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Ministry of Science and Technology, Thailand

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As of December, 2010
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DIRECTORS
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- Dr Sugimin Pranoto, AIT Indonesia (until 30 April 2010)
- Mr Nico Barito, AIT Indonesia (interim from 1 May 2010)
- Dr Jonathan L. Shaw, AIT Extension
- Professor Kanchana Kanchanasut, Internet Education & Research Laboratory (intERLab)
- Dr Naveed Anwar, AIT Consulting
- Mr Sanjeev Jayasinghe, Fundraising
- Professor Jayant K. Routray, ASEAN Regional Center of Excellence on Millennium Development Goals based at AIT (until 31 July 2010)
- Dr Sandro Calvani, ASEAN Regional Center of Excellence on Millennium Development Goals based at AIT (from 1 September 2010)
- Professor Ajit P. Annachhatre, AIT-United Nations Office at AIT
- Mr Borje Wallberg, Yunus Center at AIT (until 31 March 2010)
- Dr Riaz Rahman Khan, Yunus Center at AIT (from 7 June 2010)
- Ms Leena Wokeck, CSR (Corporate Social Responsibility) Asia Center at AIT
- Dr Evangelos Angelos Afendras, Center for Learning Innovation & Quality (until 31 January 2010)
- Professor Gabor Louis Hornyak, Center for Learning Innovation & Quality (from 1 November 2010)
- Professor Dennes T. Bergado, Unified Programs at AIT (from 15 April 2010)
- Dr Nitin Kumar Tripathi, Academic Quality Assurance and Accreditation at AIT (until 1 June 2010)
- Mr Nicholas Innes-Taylor, Co-Director for Professional Programs at AIT
- Professor Richard J. Welford, Co-Director for Professional Programs at AIT
The brainchild of one of Thailand’s great statesmen, H.E. Mr. Pote Sarasin, and established in 1959 by Royal Decree of His Majesty the King of Thailand, the Asian Institute of Technology has always been a bold example of a cosmopolitan approach to higher education in Asia.

For more than a half-century, AIT’s unique ethos has contributed to the achievement of peaceful integration and sustainable development in the region by spurring the vast potential of its people with advanced levels of higher learning.

Honored with the Magsaysay Award in 1989 and the Friendship Order of the Government of Vietnam in 2006, the Institute has played a significant role in developing human capacity, thereby contributing to Asia’s rise in the world.

Her Royal Highness Princess Maha Chakri Sirindhorn’s induction into the new AIT Hall of Fame in 2010 was an expression of the Institute’s profound appreciation for Her Royal Highness’ support rendered to the Asian Institute of Technology. Indeed, the permanent induction into the Hall of Fame of eleven deserving AIT alumni representing Pakistan, The Philippines, Chinese Taipei, Indonesia and Thailand was a wonderful testament to AIT’s enduring ability to inspire people to greatness.

AIT’s historical mission took on added significance in 2010, when the Institute embarked on a new path with the signing of the landmark Charter of the Asian Institute of Technology. The re-establishment of AIT as an International Inter-governmental Institution of higher learning marked the end of one era and the beginning of a new one.

Signed by representatives of twelve countries and one international organization at the Ministry of Foreign Affairs of Thailand in Bangkok, the Charter reaffirmed AIT’s commitment to the continent. A signature development in AIT’s history, the AIT Charter of 2010 signaled our intent to respond to today’s complex realities by positioning AIT at the head of the queue in response to the challenges facing Asia and beyond in the twenty-first century.

H.E. Dr. Tej Bunnag
CHAIRMAN OF THE BOARD OF TRUSTEES
ASIAN INSTITUTE OF TECHNOLOGY
Since the day it opened its doors, the Asian Institute of Technology has sought to push higher learning beyond boundaries and into new frontiers. This year AIT continued its historical journey by challenging convention and embracing innovative change to advance quality teaching, research, capacity building and societal-outreach for the benefit of Asia and beyond.

In 2010, AIT once again proudly realized its mission to “to develop highly qualified and committed professionals who play a leading role in the region’s sustainable development and its integration into the global economy.” It did so by creating partnerships for learning across geographical, cultural and intellectual lines, discovering and applying research findings to real world problems, providing professional training for people from North Korea to Africa and all points in between, and by awarding 805 postgraduate degrees, the second most in AIT’s history.

The formal adoption of the New AIT Charter to reinstitute AIT as an international intergovernmental organization capped off a year of memorable initiatives which illustrated AIT’s forward-looking agenda. In particular, the introduction of a number of new professional degree programs signified our desire to equip professionals with the skills needed for the evolving workplace of today and for the changing jobs of tomorrow.

Throughout the year, great strides were made across the institute to refine operations, enhance efficiencies, and to plan strategically for the future. It was significant that even against the backdrop of declining financial resources AIT continued to strengthen the quality, relevance and impact of its work, as well as its connection to and interaction with the people, organizations and governments of the region and around the world.

AIT Centers such as the Yunus Center at AIT, CSR Asia Center at AIT, ASEAN Regional Center of Excellence on MDGs, AIT-United Nations Environment Programme Regional Resource Center for Asia and Pacific, Center of Excellence on Sustainable Development in the Context of Climate Change, as well as the partnerships with Regional Integrated Multi-hazard Warning System for Asia and Africa (RIMES) and Télécoms Sans Frontières validated our vision and solidified our position to tackle the multiple challenges facing the continent.

Throughout the year, I continued to be impressed the institute’s faculty, staff, students and alumni, whose notable accomplishments are highlighted in this Annual Report 2010. It is this catalogue of success that excites my passion for what lies ahead for all those connected to the Asian Institute of Technology.

Professor Said Irandoust
PRESIDENT
ASIAN INSTITUTE OF TECHNOLOGY
Home to many of the region’s top experts, the Asian Institute of Technology (AIT) is one of Asia’s leading higher learning institutions. Situated just north of metropolitan Bangkok, AIT focuses on engineering and technology, environmental resources and development, management and capacity-building. More than a national university, AIT is a unique international intergovernmental organization that is regionally focused, global in outlook and cosmopolitan in character.

Founded in 1959, AIT fosters an exceptional learning experience in a multicultural environment that reaches beyond boundaries. Today it carries out its mission “to develop highly qualified and committed professionals who play a leading role in the region’s sustainable development and its integration into the global economy” ... by supporting technological change and sustainable development through rigorous academics, research, capacity building and outreach.

AIT engages with public and private sector partners throughout the region and with some of the top universities and international organizations in the world. In addition to its main campus in Bangkok, Thailand, AIT has established centers in Vietnam and Indonesia.

The main AIT campus in Thailand is a tremendous mosaic of nationalities, ethnicities and socioeconomic backgrounds. Diversity of students, staff and faculty members is a valued part of campus life and leads to levels of
cross-cultural engagement and international experiences not found at other university campuses.

AIT’s degree programs are provided by its School of Engineering and Technology; School of Environment, Resources and Development; and School of Management. Students benefit from challenging academic programs and exciting faculty-student research projects. All of these combine to make AIT the choice for talented people who are intellectually curious, and dedicated to advancing their lives through an exceptional higher learning experience.

In addition to offering degree courses (bachelor, master’s and doctoral), AIT offers short courses / training programs through AIT Extension, and consultancy services through AIT Consultancy. AIT also houses a number of research and outreach centers, such as the Center of Excellence in Nanotechnology; ASEAN Regional Center of Excellence on the Millennium Development Goals (ARCMDG); Yunus Center at AIT, established in partnership with Professor Muhammad Yunus, recipient of the 2006 Nobel Peace Prize; CSR Asia Center at AIT; and the Centre of Excellence on Sustainable Development in the Context of Climate Change (SDCC).

AIT is host to the 3RKH - Reduce, Re-use and Recycle Regional Knowledge Hub supported by the Asian Development Bank (ABD), UNEP and UNESCAP. AIT also hosts the AIT-UNEP Regional Resource Centre for Asia and the Pacific (AIT-UNEP RRC.AP), a joint center with UNEP; the Regional Integrated Multi-hazard Early Warning System for Asia and Africa (RIMES); and the Asia office of Télécoms Sans Frontières.

Through its faculty from more than 20 countries, its student body from over 50 countries and its 18,000 graduate-level alumni from 85 countries, AIT produces global citizens rooted in the perspectives of Asia. With partners all over the world, a five-decade-long history of academic excellence, and an enduring reputation for responding to emerging regional and global challenges, AIT is advancing new understanding and applying practical solutions across Asia, through its knowledge hub in Thailand. Responding to today’s reality with a progressive New Charter, AIT is positioned as an ideal place to take on the new challenges of the new century.

**AIT Facts**

- **Students:** 2,300 from 50+ countries
- **Faculty:** 120+ from 20+ countries
- **Alumni:** 18,000 from 85 countries
- **Partners:** 330
- **Schools:** 3
- **Research and Outreach Centers:** 15
- **Research & Outreach Projects:** 400
- **Fields of Study:** 32
- **Research Staff:** 100+
JANUARY

AIT among founders of new Amata Science City

AIT was among the founders of the new “Amata Science City” in Chon Buri province’s Amata Nakorn Industrial Estate. It joined a number of leading higher education institutions and private sector firms in Thailand in signing a Memorandum of Understanding (MoU) with Thailand’s Ministry of Science and Technology and Amata Corporation to establish the “Amata Science City” in Chon Buri province’s Amata Nakorn Industrial Estate.

ARCMDG holds first advisory board meeting

The first Advisory Board meeting of ASEAN Regional Center of Excellence on Millennium Development Goals (ARCMDG) expressed its satisfaction on the progress achieved by ARCMDG since its establishment. The Board also decided to further collaboration with the CSR Asia Center at AIT, Yunus Center at AIT and AIT’s Center of Excellence on Sustainable Development in the Context of Climate Change (SDCC) to catalyze and help achievements of MDGs in the ASEAN Region. It was also decided that the AIT Extension and the Geoinformatics Center would be main partners for implementing different training programs. Mr. Apichai Sunchindah, Dato’ Dr. Ahamed bin Sipon, Dr. Donald Tambunan, Dr. Francois Loriot, Dr. Gotham Arya, Dr. Hanifa Mezoui, and Ms. Nanako Tsukahara (represented for Mr. Minar Pimple) attended the meeting. Prof. Jayant K. Routray, Director of the ARCMDG, highlighted the activities undertaken so far by ARCMDG.

Consultants present their findings on higher education

External consultants Dr. Markku Oksanen and Mr. Niclas Lindgren presented their interim findings on the scenario of higher education. They stated that student mobility numbers are expected to rise to 7.2 million by the year 2025 and half of these students would originate from China and India. During a presentation, they revealed that one-third of the global investment in higher education is occurring in Asia, and that China and India have a pool of 40 million students. Mr. Niclas Lindgren works as the Managing Director and Senior Management Consultant at Cerion Solutions Limited, and has special expertise on developing the public sector and the higher education sector, in particular in Scandinavia. Dr. Markku works for Poyry plc as a director responsible for business development in Asia in the environment and water engineering sector.
Indian Ambassador pays maiden visit to AIT

Ambassador of the Republic of India to Thailand, H.E. Mr. Pinak Ranjan Chakravarty, on his maiden visit to AIT, reaffirmed Indian support to the Institute. During an interaction with senior AIT management as well as members of the AIT-India Task Force, the Ambassador revealed that during a recent education fair at Bangkok, almost 60 institutes from India had participated. He recalled that during his school days, many of his classmates were from Thailand. AIT President Prof. Said Irandoust briefed the Ambassador on issues related to AIT’s strategic direction, apart from issues of outsourcing and public-private partnership. The Ambassador remarked that the Indian government was already outsourcing a significant number of service operations to the private sector, since the public sector was unable to cope with the volume of services.

AIT demonstrates model of Monkey Cheek Project

The steering committee for “Monkey Cheek Physical Model for Sanam Chai-Mahachai Canal Project: The King of Thailand’s Initiative,” expressed full satisfaction at the demonstration project during a visit to AIT. Dr. Sumet Tantivejkul, Executive Chairperson of the advisory committee for the project, made his remarks work during a demonstration at the AIT outdoor laboratory. AIT President Prof. Said Irandoust remarked that AIT was proud to be part of a project which is dear to His Majesty the King of Thailand. The Monkey Cheek project in Thailand’s Mahachai-Sanamchais performs the function of storing flood waters in the upper areas, while at the same time releasing water into the Gulf of Thailand in relation to the tide levels of the sea by relying on the appropriate use of gravity and pumping stations.

Germany assures AIT of support

Germany assured AIT of its support, while suggesting that new partnership mechanisms should be explored. H.E. Dr. Hanns Schumacher, Ambassador of Germany to Thailand, during his visit to AIT, suggested that AIT engage itself in establishing the ASEAN-German University or the Asian-German University, which could be similar to the Vietnam-German University that was established in 2008 at Ho Chi Minh City, Vietnam. The Ambassador was particularly interested in AIT’s involvement in capacity building in Afghanistan, and advised AIT to get in touch with the German embassy in Afghanistan to explore possible partnerships. AIT involvement with various African countries, namely South Africa, Ethiopia, Nigeria and Uganda in the areas of capacity building and higher learning in science and technology for development was also discussed. H.E Dr. Schumacher also expressed satisfaction at the current Deutscher Akademischer Austausch Dienst (DAAD) scholarships for students from Cambodia, Laos, Myanmar and Vietnam to attend AIT.
CSR Asia Center at AIT launched

The Corporate Social Responsibility (CSR) Asia Center at AIT was formally launched at a grand function organized at the Foreign Correspondents’ Club of Thailand in Bangkok. AIT President Prof. Said Irandoust signed a formal agreement with Chairman of CSR Asia, Dr. Richard Welford, for the establishment of this Center in the presence of H.E. Mr. Kasit Piromya, Minister of Foreign Affairs of Thailand. The Report: “Corporate Social Responsibility in Thailand” was also released in the presence of the Foreign Minister of Thailand. The Center is a joint venture partnership between the Asian Institute of Technology (AIT) and CSR Asia. The new center is situated on the main AIT campus in Pathumthani, Thailand. The new Center, which will focus its research, training, and consultancy work on Thailand and the Greater Mekong Sub-region, is the first-of-its-kind for CSR Asia. The tie-up with an institution of higher learning like AIT brings the unique opportunity to launch an Executive Master’s degree in CSR.

EHMF to install Micro Hydro Solar Hybrid System

The EBARA Hatakeyama Memorial Fund (EHMF), Japan signed an MoA with AIT for the installation of a Micro Hydro – Solar Hybrid System at AIT’s Energy Park. An EHMF delegation, led by Mr. Shotaro Kuryu, Managing Executive Officer for Fluid Machinery and Systems Company, EBARA Corporation, visited AIT to sign the agreement. Micro Hydro – Solar Hybrid System is a micro hydro generating system using a standardized agricultural pump as a turbine. The system will be installed along with the existing energy generation system at AIT. The equipment, and its installation and operation will be funded by EHMF.

ADB Vice President compliments AIT Strategy 2013

Dr. Bindu N. Lohani, Vice President, Asia Development Bank (ADB) complimented AIT for its Strategy 2013 by stating that a strategy helps in clearing what he termed as “goal congestion” within organizations. He also appreciated AIT President Prof. Said Irandoust for the regular interactions and exchange of ideas being organized at AIT. An AIT alumnus, having received his Doctoral Degree in Environmental Engineering (Environmental Technology and Management) from AIT in 1977, Dr. Lohani also delivered an extramural lecture on campus. He stated that the shift from the public to the private sector implies that new jobs and skills like public-private partnership (PPP) specialists and private sector development specialists will be in demand and replace earlier jobs like agricultural credit specialists and agronomists. He identified risk management specialists, climate change specialists, regional cooperation specialists, resettlement specialists, environmental safeguard specialists, results management specialists and webmasters as emerging jobs.
Five AIT students volunteer for Télécoms Sans Frontières roster

Five AIT students joined the volunteer force of Télécoms Sans Frontières (TSF) after completion of the TSF three-day training schedule. The training included hands-on sessions on mobile satellite devices, WiFi, GPS and mapping, apart from information on administration, finances and communications for emergency operations. The training camp ended with a simulation exercise. The Asia-Pacific base of TSF is located at AIT’s main campus in Thailand. AIT students worked with TSF in disaster relief operations in Manila, which was affected by Tropical Storm Ketsana, and at Tuguegarao, Philippines, which was affected by Typhoon Parma in October 2009. They also participated in a relief operation in Pakistan following an earthquake that impacted the country in November 2008.

University Pierre et Marie Curie interested in AIT

France’s University Pierre et Marie Curie (UPMC), Paris evinced interest in collaborating with AIT, particularly in offering joint courses at the Master’s level. Dr. Gilbert Béréziat, Vice President for International Relations of UPMC, who was accompanied by Dr. Isabelle Limon-Boulez, Researcher in Natural Sciences at UPMC, revealed that UPMC had created 15 International Master’s and three international Bachelor’s programs. The offerings are currently targeted towards European and North American markets and UPMC is seeking to diversity towards South and South-East Asia. UPMC is particularly keen to explore partnerships in the field of medical imaging and medical robotics. Receiving the delegates, Prof. Sudip K. Rakshit, Vice President (Research), remarked that AIT has a very active mechatronics field of study. UPMC and AIT could synergize their energies in the field of medical engineering, he told the delegation while adding that AIT was already working with many European institutions and encouraging mobility among faculty, students and staff.

AIT Mathivation Center’s training seminar in Cambodia

131 teachers and students from eight provinces in Cambodia participated in a “Training Seminar on Educational and Entrepreneurship Resourcefulness,” organized at Khe marak University in Phnom Penh, Cambodia by the AIT Mathivation Center. The seminar followed a request by Dr. Chan Roath, President of the Cambodian Mathematical Society and Director of the Scientific Research Department at the Cambodian Ministry of Education, Youth and Sports. Organized by Mr. Farid Nolen, visiting fellow at AIT, the seminar was one among many in the series of workshops organized by the AIT Mathivation Center. Earlier a workshop was held for teachers of Ruamrudee International School (RIS) on the use of storytelling, metaphors, experiential learning and philosophy of life and communication style as pedagogical tools to make mathematics and science education interesting. A teaching training workshop was also organized at Savannakhet University in Lao PDR.
**MAY**

**IROST signs agreement with AIT on climate change technologies**

The Iranian Research Organization for Science and Technology (IROST), along with other partners signed a contract with AIT on a host of issues including identifying early stage green technologies, reducing greenhouse gas emissions, and conducting economic assessment of the impact of climate change. The agreement was signed by the President of AIT, Prof. Said Irandoust with Prof. Abbas Taeb, President, IROST; Dr. Mahmoud Molanejad, Director, IOR-ARC.RCSTT; and Mr. Mohammad Panahifar, General Manager, MIM. The contract was signed in the presence of H.E. Mr Majid Bizmark, Ambassador of Iran to Thailand and Mr. Homayoun Roustaei Khoshkebijari, Counsellor and Deputy Head of Mission. H.E. Mr. Majid Bizmark expressed hope that the contract with AIT would help bring researchers from Iran and AIT together. The ambassador also remarked that AIT was a reputed institution in the region and that it is well accepted by the Iranian Government.

**534 students graduate**

Five-hundred and thirty-four students received their degrees at the 113th Graduation Ceremony of the Asian Institute of Technology on 26 May 2010. Thirty-one students received doctoral degrees while the others received Master’s degrees. Delivering the commencement address during the morning session, H.E. Prof. J.B. Disanayaka, Ambassador of Sri Lanka to Thailand, welcomed the students “From the groves of academe to the world of reality.” The ambassador defined graduation as a landmark, turning point in life. Delivering the commencement address during the afternoon session, Dr. Prasert Patramai, Chairman, TEAM group of companies, remarked that AIT had provided him “adequate knowledge for the development and use of technology for solving many key problems in Asia.” An alumnus of AIT, Dr. Prasert said AIT alumni are increasingly occupying key positions within the Asia-Pacific region.

