symposiums and conferences. Existing initiatives were strengthened and new partnerships were formed, such as with Nepal's Central Bank, Nepal Rastra Bank (NRB – The Central Bank of Nepal). One-hundred twenty senior officials from NRB took part in intensive, customized programs at Extension. In March, Pakistan's Government of Punjab also entrusted AIT (by signing a Memorandum of Understanding) to conduct a comprehensive human resource capacity building program for its technical department through the Punjab Resource Management Program (PRMP).

### Operating Programs:

- Agriculture and Food Processing
- Environment and Natural Resources Management
- Education and Training Development
- Poverty Reduction and Livelihoods Development
- Business Performance, Management and Strategy
- Development Effectiveness
- Public Sector Services and Management
- Private Sector Development
- Information and Communication Technologies
- Information and Communication Management
- Infrastructure Development and Public Utility Management
- Seminar and Study Visit Programs



**Managing at the Top 2 (MATT2),  
First Regional Exposure Visit Program**

Date: 17 – 29 August 2008  
Topics: Public Administration Reform, Performance Management and Service Delivery

Working closely with the Bangladesh's Department for International Development (DFID) and the Ministry of Establishment, AIT Extension hosted a regional exposure visit program for 45 high ranking civil servants. The program was part of Bangladesh's "Managing at the Top 2 (MATT2)" program that focuses on enhancing government officials' skills for public administration. It was designed to draw lessons from best practices which might help to improve public service delivery across sectors and facilitate the transplanting of success stories to local settings.



**120 Senior Officials from Nepal Rastra Bank  
(Central Bank of Nepal) trained**

Date: May - July 2008  
Topics: Central Banking Regulation and Supervision, Financial Management Auditing and Accounting, General Banking and Management in Central Banks, and Human Resource Management

Over the course of three months, AIT Extension hosted a series of customized training programs for 120 senior officials from Nepal Rastra Bank (NRB – The Central Bank of Nepal). The program's primary aim was to comprehensively address the essential tools for planning and managing Central Banks. Additional to the rigorous pedagogic sessions, the participants were also exposed to relevant Thai government and private banking practices.



### AIT Extension 'extends' its reach and influence across the Asia-Pacific region

AIT Extension is an innovative and responsive provider of a broad array of capacity building programs and services. The mission of AIT Extension is to identify and respond to regional opportunities for continuing education, training and consultancy. By offering strong programs in a wide spectrum of fields, AIT Extension aims to provide participants with the latest development concepts, trends, strategies and best practices in their relevant fields; and to offer tools and techniques to effectively identify problems and formulate solutions and strategies to plan and manage their future projects.



# International Centers



Hanoi, Vietnam



## AIT Center Vietnam

The Asian Institute of Technology in Vietnam (AITCV) was established in 1993 under a memorandum of agreement between the Vietnam Ministry of Education and Training and AIT with support from the governments of Belgium, Finland and Switzerland. AITCV was the first international tertiary education institution to open in Vietnam, and was also AIT's first center located outside of its home base in Thailand.

In 2008, AITCV's growing role as a nexus for education and development elicited interest from varying governments, academic institutes and organizations. The year saw the Vietnamese Government move to bolster the capability of its undergraduate

universities. One of AITCV's main initiatives was to work with the Vietnamese Government towards implementing joint undergraduate programs. AITCV also served as the coordinator between AIT's graduate Schools (Thailand) and partner universities in and outside of Vietnam to develop and implement joint degree programs with the Ministry of Education and Training (MOET) of Vietnam. MOET aims to produce 20,000 Vietnamese doctoral degree holders during from 2008-2020. AITCV partnered with private sector firms to provide academic programs which suit their professional development needs. One example of this was Vietnam Electricity (EVN), which regularly used AITCV as a primary venue for its staff training.



## AIT Center Indonesia

The year of 2008 was a decisive one for AIT's Center in Indonesia (AITCI) as several renowned institutions recognized its performance as a hub for academic excellence.

One example was UNESCO-Jakarta Office's decision to entrust AITCI to co-lead one of its flagship projects called SWITCH-ASIA. SWITCH-ASIA is a 30-year endeavor devoted to developing sustainable urban water management strategies for the region's cities.

AITCI was commissioned to conduct training programs for governments such as Bangladesh.

The Canadian International Development Agency (CIDA) appointed AITCI to conduct training programs on Integrated Urban Planning for Sustainable Development in collaboration with the Directorate General of Human Settlements.

Launched in 2006 to serve as a focal point for AIT's activities in Indonesia, and to respond to the growing developmental needs of the country's Ministry of Public Works, AITCI has grown substantially and has positioned itself as a key builder of capacity for Indonesia and the region.

# Research and Outreach Centers

## Center of Excellence (CoE) in Nanotechnology

[www.nano.ait.asia](http://www.nano.ait.asia)

Activities of the Center of Excellence (CoE) in Nanotechnology at AIT include research and development focused on the application of nanoparticles, nanomaterials, devices and sensors. The CoE supports innovative research suited to the region, education and training of highly qualified personnel and increasing public and industrial awareness of nanotechnology, amongst other activities like arranging conferences and workshops.

Current research encompasses working in “poor-man’s nanotechnology”. The unifying concept in the laboratory is to make use of inexpensive wet-chemical methods to fabricate innovative materials and futuristic device components. Other interests include self-assembled functional materials and devices, use of microbial objects as templates for fabricating novel materials and application in specific devices. The Center has demonstrated fabrication of gold micro-wires by using these templates. It also carried out activities in developing an appropriate student training and research to contribute to the building up of human resources in nanotechnology.

A new graduate program in Nanotechnology has been approved to begin in 2009. The course curriculum has been prepared through intensive discussions with experts across the world to create an integrated program. The International Master of Engineering Program in Nanotechnology will prepare students to play an active role in shaping advanced materials in an international environment for the future growth of the economies in the region.

## The Geoinformatics Center

[www.geoinfo.ait.asia](http://www.geoinfo.ait.asia)

The Geoinformatics Center was established at the Asian Institute of Technology (AIT) as a non-profit entity for imparting training and project services in information technology, especially in applications of geo-information technology and tools. The Geoinformatics Center provides knowledge and know-how to support the processes of planning and decision making for sustainable development through various short-term courses for mid-career and senior professionals.

Geoinformatics Center has been designated as the ‘Data Node’ of Japan Aerospace Exploration Agency’s (JAXA) Sentinel Asia Project, which aims at acquiring and providing satellites data at during disasters on request from member countries of the Asian Disaster Reduction Center (ADRC). At present ADRC has 27 member countries from the Asia-Pacific region. The Sentinel Asia project is very similar to International Charter for ‘Space and Major Disasters’ and as of now four national spaces agencies, namely, JAXA-Japan, ISRO-India, KARI-Korea and GISDA-Thailand are the data providers to the project. Geoinformatics Center processes the necessary data and provides value added products to the needy countries on such occasions. A copy of the acquired satellite data is also immediately made available to the Center for this purpose.

During the year the Center continued its close collaboration with several international institutes and agencies including International Institute for Geo-information Science and Earth Observation (ITC) in the Netherlands, Asian Disaster Reduction Center (ADRC), Asian Disaster Preparedness Center (ADPC), Institute of Industrial Science (IIS) of Tokyo University, and United Nations University (UNU).

## WHO Collaborating Centre

WHO Collaborating Centre for Water Supply, Waste Disposal and Air Pollution was established at AIT over three decades ago. The scope of the collaboration between two partners, WHO and AIT is defined by health conditions influenced predominantly by environmental determinants, for which AIT has a comparative advantage in relation to environmental management and engineering. Areas of collaboration within this scope are as follows:

1. To perform basic and applied research on community (rural, peri-urban and urban) drinking water supply, waste disposal, wastewater use, water resources development, soil and air pollution in relation to human health; perform research on health impact assessment, health risk assessment and environmental management for health risk reduction;
2. To use research outcomes and to conduct specific studies and projects in support of the preparation of training materials and normative documents, such as manuals and guidelines, and reports for WHO, its Member States and development partners;
3. To provide technical advice, guidance and consulting to WHO, its Member States and development partners;
4. To educate and train engineers, scientists and health professionals in the environmental health fields, related to drinking water supply and waste disposal, water management and wastewater use, and other related areas;
5. To organize meetings, workshops, seminars and conferences and to disseminate technical information on relevant topics. One of the major recent highlights of the WHO-AIT collaborations is participation in the Global Network promoting Household Water Treatment and Storage, aiming to provide safe drinking water to millions of people who currently do not have access to such water, thereby saving thousands, particularly small children.