**Sweden’s Sida optimistic about continued partnership**

Two senior officials of the Swedish International Development Cooperation Agency (Sida) paid a fact-finding visit to AIT and expressed optimism that existing partnerships between AIT and Sida should evolve and prosper well into the future. Mr. Magnus Lindell, Assistant Director General, Head of Operations, Swedish International Development Cooperation Agency (Sida), Stockholm and Prof. Anders Granlund, Counsellor, Director, Swedish Environment Secretariat in Asia (SENSA), Embassy of Sweden, Bangkok visited AIT. Mr. Lindell informed that the next phase of Sida-AIT Cooperation would continue under the new format of its umbrella funding principle. “We certainly look forward to concluding evolving forms of cooperation with AIT,” Magnus Lindell said, emphasizing ways in which Sida, through its extensive array of global networks, could assist to attract partners for cooperation with AIT. AIT’s formal cooperation with Sida started in 1988.
UNDP views AIT as a “capacity building arm”

The United Nations Development Program (UNDP) would like to further utilize AIT as an “implementing or capacity building arm” in the region. A UNDP delegation led by Mr. Nicholas Rosellini, Deputy Assistant Administrator and Deputy Regional Director at the Regional Bureau for Asia and the Pacific UNDP, evinced keen interest in AIT, particularly in the activities of ASEAN Regional Center of Excellence for Millennium Development Goals (ARCMGD). UNDP is working closely with ARCMGD to establish the MDG roadmap for the ASEAN region. Mr. Rosellini was also interested in the projects implemented under the Wetland Alliance Program (WAP), Yu-nus Center at AIT, and AIT Extension. UNDP’s Asia-Pacific Regional Centre (APRC) is keen to engage AIT on its training and outreach programs. AIT can work with available UNDP data by converting and archiving it into “case studies”. UNDP also expressed interest in AIT’s work on “social protection” and officials said how there could be synergies in this important area.

US Embassy Thailand, AIT discuss ‘creative possibilities’

Ms. Cynthia A. Griffin, Commercial Counselor, Embassy of the United States of America in Thailand, and Ms. Jennie Ness, Regional Intellectual Property Office, US Patent and Trademark Office, Embassy of the United States of America in Thailand, visited AIT to explore possibilities for collaboration. AIT President Prof. Said Irandoost welcomed the delegation and noted how the embassy’s initiatives dovetail with the aspirations of the Asian Institute of Technology. Reminding the officials of America’s instrumental role in the founding of AIT, and of its significant impact on the historical development of the Institute, the president enjoined the United States to join AIT again in full partnership. Ms. Griffin explained that the United States was working in close partnership with the Government of Thailand to assist the country to realize its goal of achieving a “creative economy.”

CIRAD inks partnerships with AIT

CIRAD (Centre de coopération internationale en recherche agronomique pour le développement) and AIT, reaffirmed their partnership by signing a MOU and two MOA’s. The agreements were signed by Dr. Jean-Chalres Maillard, Regional Director of CIRAD for Continental South East Asia, and Prof. Said Irandoost, President. The two institutions decided to promote cooperation in joint research and academic exchanges focused on sustainable development. The agreements stated that the two partners would jointly promote education, research and outreach cooperation by encouraging direct contact and cooperation between their departments, research units and scientists.
H.E. William J. Burns, Under Secretary for Political Affairs, United States of America.

The delegation of ISR included Mr. Stephen Jimenez of Air Force Research Lab (AFRL) and Mr. Dean Annesser, Research Fellow. Dr. Rui Fernandes of University of Beira Interior (UBI), Portugal, and Dr. Durairaju Kumaran Raju of National University of Singapore (NUS) represented the two partner organizations of SCINDA. Others who participated in the event included Dr. Noppadol Phien-wej, Associate Dean, School of Engineering and Technology (SET); Dr. Pritam Shrestha, Head, External Relations and Communications Office (ERCO); Dr. Nitin Kumar Triparthi, Coordinator of Remote Sensing and Geographical Information Systems (RS/GIS) field of study at SET; Dr. Taravudh Tipdecho, Research Specialist, SET; Mr. Tenzin Rabgyal, Senior Program Officer, ERCO and Mr. Sanit Arunpold, Doctoral Student at RS/GIS.

JULY

U.S. Under Secretary Burns describes AIT as a “world class” institute

H.E. William J. Burns, Under Secretary for Political Affairs, United States, described AIT as “world class.” He stated this while delivering a talk, “A Renewed U.S.-Thai Alliance for the 21st Century” at Chulalongkorn University. While describing his visit to Bangkok as “a part of a larger effort by the Obama administration to enhance and deepen our engagement in the Asia-Pacific, and in particular, in Southeast Asia and with ASEAN,” the distinguished diplomat made a special reference to U.S.-Thai Creative Partnership. In the context of U.S.-Thai Creative Partnership, H.E. Burns stated that “Western Digital’s work with the world-class Asian Institute of Technology in Thailand to develop degree programs in Information Technology is just one example of the type of cooperation we want to expand under this Creative Partnership.”

AIT ties up with Institute of Scientific Research, Boston College

AIT signed an MoA with the Institute of Scientific Research (ISR), Boston College, USA to forge cooperative research under the framework of Scintillation Network Decision Aid (SCINDA) research network. ISR and AIT will conduct regional research on geodynamics, real-time corrections of Global Positioning System (GPS) signals from solar extremes, and solar flares in upper atmosphere. ISR’s SCINDA comprises of high-precision GPS Base station and Very High Frequency (VHF) receivers. SCINDA involves over 40 institutions and is a network of ground sensors developed to generate real-time communication outage maps and warnings for satellite communication and GPS users. It ensures exchange of ionospheric data recorded by each institution as a part of collaborative research activities.

Timor Leste needs strong involvement of AIT: Minister

Minister of Agriculture and Fisheries of Timor Leste, H.E. Mariano Assanami Sabino, called for strong involvement of AIT, in a meeting of the country’s Strategic Program 2020 for Agricultural Growth and Sustainable Food Security. The Minister stated this following consultative meetings held after the two-day national workshop on “Review of Rice Cultivation Systems in Timor Leste” held in Dili on June 29-30, 2010. The Minister stressed the need for the presence of AIT at this meeting to assist in formulating a five-year plan of activities for rice intensification. The two-day national workshop was hosted by the MAF (Timor Leste) in co-sponsorship with German Technical Cooperation (GTZ), European Union (EU), and AIT.
Her Royal Highness Princess Maha Chakri Sirindhorn graces AIT booth at Science Fair

Her Royal Highness Princess Maha Chakri Sirindhorn graced the booth set up by AIT at the Science and Technology Fair organized at the Bitech Bang–Na Conference Center in Bangkok. After inaugurating the fair, Her Royal Highness visited the AIT booth where Prof. Athapol Noonhom, Coordinator, Food Engineering and Bioprocess Technology field of study presented various research projects undertaken by the School of Environment, Resources and Development (SERD) and the School of Engineering and Technology (SET). Among the projects at the display included "Production of Instant Rice Using Combined Microwave-Fluidized Bed Drying" by Ms. Jiraporn Sripiinyowanich, and Mr. Ekkapong Cheevitsopon. Supervised by Prof. Athapol Noonhom (SERD), the project is funded by the Royal Thai Government.

French Ambassador signals continued commitment to AIT

Ambassador of France to Thailand H.E. Gildas Le Lidic, during his maiden visit to the Asian Institute of Technology (AIT), reaffirmed the commitment of France to sign the new AIT Charter. The French Delegation, including Mr. Maurice Siveton, Counselor for Regional Cooperation in Southeast Asia and his Assistant Ms. Cécile Farau, toured the AIT campus. Visiting Faculty, Prof. Noël Crespi, seconded by Telecom Sud Paris (TSP) introduced AIT students who had received scholarships from France to pursue a dual degree at TSP. The delegation witnessed a demonstration of the CanalAVIST project at AIT’s intERLab, as well as the demonstration of the virtual dentistry project ‘Haptics’ that has been developed by the Computer Science and Information Management field of study in partnership with Thammasat University. A tsunami demonstration was organized at the Water Engineering and Management (WEM) field of study by Dr. Mukand Singh Babel.

Bhutan explores AIT Habitech’s sustainable building technology

H.E. Mr. Dorji Wangdi, Minister of Labour and Human Resources, Government of Bhutan, expressed keenness in using the building technology created by AIT’s Habitech Center in large construction projects in Bhutan. While visiting AIT, the Minister stated that AIT’s Habitech Center could positively contribute to and support capacity development of the construction sector in Bhutan. The Minister was accompanied by Mr. Sangay Dorjee, Director of Department of Occupational Standards, and Mr. Kuenzang Dechen, Counsellor of the Embassy of Bhutan to Thailand. Mr. Gyanendra R. Sthapit, Coordinator of the Habitech Center also met Deputy Prime Minister and Minister of Works and Human Settlement of Bhutan, H.E. Yeshey Jimba, during the “Bhutan Construction Expo 2010” where AIT’s Habitech Center’s technology was showcased.
SEPTEMBER

Israel for greater academic and industrial ties with AIT

His Excellency Mr. Itzhak Shoham, Ambassador of Israel to Thailand, evinced great interest in the new Charter of the Asian Institute of Technology (AIT), and stated that Israel was looking forward towards greater academic and industrial ties with AIT. This was stated by the ambassador during his maiden visit to AIT on 14 September 2010. The ambassador was accompanied by Mr. Ilan Weitzman, First Secretary, and Deputy Chief of Mission. Apart from meeting senior AIT officials, the ambassador also visited the ASEAN Regional Center of Excellence on MDGs, Yunus Center at AIT, AIT Consulting, Energy Park and the Center of Excellence in Nanotechnology.

AITVN unveils new home at Can Tho University

Asian Institute of Technology in Vietnam (AITVN) unveiled its new AIT-Vietnam office and classroom facilities located on the campus of the Can Tho University (CTU) on 10 September 2010. Speaking on the occasion, the AIT President Prof. Said Irandoust remarked that the event was a testimony of 17 years of strong and sustained partnership between the Government of Vietnam and AIT. AIT and CTU signed an agreement to facilitate efficient delivery of joint programs in education, research and other services for the region. Prof. Said Irandoust, President AIT and Dr. Amrit Bart, Director of AIT in Vietnam participated in the opening ceremony held at Can Tho University Campus.

‘We will act as ambassadors of AIT,’ Ethiopian Minister

H.E. Dr. Abera Deressa, State Minister, Ministry of Agriculture and Rural Development (MoARD), Ethiopia, described AIT as an institute which focuses on appropriate technology and stated that Ethiopia has benefitted a lot from this institute. Participating in a Professional Development Program on “Sustainable Development in Rural and Agricultural Practices using IT Applications,” organized by AIT Extension, the minister stated that the entire delegation of nine persons who benefitted from the program will act as ambassadors of AIT. The State Minister remarked that AIT had provided his team with practical examples of using technology in rural development and agriculture. Complimenting AIT for hosting and organizing the program, the Minister stated that the AIT focus on appropriate technology for developing countries proved to be very beneficial for the participants. H.E. Dr. Abera revealed that Ethiopia’s five-year plan is aimed at growth and transformation, and that the knowledge gained at AIT would help in planning. “Our collaboration with AIT will continue in the future,” the minister added.
Sri Lankan President assures AIT of support for satellite campus

AIT President Prof. Said Irandoust met the President of Sri Lanka, H.E. Mahinda Rajapakse, to discuss the issue of establishment of an AIT satellite campus in Sri Lanka. In response to AIT’s desire to establish a satellite campus, the Government of Sri Lanka expressed its intent to provide land for this purpose. President Rajapakse expressed his full support and endorsement to the proposal to establish a full-fledged AIT campus in Sri Lanka. He assured AIT that the government would help in providing land as well as facilitate the process. The Sri Lankan government would also help AIT in attracting global investors to participate in this venture. The AIT President, along with Mr. Sanjeev Jayasinghe, Director Fundraising, AIT, visited Sri Lanka on the invitation of the Deputy Minister of External Affairs of Sri Lanka, H.E. Mr. Gitanjana Gunawardena to discuss the proposed AIT satellite campus.

New Philippine Ambassador pledges to work with AIT

The Philippines’ new Ambassador to Thailand, H.E. Mrs. Linglingay F. Lacanlale, applauded AIT’s emphasis on developing quality graduates who match the needs of society and the marketplace through highly flexible professional programs, as well as its overall emphasis on practical and relevant skills development through its pedagogy and curricula. Four months into her diplomatic posting to Thailand, H.E. Mrs. Linglingay F. Lacanlale visited AIT on 14 October 2010. Ambassador Lacanlale was joined by embassy officials Ms. Maria Teresa L. Taguiang, Deputy Chief of Mission, and Mrs. Princess Umandap Tomas-Tayao, Third Secretary and Vice Consul. “We can work with you to make AIT better known in the Philippines,” Ambassador Lacanlale told President Irandoust. She expressed particular interest in AIT’s cutting-edge Disaster Preparedness, Mitigation and Management Program. “We must work hard to make the Philippines more aware of these and other highly beneficial programs at AIT,” she stressed.

AIT takes lead at Asia-Pacific Climate Change Adaptation Forum 2010

AIT played a leading role at the 2010 Asia-Pacific Climate Change Adaptation Forum (Forum 2010), which was convened at the United Nations Conference Centre in Bangkok on 21-22 October, 2010. Organized by the Regional Climate Change Knowledge Platform for Asia (Adaptation Knowledge Platform) and the Asia Pacific Adaptation Network (Adaptation Network), the event brought together more than 500 participants from across the Asia-Pacific region, including government representatives, researchers, practitioners, NGOs, international organizations, regional intergovernmental bodies, media and the private sector.
Pakistan seeks AIT’s help in reducing vulnerability

Pakistan’s Environment Minister H.E. Mr. Hameed Ullah Jan Afridi sought the assistance of AIT in reducing vulnerability in Pakistan. He said the Government of Pakistan was analyzing causes of environmental degradation, and it was keen that AIT should suggest measures to reduce vulnerability from natural disasters. The minister, who visited AIT on 11 November 2010, stated that it was a great honor to be a founding member of AIT and wanted the engagement levels with AIT to be scaled-up. H.E. Mr. Afridi was welcomed by Prof. Sudip Kumar Rakshit, Vice President for Research, who elaborated on the partnership between Pakistan and AIT, and highlighted AIT’s expertise in the field of environment. The minister was accompanied by H.E. Mr. Sohail Mahmood, Ambassador of Pakistan to Thailand; and Mr. Syed Zafar Ali Shah, Commercial Counselor, Embassy of Pakistan, Thailand.

16 students awarded by Japanese Ambassador

Sixteen students of AIT were awarded certificates by H.E. Mr. Seiji Kojima, Ambassador Extraordinary and Plenipotentiary, Embassy of Japan, at a simple and elegant ceremony at AIT on 1 November 2010. H.E. Mr. Kojima remarked that he was very happy to visit the AIT campus. “AIT is very widely known in Japan,” H.E. Mr. Kojima added. The ambassador was accompanied by Mr. Masato Otaka, Minister; Mr. Hiroshi Tomita, First Secretary and Mr. Tomoyuki Sakairi, First Secretary from the Embassy of Japan. The ambassador also visited the AIT Conference Center and the AIT library, two buildings which were donated to AIT by the Government of Japan. Prof. Said Irandoust, President, AIT, thanked the Government of Japan for the grant of the scholarships. He added that Japan and Pakistan are the first countries to have signed and ratified the new AIT Charter.

‘China Day’ at AIT celebrates growing Chinese student presence in Thailand

AIT welcomed nearly two-hundred Chinese undergraduate students from six universities in Thailand to the inaugural ‘China Day’ at AIT. Organized by the Chinese Student Association of Thailand and AIT’s Student Union, China Day 2010 aimed to increase Chinese undergraduate students’ awareness of post-graduate opportunities at AIT, and to strengthen friendship between Chinese students in Thailand and cross-cultural ties with AIT’s international community comprised of over fifty nationalities. The event was inaugurated by H.E. Mr. Guan Mu, Chinese Ambassador to Thailand, who termed the country as a “good choice” for many Chinese. The Chinese ambassador told AIT President Prof. Said Irandoust that he believed AIT, with its highly multicultural makeup, was also an ideal school for young Chinese to study alongside students from Asia, Europe and North America.

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Institutional Highlights

H.E. Mr. Guan Mu, Chinese Ambassador to Thailand, addressed close to 200 Chinese nationals gathered at AIT for China Day 2010.

(Right) H.E. Mr. Seiji Kojima Ambassador Extraordinary and Plenipotentiary, Embassy of Japan.
AIT builds its brand in Myanmar

With plentiful opportunities existing for AIT in neighboring Myanmar, AIT President Prof. Said Irandoust led a team of AIT officials on a three-day promotional visit to Thailand’s neighbor where they met with some of the country’s senior higher education administrators. President Irandoust began the visit on December 2 by attending the International Conference on Science and Engineering (ICSE) 2010 organized by universities under Myanmar’s Ministry of Science and Technology (MOST). Prof. Irandoust delivered an opening address in which he highlighted the need for modern universities to change.

‘AIT is a marvelous institute,’ Pakistan Minister

“AIT has been a driving force and had it not been for its contribution, I would not be visiting AIT.” This was stated by H.E. Mr. Muhammad Azam Khan Swati, Federal Minister for Science and Technology, Pakistan, during his maiden visit to AIT on 8 December 2010. The Minister described AIT as a “marvelous institute,” and Pakistan as a “long haul partner” of AIT. H.E. Swati stated that Pakistan was looking forward towards an enhanced partnership with AIT, particularly in offering dual degree courses. The Minister welcomed the proposal of Prof. Said Irandoust, President, AIT, to establish an AIT satellite campus in Pakistan. He proposed students’ and faculty exchanges between AIT and COMSATS Institute of Information Technology. The Minister sought AIT’s expertise in helping Pakistan commercialize research and development activities. The Minister also addressed members of the Pakistan Students Association (PSA).

Eminent Pakistani scientist conferred honorary degree at AIT’s 114th Graduation

Two-hundred and twenty students from 20 countries and three continents received graduate degrees at AIT’s 114th Graduation Ceremony, an occasion which also saw the conferment of the honorary degree of Doctor of Philosophy (Honoris Causa) on Pakistan’s eminent scientist H.E. Professor Atta-Ur-Rahman. Mr. David Hulse, The Ford Foundation Representative, Jakarta, Indonesia, delivered the Convocation Address. Vietnamese students represented the largest number of graduates by nationality with 110, while Thais made up the second largest group with 61, followed by India and Nepal.

U.S. State Department Advisor elaborates on Lower Mekong Initiative

Dr. Mari-Vaughan Johnson, Environmental and Energy Advisor in the United States Department of State, visited AIT on 16 December 2010, where she highlighted the new Lower Mekong Initiative (LMI), which focuses on the growing cooperation between the United States and the Lower Mekong countries of Cambodia, Laos, Thailand and Vietnam. Dr. Johnson stated that United States Secretary of State Ms. Hillary Clinton and the foreign ministers of the Lower Mekong Countries have agreed to enhance cooperation in the areas of environment, health, education, and infrastructure development. Dr. Johnson was accompanied by Mr. Jacob Schultz, Environment, Science, Technology and Health Officer at the U.S. Embassy in Bangkok.
During AIT’s memorable 51st Anniversary celebration in September 2010, all of those present witnessed the soft launch of the AIT Endowment Fund Campaign, which was presided over by Her Royal Highness Princess Maha Chakri Sirindhorn who is also an AIT alumna and honorary faculty member. The event attracted 352 participants ranging from alumni, former faculty, AIT Board of Trustee members, faculty and staff, VIP members and honored guests.