## Asian Center for Soil Improvement and Geosynthetics

[www.ait.asia/acsig](http://www.ait.asia/acsig)

ACSIG and IGS-Thailand successfully bid for the hosting of the 5th Asian Regional Geosynthetics Conference in 2012, when Prof. Dennes T. Bergado, ACSIG Director, and Mr. Sonny Montalbo, ACSIG Manager, attended the 4th Asian Regional Geosynthetics Conference in

Shanghai, China. The Center also conducted Quality Assurance and Quality Control test for geosynthetics in support to the private industries and government agencies.

The Center was involved in supervision of Mechanically Stabilized Earth for Nawarat Construction Company Ltd., as well as construction supervision of the bridge approach with high strength galvanized steel wire in Pattaya, Thailand. ACSIG was also involved in research in the enhancement of Prefabricated Vertical Drains (PVD) and vacuum (Vacuum-PVD).

## Habitech Center

[www.habitech.ait.asia](http://www.habitech.ait.asia)

Habitech Center took up a major project on the Construction of Energy-Efficient Technology Demonstration Center following the successful implementation of “Post-Tsunami Rehabilitation Project” in Baan Nam Khem, Phang-nga district of Thailand. Habitech Center along with SEQUA (Germany) undertook the project to demonstrate energy-efficient technologies in this community center. It carried out architectural and engineering design, construction and supervision for the construction of this building.

Apart from the major project, Habitech Center was involved in technology transfer to many organizations and individuals. This includes Manual Brick Presses for production of interlocking bricks to Mrs. Gayley Yangzom (Bhutan), Mr. Thinley Palden Dorji (Bhutan) and Innotech Nepal Pvt. Ltd, Nepal; complete set of Habitech Building System to Shahr Aftab Construction Company (Iran) and Manual Brick Presses for production of interlocking bricks to Sitagu Buddhist Missionary Center (Myanmar) for the construction of primary schools in Cyclone Nurgis affected areas in Delta, Myanmar (5 Schools in 5 villages). Habitech Center also undertook technology dissemination activities by organizing an exhibition of Habitech Building Technology at the Thai-Cambodian border, Trat Province during the opening of Integrated Area Survey Project (land-mining clearing project) of Mekong Organization for Mankind, Thailand.

## ACECOMS

[www.acecoms.ait.asia](http://www.acecoms.ait.asia)

ACECOMS-AIT conducted several training programs last year, both within and outside the country. A total of six trainings programs were conducted with participants who were practicing professionals in the field of Structural Engineering Design and Software. Apart from the training program, ACECOMS-AIT is also collaborating with different companies such as Asian Concrete Construction Institute (ACCI) and Thai Concrete Association (TCA) to conduct training on green construction.

Several companies requested for collaboration, with ACECOMS taking up 10 projects during the year. Half of the projects have been completed, while the other half are currently under progress. Expertise provided by ACECOMS to clients includes special analysis, design, design review and failure investigation on projects ranging from the tallest building in Philippines to the Crossing Bridge in Nigeria. Many projects are undertaken in collaboration with the Structural Engineering Laboratory at AIT and the Wind Tunnel Laboratory at Thammasat University.

## Thailand Accident Research Center (TARC)

[www.tarc.ait.asia](http://www.tarc.ait.asia)

TARC conducted a comprehensive study on the roadside hazards accidents under the project of “The Continuation of Thailand Accident Research Center: Road Safety Knowledge Development and Dissemination”, sponsored by the Department of Highways and World Bank. It also conducted a research on “Safety Driving Speed” sponsored by the Thai National Health Foundation. The objective of this research was to gain a better understanding of the extent of illegal speeding in Thailand, factors associated with speeding, and public attitudes to speeding. The effects of speed camera enforcement on changes in speed behaviors were also investigated.

As a road safety expert, TARC manager was invited as a member of Board of Directors of the Thailand National Road Safety Center. TARC delivered lectures at conferences, seminars, and training programs at the annual meeting of the Transportation Research Board (TRB), Washington D.C.; Bus Safety Improvement Seminar, Bangkok; Accident In-Depth Analysis Workshop by the Provincial Public Health Offices in Thailand and the Thailand National Road Safety Seminar.

Beginning 2008, TARC has prepared and published 11 road safety articles in newspapers like Thairath, Daily News Newspaper and Manager Online. In addition, four interviews for television programs was also broadcast.

## Asian Center for Transportation Studies (ACTS)

[www.ait.asia/acts](http://www.ait.asia/acts)

The Tripartite partnership project between ACTS, Toyota Motor Thailand Co., Ltd. (TMT), WHO Collaborating Center for Injury Prevention and Safety Promotion Khon Kaen Hospital, and Department of Rural Highways helped improve road safety among the community with the help of public participation under the project of “Knowledge Dissemination to Improve Road Safety for Rural Community”. By setting up the group of community leaders and providing academic assistance at Ban Gota, Khon Kaen, a significant improvement in risk behavior of motorists and a reduction in black spots were noticed.

ACTS also provided an in-house road safety training program for 12 Vietnamese government officers from Hanoi, Vietnam.



OUTREACH

## Response to Cyclone Nargis and AIT-Myanmar Fund

May

In May AIT launched a multiphased international funding initiative to aid victims of Cyclone Nargis in Myanmar which included an initial cash pledge by AIT of US\$ 45,000. The launch of the 'AIT-Myanmar Fund' was announced May 15 by AIT President Said Irandoust who stressed the Institute's financial contribution would fund immediate relief efforts in areas most devastated by the recent disaster.

AIT responded immediately by sending water, food, medicine and clothes to disaster affected people via our alumni network in Myanmar. Early plans included specific measures for human habitat and ecological recovery, coastal rehabilitation, and capacity building for victims' self-recovery.

The AIT-Myanmar Fund opened up opportunities for long term sustainable development strategies in Myanmar, eventually leading to vocational trainings and educational opportunities for those

in disaster affected areas. Water and Disaster Management courses at Yangon Technical University and Mandalay Technological University, both academic partners of AIT, were strengthened through the Fund.

AIT also reacted to the destruction caused by Cyclone Nargis by offering capacity building opportunities to professionals integral to the relief, recovery and reconstruction operations in Myanmar.

An interdisciplinary disaster assessment team of AIT experts visited Myanmar in early June to assess ways in which the Institute could assist medium and long term recovery efforts. In addition, intERLab coordinated with Myanmar Egress (ME) and Myanmar Computer Professional Association (MCPA) for a post-disaster recovery management and coordination program, which was useful in handling relief, recovery and resettlement activities in the aftermath of disaster.

## Greater Mekong Sub-region Academic and Research Network

[www.gmsarn.org](http://www.gmsarn.org)

The Greater Mekong Subregion Academic and Research Network (GMSARN) is an academic network composed of eleven of the region's top-ranking academic and research institutions. GMSARN carries out activities in the Greater Mekong Sub-region (GMS), specifically in Cambodia, China (Yunnan and Guansi Provinces), Lao PDR, Myanmar, Thailand and Vietnam. Its activities range from human resources development, joint research, and dissemination of information and intellectual assets generated in the GMS. GMSARN seeks to ensure that holistic intellectual assets generated, developed and maintained are shared by organizations within the region. Primary emphasis is placed on the complementary linkages found existing between technological and socio-economic development issues.

This year GMSARN released three editions of the GMSARN International Journal. The GMSARN International Journal is published regularly to facilitate knowledge exchange in Greater Mekong Sub-region countries on topics such as energy, natural resource management and development planning. The Third GMSARN International Conference 2008 was held in Kunming, China on 12-14 November and was organized by the Asian Institute of Technology, GMSARN, Kunming University of Science and Technology and Yunnan University.



### GMSARN member institutions:

Asian Institute of Technology, Thailand  
 Institute of Technology of Cambodia  
 Kunming University of Science and Technology, Yunnan Province, China  
 National University of Laos  
 Yangon Technological University, Myanmar  
 Khon Kaen University, Thailand  
 Thammasat University, Thailand  
 Hanoi University of Technology, Vietnam  
 Ho Chi Minh City University of Technology, Vietnam  
 Royal University of Phnom Penh, Cambodia  
 Yunnan University, China

## intERLab: a force for ICT/ Internet education in Asia-Pacific

[www.interlab.ait.asia](http://www.interlab.ait.asia)

Located on the campus of AIT, the Internet Education and Research Laboratory (intERLab) is a regional hub for Internet human resources development, training and education. It works with people from across the Asia-Pacific region, especially from the Greater Mekong Sub-region, on developing cutting-edge information and communication technologies (ICT).