After AIT’s first 50 years, the AIT alumni network has grown significantly and increasingly has become one of AIT’s most valuable assets. To show its appreciation, AIT inaugurated its first ever “AIT Hall of Fame” during the same event. Aside from accepting the invitation to be the first inductee of the AIT Hall of Fame 2010, HRH Princess Sirindhorn presented Hall of Fame trophies to 11 other eminent alumni inductees.

“For Creative Global Leaders of Tomorrow”

The year saw the launch of the first ever fundraising campaign for the institute. The 7-year Campaign from 2010 – 2016 involves an initial silent phase focused on internal members. The public phase and latter part of the Campaign will focus on philanthropists, the corporate sector and foundations. The first step of the fundraising strategy is to increase the awareness and involvement of AIT family members, including current and former faculty, staff and alumni.

As Royal Patron of the AIT Fundraising Campaign, HRH Princess Sirindhorn also witnessed the soft launch of the Friends of AIT (FoAIT) Foundation, which was established with HRH Princess Sirindhorn’s own private seed donation of 1 million Baht in 2007. In collaboration with senior and prominent AIT alumni, work was also undertaken to register the Friends of AIT (FoAIT) Foundation as a non-profit organization.

The Foundation will be the intermediary between donors and AIT. Through the proceeds from some donors and the interest generated from the Endowment Fund raised by the Campaign, two objectives can be achieved. First, ten world-class visiting scholars will be awarded each year to conduct joint research and collaborative teaching at AIT. Second, generous scholarships can be awarded to top students from all corners of the world to study at AIT.

Starting on AIT Day 2010, alumni and friends of AIT began to pledge substantial contributions towards the Campaign.
In 2010, the Alumni Affairs Office (AAO) was established to serve as the main focal point for individual alumni and the AIT Alumni Association (AITAA), and to liaise between AIT, AITAA and its national/regional chapters in a wide array of programs, including social activities, continuing education and professional development, among others.

The new office will work to increase the effectiveness and regularity of alumni communications through all possible communications means, such as website, periodicals and alumni directory. The office will also actively create partnerships between AIT and alumni, and between alumni in areas of mutual interest.

The AAO will take a role in fostering interaction between the alumni and current students in the form of industrial mentorships, internships and job opportunities. The AIT Alumni Affairs Office will help in connecting, networking and enriching AIT alumni and its partners in supporting the strategic goals of their alma mater.
Alumni & Former Faculty

- **Ms. Kasemsri Hormchean**, a graduate of Environmental Engineering, 1980, was appointed as the Governor of the Thailand Institute of Scientific and Technological Research (TISTR). Prior to serving as the new TISTR Governor, she was Deputy Governor (Operation 1) of Industrial Estate Authority of Thailand (I-EA-T), Ministry of Industry.

- A paper by AIT alumnus and faculty member Prof. Stephen Ogunlana and his student Mr. Shamas-ur-Rehman Toor titled “Ineffective leadership: Investigating the negative attributes of leaders and organizational neutralizers” published in *Engineering, Construction and Architectural Management* was chosen as an Outstanding Paper Award Winner at the Literati Network Awards for Excellence 2010. Last year another paper which Prof. Ogunlana developed from a doctoral degree thesis at AIT also received the same award.

- Former senior AIT faculty colleague **Prof. Ram M. Shrestha**’s research project titled “Integrated Assessment Model for Developing Countries and Analysis of Mitigation Options and Sustainable Development Opportunities,” which was jointly implemented by three institutions located in three different countries – AIT, Thailand, Indian Institute of Management (IIM), Ahmedabad, India and Energy Research Institute (ERI), China – during 2005-2008, with the funding support of Asia-Pacific Network for Global Change Research (APN), Japan was recently selected by the Board of Reviewers of APN to be “Outstanding.” The AIT component of the project was supervised jointly by Prof. Shrestha and AIT faculty member Prof. S. Kumar from the Energy field of study, School of Environment, Resources and Development (SERD). This recognition further enhances the reputation of AIT in the area of climate change and sustainable development research. In 2010, Prof. Shrestha served as Visiting Professor at the Graduate School of International Development and Cooperation, Hiroshima University, Japan.

- **Prof. Dr. Ir. Djoko Santoso**, AIT alumnus, was appointed as Director-General of the Higher Education Ministry of National Education, Government of the Republic of Indonesia.

- **Mr. Narongchai Prompraingchai**, AIT alumnus from the School of Management, was appointed as Advisor to Thailand’s Deputy Interior Minister Thavorn Senniam. Mr. Narongchai also owns a very well-known company, Naraiphand Company Limited, which provides Thai handicrafts to customers domestically and internationally.

- Distinguished alumnus **Dr. Prasarn Trairatvorakul** was appointed as the new Governor of the Bank of Thailand. Prior to his appointment, Dr. Prasarn was the President of the Kasikornbank in Thailand.

- AIT alumna **Ms. Panita Kambhu Na Ayutthaya** was appointed as the Permanent Secretary in the Ministry of Social Development and Human Security, Royal Thai Government. Previously she held high-level positions as Director General of the Department of Social Development and Welfare and Inspector-General of the Ministry of Social Development and Human Security in Thailand.

- **Dr. Bui Cach Tuyen** (EV, 1992), AIT alumnus, became Deputy Minister, Ministry of Natural Resources and Environment of Vietnam on 24th September 2010. This appointment was based on the Prime Minister of Vietnam’s instruction. He also held the position of General Director of the Vietnam Environment Administration.

- **Prof. Somchai Wongwises** (Energy, 1984), AIT alumnus, was judged as Outstanding Lecturer 2009 in the field of Science and Technology by the Council of University Faculty Senate of Thailand (CUFST). He was awarded as Outstanding Lecturer at the CUFST’s Annual Conference 2010 “Higher Education System Reform: Is it a dream?” which was presided over by Prime Minister of Thailand, H.E. Mr. Abhisit Vejjajiva, who delivered a special lecture on “Higher Education Reform Under the Atmosphere of Political Reform.”
• The University of the Cordilleras, Philippines, inaugurated distinguished AIT alumnus Prof. Ricardo P. Pama as President on November 26, 2010. He was also inducted into AIT’s inaugural Hall of Fame in 2010. Prof. Pama had a very distinguished and successful academic and administrative career at AIT, holding positions as Professor, Vice President for Development, and Vice President for Academic Affairs, prior to his return to the Philippines.

Students

• Mr. Muhammad Waseem Ashraf, Higher Education Commission scholar from Pakistan in the microelectronics program, and PhD advisee of Dr. Nitin Afzulpurkar, Dean, School of Engineering and Technology, won the best paper award at the International Conference on Electrical, Electronics, Computer, Telecommunications and Information Technology (ECTI) 2010 Conference held in Chiang Mai, Thailand, on 19-21 May 2010. The paper co-authored by S. Tayyaba, N. Afzulpurkar, T. Lomas, A. Tuantranont, A. Nisar, and E. L. J. Bohez was titled “Design, Analysis and Fabrication of MEMS-based Silicon Microneedles for Bio-Medical Applications.” A total of 272 papers from all around the world were accepted for presentation at the ECTI CON 2010 and the paper won the best paper award under the track “ Circuits and Systems.” He was also chosen as the final for 2010 SLAS (Society for Laboratory Automation and screening) Young Scientist Award. The paper titled “Structural and Microfluidic Analysis of MEMS Based Out-Of-Plane Hollow Silicon Microneedle Array for Drug Delivery” was selected by the award committee of IEEE CASE 2010 as ALA Young Scientist Award Finalist. CASE 2010 was held in Toronto, Canada on 21-24 August. The papers authors were: Muhammad Waseem Ashraf, Shahzadi Tayyaba, Nitin Afzulpurkar, Nisar Asim, Erik Bohez, and Adisorn Tuantranont. Mr. Muhammad Waseem Ashraf also won Best Young Scientist Award at IEEE CASE 2010 in Toronto.

• Mr. Nayana D.P. Dehigama, a School of Management (SOM) doctoral student won the Third Asia-Pacific Young Entrepreneur Award. The awards were announced at the 24th Conference of the Confederation of Asia Pacific Chambers of Commerce and Industry (CACCI), which concluded on 7 July 2010 at Colombo, Sri Lanka. Mr. Dehigama is the Chairman-cum-Managing Director of Epic Lanka Group and is pursuing his doctorate at AIT in the Doctor in Business Management (DBA) program under the supervision of Dr. Barbara Igel, Dean, School of Management (SOM). DBA is a doctoral program for senior professional managers and administrators.

• A joint paper written by Dr. Assadej Vanichchinchai (SOM Ph.D. 2009) and Dr. Barbara Igel, Dean, SOM and advisor to Dr. Assadej, received the outstanding paper award from Emerald. The paper was titled “TQM and SCM: Similarities and Differences.” It was first published in the TQM Journal and was picked by Emerald for the prestigious award. Dr. Assadej was also awarded with the prestigious National DIP Consultant Award for his work. Besides the Emerald and DIP awards Dr. Assadej has received a number of national and international recognitions for his outstanding work in the field of Productivity Improvement in Small and Medium Enterprise in Thailand.

• Mr. Ghaffar Ali, a doctoral student from the Urban Environmental Management field of study, SERD, and a Pakistan Higher Education Commission scholar, published a book titled Green Waste to Renewable Energy and Business by Lambert Academic Publishing (LAP) GmbH & Co.KG and Licensors, Germany. This book was based on his master’s research work on “Solid Waste Management Practices of Talaad Thai (the largest open market in Thailand). AIT faculty members Dr. Vilas Nitivattananon and Dr. L.A.S. Ranjith Perera were co-authors.
A paper written by Prof. Jayant K Routray and his doctoral student Md. Mustafa Saroar titled “In-situ adaptation against sea level rise in Bangladesh: does awareness matter?” was awarded “Best Paper” by the Emerald Publication Group at a web-based conference on “Climate 2009/KLIMA 2009” held on 2-6 November 2009 at Hamburg in Germany. This paper is one of the products of Mr. Saroar’s ongoing doctoral thesis research on “Adaptation with vulnerability to climate change induced sea level rise in coastal Bangladesh.”

A book by Dr. Ram C. Bhujel, Senior Research Scientist and Affiliated Faculty in the Aquaculture and Aquatic Resources Management (AARM) field of study, School of Environment, Resources and Development (SERD), titled “Statistics for Aquaculture” was a the best-selling book in its field. The book was published by Wiley-Blackwell.

Dr. Rajendra P. Shrestha, Faculty and Coordinator in the Natural Resources Management field of study, School of Environment, Resources and Development (SERD), was awarded the Asian Scientific Award by the World Association of Soil and Water Conservation, for his scientific achievements in his studies on understanding land and human dimensions in the context of degradation assessment, land use changes, and land management encompassing the area of soil and water conservation in South and Southeast Asia.

Dr. Nitin Kumar Tripathi, faculty member and Coordinator, Remote Sensing and GIS field of study, School of Engineering and Technology, was appointed Member of the International Advisory Board, Symposium on Geoinformatics (ISG) for two years by the Institution of Surveyors, Malaysia.

Dr. Kyung-Ho Park, Assistant Professor, Geotechnical and Geo-environmental Engineering field of study, School of Engineering and Technology (SET), penned two papers published by Elsevier that were listed in the top ten cited papers in the journals Tunneling and Underground Space Technology and International Journal of Rock Mechanics and Mining Sciences.

Prof. Gajendra Singh, former AIT Vice President for Academic Affairs, has been elected as the President of the Indian Society of Agricultural Engineers (ISAE) for two years (2010-2012).

A paper by Dr. Abha Mishra, a Senior Research Specialist based at the Agriculture System Engineering (ASE) field of study, SERD, was awarded the best paper award titled Adeli Award for her paper “Studying Rice Root Plasticity under Varying Water Regimes and Soil Microbial Density Using System of Rice Intensification (SRI) Water Management Principle” at the First International Conference of Soils and Roots Engineering Relationship held in Ardebil, Iran, 24-26 June.

Dr. Sangam Shrestha, Assistant Professor, Water Engineering and Management (WEM), School of Engineering and Technology (SET), co-authored the chapter “Promoting wise use of water: Application of economic instruments” which was published in the IGES White Paper III: “Sustainable Consumption and Production in the Asia-Pacific Region: Effective Responses in a Resource Constrained World.” This IGES White Paper III was launched at the ISAP 2010 in Yokohama, Japan.

Prof. Dennes T. Bergado, from the Geotechnical and Geo-environmental Engineering field of study, SET, was selected as Editor-in-Chief of the Lowland Technology International Journal starting September 2010. This journal is the official publication of the International Association of Lowland Technology based in Japan. The journal is published by the Institute of Lowland and Marine Research based at Saga University in Japan.

Dr. Peeyush Soni, Adjunct Faculty in the Agricultural Systems Engineering (ASE) field of study, School of Environment, Resources and Development (SERD), was selected for the prestigious AMA SHIN-NORINSHA AAAE Young Researcher Award. This award was jointly established by the Shin-Norinsha Co. Ltd. and the Asian Association for Agricultural Engineering (AAAE) in 2004 to recognize and honor young researchers with outstand-
Dr. Peeyush Soni received the AMA SHIN-NORINSHA AAAE Young Researcher Award – 2010 during the 11th International Agricultural Engineering Conference, Shanghai, China, on 16-20 September 2010. The award citation said: “The AMA SHIN-NORINSHA AAAE Young Researcher Award – 2010 is presented to Dr. Peeyush Soni, in recognition of his outstanding contributions to the advancement of Agricultural Engineering profession.”

- **Prof. Joydeep Dutta**, Vice President for Academic Affairs and Director of the AIT Center of Excellence on Nanotechnology, along with **Prof. Louis G. Hornyak**, on their *Introduction to Nanoscience* (see p. 78) textbook co-authored with Prof. J. Tibbals, H.F. and Prof. Rao, A.K., were cited as one of the leading references for a consultative workshop organized by the Asian and Pacific Centre for Transfer of Technology (APCTT) under the topic “Innovation in Nanotechnology: An Asia-Pacific Perspective”. The aim of the workshop was to promote innovation in nanotechnology.

- **Dr. Rajendra P. Shrestha**, Associate Professor of Natural Resources Management Field of Study, SERD, published a book titled *Land Use, Climate Change and Biodiversity Modeling: Perspectives and Applications*, which is expected to be published in March 2011 by IGI-Global.

- **Prof. Ram M. Shrestha**, published a book titled *Low Carbon Society Vision 2030 – Thailand*. This publication is an outcome of research collaboration between AIT; Sirindhorn International Institute of Technology (SIIT), Thailand; National Institute of Environmental Studies (NIES), Japan; Kyoto University, Japan; and Mizhuo Information and Research Institute, Japan. The publication was released on 17-18 November 2010.

### AIT professor leads team to “Excellent Research Award for Year 2010” from Thailand Research Fund (TRF)

Dr. Pennung Warnitchai, Coordinator of Structural Engineering, School of Engineering and Technology (SET), led a team of researchers from six universities and two government agencies in Thailand in winning the “Excellent Research Award for Year 2010” from the Thailand Research Fund (TRF). Dr. Pennung’s team won for its “Earthquake Disaster Mitigation” project. The award for 2010 was presented on 28 January 2011 at a ceremony in Bangkok, Thailand.

“Earthquake Disaster Mitigation” was one of 12 winning projects funded and administered by the Thailand Research Fund. According to TRF, the twelve winners are all applied research studies of practical benefit to Thailand.

The “Earthquake Disaster Mitigation” project, which was initiated by the National Earthquake Committee and has been supported by TRF since 2002, consists of several sub-projects. Its main objective is to study, survey, and obtain and develop useful knowledge that will benefit the country’s overall earthquake disaster preparedness efforts.
AIT Projects at a Glance

Project Numbers and Budget 2005-2010

 initiated Projects in 2010

AIT extension (81)
INSTITUTE-WIDE (10)
INTERLAB (4)
SERD (40)
SERD-SET (1)
SET (42)
SOM (4)

Project Budget is identified in millions ('000,000) Thai Baht.
Completed Projects in 2010

- RESEARCH (88)
- CAPACITY BUILDING AND TRAINING PROJECTS (84)
- CONFERENCES / SEMINARS / SYMPOSIA (4)
- OTHER PROJECTS (6)
- PROJECT BASED ACADEMIC PROGRAMS (10)

- AIT EXTENSION (57)
- INSTITUTE-WIDE (3)
- INTERLAB (7)
- SERD (59)
- SET (62)
- SOM (4)

Ongoing Projects in 2010

- RESEARCH (208)
- CAPACITY BUILDING AND TRAINING PROJECTS (161)
- CONFERENCES / SEMINARS / SYMPOSIA (10)
- OTHER PROJECTS (13)
- PROJECT BASED ACADEMIC PROGRAMS (31)

- AIT EXTENSION (98)
- INSTITUTE-WIDE (15)
- INTERLAB (13)
- SERD (132)
- SERD-SET (1)
- SET (144)
- SOM (20)
AIT Students and Alumni at a Glance

Students (January)

- SOUTHEAST ASIA AND THE PACIFIC (1797)
- SOUTH & WEST ASIA (416)
- EAST & CENTRAL ASIA (89)
- NORTH AMERICA (14)
- EUROPE (43)
- AFRICA (26)
- AUSTRALIA (3)
- OTHERS (1)

- MALE (1601)
- FEMALE (788)

Students (August)

- SOUTHEAST ASIA AND THE PACIFIC (1552)
- SOUTH & WEST ASIA (404)
- EAST & CENTRAL ASIA (72)
- NORTH AMERICA (10)
- EUROPE (40)
- AFRICA (24)
- AUSTRALIA (2)
- OTHERS (1)

- MALE (1346)
- FEMALE (759)

Alumni

- DBA (1)
- D.Eng. (483)
- D.Tech.Sc. (223)
- Diploma (322)
- P.M.Eng (15)
- M.A.B.M. (11)
- M.Eng. (9,098)
- M.Eng. (Professional) (199)
- M.Sc. (4,448)
- M.Sc. (Professional) (13)
- MBA (2,132)
- MBA (Executive) (571)
- MBA Dual Degree (47)
- Professional Master’s (10)
- Ph.D. (276)

- SET (8,578)
- SERD (6,421)
- SOM (2,850)

- FEMALE (4,679)
- MALE (13,170)
# AIT Faculty at a Glance

## 2010 Faculty Figures

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Faculty Headcount</th>
<th>Faculty Strength in FTE*</th>
<th>Students¹</th>
<th>Student-to-Faculty (FTE) Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School of Engineering and Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time Faculty²</td>
<td>42.92</td>
<td>42.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visiting Faculty³</td>
<td>9.25</td>
<td>4.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjunct Faculty</td>
<td>38.83</td>
<td>9.71</td>
<td></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>91.00</td>
<td>57.25</td>
<td>934.25</td>
<td>16.32</td>
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<tr>
<td><strong>School of Environment, Resources and Development</strong></td>
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<tr>
<td>Full-time Faculty</td>
<td>35.83</td>
<td>35.83</td>
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<tr>
<td>Visiting Faculty</td>
<td>8.83</td>
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<tr>
<td>Adjunct Faculty</td>
<td>12.75</td>
<td>3.19</td>
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<tr>
<td><strong>Total</strong></td>
<td>57.42</td>
<td>43.44</td>
<td>668.75</td>
<td>15.40</td>
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<tr>
<td><strong>School of Management</strong></td>
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<tr>
<td>Full-time Faculty</td>
<td>11.50</td>
<td>11.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visiting Faculty</td>
<td>2.33</td>
<td>1.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjunct Faculty</td>
<td>18.75</td>
<td>4.69</td>
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<tr>
<td><strong>Total</strong></td>
<td>32.58</td>
<td>17.35</td>
<td>636.00</td>
<td>36.65</td>
</tr>
<tr>
<td><strong>Asian Institute of Technology</strong></td>
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</tr>
<tr>
<td>Full-time Faculty</td>
<td>90.25</td>
<td>90.25</td>
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<tr>
<td>Visiting Faculty</td>
<td>20.42</td>
<td>10.21</td>
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<tr>
<td>Adjunct Faculty</td>
<td>70.33</td>
<td>17.58</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>181.00</td>
<td>118.04</td>
<td>2,239.00</td>
<td>18.97</td>
</tr>
</tbody>
</table>

*Faculty strength is expressed in full-time equivalent (FTE) using the following factors: 1.00 for full-time and regular faculty members, 0.50 for short-term Visiting Faculty; and 0.25 for Adjunct Faculty.