In 2008, intERLab trained a total of 226 engineers involved in network administration and development. Out of 226 participants, 79 were from ISPs in Thailand and Cambodia, and 147 were from research and education networks in South-East Asia.

One of intERLab's signature projects for the year was the Asian Internet Engineering Conference (AINTEC) 2008. Now in its fourth year, AINTEC '08 provided an international technical forum for experts from industry and academia to address issues pertinent to the Asia and Pacific region. This forum studied the vast diversity evident in the region's socio-economic and networking conditions, and evaluated recent research results from the global Internet research community. Under the theme "Challenged Networks", AINTEC 2008 solicited research papers focused on improving digital communications in diverse situations. The conference's proceedings were published by the ACM Digital Library, a partner for the 2008 event.

The intERLab project has been endorsed by Thailand's ICT Ministry to help enable countries in the region to keep up with rapid developments in the ICT field. The concept of establish-



ing a fixed location for Internet human resources development has been discussed and endorsed by leading Asia-Pacific Internet organizations and several leading research institutions in Asia-Pacific and Europe.

This year, the 10th Asia Pacific Next Generation (APNG) Camp was hosted at AIT on 15 August 2008 and was supported by AIT's Internet Education and Research Laboratory (intERLab). The Camp brought together more than 150 students and young professionals from over 25 countries in the Asia-Pacific region. The event was sponsored by UniNet, National Institute of Information and Communications Technology (NICT) Japan, Live E! Japan as well as several other organizations.

## SEA-UEMA Project

### Can Universities Make a Difference in Building Livable Cities?

Today's universities have begun to reach out beyond the walls of academia to apply technical know-how to improve lives, strengthen communities and create livable cities. AIT's graduates and academic practitioners are amongst those in the region taking leadership roles in managing urban environmental issues at the municipal, city and international level.

AIT-based Southeast Asia Urban Environmental Application (SEA-UEMA) Project applied this belief in 2008, organizing a networking event at the World Urban Forum 4 in Nanjing, China in November. The networking event entitled "Can Universities Make a Difference in Building Livable Cities?" made use of SEA-UEMA's experiences to highlight lessons learned on how academic institutions can create meaningful partnerships with various stakeholders and organizations to effect lasting change in urban environment management, specifically in Southeast Asia.

During the networking event, professors from AIT's Urban Environmental Management (UEM) field of study spoke of the role of university alumni and their networks in building public sector capacity for advocating better urban environmental management. All stressed the need for collaboration between academia and practitioners in developing a framework for gender analysis in urban and environmental management. AIT graduates are playing a significant role in the public sector and as social and environmental entrepreneurs. Experts said the main challenge today is to ensure that accumulated knowledge and innovation is channeled to ensure that rapid urbanization in Asia is sustainable.

The World Urban Forum is a biennial gathering organized by the UN Habitat that is attended by a wide range of partners, from NGOs, community-based organizations, urban professionals and academics. It also attracts governments, local authorities and national and international associations of local governments. It gives all these actors a common platform to discuss urban issues in formal and informal ways in order to come up with action-oriented proposals to create sustainable cities. The 2008 forum attracted 15,000 participants from China and abroad.

The SEA-UEMA Project is a partnership of the Canadian International Development Agency (CIDA) and the Asian Institute of Technology. It aims to contribute to the improvement of urban environmental conditions in Southeast Asia covering Cambodia, Indonesia, Lao PDR, Philippines, Thailand, Timor-Leste and Vietnam. The project is engaged in three key urban environmental sub-sectors: water and sanitation, solid waste, and air pollution. It strives to enhance collaboration among various UEM stakeholders and to strengthen institutions and networks in Southeast Asia in advocating gender-responsive urban environmental policies and effective practices.

# NETWORK INSTITUTE

AIT strives to extend its role as a multicultural meeting space where partners and stakeholders from Asia and around the world develop meaningful and productive ties and collaborate for the good of people and communities everywhere.



## International Organizations

**International Women's Day 2008** (left): AIT took a leadership role in organising the "Investing in Women and Girls" seminar at the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in Bangkok, Thailand.



## International Media

Together with CSR Asia, in 2008 AIT staged an international press conference on the topic of Corporate Social Responsibility in Asia at the Foreign Correspondents' Club of Thailand in Bangkok.



## Connecting academia with the private sector

AIT engages the private sector in many ways. Late in the year, AIT hosted an international Sustainable Papermaking Seminar. The event brought together leading academic researchers and pulp and paper companies to review the latest findings on clean and efficient pulp and paper technologies and practices.

## Partnership with the public sector

A typical example of AIT's approach to partnership with the public sector was a Memorandum of Understanding signed between the Asian Institute of Technology and Thailand's Software Industry Promotion Agency (SIPA).



AIT's Professor Peter Haddawy, Vice President for Academic Affairs, (front row, fourth from right) was elected as ProsPER.Net Chairman of the Board.

## ProSPER.Net

In June 2008, AIT became a charter member of a new academic alliance called Promoting Sustainability in Postgraduate Education and Research Network (ProSPER.Net). ProSPER.Net is a consortium of 18 leading universities throughout the Asia-Pacific region. It is focused on integrating sustainable development into business school curricula, with financial support from the Ministry of Environment of Japan. AIT's Professor Peter Haddawy, Vice President for Academic Affairs, was elected as Chairman of the Board for a 2-year term.

## ASAIHL

During the year, AIT opened an office to house the Association of South East Asian Institutions of Higher Learning (ASAIHL) to stimulate new initiatives, promote the organization, and increase the quality of service to members. One of the office's key activities was the 2008 ASAIHL-Scopus Young Scientist Awards. This competition was open to outstanding young scientists and researchers in Asia-Pacific who made significant contributions to scholarship and research in four categories; 1) Life Sciences, 2) Engineering & Technology, 3) Medicine and, 4) Agricultural Sciences. The winners were formally announced and honored at a ceremony held at the Universiti Sains Malaysia, in Penang, Malaysia on 13 December 2008.

# FACULTY MEMBERS



## HONORARY FACULTY

The Institute is deeply grateful that Her Royal Highness Princess Maha Chakri Sirindhorn has seen fit to share her expertise and experience with faculty, staff and students, as an Honorary Faculty Member. In this singular position, Her Royal Highness is associated with the Remote Sensing and Geographic Information Systems Field of Study.

### EMERITUS PROFESSORS

#### A.S. Balasubramaniam

B.Sc., Ceylon University, Sri Lanka;  
Ph.D., Cambridge University, U.K.

#### Peter Edwards

B.Sc., Liverpool University, U.K.;  
Ph.D., University of Texas, U.S.A.

#### John Hugh Jones

B.S., M.S., University of California, U.S.A.

#### Pisidhi Karasudhi

B.Eng., Chulalongkorn University;  
M.Eng., Chulalongkorn-SEATO Graduate  
School of Engineering, Thailand;  
Ph.D., Northwestern University, U.S.A.

### FULL-TIME FACULTY

#### Nitin V. Afzulpurkar

B.Eng., University of Poona, India;  
Ph.D., University of Canterbury,  
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Associate Professor, Mechatronics  
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#### Mokbul Morshed Ahmad

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#### Rian Beise-Zee

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Assistant Professor, Geotechnical &  
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Technology, U.S.A.; M.S. Industrial  
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#### Sumanta Guha

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#### Peter Haddawy

B.A., Pomona College, Claremont,  
U.S.A.; M.Sc., Ph.D., University of Illinois,  
Urbana, U.S.A.  
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#### B. Harimurti W. Hadikusumo

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Ph.D., University of Hong Kong  
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# FINANCIAL STATEMENTS AND AUDITOR'S REPORT

## To the Board of Trustees of Asian Institute of Technology

I have audited the accompanying balance sheet of Asian Institute of Technology as at 31 December 2008, and the related statements of revenues and expenses, changes in fund balances and cash flows for the year then ended. These financial statements are the responsibility of the Organization's management. My responsibility is to express an opinion on these financial statements based on my audit. The financial statements of Asian Institute of Technology Limited for the year ended 31 December 2007 were audited by another auditor whose report dated 14 March 2008 expressed an unqualified opinion on those statements.

I conducted my audit in accordance with generally accepted auditing standards. Those standards require that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. I believe that my audit provides a reasonable basis for my opinion.