¹Eight (on average) special students were excluded, thus the slight discrepancy with the overall number of students presented on p.28.

²Includes Professors, Associate Professors, Assistant Professors, Instructors, and long-term Visiting Faculty (with ≥ 1 year appointments).

³Short-term Visiting Faculty (with < 1 year appointments).
The Asian Institute of Technology is a profoundly international institute of higher learning serving Asia and beyond. It does so in partnership with governments and their agencies, state universities, research institutions, international development agencies, foundations, and the public and private sectors. Additionally, the Institute continues to develop and foster academic and research linkages with Asian, European, and American institutions for student and faculty exchange programs. All of these contribute to the international characteristics of the Institute—not just in terms of the number of nationalities represented on the governing board, and in the Institute’s faculty, staff, and students, but also by virtue of the rich international perspectives shared and taught in the classroom and experienced in the field.

*Continued on page 32.*
An overview of AIT’s engagements during the year

Institute Memberships 2010

AIT has institutional membership in the following organizations:

- ASAIHL, The Association of Southeast Asian Institutions of Higher Learning
- AUAP, Association of Universities of Asia and the Pacific
- American Chamber of Commerce in Thailand
- British Chamber of Commerce Thailand
- Thai-Swedish Chamber of Commerce
- IIE, Institute of International Education

AIT is an active member of Southeast and South Asia and Taiwan Universities (SATU) Presidents’ Forum.

AIT, as founding member, has hosted the Greater Mekong Sub-region Academic and Research Network (GMSARN).
Additionally, the Institute continues to develop and foster academic and research linkages with Asian, European and American institutions for student and faculty exchange programs. All of these contribute to the international characteristics of the Institute – not just in terms of the number of nationalities represented on the governing board, and in the Institute’s faculty, staff, and students, but also by virtue of the rich international perspectives shared and taught in the classroom and experienced in the field.

One of the institutional highlights of the year was the signing of the New AIT Charter on 25 August 2010. A landmark development in the 51-year-history of AIT, the New Charter makes AIT the first institution of higher learning of its kind to be granted international intergovernmental status. At a formal ceremony held at the Ministry of Foreign Affairs of Thailand, Bangkok, twelve governments and one international organization namely, Thailand, Seychelles, Cambodia, Japan, Sri Lanka, Nepal, Pakistan, Sweden, Timor Leste, Bangladesh, the Philippines, India, and the United Nations Development Fund for Women (UNIFEM), signed the Charter. Several other countries have agreed to sign the new Charter. With the new status, AIT will be able to operate more effectively and to better serve Thailand, the region and beyond. It will also enhance cooperation with other new partners and stakeholders in higher learning, research and human resource development.

The year 2010 was a very historic and active year for AIT. It was one of strengthened partnership programs with the Royal Thai Government, Swedish International Development Cooperation Agency (Sida), Government of Norway (Ministry of Foreign Affairs) and Government of Japan. AIT also continued partnerships with the Government of France, the Netherlands Government, the Canadian International Development Agency (CIDA) and the Austrian Development Agency (ADA). Through its continued partnerships, AIT was privileged to enjoy high levels of support, and was fortunate enough to make significant contributions in furthering the development agenda of these governments and government agencies in the region through high level human resource development programs, as well as at the continuing education level, and through development and research projects.

**Erasmus Mundus Programs**

2010 was an exhilarating year for AIT as the Institute became a member of two additional Erasmus Mundus consortia, bringing the number of Erasmus Mundus programs which AIT is part of to five. AIT joined the MAHEVA and EMMA East consortiums. MAHEVA consists of 11 universities from 10 Asian countries and 9 universities from 7 European countries. The project is coordinated by the Montpellier 2 University, France. EMMA East (Lot 12) involves 13 East Asian partners from 5 countries, and 5 European partners from 5 European countries. The University of Nice-Sophia Antipolis, France is the coordinating partner university. In contrast to the other three consortiums, the recent two emphasize mobility from Asia to Europe only. AIT has a vision of becoming a leading global university centered in Asia, and the linkages with Erasmus Mundus programs have fostered a trajectory of progress towards realizing this goal. AIT’s education is defined by its rigor and differentiated by its distinctive relevant programs tailored to the needs of the region. On the other hand, students are also able to leverage AIT’s strong linkages with top foreign universities to do joint and double degree programs. Entrepreneurially inclined students may spend a semester or two at partner universities in Europe for exchanges. Student quality continued to rise and engagement with AIT alumni was further deepened. A recent study revealed that the over 17,500 AIT alumni from more than 80 countries currently reside in 108 countries and territories around the world. It means that AIT graduates are living highly international lives and are really world citizens.

**AIT Consulting**

AIT Consulting was one of several initiatives this year designed to enhance the application and spread of AIT’s knowledge and to develop closer links with various sectors of society at large. Established in July 2010, AIT Consulting’s objective is to provide integrated support to various partners and clients for their development needs, and for projects covering the broad areas of technology, engineering, environment, development and management. To meet these objectives, AIT Consulting utilizes the extensive expertise and resources available from the various schools, centers and laboratories within AIT, as well as those drawn from thousands of highly qualified and experienced AIT alumni and from hundreds of AIT’s partner institutions and organizations. The dedicated team of professionals at AIT Consulting ensures that the support and services provided to its clients are well integrated and delivered with the highest quality within the required time frame. Since its inception, AIT Consulting has secured five projects, in Thailand, Philippines and in Bangladesh. Proposals for several more projects have also been submitted. AIT Consulting is especially
focused on meeting the needs of the science and technology sector, as well as those of NGOs, development agencies, the corporate sector and public sector. The inter-governmental status of AIT is ideally suited for AIT Consulting to handle projects and issues of both a regional and international nature. Furthermore, the international academic and research culture at AIT ensures that the output of AIT Consulting’s services and support is unbiased, independent and objective.

Yunus Center at AIT

During the year 2010 the Yunus Center at AIT focused on promoting and raising awareness of the ideas and concepts of social business. It did so through orientation sessions, brief courses, workshops and meetings. The Center intends to encourage businesses to set up a social business lab in the future with the goal of facilitating actual examples of social businesses. In 2010, the Center promoted the development and dissemination of innovative models for poverty reduction under three main focus areas: education for social business, action research and knowledge dissemination.

CSR Asia Center at AIT

The CSR Asia Center at AIT was officially launched in March 2010. The demand for CSR expertise is clear, and the Center has already contracted research and consulting engagements within the region. Apart from delivering several one-day trainings, working with APEC on Public-Private Partnerships for building disaster resilience and with a number of companies to advise on CSR strategy development, the Center also worked on a research project on the role for business in climate change adaptation.

The Center also engaged some businesses in the region and beyond through focus group dialogues and interviews to better understand current barriers limiting the engagement of the private sector with climate change adaptation, and to identify innovative business approaches that create business value while helping economies, societies, and communities adapt to a changing climate. The results of this project (which will be completed in early 2011) are expected to provide a basis for exploring future collaboration opportunities with the Center on Sustainable Development in the Context of Climate Change (SDCC) at AIT. The Center also collaborated with the AIT-United Nations Environment Programme Regional Resource Center for Asia and the Pacific (AIT-UNEP RRC.AP) and organized a side event at the Climate Change Adaptation Platform Forum in October 2010. It also worked with UNEP to organize a business roundtable meeting on “Climate Benefits from Accelerated Phase-out of Ozone Depleting Substances.” Having established a strong demand from businesses in Thailand and beyond for executive education programs in CSR, the Center has engaged with the AIT’s deans and faculty from the School of Management (SOM) and the School of Environment, Resources and Development (SERD) to explore modalities for launching a professional master’s program in CSR at AIT in collaboration with both SOM and SERD. The Center believes that this will be a great opportunity for AIT to further strengthen its profile in driving sustainable development in the region and educating “creative global leaders for tomorrow”. As the role of Asian businesses and supply chains in global markets continues to grow, this will be an opportunity for AIT to work both with the private sector and with universities from other parts of the world who are looking for partners in Asia to collaborate on mainstreaming CSR through executive education.
ASEAN Regional Center of Excellence on Millennium Development Goals (ARCMDG)

On September 1, Dr. Sandro Calvani joined as Director of the ASEAN Regional Center of Excellence on Millennium Development Goals (ARCMDG). Prior to joining ARCMDG, Dr. Calvani served as Director of the United Nations Interregional Crime and Justice Research Institute (UNICRI), based in Turin, Italy with programs in all continents. Before being appointed to UNICRI, Dr. Calvani was the Director of the United Nations Program on Drugs and Crime (UNODC) Office in Colombia from 2004-2007. Dr. Calvani has significant experience across a wide range of social issues, particularly in the fields of humanitarian aid, conflict resolution, convergence of emerging threats in human security and social economy applied to rural development. Some of the completed activities in 2010 included organizing a 10-day training on “Gender Mainstreaming and Equality with Focus on MDGs”; participation in the 6th MDG Regional Round Table Conference held in Vietnam; a two-day workshop on “MDGs Analysis and Operational Indicators for Gender Mainstreaming and Equality”; and first Advisory Board Meeting of the Center, which took place on 20 January 2010. Other Center activities included: A seminar-cum-study tour program on “Project Monitoring and Evaluation with Focus on Poverty Reduction and MDGs” (Supported by the United Nations Development Program (UNDP) of Bangladesh); Capacity Building for Poverty Reduction Strategies, Government of India (Phase I), Capacity Building for Poverty Reduction Strategies, Government of India (Phase II); Training on “Strategic Planning and Management of Development Programs/Projects with focus on Poverty Reduction and MDGs”; “Gender Mainstreaming and Equality with Focus on MDGs”; participation in the International Conference on Language, Education and the Millennium Development Goals; presentation of Keynote Address on MDGs at the ASEAN Integration Ministerial Conference on 19 October 2010, and at the ASEAN-UN MDG Workshop during December 2010.

Partner Networking

Networking is integral to AIT’s research, outreach and capacity development activities. AIT complements its own internal network by reaching out to partner institutions that share similar objectives. In 2010, AIT also undertook the development of partnerships that strengthened its tie to a number of universities both in academic programming and in project collaboration. Through a partnership with UNESCO-IHE and other six partner institutes, AIT successfully launched a new post-doctoral fellowship program on Climate Change Adaptation in the Mekong River basin (ProACC). The ProACC program started with an inception workshop in Delft, Netherlands 26-29 April 2010. Eight post-docs are working in this program, two of whom are from AIT. It is expected that the eight individual post-doctoral research projects will be developed in close collaboration with key stakeholder groups from the Mekong River Basin. Thus, besides carrying out research, the scientific findings will inform the development and implementation of better policies in the field of climate change adaptation. In addition, the capacity building aspect of this post-doctoral program was significant, as all post-doctoral fellows come from the region and are hosted by local/regional knowledge institutes. This will strengthen regional cooperation further. The post-doctoral fellows will continue to work on related topics in the region after the program is finished.

Some of the partner institutions of AIT (including those with whom AIT has student exchange and/or dual degree programs) are: University of Balochistan (UOB), Pakistan; Balochistan University of Engineering and Technology (BUET), Pakistan; Helsinki University of Technology; Telecom & Management Sud Paris, France; Seoul National University, South Korea; Universitat Politècnica de Catalunya, Spain; UNU-IAS, Japan; Chubu University, Japan; University of Tokyo, Japan; Tohoku University, Japan; Ochanumizu University, Japan; Thammasat University, Thailand; Vishwakarma School of International Studies (VSIS), Pune, India; National Taiwan University; Yuan Ze University, Taiwan; Andalas University, Indonesia; University of Gaza-Madah, Indonesia; Stockholm University, Sweden; University of Boras, Sweden; International University of Vietnam; South Asia Institute of Technology and Management (SAITM), Sri Lanka; Asian University, Thailand; NSTDA, Thailand; Chulabhorn Research Institute and Mahidol University, Thailand; Tsinghua University, China; University of Otago, New Zealand; University of Toronto, Canada; Columbia University, USA; Universita di Torino, Italy; and the University of Delft, The Netherlands.
hua University, China; Yunan University, China; Pokhara University, Nepal; Kathmandu University, Nepal; ITC, International Institute for Geo-information Science and Earth Observation – the Netherlands; UNESCO-IHE, the Netherlands; University of Nice, France; CIRAD, France (providing faculty secondment); AIT-NCCR North South Cooperation, Switzerland: AIT and UNESCO International Research and Training Centre for Rural Education (INRULED), China; State Bureau of Surveying and Mapping (SBSM) China European Union; UN organizations such as UNEP, UNESCO, UNESCAP, and APCTT.

The year 2010 was significant as it marked the beginning of the next fifty years towards AIT’s centennial. AIT celebrated its 51st Anniversary over a three-day period during 6-8th September, welcoming back to the campus its alumni, former senior administrators, former faculty members, partners and friends of AIT. On September 6, approximately 70 former faculty, alumni and current faculty and staff members participated at the Brainstorming Session held on the topic “Implementation of Satellite Model for AIT”. The discussions covered key areas of constructing an AIT satellite model engagement, and focused on finding the ways and means to make this strategy a reality while at the same time maintaining the quality of education. There was a general consensus for AIT to implement the strategy. Her Royal Highness Princess Maha Chakri Sirindhorn presided over the main event of the 3-day celebrations on September 7. Her Royal Highness’ presence at the AIT Day 2010 celebrations marked yet another manifestation of the Royal Patronage which AIT has been fortunate to receive over the years. It was also a sign of the continuing support given by the Royal Family to this regional multicultural institution of higher learning, dedicated to the sustainable development of the region and beyond. Members of the AIT Board of Trustees, Executive Committee, and other dignitaries attended the events on that day, which included the launch of the 7-year Endowment Fund, inauguration of the AIT Hall of Fame, and viewing of the exhibits of AIT’s Centers of Excellence.

Visits and Exchanges

As has been the case every year, 2010 also saw numerous exchanges and visits between AIT and its existing and prospective partners. Senior administrators, faculty members and staff travelled to various countries in relation to collaborative academic, research and administrative activities and to attend conferences. The Institute also received VIP visitors from various partners, some of whom were: H.E. Mr. Muhammad Azam Khan Swati, Minister for Science and Technology, Pakistan; H.E. Mr. Hameedullah Jan Afridi, Minister of Environment Pakistan; H.E. Mr. Dorji Wangdi, Minister of Labour and Human Resources of Bhutan; H.E. Dr. Aberra Deressa, State Minister, Ministry of Agriculture and Rural Development Ethiopia; Mr. Sher Mohammad Jami Zada, Deputy Minister of Economy, Islamic Republic of Afghanistan; Dr. Mari-Vaughan Johnson, Environmental and Energy Advisor in the United States Department of State; Dr. Gerard Matheron, President Managing Director of CIRAD (Centre de coopération internationale en recherche agronomique pour le développement); Mr. Magnus Lindell, Assistant Director General, Head of Operations, Swedish International Development Cooperation Agency (Sida); Mr. Peter Buri, Deputy Director of the Southeast Asia and Pacific Pacific, Germany; Dr. Joseph Mook, U.S. National Science Foundation (NSF) Program Manager for Thailand, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, and Philippines based in Washington D.C. USA; Dr. Mary Zurbuchen, Director of the Asia and Russia Program for the Ford Foundation IFP; Ms. Krista Slade, Executive Director, Asia Pacific, CASE (Council of Advancement and Support of Education); Ambassador Curtis S. Chin, former US Executive Director to the Asian Development Bank (ADB); Ms. Jiwan Prava Lama, Director General, Department of Food Technology and Quality Control (DFTQC), Government of Nepal; Dr. Amani Mohamed Elkhaitab Abd Allah, Academic Coordinator, Public Health Institute, Federal Ministry of Health, Sudan; Ms. Cynthia A. Griffin, Commercial Counselor, Embassy of the United States of America in Thailand; Mr. Troy Fields, Thailand, Managing Director, Schlumberger Overseas S.A; Mr. Shotaro Kuryu, Managing Executive Officer for Fluid Machinery and Systems Company, EBARA Corporation; Prof. Hamlet Isaxanli (Isayev), Founder President of Khazar University, Azerbaijan; Prof. Phung Xuan Nha, President, University of Economics and Business (UEB), Vietnam; Prof. Yeong-Bin Yang, President, YunTech University of Science and Technology (YunTech), Taiwan; Prof. Keshar Jung Baral, Vice Chancellor of Pokhara University, Nepal; Prof. Shamsudeen O.O. Amali, Vice Chancellor Nasawara State University (NSUK), Nigeria; Prof. Abbas Taeb, President, IROST.

“2010 also saw numerous exchanges and visits between AIT and its existing and prospective partners from various countries.”

(Left) United States government and U.S. Embassy, Thailand officials visited AIT.
Iranian Research Organization for Science and Technology (IROST). Delegations came and/or went to the following countries – Afghanistan, Azerbaijan, Bangladesh, Belgium, Bhutan, Cambodia, Canada, China, Ethiopia, Finland, France, Germany, Greece, Hungary, Japan, Kazakhstan, India, Indonesia, Iran, Iraq, Israel, Italy, Laos PDR, Malaysia, Maldives, Myanmar, Nepal, Nigeria, North Korea, Norway, Pakistan, Portugal, Romania, Singapore, South Africa, South Korea, Sri Lanka, Sudan, Sweden, Switzerland, Taiwan, Thailand, the Netherlands, the Philippines, Timor Leste, UK, USA, Vietnam.