In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Asian Institute of Technology as at 31 December 2008, and the revenues and expenses, the changes in fund balances and cash flows for the year then ended, in accordance with generally accepted accounting principles appropriate for non-profit organization as set out in Note 2 to the financial statements.

**(Atchara Suknaibai boon)**  
**Certified Public Accountant**  
**Registration No. 4642**

**KPMG Phoomchai Audit Ltd.**  
**Bangkok**  
**11 March 2009**

## BALANCE SHEETS as at 31 December 2008 and 2007

Assets	Note	2008	2007
		<i>(in Baht)</i>	
<b>Current assets</b>			
Cash and cash equivalents	4	148,976,413	257,962,516
Current investments	5	609,535,835	290,732,194
Accounts receivable	6	78,938,755	51,126,998
Receivables from Program fund		18,004,086	20,057,266
Inventories		111,803	140,968
Assets held on behalf of donors	9	523,882,777	695,006,197
Assets held on behalf of UNEP RRC.AP	10	110,681,075	160,116,229
Other current assets		53,694,855	27,647,872
<b>Total current assets</b>		<b>1,543,825,599</b>	<b>1,502,790,240</b>
<b>Non-current assets</b>			
Restricted deposits of financial statements <sup>4</sup>		15,273,741	30,000,000
Property and equipment	7	678,370,400	721,402,921
<b>Total non-current assets</b>		<b>693,644,141</b>	<b>751,402,921</b>
<b>Total assets</b>		<b>2,237,469,740</b>	<b>2,254,193,161</b>
<b>Liabilities and fund balances</b>			
	Note	2008	2007
<b>Current liabilities</b>			
Accounts payable and accrued expenses	8	142,123,952	124,936,285
Advances from Program fund		212,367,774	203,904,501
Deposit payables		6,337,132	6,513,385
Amounts due to donors	9	523,882,777	695,006,197
Amounts due to UNEP RRC.AP	10	110,681,075	160,116,229
<b>Total current liabilities</b>		<b>995,392,710</b>	<b>1,190,476,597</b>
<b>Fund balances</b>			
Endowment fund balances		160,481,765	155,998,651
Capital funds balances		693,306,321	736,352,707
General reserve		388,288,944	171,365,206
<b>Total fund balances</b>		<b>1,242,077,030</b>	<b>1,063,716,564</b>
<b>Total liabilities and fund balances</b>		<b>2,237,469,740</b>	<b>2,254,193,161</b>

The accompanying notes are an integral part of these financial statements.

# Balance sheets As at 31 December 2008 and 2007

	Note	Restricted funds				Restricted general reserve (in Baht)	Restricted capital funds			Total	
		Unrestricted Current fund	Restricted fund-general	Endowment fund	Program fund		Property and equipment	Liquid assets	Agency fund	31 December 2008	31 December 2007
<b>Assets</b>											
<b>Current assets</b>											
Cash and cash equivalents	4	15,424,771	(61,752,039)	35,960	152,787,405	25,278,676	17,187,499	14,141	-	148,976,413	257,962,516
Current investments	5	16,948,440	36,633,335	160,471,681	32,666,794	362,815,585	-	-	-	609,535,835	290,732,194
Accounts receivable	6	23,535,341	11,448,914	-	43,954,500	-	-	-	-	78,938,755	51,126,998
Receivables from Program fund		-	-	-	18,004,086	-	-	-	-	18,004,086	20,057,266
Inventories		-	111,803	-	-	-	-	-	-	111,803	140,968
Assets held on behalf of donors	9	-	-	-	-	-	-	-	523,882,777	523,882,777	695,006,197
Assets held on behalf of UNEP RRC.AP	10	-	-	-	-	-	-	-	110,681,075	110,681,075	160,116,229
Other current assets		7,598,064	33,503,198	10,584	12,348,326	194,683	40,000	-	-	53,694,855	27,647,872
<b>Total current assets</b>		<b>63,506,616</b>	<b>19,945,211</b>	<b>160,518,225</b>	<b>259,761,111</b>	<b>388,288,944</b>	<b>17,227,499</b>	<b>14,141</b>	<b>634,563,852</b>	<b>1,543,825,599</b>	<b>1,502,790,240</b>
<b>Non-current assets</b>											
Restricted deposits of financial statements	4	-	-	-	15,273,741	-	-	-	-	15,273,741	30,000,000
Property and equipment	7	-	-	-	15,273,741	-	678,370,400	-	-	678,370,400	721,402,921
<b>Total non-current assets</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>15,273,741</b>	<b>-</b>	<b>678,370,400</b>	<b>-</b>	<b>-</b>	<b>693,644,141</b>	<b>751,402,921</b>
<b>Total assets</b>		<b>63,506,616</b>	<b>19,945,211</b>	<b>160,518,225</b>	<b>275,034,852</b>	<b>388,288,944</b>	<b>695,597,899</b>	<b>14,141</b>	<b>634,563,852</b>	<b>2,237,469,740</b>	<b>2,254,193,161</b>
<b>Liabilities and fund balances</b>											
<b>Current liabilities</b>											
Accounts payable and accrued expenses	8	62,385,041	14,729,654	36,460	62,667,078	-	2,291,578	14,141	-	142,123,952	124,936,285
Advances from Program fund		-	-	-	212,367,774	-	-	-	-	212,367,774	203,904,501
Deposit payables		1,121,575	5,215,557	-	-	-	-	-	-	6,337,132	6,513,385
Amounts due to donors	9	-	-	-	-	-	-	-	523,882,777	523,882,777	695,006,197
Amounts due to UNEP RRC.AP	10	-	-	-	-	-	-	-	110,681,075	110,681,075	160,116,229
<b>Total current liabilities</b>		<b>63,506,616</b>	<b>19,945,211</b>	<b>36,460</b>	<b>275,034,852</b>	<b>-</b>	<b>2,291,578</b>	<b>14,141</b>	<b>634,563,852</b>	<b>995,392,710</b>	<b>1,190,476,597</b>
<b>Fund balances</b>											
Endowment fund balances		-	-	160,481,765	-	-	-	-	-	160,481,765	155,998,651
Capital funds balances		-	-	-	-	-	693,306,321	-	-	693,306,321	736,352,707
General reserve		-	-	-	-	388,288,944	-	-	-	388,288,944	171,365,206
<b>Total fund balances</b>		<b>-</b>	<b>-</b>	<b>160,481,765</b>	<b>-</b>	<b>388,288,944</b>	<b>693,306,321</b>	<b>-</b>	<b>-</b>	<b>1,242,077,030</b>	<b>1,063,716,564</b>
<b>Total liabilities and fund balances</b>		<b>63,506,616</b>	<b>19,945,211</b>	<b>160,518,225</b>	<b>275,034,852</b>	<b>388,288,944</b>	<b>695,597,899</b>	<b>14,141</b>	<b>634,563,852</b>	<b>2,237,469,740</b>	<b>2,254,193,161</b>

The accompanying notes are an integral part of these financial statements.

## Statements of revenues and expenses for the years ended 31 December 2008 and 2007

Assets	Note	2008	2007
(in Baht)			
<b>Revenues</b>			
Tuition and other fees - net		569,607,645	483,447,770
Research grants and contracts		174,024,397	220,218,571
Support operations		165,288,098	169,751,851
Training		270,712,254	201,837,803
Other contributions		17,491,616	7,295,111
Faculty secondments		62,415,369	67,710,839
<b>Total revenues</b>		<b>1,259,539,379</b>	<b>1,150,261,945</b>
<b>Expenses</b>			
Salaries and benefits	11	485,945,250	490,163,526
Materials, supplies and services		263,530,449	293,548,147
Contracted services		101,779,006	81,984,317
Communication and travel		73,030,200	59,620,818
Utilities and insurance		51,364,479	56,066,643
Faculty secondments		62,415,369	67,710,839
<b>Total expenses</b>		<b>1,038,064,753</b>	<b>1,049,094,290</b>
<b>Excess of revenues over expenses</b>		<b>221,474,626</b>	<b>101,167,655</b>
Depreciation	7	71,653,774	84,313,130
<b>Excess of revenues over expenses including depreciation</b>		<b>149,820,852</b>	<b>16,854,525</b>
<b>Non operating income/(expenses)</b>			
Investment income		35,251,318	31,709,184
Other income		-	1,602,420
Gains (losses) on exchange rate		4,957,584	-10,575,730
Gains (losses) on disposal of assets		-235,425	2,896,747
<b>Net excess of revenues over expenses</b>		<b>189,794,329</b>	<b>42,487,146</b>

The accompanying notes are an integral part of these financial statements.