**International Conferences and Meetings**

In 2010 AIT hosted a large number of major international conferences, seminars, meetings, and research workshops. These channels provide AIT with the opportunity to disseminate the results of its work. Some of these events are noted here: National Workshop on “Low carbon technology innovation and diffusion in Thai manufacturing sectors”, January 28; Talk on “Career Planning and Conflict Resolution” February 3; A presentation on “World Bank Information Resources and The World Bank Role in Infrastructure Development” February 9; A presentation “Bridging the Gap” on the international mobility project funded by Erasmus Mundus, February 10; Seminar and Art Exhibition on “illegal, temporary and precarious states of being - migration” February 15-28; Talk on “Asia 2020: ADB’s Strategic Agenda and its People Strategy” March 1; Seminars on “Intellectual Property Rights: Imperative in Nanotechnology Development” March 2 and March 9; “Seventh ICT-Asia Seminar” March 15-16; Workshop on “Global Navigation Satellite System (GNSS)” March 15-17; “2nd Training Seminar on Educational and Entrepreneurial Resourcefulness” March 27-28; Seminar on “Understanding Multidisciplinary Design & Optimization for System Design and Development” March 30; Training on “Energy Efficiency using RETScreen” April 5; Regional Workshop on “Understanding the Agricultural Transition in Asia” April 23; “World Environment Day 2010 Photo Competition” May 27; World Environment Day 2010 Celebrations, June 4; Seminar on “The role of education in poverty reduction - a case study of PRAM” June 10; “International Workshop on Gender, Economic Integration, and Cross-border Road Infrastructure Development: Poverty and Mobility in the Context of Asia” June 11-12; Seminar on “TSV-based 3D IC Research Activities at the Georgia Tech Computer-Aided Design (GTCAD) Laboratory” June 18; Workshop on “Professional Development Needs Assessment (PDNA)” July 6-9; Results-Based Management Familiarization Workshop “3rd International Joint Student Seminar on Civil Infrastructures” July 29; Training course on “CSR Essentials” August 23; Inception workshop on “Area-Wide Integrated Pest Management of Fruit Flies in South and Southeast Asian Countries” September 1-3; Special lecture on “Geoinformatics for Disaster Management” September 10; Seminar on “Biomedical applications of bacterial cellulose and self-assembled nanogels” September 10; Seminar on the “Use of social media for promoting the Institute” September 14; Workshop on “Interpersonal Skills for Professional Development” September 15; “Nanotechnology Forum at AIT” September 23; Special lecture on “Beyond CMOS Technology and Evolutionary Architectures” October 12; “The Asia-Pacific Climate Change Adaptation Forum (Adaptation Forum 2010)” October 21-22; Talk on “Personal Effectiveness in a Changing World” October 27; “Distance Education Workshop” October 25-27; Regional Forum “Building Partnerships for Implementing Renewable Energy and Energy Efficiency Projects in the Mekong Region” October 26-27; Talk on “NanoSafety: Safety Implication of NanoSilver” November 1; Lecture, “An overview of media technologies and the Internet in Asia” November 11-12; Talk on “Optics Industry” November 25; Training Workshop “Area-Wide Integrated Pest Management of Fruit Flies in South and SE Asia” December 7-14; An International Conference on “Innovations in Food and Bioprocess Technology” December 7-9; Talk on “Plasmonics and Metamaterials for Biosensing” December 17.

**President Irandoust engages Sri Lanka**

In 2010, AIT President Said Irandoust was the special Convocation Speaker at Pokhara University in Nepal. In Nepal, the president held discussions with the Honorable Prime Minister of Nepal. During the year AIT President also met with the President of Sri Lanka, H.E. Mahinda Rajapaksa, to discuss the issue of establishment of an AIT satellite campus in Sri Lanka. President Rajapaksa expressed his full support and endorsement to the proposal to establish a full-fledged AIT campus in Sri Lanka. President Rajapaksa assured AIT that Sri Lanka's government would help in providing land as well as facilitate the process. He said Sri Lanka would also help AIT in attracting global investors to participate in this venture.

AIT President Prof. Said Irandoust with Sri Lanka President H.E. Mahinda Rajapaksa (right).
Her Royal Highness Princess Maha Chakri Sirindhorn of Thailand became the first ever inductee into the new Hall Of Fame of the Asian Institute of Technology (AIT) on 7 September 2010 at a glittering AIT Day 2010 ceremony organized to commemorate the 51st Anniversary of the Institute.

HRH the Princess was officially inducted by H.E. Dr. Tej Bunnag, former Foreign Minister of Thailand and Chairman of the Board of Trustees of AIT, (pictured above) who presented HRH the inaugural AIT Hall of Fame Trophy.

Accepting the honor, HRH Princess Maha Chakri Sirindhorn remarked that she was “honored and flattered to accept the invitation of the panel of judges, chaired by former AIT President Prof. Alastair North, to be the first Hall of Fame inductee at the Asian Institute of Technology.”
Awarded numerous honors in her career, the designation marked the first time HRH has been inducted into any educational institute’s Hall of Fame. The AIT Hall of Fame recognizes and permanently honours the accomplishments and contributions of its senior alumni and others who have brought pride and inspiration to their professions, society and their alma mater.

Her Royal Highness Princess Maha Chakri Sirindhorn’s induction into AIT’s Hall of Fame is an expression of the Institute’s profound appreciation for Her Royal Highness’ support and assistance rendered to the Asian Institute of Technology, Dr Tej said.

Her Royal Highness was cited for her many years of outstanding support to AIT through numerous endeavors including donations, support of technology education and implementation of technology in developing regions, and promoting the Institute as a center of technology and education.

President of AIT, Prof. Said Irandoost said: “AIT takes great honour and privilege in inducting Her Royal Highness as the first ever member of the AIT Hall of Fame along with some of our other outstanding alumni. It is indeed a happy moment when AIT looks at its former students and takes pride in their achievements and also reminds our alumni that we do not forget them once they leave AIT.”
Her Royal Highness Princess Maha Chakri Sirindhorn, Thailand

Her Royal Highness Princess Maha Chakri Sirindhorn attended AIT in 1984 to study at the Asian Regional Remote Sensing Training Centre. Applying Her AIT class-
room experience to practice, Her Royal Highness applied remote sensing tech-
nology to land use and land cover map project for Narathiwat Province, southern
Thailand. Her Royal Highness has supported AIT through numerous endeavors
including donations, support of technology education and implementation of
technology in developing regions, and promoting AIT as a center of technology
and education.

Thailand’s beloved Princess Maha Chakri Sirindhorn headed a stellar group of eleven other AIT
alumni as Hall of Fame 2010 inductees from Thailand, Pakistan, Chinese Taipei, Indonesia and
the Philippines (pictured on pp. 40, 41). The AIT alumni inducted in the AIT Hall of Fame in 2010
for their outstanding career achievements, included former Thai Minister of Foreign Affairs, Dr. Subin Pinkayan,
Thailand; the founder of one of Thailand’s original internet related companies, Prof. Dr. Srisakdi Charmonnan,
Thailand; former President of Bangkok Mass Transit System Public Co. Ltd., Prof. Anat Arbhabhirama, Thailand;
founder of the Petroleum Authority of Thailand, Dr. Tongchat Hongladarom, Thailand; co-founder of TEAM
Group, Dr. Prasert Patramai, Thailand; former Thailand Supreme Commander of the Royal Thai Armed Forces,
General Dr. Boonsrang Niupradit, Thailand; the president of two different universities in the Philippines, Prof.
Ricardo Palabríca Pama, the Philippines; former minister and chair of councils and commissions on higher educa-
tion and research in Pakistan, Dr. Shamshuddin M. Qureshi, Pakistan; former Minister of Transportation and
Communications, Chinese Taipei, Mr. Shih-Yi George Chen, Chinese Taipei, former President of the Taiwan’s engineer-
ing firm RSEA, Mr. Yen Yi Tseng, Chinese Taipei; and former Director General of Higher Education for Indonesia’s
Dr. Subin Pinkayan, Thailand

Dr. Subin followed his M. Eng. in hydraulic engineering at AIT in 1961 with a Ph.D. at Colorado State University, and returned to AIT as a faculty member. Dr. Subin has had a well-rounded high-achievement career in education, government service and private sector in which he was a pioneer for Independent Power Producer (IPP) in Thailand, and has continually supported AIT throughout his career.

Prof. Anat Arbhabhirama, Thailand

Dr. Anat completed his M. Eng. in hydraulic engineering at AIT in 1962, and his Ph.D. at Colorado State University. He had an outstanding academic career at AIT finishing as Professor and Vice President for Academic Affairs. Dr. Anat later served in both the public and private sectors, holding ministerial positions and serving as the Governor of PTT Public Co. Ltd., and President of Bangkok Mass Transit System Public Co. Ltd.

Prof. Ricardo Palabraica Pama, the Philippines

Prof. Pama obtained his M.Eng. in Structural Engineering from AIT in 1964 and Ph.D. from Queens College University of St. Andrews, Scotland. Prof. Pama had a successful academic and administrative career finishing as Professor, Vice President for Development (1978-1992) and Vice President for Academic Affairs (1992-1996) all at AIT and later moved on to become the President of two different universities in the Philippines.

Prof. Srisakdi Charmonman, Thailand

Dr. Srisakdi obtained his M. Eng. in hydraulic engineering from AIT in 1961, and Ph.D. from Georgia Institute of Technology. He had a successful academic career in North America and Thailand. He was the founder of one of Thailand’s original internet related companies. Thus, Dr. Srisakdi has been called Asian Computer Man of the Year, Father of Thai Internet, and Father of Thai ELearning.

Dr. Tongchat Hongladaromp, Thailand

Dr. Tongchat completed his M. Eng. in Structural Engineering at AIT in 1962, and Ph.D. at Northwestern University. Dr. Tongchat taught at AIT before entering public service as the Governor of the Expressway and Rapid Transit Authority of Thailand and later founding the Petroleum Authority of Thailand, presently known as PTT Public Co. Ltd. Dr. Tongchat has counseled, promoted and supported AIT, and currently serves on AIT’s Board of Trustees.

Prof. Ricardo Palabraica Pama, the Philippines

Prof. Ricardo Palabraica Pama obtained his M.Eng. in Structural Engineering from AIT in 1964 and Ph.D. at the University of Sheffield. He taught at Sindh University and later was appointed as Vice Chair of Pakistan Science Foundation. He later developed Mehran University of Engineering and Technology, and became its founding Vice Chancellor. Later, Dr. Qureshi was appointed several ministerial posts and chaired councils and commissions on higher education and research.

Dr. Shamsuddin M. Qureshi, Pakistan

Dr. Qureshi completed his M.Eng. in Structural Engineering at AIT in 1963, and Ph.D. at the University of Sheffield. He taught at Sindh University and later was appointed as Vice Chair of Pakistan Science Foundation. He later developed Mehran University of Engineering and Technology, and became its founding Vice Chancellor. Later, Dr. Qureshi was appointed several ministerial posts and chaired councils and commissions on higher education and research.
Dr. Prasert Patramai, Thailand

Dr. Prasert obtained his M. Eng. and D.Eng. in Water Resource Engineering at AIT, and has since made significant contributions to the development of Asia through consulting work and professional leadership. He co-founded TEAM Consulting Engineering and Management Co. Ltd. in 1978 and has led TEAM Consulting to become the TEAM Group that comprises 13 affiliated companies that have been involved in over 1,200 projects throughout Asia.

Mr. Shih-Yi George Chen, Chinese Taipei

Since completing his M.Eng. in Community & Regional Development at AIT in 1972, Mr. Chen has been an integral contributor in the development of Chinese Taipei. He worked on many key infrastructure projects in Taiwan and also taught highway planning and design. He later rose to the ministerial rank in the Ministry of Transportation and Communications. Throughout his career,

Mr. Chen has worked to improve the practice of engineering and satisfy the region’s needs in transportation policy, planning and implementation.

Mr. Yen Yi Tseng, Chinese Taipei

Mr. Tseng obtained M.Eng. in Community & Regional Development, as the first of 120 engineers who attended AIT under the sponsorship of the Retired Servicemen Engineering Agency (“RSEA”) of Chinese Taipei. Mr. Tseng became Chief Engineer and Vice President, was subsequently being elevated to President (1991-99). During his tenure at the Agency, Mr. Tseng led RSEA to be listed amongst the world’s top 500 ranked by the Engineering News Record magazine.

Dr. Boonsrang Niumpradit, Thailand

General Boonsrang obtained his D. Eng. In Structural Engineering at AIT in 1978. He served the Royal Thai Army in different capacities, including the Directors of the Strategic Research Institute and National Defense College. During 2000-01, General Boonsrang had the responsibility for commanding over 8,000 peacekeepers from 36 countries in the United Nations Transitional Administration of the East Timor Peace Keeping Force. He completed his military career in 2008 as the Supreme Commander of the Royal Thai Armed Forces.

Prof. Djoko Santoso, Indonesia

Professor Santoso received M. Sc. in Computer Science from AIT in 1982, and his Doktor Ilmu Teknik, from the Institut Teknologi Bandung. He has been teaching at ITB since 1978, and has achieved significant success in academics, university administration and public policy in higher education. He was the Rector of ITB over January 2005-10. Since June 2010, Professor Santoso has held the post of the Director General of Higher Education for Indonesia’s Ministry of National Education.
Academics

Academic Quality

- **Student Advisee Distribution**
  In response to complaints received from students regarding the availability of faculty advisors, a list of faculty and the number of their advisees as well as their Program Committee membership were reviewed. The statistics on the number of doctoral students per faculty, which in 2010 was as many as 15 or more. Senior faculty members generally received more advisees than junior ones.

  The issue was brought to the Academic Senate to allow more faculty colleagues to participate in the discussion and to come up with ideas on how to maintain quality and balance in terms of sharing in the number of student advisees. Immediately after the review, there was a decrease in the number of advisees for senior faculty members and an increase in the number of advisees for junior faculty members.

- **Grade Analysis**
  A statistical analysis of AIT grades from 2006 to 2010 was conducted during the year to validate the contention that there has been grade inflation in some fields and programs of study. A summary of findings has been provided to the Academic Senate and feedback was received. The director of the Center for Learning and Innovation Quality (CLIQ) undertook a review of this issue.

- **Reinvigorating the Policies Guiding Professional and Executive Master Programs**
  A Task Force on Professional/Executive Master Programs was established by the Vice President for Academic Affairs (VPAA) in August 2010 to formulate policies on AIT Professional and Executive Programs. A policy and procedure (P&P) on Professor of Practice, which aims to bring to the Institute highly qualified professionals from the industry was finalized by the Task Force under deliberation in the Academic Senate. The Task Force is now working on having a comprehensive Academic Requirements and Procedures for the Professional/Executive Programs.

- **Mapping of Fields/Programs of Study and Actual Degrees of Enrolled Students**
  Using the Student Information System database, a mapping of fields/programs of study against the preferred and actual degrees of enrolled students was undertaken in June 2010. The data was prepared for each School. Disseminated primarily as a guide in processing applications, the mapping was initiated to control variances in the undergraduate backgrounds and education of incoming students. This was done to ensure that they have adequate educational foundation to pursue their chosen field/program of study at AIT.
• **Application Processing.** The total number of applications received in 2010 totaled 2,191. This marks a slight reduction compared to 2009, when 2,534 applications were received. AIT issued 1,867 offers in 2010 compared to 1,900 in 2009. Incoming student enrolment numbered 918 in 2010 as compared to 969 in 2009. A per semester tally of the data is presented in the table below.

<table>
<thead>
<tr>
<th>Total Number (All Locations)</th>
<th>January 2010 Semester</th>
<th>August 2010 Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications Received</td>
<td>426</td>
<td>1,707</td>
</tr>
<tr>
<td>Offers Processed</td>
<td>283</td>
<td>1,528</td>
</tr>
<tr>
<td>Confirmed Students</td>
<td>159</td>
<td>714</td>
</tr>
<tr>
<td>Enrolled Students</td>
<td>135</td>
<td>707</td>
</tr>
</tbody>
</table>

- **Application Tracking System.** A new initiative was launched by the Vice President for Academic Affairs in September 2010 to develop a tracking system for applications. The system is intended to expedite the processing of applications and offers with all concerned with AIT admissions – Schools, Fields of Study, and faculty at large. The system will employ a mechanism that would enable real-time status check of applications. The development of the system was undertaken with Netlink, AIT’s IT services provider. The system is expected to be fully operational in time for the August 2011 admission period.

- **Enhanced Invoicing Mechanism.** Measures were underway to improve the invoicing of tuition/registration fees and monthly accommodation bills of students. Modifications in the Student Information System to ensure that automatic checks are built in the invoicing system have begun. Professional accounting support was discussed with Finance to ensure that all invoices issued to students and financial sponsors meet accounting standards. The administration of scholarship programs under Agreements or MoUs with AIT’s donor partners was also reviewed.

- **Automation of Academic Records.** Soft copies of grade sheets and academic records from 1979 onwards are now archived digitally. Not only did this free up physical storage, it also eradicated risks of data loss.

- **Online Clearance System.** They system was developed to facilitate the clearance of graduating students from the different academic and administrative units of the Institute. It was deployed to the concerned units for testing and feedbacks have been received. Its final version will be integrated in another system – ‘Online Graduation Application’. Initial implementation is expected in June 2011.

- **Online Graduation Application System.** The system was conceived in 2010 to provide students with complete information on all graduation requirements and activities. The system will enable automatic checking of a student’s academic records and will confirm if academic requirements and English proficiency assessments are met. Only those who fulfill the requirements would be able to see the graduation guidelines and fill out online graduation forms. Moreover, the system will produce graduation reports required by Registry to facilitate the graduation of students. The system is its final stage of development. Initial implementation is expected in June 2011.
Internships are real-world work experiences where students take on temporary roles in order to apply academic knowledge in a work setting, solidify a career choice, develop professional networks and gain experience to make one marketable.

In 2010, the Career Center at AIT improved its services by adding an Internship Desk. The Desk Officer assists students in every stage of the internship process from planning, to researching internship options, to outlining the process, and how to make the most of an internship experience.

The Career Center now has linkages to more than 100 corporate partners providing internships. Moves have been undertaken to network directly with federation of industries and the different chambers of commerce.

With this service, corporate partners are given access to short term and cost effective talents who can contribute to strategic initiatives. They are aided in addressing business challenges through the preparation of case studies; and given an opportunity to identify talents for future hires. Students meanwhile gain first-hand experience in a particular industry/organization; are given ample opportunity to innovate and challenge ideas imbibed in classrooms; and are assisted in being more receptive to market needs.

While the AIT Language Center’s (LC) services in 2010 included French, German and Thai language courses for the AIT community as well as special workshops for students on writing up their theses and proposals, the center’s main activities were teaching academic writing and testing. There were 425 students registered per semester in English academic writing courses during 2010. These students attended an average of 25 hours per course and together clocked 19,798 contact hours over the two semesters.

Testing has also become a major occupation for the Center: in 2010 the LC tested 971 applicants using the in-house AIT English Entry Test; 585 of these were tested at AIT Thailand, 313 in Vietnam, and the rest in 10 different Asian countries. Added to this, over 1,500 AIT students in 2010 took the AIT Academic Writing Test toward fulfilling AIT’s graduation requirements.

In May the Language Center welcomed Mr. Tylor Burrows as a new teacher. Mr. Burrows developed a new course for doctoral students for which he wrote the course text Writing Research Articles for Publication. This course went online in December. (The link to this book is at the Language Center website: click on Writing Services.)

Reaching out to AIT partners, the Language Center also conducted three Bridging Programs in 2010 – one for the August intake and two for the Mekong River Commission Junior Riparian Professionals, which garnered 3 million baht in tuition.

Students meanwhile gain first-hand experience in a particular industry/organization; are given ample opportunity to innovate and challenge ideas imbibed in classrooms; and are assisted in being more receptive to market needs.
FIELDS OF STUDY & 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
• Nanotechnology

INFORMATION & COMMUNICATIONS GROUP
• Computer Science
• Information Management
• Remote Sensing & Geographic Information Systems
• Telecommunications

INTERDISCIPLINARY PROGRAMS
• Offshore Technology & Management
• Information & Communications Technologies
• Disaster Preparedness, Mitigation & Management
• Geosystem Exploration & Petroleum Geoengineering
• Gender, Transportation and Development

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
• Agri-Business Management
• Disaster Preparedness, Mitigation & Management
• Energy and Environment
• Energy Business Management
• Greater Mekong Sub-region Development Studies

SCHOOL OF MANAGEMENT
• Full-time MBA Program with specializations in Finance, Human Resources Management, Marketing, Technology Management, Entrepreneurship, Strategy, Public Management
• Full-time MBA Specialization: CSR, Sustainable Business
• Executive MBA Programs in Bangkok and Vietnam
• EMBA in Bangkok, EMBA - Human Resources Management (EMBA-HRM)
• Dual Degree Arrangements:
  Two degrees - AIT’s MBA degree and a specialized degree from some 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 in AIT Thailand, Sri Lanka, Vietnam, Taiwan, and India
• Professional Master’s Program in Technology Management (PMTM)
• Professional Master’s Program in CSR
• Professional Master’s in Energy Business

UNDERGRADUATE DEGREE PROGRAMS 2010
• Civil and Infrastructure Engineering
• Electronics Engineering
• Information and Communication Engineering
• Mechatronics
• Telecommunications Engineering
KEY ACHIEVEMENTS IN 2010

School of Engineering and Technology

The School of Engineering and Technology at AIT develops leaders equipped with experience, and practice who are devoted to the implementation and extension of existing technology for the benefit of humanity. Engineering and technology are vital to addressing basic human needs, poverty reduction, and the promotion of secure and sustainable development in developing countries by bridging the “knowledge divide” and promoting intercultural dialogue and cooperation.