## Statements of revenues and expenses For the years ended 31 December 2008 and 2007

Note	Restricted funds				Restricted capital funds			Total
	Unrestricted Current fund	Restricted fund-general	Endowment fund	Restricted Program fund	general reserve	Property and equipment	Liquid assets	
	(in Baht)							
<b>Revenues</b>								
Tuition and other fees - net	474,226,527	89,265,025	-	6,116,093	-	-	-	483,447,770
Research grants and contracts	3,287,736	422,846	-	169,563,815	750,000	-	-	220,218,571
Support operations	2,771,154	162,792,634	-	-	(275,690)	-	-	169,751,851
Training	-	29,532,193	-	241,180,061	-	-	-	201,837,803
Other contributions	4,405,425	7,607,060	4,129,131	-	-	1,350,000	-	7,295,111
Faculty secondments	-	62,415,369	-	-	-	-	-	62,415,369
<b>Total revenues</b>	<b>484,690,842</b>	<b>352,035,127</b>	<b>4,129,131</b>	<b>416,859,969</b>	<b>474,310</b>	<b>1,350,000</b>	<b>-</b>	<b>1,259,539,379</b>
<b>Expenses</b>								
Salaries and benefits	287,703,396	63,780,126	-	134,461,728	-	-	-	485,945,250
Materials, supplies and services	13,795,040	90,283,334	325,770	159,126,305	-	-	-	293,548,147
Contracted services	18,578,034	38,491,985	-	44,708,987	-	-	-	81,984,317
Communication and travel	7,204,701	18,996,012	-	46,829,487	-	-	-	73,030,200
Utilities and insurance	42,840,496	6,185,126	-	2,338,857	-	-	-	51,364,479
Faculty secondments	-	62,415,369	-	-	-	-	-	62,415,369
<b>Total expenses</b>	<b>370,121,667</b>	<b>280,151,952</b>	<b>325,770</b>	<b>387,465,364</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,038,064,753</b>
<b>Excess of revenues over expenses</b>	<b>114,569,175</b>	<b>71,883,175</b>	<b>3,803,361</b>	<b>29,394,605</b>	<b>474,310</b>	<b>1,350,000</b>	<b>-</b>	<b>221,474,626</b>
Depreciation	-	-	-	-	-	71,653,774	-	84,313,130
<b>Excess of revenues over expenses including depreciation</b>	<b>114,569,175</b>	<b>71,883,175</b>	<b>3,803,361</b>	<b>29,394,605</b>	<b>474,310</b>	<b>(70,303,774)</b>	<b>-</b>	<b>149,820,852</b>
<b>Non operating income/(expenses)</b>								
Investment income	27,155,704	4,898,172	679,753	-	2,517,689	-	-	31,709,184
Other income	-	-	-	-	-	-	-	1,602,420
Gains (losses) on exchange rate	4,186,904	770,680	-	-	-	-	-	4,957,584
Gains (losses) on disposal of assets	-	-	-	-	-	(235,425)	-	(235,425)
<b>Net excess of revenues over (under) expenses</b>	<b>145,911,783</b>	<b>77,552,027</b>	<b>4,483,114</b>	<b>29,394,605</b>	<b>(70,539,199)</b>	<b>(189,794,329)</b>	<b>-</b>	<b>42,487,146</b>

The accompanying notes are an integral part of these financial statements.

## Statements of changes in fund balances For the years ended 31 December 2008 (with comparative totals for the year ended 31 December 2007)

	Restricted funds			Restricted capital funds			Total
	Unrestricted Current fund	Restricted fund-general	Endowment fund	Property and equipment	Liquid assets	31 December 2007	
<b>Balances 1 January, as previously reported</b>	-	-	<b>155,998,651</b>	<b>736,352,707</b>	-	<b>1,063,716,564</b>	<b>1,011,176,368</b>
<b>Additional (Deductions):</b>							
Net excess of revenue over (under) expenses	145,911,783	77,552,027	-4,483,114	(70,539,199)	-	189,794,329	42,487,146
<b>Total</b>	<b>145,911,783</b>	<b>77,552,027</b>	<b>160,481,765</b>	<b>665,813,508</b>	<b>-</b>	<b>1,253,510,893</b>	<b>1,053,663,514</b>
<b>Transfer to/ (from) other funds:</b>							
- General Fund	-	-	-	-	-	145,911,783	75,414,028
- Restricted current fund	-	-	-	-	-	77,552,027	38,427,009
- General	-	-	-	-	-	-	179,074
- Endowment	(145,911,783)	(77,552,027)	(9,697,739)	18,028,643	-	(215,132,906)	(115,157,949)
- General Reserve	-	-	-	9,076,633	-	18,774,372	19,808,288
- Program fund	-	-	-	-	-	-	-
- Capital Fund	-	-	-	-	-	(27,105,276)	(18,670,450)
- Property and equipment	-	-	(9,076,633)	-	-	-	-
- Liquid assets	-	-	-	-	-	(917,410)	1,076,113
Transfers (to)/ from funds held on behalf of others	-	-	-	387,537	-	-	-
Transfers (to)/ from funds of UNEP RRC-AP	-	-	(103,780)	-	-	-	-
Reclassification to receivables from Program fund	-	-	-	-	-	94,072,433	184,941,432
Reclassification to advance from Program fund	-	-	(104,588,886)	-	-	(104,588,886)	(175,964,495)
<b>Total</b>	<b>(145,911,783)</b>	<b>(77,552,027)</b>	<b>(29,394,605)</b>	<b>27,492,813</b>	<b>-</b>	<b>(11,433,863)</b>	<b>10,053,050</b>
<b>Balances as at 31 December</b>	<b>-</b>	<b>-</b>	<b>160,481,765</b>	<b>693,306,321</b>	<b>-</b>	<b>1,242,077,030</b>	<b>1,063,716,564</b>

The accompanying notes are an integral part of these financial statements.

## Statements of cash flows For the years ended 31 December 2008 and 2007

Assets	Note	2008	2007
(in Baht)			
<b>Cash flows from operating activities</b>			
Opening fund balances		1,063,716,564	1,011,176,368
Closing fund balances		1,242,077,030	1,063,716,564
Movement in fund balances		178,360,466	52,540,196
<i>Adjustments to reconcile movement of fund balances</i>			
Doubtful debts		6,822,723	15,086,556
(Gains) losses on disposal of assets		235,425	-2,896,746
Depreciation		71,653,774	84,313,130
Unrealised (gain) loss on exchange rate		-9,317,643	18,905,961
<b>Movement in fund balances from operating activities before changes in operating assets and liabilities</b>		<b>247,754,745</b>	<b>167,949,097</b>
<i>Changes in operating assets and liabilities:</i>			
Accounts receivable		-35,660,176	5,983,068
Receivables from Program fund		2,053,180	17,890,777
Inventories		29,165	155,429
Other current assets		-26,046,983	2,185,533
Advanced deposits		-	245,216
Accounts payable and accrued expenses		17,187,667	21,061,313
Advances from Program fund		8,463,273	-26,867,713
Deposit payables		-176,253	-309,668
<b>Net cash provided by operating activities</b>		<b>213,604,618</b>	<b>188,293,052</b>
<b>Cash flows from investing activities</b>			
Increase in current investment		-315,161,901	-121,084,557
Proceeds from sale of equipment		4,054,182	3,028,818
Purchase of property and equipment		-32,910,860	-21,494,280
Bank under commitment		14,726,259	-
<b>Net cash used in investing activities</b>		<b>-329,292,320</b>	<b>-139,550,019</b>
<b>Net increase (decrease) in cash and cash equivalents</b>		<b>-115,687,702</b>	<b>48,743,033</b>
Cash and cash equivalents at beginning of year		257,962,516	225,881,176
Effects of exchange rate changes on balances held in foreign currencies		6,701,599	-16,661,693
<b>Cash and cash equivalents at end of year</b>	<b>4</b>	<b>148,976,413</b>	<b>257,962,516</b>

The accompanying notes are an integral part of these financial statements.

## Notes to the financial statements For the years ended 31 December 2008 and 2007

These notes form an integral part of the financial statements.

The financial statements were authorized for issue by the President of the Institute on 11 March 2009

### 1. General information

The Asian Institute of Technology ("the Institute") is a regional post-graduate institution. The Institute operates on a not-for-profit basis. The Institute is located at Km 42 Paholyothin Highway, Klong Luang, Pathum Thani, Thailand.

The principal activities of the Institute are providing programs in engineering, science, advanced technologies and related management and administration.