SET’s mission is: “To develop highly qualified engineers and technologists who play leading roles in promoting the region’s industrial competitiveness and its integration into the global economy.”

In 2010, SET initiated new academic partnerships and collaborated with reputed institutes around the globe. Apart from academic partnerships, SET’s focus was on research collaboration and the promotion of the School in Asia and beyond.

New Academic Programs

- Professional Master in Project Management: The program was launched in 2010 in Can Tho City, Vietnam.
- Undergraduate Programs in Civil and Infrastructure Engineering, Computer Science were launched in 2010.

Partnerships and Joint Programs

In 2010, SET signed Memorandum of Agreement (MoA) with Fore School of Management (FSM), India. Its purpose is to enable cooperation between AIT and FSM to strengthen the relationship between the two institutions by developing collaboration in various academic, research, training, and faculty and staff development activities on areas of mutual interest. The MoA is to conduct a two-stage program for the Master’s of Science/Engineering in Information and Communication Technology (M.Sc./M.Eng. in Information and Communication Technology, in which students will come to AIT in the first stage. The intention of the program is increase access for students to the benefits of internationalized higher education by allowing them to experience and be exposed to the teaching, research and academic life of both institutions with international curricula taught by world class faculty and scientists.

A Memorandum of Understanding (MOU) was signed with the Vietnam Petroleum Institute (VPI) to develop and offer a one year Professional Master’s program in Geoexploration and Petroleum Engineering (GEPG). The two institutes will provide international training, education and research to Petro Vietnam and other interested parties. They will also participate in graduate education, short courses and training as well as joint research and will enhance collaboration in education and research in oil and gas exploration and production between the two institutes.

A Memorandum of Understanding (MoU) was signed with Hong Duc University to establish a comprehensive collaboration in International higher education and research as well as capacity building between the two institutes. The scope of the MOU includes undergraduate and graduate education, as well as conduct of short courses and training programs. The two partners shall conduct joint research for the development of science and technology and submit joint proposals. A student, faculty and staff exchange program shall also be facilitated.

A Memorandum of Agreement (MoA) was also signed with the Institute of Scientific Research (ISR), Boston College, USA. This MoA will enable AIT and ISR to cooperate in research under the framework of SCINDA research network with many institutions worldwide. As of now, there are more than 40 institutions in this network. ISR, Boston College has established the SCINDA receiving station in the Remote Sensing and GIS field of study, which includes a high precision Global Positioning System Base station and VHF receivers.

In 2010 a Memorandum of Understanding (MoU) was signed with the Skydoor Pte., Limited. The deal is intended to help create the Skydoor environment to be used by universities and other institutes of higher learning to enhance skills in computer and digital imaging environments. The two partners will also promote creativity in computer and digital imaging and drive developing
nations towards a knowledge-based economy. The MoU includes scope to to create a laboratory to spearhead research in cutting edge computer graphics. Skydoor will have a presence at AIT, and will be the seat of a number of activities including running computer and management internship programs.

A Memorandum of Understanding (MoU) was signed between AIT and the Korea Institute of Construction Technology (KICT), South Korea. It will enable collaboration in research, development, and consultancy studies as well as the exchange of scientific and technical knowledge, and the promotion of programs of mutual benefit such as exchanges of faculty members and staff, undertaking collaborative research.

A Memorandum of Agreement (MoA) was signed with Chiang Mai University (CMU) on Integrated Bachelor and Master Program in Geoinformatics Engineering. This joint program is 5-years in duration. Students study the first 3 years at the Chiang Mai University and next 2 years at AIT. AIT and CMU faculty will jointly teach and guide students during the final three years of the program.

A Memorandum of Understanding (MoU) was signed with the Indian Institute of Information Technology Allahabad India for UG and PG.

A Memorandum of Understanding (MoU) was signed with Epic Lanka Group, Sri Lanka for training Sri Lankan professionals and to Masters degree in Telecommunication technology management, Information security, Banking Security and Nanotechnology.

Positioning and Branding

In 2010, SET produced a comprehensive promotions strategy with clear outputs identified. A kit consisting of attractive brochures, DVD, posters and flash drive wrist-bands was developed as standard promotion material. The target countries for promotions in 2010 were Bhutan, China, India, Indonesia, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam.

In 2010, SET participated in an educational exhibition in Bhutan and also visited the key government organizations for possible collaboration. The Department of Adult and Higher Education (DAHE), Ministry of Education and AIT are expected to sign MoU and MoA to encourage Bhutanese students to choose AIT.

In India, SET targeted North-East India and saw an increase in the number of applications from that part of country. SET faculty also undertook student recruitment promotions trips to other parts of India. Throughout the year SET advertised in Thailand through English and Thai newspapers, student handbooks and magazines.

Notable Achievements

The final official results received from Thailand Research Fund concluded that out of the 9 engineering and technological clusters that AIT participated in, 4 ranked among the top with an ‘excellent’ rating of 5. From the School of Engineering and Technology, these were as follows: Civil and Infrastructure Engineering Group, Information and Communication Group, Industrial Systems Engineering Group.

Excellence and Relevance in Education Research and Outreach

Gaining International accreditation for the School’s programs was a top priority activity in 2010. The School began work on preparing a self-study document. An international expert panel will be formed in the first semester of 2011 to evaluate SET’s academic offerings.

Key Results

In 2010, the total number of students in SET was approximately 966, including Undergraduate students. In 2010, the total number of students who graduated was 320. In 2010, SET had 35 full-time faculty members, 56 adjunct faculty members and 18 seconded visiting faculty members.

SET had approximately 40 sponsored research projects in 2010 and total budget of approximately 83.82 million Thai Baht. Recovery costs and overhead was approximately 14.8 million Baht. Cost control measures contributed to SET generating a surplus, after the 40 percent allocation to AIT, which amounted 20.53 million Baht.
The School of Environment, Resources and Development (SERD) responds to the Asian region’s needs by mobilizing and enhancing capacities for socially, economically and environmentally sound development in partnership with the public and private sectors. Closely aligned to the wider institutional strategy, SERD ensures that the ethos of Creativity, Relevance and Connectedness serves the teaching, learning, research and societal needs of the region and developing countries.

SERD’s mission is to achieve sustainable development, poverty alleviation and livelihoods by adopting an interdisciplinary approach to teaching and applied research that integrates new knowledge in technology and the social sciences.

This year, SERD initiated new academic programs which included the launch of new degree programs and partnerships with several universities in the region. The provision of five scholarships from Thailand’s Chulabhorn Research Institute (CRI) to the Environmental Technology and Management (ETM) program in August 2010 was a notable example. Some key academic developments included the following:

**New Academic Programs**

- The Professional Master’s in Environmental Engineering Management (PM-EEM) was launched in May 2010 in Vietnam.
- A Professional Master’s Degree Program in Energy Business Management (PM-EBM) jointly agreed with SOM and is planned to be launched in the May 2011 semester.
- A Master Degree Program in Climate Change and Sustainable Development (CCSD) is being developed and proposed to be launched in August 2011 semester.

**Partnerships and Joint Programs**

- A one-year Professional Master’s in Urban Management (P-UM), which is a joint-program between the Asian Institute of Technology (AIT), AIT Vietnam, and Ho Chi Minh City University of
• Agri-business Management (ABM) has partnered with the Sam Higginbottom Institute of Agriculture, Technology and Sciences (SHIATS), India, to create a Unified Bachelor and Master program, which is planned in May 2011.

• An MOU between SERD and Kalinga Institute of Industrial Technology (KIIT) was signed for collaboration in various academic, research, training and faculty and staff development activities of mutual interest. This began with 46 KIIT students registered in the Inter-Semester 2010 and plans to send another 60 KIIT students in January 2011. MOU between AIT and IT-BHU, NIES, NLU, PVP and UCL are drafted and under process.

• MOU initiated with the University of Veterinary and Animal Sciences; Lahore, Global Master’s in Development Practice Programs, Colombia University, USA.

• MOU initiated with the International Centre for Advanced Research on Global Changes, Vietnam and Department of Food Science and Quality Control, Ministry Of Agriculture and Cooperatives, Nepal.

Promotional and branding activities were also a priority for the School this year, starting with promotional trips to a number of Thai universities which aimed to explore further collaborations. Visits to target countries such as Bhutan, China, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, and Vietnam were taken during the course of the year, reaping several promising partnerships with state universities.

Key Results

A total of 296 students were enrolled in the January, Inter-Sem and August 2010 semesters, and 249 SERD students graduated in May and December 2010. The school consists of 35 full-time and 28 visiting/adjunct faculty representing 17 countries. A total of 36 sponsored research projects were initiated in January-December 2010 with a total budget of approximately Baht 98.93 million (overhead of more than Baht 8.95 million). Cost control measures contributed to the School generating a surplus of Baht 12.19 million, after AIT overhead allocation of 40%.
The School of Management (SOM) is one of the Asian region’s leaders in management education and research. SOM provides exceptional individuals with a supportive environment in which they can develop their skills and aptitudes, helping them to reach their professional goals and to serve the interests of countries in the Asia-Pacific region. The School’s core strength lies in tailoring entrepreneurship and leadership education to match local needs, and in expanding Asian entrepreneurship concepts to other regions.

The academic programs of the School are highly regarded, winning awards for their internationality and ranking highly in the region. The MBA program was ranked number 8 in Asia by www.bestmba.org. The School has continuously diversified to match the needs of the market. Besides its academic MBA and PhD programs, the School also runs highly successful Executive MBA (EMBA), and Doctor of Business Administration (DBA) and Professional Masters Programs. The School is dedicated to producing managers who can drive their organizations to prosperity and profitability without compromising ethics and social responsibility.

In 2010, the School was comprised of 13 full-time faculty members and 34 adjunct/visiting faculty members from 14 countries. With an increasing diversity in its student and faculty bodies, the School of Management has been able to recruit students from diverse regions of the world. During the year SOM welcomed 36 exchange students from Asian and European partners in France, Spain, Germany, Switzerland, Republic of Korea, Denmark, India, Pakistan and Lithuania.

SOM continued to build and strengthen its linkages with the professions by developing strategic partnerships with both public and private sectors through its executive development and research projects. Managers from the corporate sector were invited as guest speakers to provide better insight to the SOM students. SOM students also undertook field visits to various corporations to see first hand the implementation business knowledge.
SOM Introduced New Specialization in Sustainable Business

Realizing the fact that business as usual is not the way forward and that a radical rethinking of business is necessary, SOM has introduced a new area of specialization in the MBA program in the field of Sustainable Business. This new area will cover issues as to how organizations should rethink their business strategy in which issues such as global warming, green house gas emissions and other environmental and societal issues will impact business greatly.

New Professional Master’s Programs

SOM is working jointly with other AIT Schools, Units and AIT Extension to develop new a Professional Masters program. The new programs are:

• Professional Masters in Banking and Finance, to be launched jointly with AIT Extension.
• Professional Masters in Energy Business Management, Jointly with School of Environment Resources and Development.
• Professional Masters in Corporate Social Responsibility, Jointly with CSR Asia Center in AIT.

The Professional Master’s programs are shorter, 1-year duration programs, for professionals seeking to enhance their skills. These programs are intended for professionals who are looking to extend their knowledge in a particular field. These programs are interdisciplinary and draw upon the rich resources of various AIT units and Schools.

EABIS Golden Project

In 2010, SOM participated in the EABIS Golden Project. This project aims to be the largest research project in the field of environmental, social and governance challenges in business. SOM also partnered with DHL Thailand to research and develop case studies in CSR and Sustainability. SOM looks to partner with other companies in future for this project. SOM is also a member of EABIS.
As it moves into the future, the Asian Institute of Technology will need to adjust to rapid and dynamic changes impacting its research and development work. While the number of research projects and related funding has nearly doubled since 2005, over the last two years this increase leveled off. This was attributable to a smaller total number of research faculty and staff, the closing down of some major long-term projects, and to the changing demands and mode of operation of a number of external funding agencies.

In light of this changing environment, in 2010 AIT began work on its new AIT Research Strategy, which is designed to last for the next five years. The Strategy will be based on four principles, namely: Research Focus, Research Quality, Research Collaboration and Research Resource Mobilization. The work plans will use a Results Based Management (RBM) approach to guide outcomes, measurable outputs, and key performance indicators. The focus of AIT research and development falls under the umbrella area of “Sustainable Development in the context of Climate Change (SDCC)” with five identified thematic areas under its purview.

During the year considerable work was done to identify niche areas of research and development for which AIT could be recognized as a global front runner. AIT will create stronger inter-disciplinary teams who are able to network effectively both within AIT and with external partners. By concentrating on specific areas supported by a critical mass of expertise, AIT will pursue large research projects that will also contribute to the development of key campus infrastructure. Through its continued work with public and private sector stakeholders, AIT serves the region and beyond as a key platform for innovative research and development.

### Research

#### Most Cited in SCOPUS

1. **On the acceptability of arguments and its fundamental role in nonmonotonic reasoning, logic programming and n-person games** *(Cited 549 time(s))*
   - 1995; Artificial Intelligence; Dung, P.M.

2. **Direct solid-liquid separation using hollow fiber membrane in an activated sludge aeration tank** *(Cited 261 time(s))*
   - 1989; Water Science and Technology; Yamamoto, K., Hiasa, M., Mahmood, T., Matsuo, T.

3. **Developments in industrially important thermostable enzymes: A review** *(Cited 181 time(s))*
   - 2003; Bioresource Technology; Haki, G.D., Rakshit, S.K.

4. **An abstract, argumentation-theoretic approach to default reasoning** *(Cited 141 time(s))*
   - 1997; Artificial Intelligence; Bondarenko, A., Dung, P.M., Kowalski, R.A., Toni, F.

5. **Membrane separation bioreactors for wastewater treatment** *(Cited 136 time(s))*
   - 2000; Critical Reviews in Environmental Science and Technology; Visvanathan, C., Ben Aim, R., Parameshwaran, K.

#### Top 5 AIT Researchers with the Highest Number of Projects.

<table>
<thead>
<tr>
<th>Name</th>
<th>No. of Projects as PI</th>
<th>No. of Projects as PI and Group PI</th>
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<tr>
<td>Kanchana Kanchanasut</td>
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<td>C. Visvanathan</td>
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<td>Kunnawee Kanitpong</td>
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During the year, efforts were centered on developing the AIT’s strategic plan on research. The new document to be called AIT Research Strategy (2011–2015) sets out the research trajectory of the Institute for the next five years and beyond, and will serve as the basis for a concerted research proposal program and budget.

The AIT Research Strategy will enhance collaborative research with partners from government agencies, development agencies, universities, research institutions and the private sector. The Strategy aims to create powerful new synergies among the deep pools of research talent at AIT. It seeks to impart the Institute with a strong competitive edge, and position it as a significant player in Asia.

The Research Strategy hinges on following principles: research focus; research quality; quality of research collaboration; and resource mobilization for research. To achieve internal cohesiveness, as well as to provide clarity for external stakeholders, individual projects and activities are further clustered into five thematic areas: Vulnerability and Disaster Risk Reduction; Water and Land Resources Management for Sustainable Production and Consumption; Urban and Rural Quality of Life and Sustainability; Low Carbon Cleaner Production Technologies and Management; and Business and Innovation Models for a Green Economy. It should be noted that these five thematic focuses are not mutually exclusive. A major source of AIT’s comparative advantage is that it takes a holistic view of the complex processes that affect people’s lives. Many of the thematic clusters cut across, or complement, two or more of the other themes, thereby yielding significant overlap or interaction and an interconnectedness of problems and solutions. The thematic research areas aim to stimulate the formation of teams that merge knowledge, experience and networks. This approach will allow centralizing some support functions to research activities, and aims at diversifying research teams to make better use of the width of experience at AIT.

On the industrial front, AIT continued with its professional as well as regular study programs and other collaborative research programs, such as those with Western Digital, Siam Cement Group, Electricity Vietnam, EVN-Telecom, Nippon Koei Co. Ltd., and Advance Agro Public Company Limited, amongst many others. The institute also continued partnerships with the private sector. Notable examples included: Innotech Sports Management; Sodexo; Netlink (to provide AIT will all IT professional services, including the operation and maintenance of hardware/software required during the contract period of five years); and Skydoor Pte Limited (to promote creativity in computer and digital imaging and to create a laboratory to spearhead research in cutting-edge computer graphics). AIT also signed agreements for conducting joint academic programs and research with private academic institutions, for example, in India and Sri Lanka. The CSR Asia Center at AIT also brought a number of joint activities between AIT and the private sector and industry.
Snapshots of AIT Research in 2010

Overall during the period January - December 2010 there were a total of 449 sponsored and contract- ed projects conducted by the faculty and staff at AIT’s School of Engineering and Technology (SET), School of Environment, Resources and Development (SERD), School of Management (SOM), as well as at AIT Extension, IntERLab, and numerous other Institute-wide projects and centers. The total number publications for the same period stood at 691 from across AIT. The following (below) are brief snapshots of research conducted at AIT in 2010. Full details of all research conducted at AIT in 2010 can be found in AIT Research Annual Report 2010.

Automobile accidents incur an extremely heavy toll on human lives and society. They also have great impact on the economy. According to the World Bank, the economic impact of automobile accidents in Thailand is a loss of more than 200 billion baht per year. Many accidents could be prevented if drivers obeyed traffic regulations. This research study is designed as a portable system capable of automatically detecting traffic violations and either sending a letter to warn the driver, and thereby informing nearby authorities, or automatically issuing traffic violation tickets. The system is composed of an embedded system, a radar system, a video camera system, a GPS system, and a WIFI communication device packaged as a portable system. The radar system is used to check for speeding vehicles, while the video processing algorithm is used in conjunction with radar measurement to reduce false positive errors in the radar measurement and to detect vehicles crossing lane boundaries. By enhancing our ability to detect and prevent traffic violations, the proposed system has the potential of economic benefits through lowered health care costs and higher productivity by reducing accident rates.

In the increasingly competitive hard disk drive industry, all manufacturers need to aggressively develop their products to survive. Not only must they invest in research and development of products themselves; but also in advanced automation technology to use the new equipment in manufacturing processes to improve cycle time, productivity and flexibility of the production system. Automated Test Operation (ATO) found at the back end area of disk drive manufacturing is one of the operations that makes use of advanced automation test equipment models to solve the complexity of disk drive test operation.
Air Quality and Climate Impacts of Switching to Natural Gas-Fueled Public Transportation Vehicles in Bangkok

Prof. Nguyen Thi Kim Oanh, Dr.Eng.
School of Environment, Resources and Development
Rattapon Onchang, Dr.Tech.
Department of Environmental Science
Faculty of Science, Silpakorn University

AIT and Silpakorn University cooperated in this project. Both worked with the Royal Thai Government to assess the multiple impacts of the fuel-switching on air quality, climate, human health and economic with a particular focus on switching to Compressed Natural Gas (CNG) in the public transportation system in the Bangkok Metropolitan Region (BMR) as a case study.

The study presented two scenarios projected to 2015 and 2025, wherein a switch to using CNG and advanced vehicle technologies for public transport vehicles in the BMR was key. These scenarios were compared to current model (business-as-usual).

Methods included surveying of the situation and planned programs, emission inventory for air pollutants and climate-forcing forces agents for the base year of 2009 and emission projection projected to 2015 and 2025 through using the International Vehicle Emission (IVE), and simulation of ambient air quality by a 3D dispersion air quality model, the Comprehensive Air Quality Model with extensions (CAMx).

The potential financial benefits from the emission reductions were preliminarily assessed. A feasibility study was also implemented using the Certified Emission Reductions (CERs) based on the Clean Development Mechanism (CDM) project approach to explore potential financial benefits from the emission reductions.

Substantial reductions of both air pollutants (COPM10, CO, VOC, VOC evaporative, and NOx and PM10) and climate forcing forcers agents (CO2, N2O, CH4, VOC, VOC evaporative, NOx, Black Carbon and Organic Carbon particles) would be achieved in both scenarios as compared to the business as usual, which justify the co-benefits gained from the switch. The results revealed relatively small reductions in ambient concentrations of both air pollutants and climate forcing agents. Through Certified Emission Reductions (CERs) trading, it is also possible to gain about 2.2 2,158,809 and 2.9 2,882,906 million US$/year, for years 2015 and 2025 respectively.

A relatively high investment is necessary to support the switch, such as engine modification and new engine technology, which must be studied further by the Royal Thai Government. Possible health benefits associated with the air pollutants reduction could further be explored in terms of morbidity and mortality reduction of the population in BMR.

Energy Security in Developing Countries: National and Household level vulnerability and challenges

Prof. R. Shreshta, Prof. S. Kumar
School of Environment, Resources and Development

The challenges posed by potential supply disruptions and high price rises of fossil fuels to the economic growth are common to both developing and developed countries. Energy security, defined by The World Energy Assessment Report, as “the continuous availability of energy in varied forms in sufficient quantities at reasonable prices” may well reflect developed countries’ perspectives, but does not adequately capture the energy security dimensions faced by developing countries, as there are several additional dimensions that are unique to developing countries. The GNESD, through its member centers, has been analyzing energy security issues, both from the national and household sector perspectives, from developing countries’ perspectives.

The characteristics - in terms of the nature of energy security issues of developing countries, vulnerability and threats at national and at household level, and policies and measures in these countries to address the energy security - were the objectives of this research.

As an important dimension of energy security, easy availability of reasonable amount of clean/modern energy is considered a basic necessity to reduce poverty and improve the living standards. (Eg. energy policies of India and South Africa.) The following factors are mainly identified behind the vulnerability and the threats to energy security:

• Growing reliance on imported energy as most countries rely on imported energy. Energy price rise could, therefore, have a crippling effect on the economy and overall development for most countries under the study. Also, countries have initiated several kinds of programs to reduce the impact of imported energy, including replacement of petroleum products by biofuels promotion of renewable energy, and energy efficiency.

• Primary energy source diversification. The diversification of primary energy supply (Shannon Weiner index) shows improvements during the recent past in Thailand, Brazil, Tunisia, India and South Africa, and is comparable to OECD countries. In electricity genera-
tion sector, however, many countries depend to a large extent on a single source [South Africa (coal > 0%), Tunisia (natural gas >88%), Senegal (thermal >90%), Brazil (hydro >70%), Kenya (hydro >50%) and India (coal >50%)].

- Energy demand and supply. The energy demand in developing countries is likely to increase substantially in the course of their development, and its use is also to move up the energy ladder. So, the sources of primary energy used are likely to shift from predominance of traditional use of biomass to that of modern commercial energy (fossil fuels and modern use of biomass). Several countries in South America have relatively abundant energy resources. However, lack of access to regional (provincial) disparity of cleaner and convenient energy use appears to a large extent due to inadequate energy policies or policy failures.

- Reliance on non-marketed sources of energy. Substantial fraction of the population and industries in the countries under the study rely on non-marketed sources of energy (e.g. collected biomass) and this high dependence is likely to continue for a foreseeable future. The energy supply problem is compounded by the fast decreasing forest resources in many countries.

- Investment in energy sector. Considerable amount of investment would be required for resource exploration, infrastructure development (generation, supply and distribution systems) and supply of modern commercial energy. As investment by government alone would not be able to fulfill the required investment, several countries have adopted policies to attract private investment.

The energy security-related vulnerabilities and threats in the household sector in the countries under the study have the following characteristics:

- Energy costs. Energy costs form a significant share of total household expenditure (especially low income households’) in many developing countries (about 20% in South Africa and Thailand, and up to 40% in Kenya). Thus any significant rise in energy prices could have serious adverse effects on the poor families.

- Energy access. There also exists big inequity in many developing countries in terms of access to modern and safe energy between the poor and rich. Though access to electricity is very high in some countries (Thailand, Tunisia, Argentina, Brazil), in others the level of electrification is low (in Kenya, access to electricity in households is about 15%, while only about 8% of households have access to LPG supply).

- Lack of a reliable and sustainable supply of energy impacts the quality of energy services provided to households. In some countries, the residential sector has the highest share of the national energy consumption (Kenya at 77%)

- Dependency on biomass. Biomass energy use remains high in most developing countries, especially those in the low income category. The household sector is the major user of biomass. In countries where options other than biomass are either not available or not affordable, ensuring sustainable supply of biomass energy presents a major energy security challenge.

Countries under the study have formulated policies and initiated measures to address the threats to energy security through country specific programs. (E.g. promotion of renewables, energy efficiency, private sector investment, developing regional cooperation, developing strategic reserves.)

**Centers Participating in the Energy Security Study**

Africa: The African Energy Policy Research Network/Foundation for Woodstove Dissemination (AFREPEN), Kenya; Energy Research Center (ERC), South Africa; Mediterranean Renewable Energy Centre (MEDREC), Tunisia; Environmental Development Action in the Third World (ENDA-TM), Senegal.

Asia: Asian Institute of Technology (AIT), Thailand; The Energy and Resources Institute (TERI), India.

South America: Janeiro and CENBIO at the University of Sao Paolo in conjunction, Brazil; The Institute for Energy Economics at Bariloche Foundation (FB), Argentina.

The complete reports of each centre and the synthesis report is available at [www.gnesd.org](http://www.gnesd.org).

**Pavement surfaces with higher solar reflectivity**

**Dr. Kunnawee Kanitpong**

School of Engineering and Technology

Bangkok, like many cities in the world, encounters significantly increasing challenges of higher temperatures
due to the urban heat island phenomenon. Using traditional building materials such as asphalts and concrete for roads and other infrastructure is among the key factors causing the air temperature in the city to be higher compared to that in surrounding areas. This is due to the absorption of the solar radiation and hence the radiation of excess heat during the day and at night. Increases in the pavement temperature causes the ambient temperature to rise, which in turn increases energy costs for air conditioning and damages air quality in the city. One way to address this problem is to provide pavement surfaces with higher solar reflectivity or albedo for roads. The measurement of albedo over 106 asphalt pavement sections and 43 concrete pavements sections across Bangkok Metropolitan Area revealed that the albedo of both pavement types were quite low, i.e., less than 0.10. This result indicates an opportunity to increase pavement’s albedo through various surface treatment methods. Examples of these methods include coating with grey or tan emulsion sealcoats, resurfacing with lighter colour chipseals, and overlying with concrete white-topping. The choice of materials determines albedo increase, and materials with lighter shades correlate to the higher albedo and lower surface temperature. The lightest available was shown to reduce maximum surface temperature by 7 to 14 degrees C.

The Xayaburi Hydroelectric Power Project will be constructed across the lower Mekong River mainstream just upstream of Baan Pak Neun district in the northern province of Xayaburi, Lao, PDR.

From right to left abutment, the dam construction consists of the following main components and structures:

- A navigation system placed at the extreme right abutment and partially cut into the right bank slope.
- An overflow spillway, equipped with ten (10) radial gates each 19 m wide and 21 m high, with upstream and downstream stoplogs and associated cranes.
The links between gender, natural resource management and migration are becoming more visible in many regions, particularly regarding their role in fostering (or undermining) local forms of sustainable development. The emerging body of literature on the impacts of internal and international migration processes highlight the significance of gender and its intersections with other social structures in natural resource management and sustainable livelihoods. The experiences of Europe and Southeast Asia provide some interesting pointers for a comparison of similarities as well as differences. Policy responses can benefit from cross-cultural learning, a process which requires bridging knowledge gaps pertaining to these fields. The key actors in both these regions, including governments, practitioners and academics share, an interest in bridging these gaps of knowledge in the policy field to (a) ensure gender equitable resource management, (b) minimise incidences of “distress entry” to migratory networks leading to exploitation and human rights abuse, and (c) ensure protected migration practices, security of livelihoods and sustained forms of local development.

The Asia-Link Project offers an excellent opportunity to fill the gaps of knowledge through enhancing the mutual intellectual, social and economic co-operation between the EU and Southeast Asian regions. The Asia-Link project aimed to develop a range of collaborative South-South and North-South activities to strengthen collective institutional capacity in higher education involving programme and curriculum development, training and skills-transfer, and dissemination through conferences, workshops. To this aim, the Institute of Social Studies (ISS), the Netherlands, Andalas University, West Sumatra, Indonesia, the Asian Research Centre for Migration (ARCM) of Chulalongkorn University, Thailand, the Asian Institute of Technology (AIT), Thailand and Brighton University, the United Kingdom combined forces.

Collaborative experiences in substantively significant cross-cutting fields of these 5 partners enriched the quality of the programme. They will jointly provide valuable expertise for future guidance in the following specific areas:

1) The focus of the Asian-European network of academic institutions will be on the enhancement of human resources in higher education to improve activities in policy research, advice and training on gender, natural resource management, migration and security of livelihoods;

2) The collaboration addresses the intersections between the following policy fields: gender and natural resource management, gender and migration, gender and sustainable livelihoods;

3) Commitment and support from the partner aca-
Academic institutions will bridge the existing knowledge gaps and enhance the role of higher education in policy research, training and advice.

The activities in this project are as follows:
1) An exchange student program involving the 5 partner universities.
2) Workshops held in various partner universities and an international conference in the Hague.
3) Joint publications and extended networks beyond the project period.

At the Asian Institute of Technology:
1) 3 Ph.D students were sent to the University of Brighton, UK, Institute of Social Studies, the Netherlands and Andalas University, Sumatra, Indonesia for 2-3 months;
2) 1 MSc student was sent to ARCM, Chulalongkorn University;
3) One migration workshop was held in November 2010;
4) Five post graduate students were received from 3 partner universities (Andalas University, University of Brighton, Institute of Social Studies).

AIT was responsible for the seismic vulnerability and risk assessment of three major cities—Dhaka, Chittagong, and Sylhet. In this project, detailed information about buildings, essential facilities, population, lifelines, and transportation networks were first collected and acquired from several sources, and field surveys of more than 20,000 buildings were carried out. Based on these collected data, a comprehensive set of GIS maps describing the existing conditions of these cities were then developed. The seismic vulnerability of more than 40 representative building types was also determined through the use of advanced numerical analyses. Potential economic and social losses in the three cities from various possible earthquake scenarios were finally estimated using a GIS-based software package named “HAZUS”. The obtained results were used for developing a national contingency plan for earthquake disaster management of Bangladesh.

Seismic Vulnerability and Risk Assessment of Dhaka, Chittagong, and Sylhet City

Dr. Pennung Warnitchai
School of Engineering and Technology

This project is a part of the Comprehensive Disaster Management Program of the Government of Bangladesh, which was funded by UNDP, DFID, and the European Commission.

The implementation of program activities was carried out by an international consulting team consisting of Asian Disaster Preparedness Center, Asian Institute of Technology (AIT), National Society of Earthquake Technology of Nepal, Oyo International Corporation, and several leading academic institutions of Bangladesh.

Consumer Judgment of the Quality of Food: Do quality labels help?

Dr. Rian Beise-Zee
School of Management

Consumers commonly have a problem with correctly assessing the quality of food produce. Recent food scares have lessened the confidence of consumers in guessing food quality by visually inspecting, touching and smelling food produce at open air “wet” markets. Yet, consumers can either rely on their own ability to identify quality and select the best quality or best quality-price relationship or they can trust others, in particular the retailer, the brand or a third party that certifies or endorses the product. These indirect or extrinsic quality cues become more important. In Thailand, there are now a seemingly myriad quality labels from different labeling authorities and organizations. Do they convince consumers about the food quality?

On behalf of the UNFAO, we studied consumer quality judgments using a decision-based method called conjoint measurement. The rational for this method is that it is assumed that respondents are not able to realistically estimate how important each attribute is...
The PMED Program has been commissioned to AIT by the Ministry of Interior (with the Damrong Rajanupab Research and Development Institute as the co-host) since 2009. This is a capacity building program for the high-level personnel (i.e., Vice Governors or PC 9 and higher) of the Ministry. There are 3 main groups of subjects: (1) strategic management for competitive advantage of the nation, (2) natural resources, culture and tourism, and (3) agenda for good governance. The Program also requires the participants to conduct one practicum project to enhance their understanding and problem-solving skills.

In 2010, there were altogether 31 participants of which 5 participants reported on strategic management issues; 11 reported on natural resources management; and 15 reported on Agenda for good governance. Findings from the individual studies revealed that no matter which areas of issues the Vice Governors are faced with in terms of administrative dilemmas, the necessary conditions to achieve higher levels of effectiveness of provincial administrative goal performance included the following: (1) clear vision and mission with action plans aligned and key performance indicators to monitor the implementation process; (2) participative management; (3) social capital building; (4) developing the community or provincial society’s readiness for change; (5) ensuring the integrated performance and developing teamwork of all parties concerned by the provincial governor; (6) the local government being strengthened.

The automotive industry in Thailand continues to grow at a fast pace. Thailand has the biggest automobile assembly base in the region. Due to this fact Thailand is known as “the Detroit of Asia”. The automotive industry is vital for the Thai economy and hence there is need to continuously improve its process.

In this growing automotive sector of Thailand, Dr. Barba-
The Southeast Asia Urban Environmental Management Applications (SEA-UEMA) Project was a signature partnership between AIT and the Canadian International Development Agency (CIDA). The CANS 9.48 million CIDA-funded project lasted from 1 August 2003 – 31 August 2010 and implemented work in 8 countries in Southeast Asia. The project improved implementation and sharing of sound urban environmental management policies and practices in the three key urban environmental sub-sectors of water and sanitation, solid waste, and air pollution.

Key Results

Gender equality was one of the crosscutting themes of the project. During the period of 2003-2008, the project implemented activities under five components, namely: Graduate Education, Alumni Demonstration Project, UEM Sub-Sector Network and Professional Support Program, Joint Action Research, and Application of Research Results and Lessons Learned towards achieving 4 outcomes and 4 output results. During the extension period (2009-2010), the project implemented activities under four core areas, namely: Flagship Projects, Policy Advocacy, Learning Networks and Training, and Graduate Education toward achieving 2 outcomes and 5 output results. Gender equality remained as one of the cross-cutting themes.

In total, the SEA-UEMA Project implemented the following during the whole implementation period (2003-2010): thirty-one (31) Alumni Demonstration Projects; twenty-six (26) Joint Action Research; four (4) Policy Advocacy; five (5) Pilot Projects; and five (5) Flagship Projects. The project also established 7 Country Nodes in Cambodia, Indonesia, Lao PDR, Philippines, and southern Vietnam and southern and central parts of Vietnam. The project provided 110 scholarships in Southeast Asian countries for students to pursue, PhD, masters, diploma and certificate level programs at AIT. The project trained 1636 specialists, researchers, and practitioners in various professional training courses and gender trainings. The project established 352 partnerships with different partners from 8 countries during implementation of its activities.

A total of 849 UEM experts, researchers, city managers and practitioners became Regional UEM network members, and a total of 21 UEM policies were put in the action agenda of relevant government agencies. Gender equality was integrated into most activities of the SEA-UEMA Project including planning, implementation, evaluation, and reporting. The project recorded lessons learned, unexpected results, problems and challenges experienced over the period of project implementation and how overcome those. All project results were disseminated through dissemination meetings, websites, e-blogs, and through the distribution of publications. The project published numerous publications including case studies, monographs, policy briefs and proceedings of meetings, conferences and policy dialogues and forums. The SEA-UEMA Project also implemented a sustainability strategy to sustain the project beyond the project tenure.

Through the implementation of the SEA-UEMA Project, AIT made a significant contribution to improving urban environments in Southeast Asia, and it remains committed to supporting environmental improvements in the region.
STUDENT RESEARCH

A total of 76 Doctoral dissertations were completed at AIT in 2010. The total number of Master’s level student researches stood at 680, the breakdown of which is indicated in the table below.

<table>
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SCHOOL/Field of Study (FoS): SET (School of Engineering and Technology), CS/IM (Computer Science/Information Management), CEIM (Construction, Engineering and Infrastructure Management), GTE (Geotechnical and Earth Resources Engineering), IME (Industrial and Manufacturing Engineering), MEC/MES (Mechatronics/Mechatronics), RS/GIS (Remote Sensing and Geographic Information Systems), STE (Structural Engineering), TC (Telecommunications), ASE (Agricultural Systems and Engineering), AARM (Aquaculture and Aquatic Resources Management), E (Energy), EEM (Environmental Engineering and Management), SERD (School of Environment, Resources and Development), ASE (Agricultural Systems and Engineering), AARM (Aquaculture and Aquatic Resources Management), E (Energy), EEM (Environmental Engineering and Management), FEBT (Food Engineering and Bioprocess Technology), GDS (Gender and Development Studies), NRM (Natural Resources Management), PPT (Pulp and Paper Technology), RRDP (Regional and Rural Development Planning), UEM (Urban Environmental Management), ABM (Agri-Business Management), DPMM (Disaster Preparedness, Mitigation and Management), GTD (Greater Mekong Sub-region Development Studies), SOM (School of Management).
The 5th AIT Master’s Thesis Competition was held on 17 May 2010. There were seven competition categories (see below) and students with excellent grades in their thesis were nominated to represent their respective field of study. Presentations were judged according to relevance; originality; scientific/society contribution; general knowledge of the field; future potential for innovation; and presentation skills. A total of 55 students participated in the competition. There were 19 judges from industry, developmental agencies, international organizations, and universities.

The winners of the respective categories were the following:

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<tr>
<th>Category</th>
<th>Name / Title of Presentation</th>
<th>Advisor</th>
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<tbody>
<tr>
<td>Resources</td>
<td>Mr. Yadhu Nath Guragain &quot;New pretreatment methods for lignocellulosic residue for second generation bioethanol production&quot;</td>
<td>Prof. Sudip K. Rakshit</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>Ms. May Phyo Aung &quot;Development of Post-Tensioned Precast Concrete Building Systems for Seismic Resistance&quot;</td>
<td>Dr. Pennung Warnitchai</td>
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<tr>
<td>ICT</td>
<td>Ms. Sraddha Adhikari &quot;Content Discovery Using People Social Pattern in Peer-to-Peer Networks&quot;</td>
<td>Dr. Teerapat Sanguankotchakorn</td>
</tr>
<tr>
<td>Development</td>
<td>Ms. Duangsamorn Jatupornpimol &quot;State Response to Intimate Partner Violence in Thailand&quot;</td>
<td>Dr. Philippe Doneys</td>
</tr>
<tr>
<td>Information Systems</td>
<td>Mr. Sarayut Amornwongpeeti &quot;A Fourth-Order Cascaded Multi-Bit Delta-Sigma Modulator with Interstage Feedback Paths&quot;</td>
<td>Dr. Mongkol Eakpanyapong</td>
</tr>
<tr>
<td>Management</td>
<td>Mr. Pongthep Vichaikul &quot;Degree of Family ownership and the firm performance, A study of listed company in Thailand&quot;</td>
<td>Dr. Sundar Venkatesh</td>
</tr>
<tr>
<td>Energy/Environment</td>
<td>Ms. Kaushalya C. Wijekoon &quot;High Rate Thermophilic Anaerobic Membrane Bioreactor for Wastewater Treatment&quot;</td>
<td>Prof. C. Visvanathan</td>
</tr>
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</table>
As the continuing professional education center of AIT, AIT Extension has continued to enhance solid partnerships through the delivery of short courses for various capacity-building programs and initiating long-term initiatives with state governments and other sectors. In 2010, AIT Extension hosted 80 specialized capacity-building courses customized to the professional development needs of individuals and organizations from the Asian region and beyond. The office also charted new areas of expertise that contribute to capacity development across the region.