### 2. Basis of preparation of financial statements

The financial statements issued for Thai reporting purposes are prepared in the Thai language. This English translation of the financial statements has been prepared for the convenience of readers not conversant with the Thai language.

The financial statements are prepared in accordance with Thai Accounting Standards ("TAS") including related interpretations and guidelines promulgated by the Federation of Accounting Professions ("FAP") and with generally accepted accounting principles in Thailand.

The Institute has adopted the following new and revised Thai Accounting Standards (TAS) which were issued by the FAP during 2007 and effective for accounting periods beginning on or after 1 January 2008:

TAS 29 (revised 2007)	Leases
TAS 35 (revised 2007)	Presentation of Financial Statements
TAS 39 (revised 2007)	Accounting Policies, Changes in Accounting Estimates and Errors

The adoption of these new and revised TAS does not have any material impact on the Institute's financial statements

The FAP has issued during 2008 a number of revised TAS which are only effective for financial statements beginning on or after 1 January 2009 and have not been adopted in the preparation of these financial statements. These new and revised TAS are disclosed in note 16.

The financial statements are presented in Thai Baht, rounded in the notes to the financial statements to the nearest thousand Baht, unless otherwise stated. They are prepared on the historical cost basis.

The preparation of financial statements in conformity with TAS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. These judgements, estimates and assumptions are based on historical experience and various other factors, including

management's assessment of the potential impact on the Institute's operations and financial position of the global economic crisis.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods, if the revision affects both current and future periods.

### Fund accounting

To ensure observance of limitations and restrictions placed on the use of the resources available to the Institute, the books of account of the Institute are maintained in accordance with the principles of "fund accounting" which is appropriate for a non-profit organisation. This is the procedure by which resources for various purposes are classified for accounting and reporting purposes into funds, which are in accordance with activities or objects specified. Within each fund group, fund balances which are restricted by outside sources are so indicated and are distinguished from unrestricted fund allocated to specific purposes by action of the governing board. The governing board retains full control of unrestricted funds to use in achieving institutional objectives.

The purposes and objects of the funds are as follows:

#### Unrestricted Current Fund (Fund 10)

This fund is the operating account of the Institute. It is available for general operating purposes without restrictions, such as might be imposed by a grant agency or donor.

#### Restricted Fund-General (Fund 21)

The use of this fund is restricted to those units holding non-profit making status. This includes: AIT Center, AIT Centre in Vietnam, certain campus services, academic-related services supporting academic units and certain administrative functions.

#### Restricted Endowment Fund (Fund 22)

The Endowment Fund is used where donors have stipulated, as a condition of their gift, that the principal is to be maintained inviolate and in perpetuity. Some, or all, of the income from the investments may be used to further the objectives of the endowment.

#### Restricted Fund-General Reserve (Fund 23)

Donors and other agencies have granted funds to the Institute on the basis that the principal is held inviolate and in perpetuity. The income from the fund is available to the Institute to be expended in accordance with agreements

established by the gifting party at the point of the donation or grant. The Board of Trustees stipulates that the surplus of the unrestricted current fund, restricted fund – general and the excess of the activities under Program fund which were completed during the year each year are transferred to the General Reserve and that the funds must be held for future use.

**Sponsored Program Fund (Fund 30)**

The sponsored program fund is subject to restrictions by donors or other agencies limiting its use for funding specific research projects, conferences, short courses, workshops or similar projects.

**Capital Fund (Fund 41)**

This fund holds the Institute's property, plant and equipment, including library books.

**Capital Fund - Liquid Assets (Fund 42)**

This fund records the renovations, repairs and replacement to the existing assets.

**Agency Fund (accounted for as Fund 50 and Fund 60)**

These funds are held on behalf of donors and other agencies and are disbursed in accordance with their instructions. The Institute has no title to these funds and the associated revenues and expenses have been excluded from the statement of revenues and expenses. The assets held on behalf of these others have been disclosed in the balance sheet together with the associated liability for the same amount to these other parties.

**3. Significant accounting policies**

**(a) Basis of preparation**

The financial statements of the Institute comprise the funds of the Institute and those of its branch to which it holds title.

*Branch*

A Branch is an autonomous or semi-autonomous operating entity within an organisation which does not have a separate legal identity. The Branch will have separately identifiable assets, liabilities, cash flows, revenues and expenses over which it has accountability.

**(b) Foreign currencies**

*Foreign currency transactions*

Transactions in foreign currencies are translated into Thai Baht at the foreign exchange rates ruling at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated to Thai Baht at the foreign exchange rates ruling by the Bank of Thailand at that date. Foreign exchange differences arising on translation are recognised in the statement of revenues and expenses.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to Thai Baht using the foreign exchange rates ruling at the dates of the transactions.

*Foreign entities*

The assets and liabilities of foreign entities are translated to Thai Baht at the foreign exchange rates ruling at the balance sheet date.

The revenues and expenses of foreign entities are translated to Thai Baht at rates approximating the foreign exchange rates ruling at the dates of the transactions.

Foreign exchange differences arising on translation are recognised in the statement of revenues and expenses.

**(c) Cash and cash equivalents**

Cash and cash equivalents comprise cash balances, call deposits and highly liquid short-term investments.

**(d) Accounts and other receivables**

Accounts and other receivables are stated at their invoice value less allowance for doubtful accounts.

The allowance for doubtful accounts is assessed primarily on analysis of payment histories and future expectations of customer payments. Allowances made are based on historical written-off patterns. Bad debts are written off when incurred.

**(e) Inventories**

Inventories are stated at the lower of cost and net realisable value.

Cost is calculated using the first in first out principle and comprises all costs of purchase and other costs incurred in bringing the inventories to their present location and condition.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs necessary to make the sale.

An allowance is made for all deteriorated, damaged, obsolete and slow-moving inventories.

**(f) Property and equipment**

*Owned assets*

Property and equipment are stated at cost less accumulated depreciation and impairment losses.

Donated assets are stated at fair value at the time of donation, deemed cost. Subsequently they are stated at the deemed cost less accumulated depreciation.

*Depreciation*

Depreciation is charged to the statement of revenues and expenses on a straight-line basis over the estimated useful lives of each part of an item of assets. The estimated useful lives are as follows:

Campus development	10 years
Buildings	40 years
Furniture and equipment	5 - 10 years
Transportation equipment	8 - 15 years
Library assets	6 years

No depreciation is provided on assets under construction.

**(g) Impairment**

The carrying amounts of the Institute's assets are reviewed at each balance sheet date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated.

An impairment loss is recognised whenever the carrying amount of an asset exceeds its recoverable amount. The impairment loss is recognised in the statement of revenues and expenses unless it reverses a previous revaluation credited to fund balance, in which case it is charged to fund balance.

**(h) Payables**

Payables are stated at cost.

**(i) Employee benefit**

Defined contribution plans

Obligations for contributions to the Social Securities Fund, Provident Fund and Insured Saving Fund are recognised as expenses in the statement of revenues and expenses as incurred.

**(j) Provisions**

A provision is recognised in the balance sheet when the Institute has a present legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount

of the obligation. If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability.

**(k) Revenue**

Revenue received for the provision of goods and services are recognised in the period in which the goods are provided or the services rendered.

*Tuition and fees*

Tuition and fees is recognised on an accrual basis.

*Grant income*

Grant income is recognised when it is received due to the inherent uncertainty involved in both the rights to the revenue and the timing of the revenue.

*Donations*

Due to the absence of any obligation on the donor to make the donation and the uncertain nature of the timing of receipt, donations have to be recognised on a cash basis.

*Contribution in kind*

These represent services donated to the Institute in the form of a secondment of faculty or staff and where the value is estimated based on the approved Institute professional salary scale. The amounts are recognised as revenues and expenses in the restricted general fund.

*Investment income*

Investment income is recognised on an accrual basis.

**(l) Expenses**

*Operating leases*

Payments made under operating leases are recognised in the statement of income on a straight line basis over the term of the lease. Contingent rentals are charged to the statement of revenues and expenses for the accounting period in which they are incurred.

Expenses are recognised in the period they are incurred. Interest expense is recognised in the statement of revenues and expenses as it accrues.

#### (m) Income tax

No income tax provision is made in the financial statements as the Institute is exempt from payment of income tax in accordance with the notification issued in the Royal Gazette dated 25 October, 2510 B.E. (1967).

Except for services rendered by the Conference Center, the Institute has been exempted from Value Added Tax (VAT), under Section 4(4) of the Royal Decree issued under the Revenue Code governing exemption from Value Added Tax (No. 239), B.E. 2534 which was additionally amended under the Royal Decree (No. 254) B.E. 2535.

#### 4. Cash and cash equivalents

	2008	2007
	<i>(in thousand Baht)</i>	
Bank accounts	90,965	128,342
Fixed deposits with maturity three months or less	58,011	159,621
Cash and deposits at financial institutions	148,976	287,963
Less Deposits pledged as collateral	-	(30,000)
<b>Cash and cash equivalents</b>	<b>148,976</b>	<b>257,963</b>

As at 31 December 2007, fixed deposits of Baht 30.0 million were pledged as collateral for bank overdraft and outstanding letters of guarantee issued by the same bank (see note 14).

The currency denomination of cash and cash equivalents as at 31 December was as follows:

	2008	2007
	<i>(in thousand Baht)</i>	
Thai Baht (THB)	143,826	262,058
United States Dollars (USD)	5,150	25,905
<b>Total</b>	<b>148,976</b>	<b>287,963</b>

#### 5. Current investments

	2008	2007
	<i>(in thousand Baht)</i>	
Fixed deposits with maturity more than three months	624,810	290,732
Less Deposits pledged as collateral	(15,274)	-
<b>Net</b>	<b>609,536</b>	<b>290,732</b>

As at 31 December 2008, fixed deposits of Baht 15.27 million were pledged as collateral for bank overdraft and outstanding letters of guarantee issued by the same bank (see note 14).

The currency denomination of fixed deposits as at 31 December was as follows:

	2008	2007
	<i>(in thousand Baht)</i>	
Thai Baht (THB)	588,176	247,113
United States Dollars (USD)	36,634	43,619
<b>Total</b>	<b>624,810</b>	<b>290,732</b>

#### 6. Accounts receivable

	2008	2007
	<i>(in thousand Baht)</i>	
Tuition and other fees	39,912	28,518
Others	60,936	37,695
	<b>100,848</b>	<b>66,213</b>
Less allowance for doubtful accounts	(21,909)	(15,086)
<b>Net</b>	<b>78,939</b>	<b>51,127</b>

#### Doubtful debts expenses for the year

	<b>21,909</b>	<b>15,086</b>
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Aging analyses for accounts receivable were as follows:

	2008	2007
	<i>(in thousand Baht)</i>	
Current	17,473	17,127
Overdue:		
Less than 3 months	21,173	13,764
3-6 months	27,662	12,589
6-12 months	11,177	7,337
Over 12 months	23,363	15,396
	<b>100,848</b>	<b>66,213</b>
Less allowance for doubtful accounts	(21,909)	(15,086)
<b>Net</b>	<b>78,939</b>	<b>51,127</b>

The currency denomination of accounts receivable as at 31 December was as follows:

	2008	2007
	<i>(in thousand Baht)</i>	
Thai Baht (THB)	62,079	42,741
United States Dollars (USD)	36,389	21,670
Euro (EUR)	159	1,802
Swedish Krona (SEK)	2,221	-
<b>Total</b>	<b>100,848</b>	<b>66,213</b>

#### 7. Property and equipment

	Campus development	Buildings	Furniture and equipment	Transportation equipment	Library assets	Assets under construction	Total
	<i>(in thousand Baht)</i>						
<b>Cost</b>							
At 1 January 2007	48,629	1,140,891	854,109	25,141	252,919	1,296	2,322,985
Additions	142	2,236	11,185	-	7,547	384	21,494
Disposals	-	-	(5,664)	(6,273)	-	-	(11,937)
Transfers	-	384	613	-	-	(997)	-
<b>At 31 December 2007 and 1 January 2008</b>	<b>48,771</b>	<b>1,143,511</b>	<b>860,243</b>	<b>18,868</b>	<b>260,466</b>	<b>683</b>	<b>2,332,542</b>
Additions	2,334	851	23,083	-	6,493	149	32,910
Disposals	-	(550)	(2,905)	(881)	-	(683)	(5,019)
Transfers	-	-	-	-	-	-	-
<b>At 31 December 2008</b>	<b>51,105</b>	<b>1,143,812</b>	<b>880,421</b>	<b>17,987</b>	<b>266,959</b>	<b>149</b>	<b>2,360,433</b>
<b>Accumulated depreciation</b>							
At 1 January 2007	41,869	509,947	750,890	14,045	221,880	-	1,538,631
<b>Depreciation charge for the year</b>	<b>1,406</b>	<b>28,535</b>	<b>39,758</b>	<b>2,124</b>	<b>12,490</b>	<b>-</b>	<b>84,313</b>
Disposals	-	-	(5,533)	(6,272)	-	-	(11,805)
<b>At 31 December 2007 and 1 January 2008</b>	<b>43,275</b>	<b>538,482</b>	<b>785,115</b>	<b>9,897</b>	<b>234,370</b>	<b>-</b>	<b>1,611,139</b>
Depreciation charge for the year	1,291	28,576	30,395	1,489	9,903	-	71,654
Disposals	-	(1)	(307)	(422)	-	-	(730)
<b>At 31 December 2008</b>	<b>44,566</b>	<b>567,057</b>	<b>815,203</b>	<b>10,964</b>	<b>244,273</b>	<b>-</b>	<b>1,682,063</b>
<b>Net book value</b>							
<b>At 31 December 2007</b>	<b>5,496</b>	<b>605,029</b>	<b>75,128</b>	<b>8,971</b>	<b>26,096</b>	<b>683</b>	<b>721,403</b>
<b>At 31 December 2008</b>	<b>6,539</b>	<b>576,755</b>	<b>65,218</b>	<b>7,023</b>	<b>22,686</b>	<b>149</b>	<b>678,370</b>

The gross amount of fully depreciated property and equipment that was still in use as at 31 December 2008 amounted to Baht 1,012.04 million (2007: Baht 875.47 million).

#### 8. Accounts payable and accrued expenses

	2008	2007
	<i>(in thousand Baht)</i>	
Owing to suppliers	21,830	23,550
Provision for insured saving fund tax	15,520	16,544
Advance from students	14,105	17,172
Withholding tax payable	8,667	10,407
Accrued expenses	10,992	8,589
Payables to staff	5,579	2,360
Advance received from donors	906	116
Others	64,525	46,198
<b>Total</b>	<b>142,124</b>	<b>124,936</b>

The currency denomination of accounts payable and accrued expenses as at 31 December was as follows:

	2008	2007
	<i>(in thousand Baht)</i>	
Thai Baht (THB)	134,991	124,629
United States Dollars (USD)	7,124	13
Euro (EUR)	9	294
<b>Total</b>	<b>142,124</b>	<b>124,936</b>

## 9. Assets held on behalf of, and amounts due to, donors

The agency fund represents amounts held on behalf of donors and other agencies and are disbursed in accordance with their instructions. The Institute has no title to these funds or the associated revenues and expenses. The fund balances as at 31 December 2008 and 2007 and revenues and expenses for the years then ended were as follows:

	2008	2007
	<i>(in thousand Baht)</i>	
Funds received from donors	419,876	689,946
Application of funds		
- Salaries and other benefits	6,375	7,207
- Scholarships	521,662	381,828
- Contracted services	64,633	51,436
- Communication and travel	3,523	5,616
Total funds applied	596,193	446,087
<b>Surplus (deficit) for the year</b>	<b>(176,317)</b>	<b>243,859</b>

	2008	2007
	<i>(in thousand Baht)</i>	
Assets held on behalf of donors		
Cash and deposits at financial institutions	126,822	381,475
Fixed deposits	395,418	312,836
Accounts receivable	1,643	695
<b>Total assets held on behalf of donors</b>	<b>523,883</b>	<b>695,006</b>

	2008	2007
	<i>(in thousand Baht)</i>	
Amounts due to donors		
Balance at 1 January	685,985	443,202
Surplus for the year	(176,317)	243,859
Transfers from other funds	1,305	-
Transfers to other funds	(387)	(1,076)
Balance at 31 December	510,586	685,985
Liabilities	13,297	9,021
<b>Total amounts due to donors</b>	<b>523,883</b>	<b>695,006</b>

## 10. Assets held on behalf of, and amounts due to, UNEP RRC.AP

	2008	2007
	<i>(in thousand Baht)</i>	
Funds received from UNEP RRC.AP	75,640	139,603
Total funds applied	119,021	190,411
<b>Deficit for the year</b>	<b>(43,381)</b>	<b>(50,808)</b>
Assets held on behalf of UNEP RRC.AP		
Cash and deposits at financial institutions	107,421	152,560
Accounts receivable	1,844	6,472
Fixed assets	1,416	1,084
<b>Total assets held on behalf of UNEP RRC.AP</b>	<b>110,681</b>	<b>160,116</b>

## Amounts due to UNEP RRC.AP

Balance at 1 January	138,156	188,964
Deficit for the year	(43,381)	(50,808)
Balance at 31 December	94,775	138,156
Liabilities	15,906	21,960

<b>Total amounts due to UNEP RRC.AP</b>	<b>110,681</b>	<b>160,116</b>
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## 11. Personnel expenses

	2008	2007
	<i>(in thousand Baht)</i>	
Wages and salaries	433,043	429,263
Social security costs	6,409	6,662
Contribution to provident fund and insured saving fund	17,330	17,584
Personal income tax of employees	7,460	9,686
Other costs	21,703	26,969
<b>Total</b>	<b>485,945</b>	<b>490,164</b>

	2008	2007
	<i>(in thousand Baht)</i>	
Number of employees as at 31 December		
Unrestricted and Restricted Funds	793	848
Other sections	120	103
<b>Total</b>	<b>913</b>	<b>951</b>

## Provident Fund and Insured Saving Fund

The Institute and its staff jointly operate the Insured Saving Fund, a post-retirement defined contribution scheme. Effectively from 1 February 2004, a Provident Fund has replaced the Insured Saving Fund. The Institute contributes to the fund at the rate of 10% of their basic salary, and the employees contribute to the fund at rates 3% to 10% of their basic salary. Effectively from 1 April 2006, the Institute contributes to the fund at the rate of 5% of their basic salary, and the employees contribute to the fund at rates 3% to 5% of their basic salary. The fund is managed by TISCO Assets Management Co., Ltd. The assets of the Insured Saving Fund were substantially transferred to the new Provident Fund.

## 12. AIT Center in Vietnam (AITCV)

The Institute has a branch operation in Hanoi, Vietnam of which the purpose of the its operation is to:

- Educate and train students, technocrats, business managers and other professionals; and
- Organize research outreach and development activities as well as the transfer of technologies as required by the economic development of the country.

The results of the operations which have been included as part of the results of the Restricted Fund - General (Fund 21) were summarised below:

	2008	2007
	<i>(in thousand Baht)</i>	
Revenues	128,391	87,496
Expenses	88,258	78,177
<b>Excess of revenue over expenses</b>	<b>40,133</b>	<b>9,319</b>

Financial statements for the years ended 31 December 2008 and 2007 have been produced and approved by the management of the branch.

Significant accounting transactions between the Institute and its branch were eliminated from these financial statements.

## 13. Financial instruments

### Financial risk management policies

A financial instrument is any contract that gives rise to both a financial asset of one enterprise and a financial liability or equity instrument of another enterprise at the same time. The Institute does not hold or issue derivative financial instruments for speculative or trading purposes.

Risk management is integral to the whole business of the Institute. The Institute has a system of controls in place to create an acceptable balance between the cost of risks occurring and the cost of managing the risks. The management continually monitors the Institute's risk management process to ensure that an appropriate balance between risk and control is achieved.

### Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Institute's operations and its cash flows.

The Institute's exposures to interest rate risk relate primarily to its cash and cash equivalents at banks as well as fixed deposits. However, since most of its financial assets bear floating interest rates or fixed interest rates which are close to the current market rates, the interest rate risk is expected to be minimal.

### Foreign currency risk

Currency risk occurs when the value of financial instruments changes in accordance with the fluctuations of the exchange rate, which may affect gain/loss on foreign exchange currency of the present and future years.

The exposure of the foreign currency risk to the Institute relates primarily to the receipts for tuition and sponsored funds, and the receipts and payments for sponsors and

donors. The adverse impact from foreign exchange rate fluctuations forced the Institute to revise the tuition fee from USD to Thai Baht, starting August 2006. Regarding the receipts and payments to sponsors and donors, the Institute has maintained the level of USD 1 million, which is sufficient for natural hedging. The USD 1 million level was approved by the Audit and Executive Committees at their meetings on 5 November 2007. The management will be closely monitoring the optimal level given the changing composition of foreign currencies. Having said all the above, the foreign currency risk has been minimised.

At 31 December, the Institute was exposed to foreign currency risk in respect of financial assets and liabilities denominated in the following currencies in Baht equivalent:

	2008	2007
	<i>(in thousand Baht)</i>	
<b>Assets</b>		
United States Dollars (USD)	78,173	91,194
Euro (EUR)	159	1,802
Swedish Krona (SEK)	2,221	-
<b>Total</b>	<b>80,553</b>	<b>92,996</b>
<b>Liabilities</b>		
United States Dollars (USD)	7,124	13
Euro (EUR)	9	294
<b>Total</b>	<b>7,133</b>	<b>307</b>
<b>Net exposure</b>	<b>73,420</b>	<b>92,689</b>

### Credit risk

Credit risk refers to the risk that counterparty may default on its contractual obligations, which may result in a financial loss.

Although the Institute has established the credit policy which includes policies and procedures with regards to tuition, fees, and other costs, it remains exposure to the risk primarily for the supply of educational services to self-support students. While proof of availability of funds is required before those students are accepted for enrollment (in the form of bank statement, land title deed, or authorised documentary proof of third party sponsorship), and also advanced payment of the first semester tuition and fees are mandatory. However, these are not sufficient and are not fully considered as collateral in respect of fees for future semesters of enrollment.

### Liquidity risk

The Institute monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Institute's operations and to mitigate the effects of fluctuations in cash flows.

#### **Fair values**

The fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

The fair value of cash and cash equivalent, current investments, accounts and other receivable and accounts and other payable are approximate to their carrying value presented in balance sheet due to the relatively short-term maturity of these financial instruments.

#### **14. Commitments**

##### **Land lease**

The Institute successfully renewed the lease with the Thammasat University on 10 June 2005. The new lease also contains a Memorandum of Understanding between the Institute and Thammasat University, concerning academic co-operation, as an integral part of the new lease agreement to lease land for 30 years from 19 January 2001 to 18 January 2031 in the amount of Baht 600,000; on expiry of the lease agreement it will give the Institute the right to continue to lease the land. However, the consideration for this discount is that should the lease not be renewed and the land reverts to Thammasat University (University), so all buildings and infrastructure on the Institute's site will become the property of the University.

Furthermore, the Lease is contingent on a Memorandum of Understanding (MOU) between the University and the Institute. The MOU provides that the Institute will make available and fund a total of sixty scholarships over the thirty-year life of the Lease.

Scholarships made in accordance with the MOU will cover tuition fees for qualified lecturers from the University, selected by the University, to pursue a Doctoral degree at the Institute. As at 31 December 2008, the scholarship commitment amounted to totalling Baht 77.8 million (2007: Baht 77.8 million).

##### **Bank guarantees**

As at 31 December 2008, bank guarantees which were issued by the bank on behalf of the Institute in respect of bank overdraft facility and certain performance bonds as required in the normal course of operations of the Institute amounted to totalling Baht 5.5 million (2007: Baht 6.8 million).

#### **15. Contingent liabilities**

As at 31 December 2008, there are five labour cases pending for trial at the Court involving with the claims under the Labour Protection Law and the Labour Relation Law. Four cases have been decided by the Central Labour Court favourably to the Institute. However, the four cases are still pending in the Supreme Court. Another case is pending for trial in the Central Labour Court. The Management believes that the outcome of all these cases will be in favour of the Institute.

#### **16. Thai Accounting Standards (TAS) not yet adopted**

The Institute has not adopted the following new and revised TAS that have been issued as of the balance sheet date but are not yet effective. These new and revised TAS will become effective for financial periods beginning on or after 1 January 2009

TAS 36 (revised 2008)	<i>Impairment of Assets</i>
TAS 54 (revised 2008)	<i>Non-current Assets Held for Sale and Discontinued Operations</i>

The adoption and initial application of these new and revised TAS is not expected to have any material impact on the Institute's financial statements.

#### **17. Reclassification of accounts**

Certain accounts in the 2007 financial statements have been reclassified to conform to the presentation in the 2008 financial statements.

	Before Reclassify	2008 Reclassified	2007 After
			(in million Baht)
<b>Statement of income</b>			
Training	186	16	202
Other contributions	23	(16)	7
Salaries and benefits	511	(21)	490
Contracted services	61	21	82
		-	

The reclassifications have been made because, in opinion of management, the new classification is more appropriate to Institution.



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