AIT Extension delivered on its commitment to building strong partnerships in the Asian region through its presence in the new AIT Centers in various countries and its renewed partnerships with state governments and ministries. The CSR Asia Center at AIT, a collaboration with Hong Kong-based CSR Asia, started activities in January 2010. AIT Extension also worked closely with the Yunus Center in its inception phase. In 2010, the AIT Extension Center in Nepal was formalized with the establishment of its new office in Kathmandu. To create a direct link with sub-national level institutions, the partnership with the State Government of Karnataka in India saw the launch of a multi-year collaboration between AIT Extension and the Health Department of Karnataka State to implement capacity building programs in Hospital Management to be held in Thailand.

The year 2010 witnessed an increase in the number of participants to AIT’s customized training programs for state governments and ministerial level institutions across the region. The second phase of the Punjab Resource Management Program (PRMP), which is administered by the Government of the Punjab, was launched with up to 200 participants identified to undertake courses funded through PRMP. The Faculty Training Program of the Higher Education Commission of Pakistan was confirmed, with up to 100 participants scheduled to attend one of three three-week courses each year from 2011.

AIT Extension, in partnership with the United Nations Development Programme (UNDP) and Nepal Administrative Staff College, carried out the Leadership Development Program for the Ministry of Peace and Reconstruction of Nepal to enhance leadership skills in realizing change towards sustainable peace in the country. This 3-country training program was conducted in Nepal, Thailand and Aceh for up to 50 government officers and local peace building committee members.

For four consecutive months in 2010, AIT Extension assisted in the capacity-building program for staff of the Ministry of Municipalities and Public Works of Iraq. This training program, funded by UNICEF, was conducted in AIT with study visits to different provinces and institutions in Thailand. Around 120 participants were chosen to undertake this program that focused on performance-based management in manpower planning, management of training centers and implementation of training programs.

The year 2010 also witnessed the expansion of the AIT Extension’s boundaries beyond training to include institutional advisory services. This new initiative brought in a new area of expertise for the office with the implementation of the Professional Development Needs Assessment (PDNA) for key project officers of IFAD projects across 4 countries in Asia: Cambodia, India, Lao PDR and Vietnam. The PDNA assessed the levels of
North Korea: Project Appraisal and Feasibility Study for Road Projects

As part of its commitment to the growing the reach of AIT in capacity development for the Asian region and beyond, AIT Extension conducted a Professional Development Course on Project Appraisal and Feasibility Study for Road Projects for the Ministry of Land and Marine Transport and the State Academy of Sciences, Government of the Democratic People’s Republic of Korea (DPRK). This course was initiated at the request of the United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) to address the gaps and capacity requirements of officers to undertake project appraisal and feasibility studies for road development projects in North Korea.

Fourteen key officers – unit heads, division chiefs, director-generals, deputy directors, consultants and researchers – attended the five-week course, which equipped them with skills on project formulation, identification of costs and gains, financial and economic tools on project appraisal and decision-making. The training also allowed participants to link their appraisals with Environmental Impact Assessment reports to ensure sound environmental management in their projects. It also introduced them to bottom-up systems of decision-making that is participatory and transparent.

All training materials were translated into Korean to ensure that the contents of the training modules were understandable to the participants. All lectures by internal resource persons and external consultants were done with the help of an interpreter. Although there were some communication gaps, this did not discourage participants from sharing their views and experiences on road construction with the resource persons and staff of the various road projects they visited in Thailand.

The training course was part of the financial assistance of UN-ESCAP to the Democratic People’s Republic of North Korea. It was the first course conducted by AIT Extension for North Korea.

Initiated by the Development Management Unit of AIT Extension, the Teaching Case Bank project with the Institute of Microfinance (InM), Bangladesh, was launched to promote the use of the teaching case method for microfinance and related development pedagogy. This groundbreaking project is also aimed at building a case bank of high quality teaching cases for AIT and InM and creating a cohort of teaching case writers across the region.
Internationality

Engagement with international and regional institutions interested in or based in Vietnam is critical to growing the AIT brand and to its growth as a leading international institution of higher learning. This year, AIT Vietnam (AITVN) engaged in a number of group discussions, seminars, workshops and conferences which linked and developed programs with various public and private sector institutions including embassies (Belgium, U.S., Switzerland, Netherlands and Sweden); EU platforms; Asian Development Bank; UN organizations (FAO, UNDP); and private companies (Intel, V-CEM, EVN). AITVN’s participation at national, regional and international-level workshops led to interactions with SAEMEO-RETRAC, US-Vietnam Universities, Sustainability Science, ISF and Management Learning and reputed universities including Salzburg University- Austria, Clermont Graduate School of Management-France, and the Graduate Institute of Geneva-Switzerland.

Excellence and Relevance in Education Research and Outreach

When asked what brings them to cooperate with AITVN, organizations and individuals who partner with AIT in training, education and research answered first that it was because of overall quality. Second, third and fourth responses were internationality, relevance and affordability, respectively.

Although AITVN previously did not have its own academic programs, it added value to School-led programs by providing high-quality services that facilitated operation of all academic programs. However, current plans include developing AITVN’s own academic programs in selected areas.

In 2010, AITVN participated in the IEC/ADRC/AIT Senate to present new programs on: Information Management in Finance and Banking; Aqua-business; and Professional Master’s Program on Disaster Resiliency and Hospitality Management. At the moment, these programs are in demand and no other organizations are providing such programs in Vietnam.

In collaboration with AIT Extension, AITVN is developing AITVN as one of the country’s training certification nodes for providing trainings of trainers (ToT). The goal is to develop AITVN as a high quality training program certification hub. To do so, it has started to build its own institutional capacity and will be conducting ToT for its own staff starting with 1) training of facilitators; 2) trainings of trainers and; 3) training of certifiers. The first in-house training of AITVN staff was scheduled for mid-April, 2011.

Positioning and Branding

Branding and positioning is particularly important for AITVN in terms of increasing awareness of its work in the country. This was achieved this year with increased recognition and increased visibility, despite the challenges in communicating the brand at a national level. AITVN was known as a “Center of AIT” implying a small and minor component of AIT. However, given its broad scope and expanding operations, the decision was made to change the name from “AIT Center in Vietnam-AITCV” to simply “AIT in Vietnam-AITVN.” This change did, however, create some confusion amongst partners and even staff. Therefore, strong efforts were made to clarify AITVN’s position and brand. AITVN’s branding strategy involved attention to visual brand representation at its offices, on vehicles and through its website, stationary and curriculum. Improving its image and increasing name recognition was also carried out through a regular newsletter, expert seminars, newspaper advertising, and public ceremonies.

Development and Resources Management

Developing, expanding and managing resources included: identification of new partners and the maintenance of valued partners; care and management of personnel of AITVN; and improved administrative efficiency. Last year AITVN identified an investor, potential location, and proceeded in the process of developing macro-plan, including the business plan.

AITVN Retreat: AIT in Vietnam held a successful two-day retreat in Danang from January 9 - 10 that was attended by 43 staff members. Through dialogues and discussions, progress was made on: 1) 2016 Strategic Framework for AITVN and; 2) Performance-based Evaluation and Incentive System. Since AIT in Vietnam program offices are dispersed throughout the
country in Hanoi, Ho Chi Minh City, Cantho, Danang and Vung Tao, this was an important opportunity for many staff members to meet each other for the first time and to socialize in AIT and experience its work culture. The retreat completed a strengths, opportunities, weaknesses and threats (SWOT) stakeholder analysis and generated ideas for a 5-year strategy for AITVN.

As Vietnam continues to experience rapid economic growth (7% in 2009 despite the recent global economic crisis) there is a high demand for a knowledge-savvy workforce, especially in the education and training sector. Highly qualified staff need to be nurtured and re-trained in order to stay relevant and competitive in the current environment. The implementation of performance-based evaluation and incentive system was an important mechanism for retaining excellent performers. The Director of AIT Extension was also invited to participate in this dialogue and made an important contribution to harmonizing the system of the main AIT campus and AITVN.

Because of the strategic decision to focus more of its development efforts in the heart of the Mekong region, AITVN was invited by the People’s Committee and the University of Cantho, Can Tho City. Ministry of Education and Training (International Office) to open an office there. The aim is to create visibility of AITVN activities through a series of workshops, promotional seminars and personal visits to local private and government officials. Moreover, AITVN’s presence in Cantho is seen as important part their own development strategy. A large number of AIT’s alumni in Vietnam are based in this region, so the move there can increase AIT visibility.

At the invitation of the People’s Committee (PC) of Cantho, AITVN cooperated with the Department of Home Affairs (DOHA) - which is responsible for HR development for the PC - to assess management capacity of those in management and leadership roles. A total of 32 departments and branches participated in this effort and one of the outcomes was a prioritized list of capacity development training programs (long-term and short-term). Using the outcome of this assessment, DOHA is designing a short-medium term capacity development proposal for the PC’s approval. The role of AITVN has been to provide assessment expertise (instrument design, and data analysis) and present the outcomes to the relevant departments. This outcome provided to the People’s Committee with an important decision-making tool for human resource capacity improvement of its management staff. Moreover, it helped AIT to better understand overall knowledge and skill gaps among decision-makers of the PC. This will inform work in designing curriculum and programs that are designed and delivered in a relevant and timely fashion.

**AITVN Facts (2010)**

- Current main offices in: Hanoi (headquarters), Ho Chi Minh City (CMARD collaboration) and Cantho (ICTU collaboration)
- Small program offices: Dong Nai, and Vung Tao
- Total number of staff: 63 (90% Women)
- Personnel cost: 498,384 or 14.3% of total cost

**AIT academic programs offered (in cooperation with Schools):**

- Environmental Engineering and Management (EEM)
- Executive Management of Business Administration (eMBA)
- International Executive Master’s in Business Management (ieMBA)
- Doctorate of Business Administration (DBA)
- Project Management in Construction (PM-PMC)
- Professional Master’s in Geo Exploration and Petroleum Geo-engineering (PM-G&PG)
- Professional Master’s in Geotechnical Engineering and Management (PM-GEM)
- Professional Master’s in Industrial Engineering and Management (PM-IEM)

**Areas of Professional short-course training offered:**

- Environment and Development (EDS)
- Business and Management (MBS)
- Educational Management (EMS)
- Industrial Technology & Information Management (ITIMS)

**Total Number of Professional short-course trainings completed in 2010: 112**

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<td>EDS</td>
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<td>MBS</td>
<td>50</td>
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<tr>
<td>EMS</td>
<td>20</td>
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<td>TIMS</td>
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2010 was an important year for the former AIT Center in Indonesia (AIT-CI). Along with the establishment of the New Charter of AIT, the 3-year collaboration between Asian Institute of Technology and the Ministry of Public Works of Indonesia for AIT-CI came to an end as of December 2010. This is to be followed by the official expiration by June 2011.

However, in respond to Indonesia’s vast demand for quality education with a strong international brand, AIT-CI decided to welcome 2011 with establishment of “AIT-Indonesia”: a self-sufficient campus, which will serve both domestic and international students.

Despite the challenge in identifying its new body members (which invites the participation of the Ministry of National Education and the Ministry of Agriculture and Ministry of Public Works of Indonesia), AIT in Indonesia will focus on setting up as a legal entity. This is intended to allow AIT in Indonesia to be registered and operate under the applicable law of the country and accredited to conduct higher education at all levels.

Guided by the existing rules and regulations of Indonesia, AIT’s interim director in charge of the start up of AIT-Indonesia has identified a reliable partnership with Universitas Jenderal Ahmad Yani (UNJANI), which is an independent university belonging to the highly regarded Kartika Eka Paksi foundation.

The collaboration will be registered under the brand of AIT-Indonesia. The Memorandum of Understanding between AIT and UNJANI has been underway and will be finalized by early 2011.

Prior to the establishment of the AIT-Indonesia, an interim secretariat of AIT-Indonesia was established at UNJANI main campus in Cimahi, West Java. The interim secretariat of AIT-Indonesia will, in due course, launch a series of training workshops for the local governments of Indonesia and a management course for private sector actors. The activities for professional learning will be hosted in Jakarta while the common group trainings will be held at Kota Baru Parahyangan; a city with educational insight nominated to AIT-Indonesia’s headquarters.

Accomplishments in 2010

During the year AIT-CI facilitated a visit by delegates of the Government of Nepal to Banda Aceh. The program, which was jointly conducted with AIT-Extension, provided the Nepalese government with insights on AIT’s impact in the reconstruction efforts in Aceh, and AIT’s modalities for working closely with Ministry of Peace and Reconstruction of The Kingdom of Nepal.

To assist the public transportation sector, AIT-CI successfully conducted a training workshop on Road Management for the Directorate General of Land Transportation, followed by a comparative study visit to Bangkok. Another similar training was conducted on inland waterways transportation management.

AIT-CI also took an active role at the annual education exhibition in Indonesia, which provided a promotional opportunity for the center to share its proficiency with prospective students and other educational stakeholders.
The Centre of Excellence on Sustainable Development in the Context of Climate Change (CoE SDCC) was established in September 2009 to support the AIT’s vision of responding to global climate change challenges through concerted trans-disciplinary efforts leading towards a more sustainable society.

Sustainable development has always been central to AIT’s research and development efforts. AIT’s Strategic Plan 2013 reflects this fact, and emphasizes the consolidation of research efforts to create a research niche that will harness the Institute’s range of networks, experiences and expertise. The goal of CoE SDCC is to consolidate the Institute’s research work and broaden its networks and partnerships by providing a platform to discuss and launch shared initiatives. It works to pool resources to effectively address issues and challenges in sustainable development and climate change in Asia and beyond.

In 2010, CoE SDCC collaborated in the joint AIT-French Network Initiative targeting young researchers to work on new collaborative projects based on the general theme of “Sustainable development and climate change” with a focus on the development of the ASEAN region using multidisciplinary approaches.

In a significant development, CoE SDCC was engaged by the UNEP Risoe Centre (URC), Denmark, as the Regional Center for its Technology Needs Assessment (TNA) project in Asia, which is being funded by Global Environment Facility (GEF) as a part of its worldwide effort to support 35 to 45 countries within the framework of the UNFCCC. As a regional center, CoE SDCC serves as the focal point for technical support and capacity building for 14 participant countries in Asia and Eastern Europe.

CoE SDCC was involved in a key project on “Thailand’s Institutional and Policy Landscape on Climate Change Mitigation”. The project aims to provide an assessment of the gaps existing between the need for effective implementation of National Strategy on Climate Change prepared by Royal Thai Government and existing support from all UN agencies, the government’s own plans, and support from other international non-governmental agencies. UNEP, as the Secretariat for the Joint Team on Climate Change, engaged AIT to conduct a thorough research study, map the role of stakeholders, and help UN agencies to fill in these gaps.

CoE SDCC intends to be involved in the SYKE-funded project on “Policy Learning in Mekong countries-Nepal.” CoE SDCC provides core support to develop the AIT Research Strategy 2011 – 2015 under the broader umbrella of sustainable development in the context of climate change with focus on the following:

**Five thematic areas:**

- Vulnerability and Disaster Reduction
- Water and Land Resources Management for Sustainable Production and Consumption
- Urban and Rural Quality of Life and Sustainability
- Low Carbon and Cleaner Production Technologies and Management
- Business and Innovation Models for A Green Economy
The Yunus Center at AIT is the result of a collaborative effort between Nobel Laureate Professor Yunus and the Asian Institute of Technology. The Center aims to contribute to poverty alleviation through the promotion and raising awareness of the ideas and concepts of social business. In the first half of the 2010, the Center was run by two Interim Directors in succession, while arrangements were made to hire a full time Director. A full time director, Dr. Riaz Khan, took over in the second half of the year.

**Workshops**

The Yunus Center at AIT promoted social business at various venues. The Center made a presentation at a conference on ‘Building Partnerships for Implementing Renewable Energy and Energy Efficiency Projects in the Mekong Region (EEP Mekong)’ in Vientiane, Lao PDR. The Center was nominated as a panelist at a session on social business at the ‘Regional Social Enterprise Knowledge & Partnership Symposium: Social Enterprise for a Sustainable Future in Asia’ in Bangkok. The Center also attended the Global Social Business Summit 2010 in Wolfsburg, Germany, and The Danone Community meeting in France. At the invitation of the CEO of HSBC, the Center made a presentation on social business. At the end of the year, the Center was invited to be an observer at the Thailand National Health Assembly.

**Student Researchers**

The Center hosted three students from Sweden, Ms. Michaela Wahlberg and Ms. Cecilia Sauma, from Södertörn University College, and Mr. Alan Zabihi from Chalmers University. They worked on issues related to social development. Mr. Audu Idi Guga, a doctoral student at AIT, in cooperation with the Center, carried out a pilot study on the possibility of growing mushroom on rice straw as an income generating activity for farmers in Vietnam.

**Outreach**

An important part of the Center’s activities is to network with other organizations that are involved in social development activities. Therefore, in 2010 the Center had discussions with Asoka, Betagro Corporation, Changefusion, Duang Prateep Foundation, British Council, Schneider Electric, National Health Commission, Thammasat Business School, PDA, and Dataconsult. The Center visited projects in Laos, Bangladesh and Thailand. In Bangladesh, social businesses visited included those of Grameen Danone and Grameen GC Eye Care hospital. The Center also visited the social venture operations of Betagro Corporation in Lop Buri, Thailand. Among the activities presented was a village development bank, an ideal school kitchen initiative and improved cassava plantation. The Center visited the Klong Toey area of Bangkok to see the activities of the Duang Prateep Foundation. The Duang Prateep Foundation works with the urban poor in Klong Toey and has been active in primary education, and special needs education. The Center was an observer at the consultative process on health issues carried out by the National Health Commission in Prae Province in Thailand.
The CSR Asia Center at AIT (CSRACA) is a joint venture partnership between the Asian Institute of Technology (AIT) and CSR Asia, the leading provider of information, training, research and consultancy services on sustainable development practices and corporate social responsibility (CSR) in Asia. It brings together the strengths of the two founding organizations in pursuit of its vision of a dynamic, competitive business environment in Asia, in which the private sector is equipped to develop and implement innovative solutions for the challenging issues of sustainable development in a strategic and effective manner.

The CSR Asia Center at AIT was established in 2009 and started its operations with the hire of a full-time director in January 2010. The mission of the CSR Asia Center at AIT is to advance the development and implementation of effective and innovative sustainability solutions and CSR strategies for and by business; and to facilitate the development of supportive framework conditions for corporate social responsibility (CSR) and sustainable development.

Key activities in 2010:

Four one-day training courses

- Building Partnerships with Business for Development: To support development agencies (International Organisations, NGOs, and government agencies) to be better prepared to work with companies on partnerships for sustainable development.
- Investing for Impact: On approaches, lessons learned, case studies, and engaging employees in the whole process while the second part focused on monitoring and evaluation and measuring.
- CSR Essentials: A highly practical course to get participants started on CSR. After examining the emerging CSR agenda it outlined core issues and practical tools for effective implementation of CSR.
- ISO 26000: Designed to help companies integrate the guidance into their management systems and operations by examining the necessary systems and structures, performance reviews and communication required.

In addition, the CSRACA conducted a number of consultancy projects supporting companies in the development of CSR strategies and policies, including benchmarking, gap analysis, stakeholder engagement, and workshops.

Tracking the needs and aspirations of stakeholders and the private sector, the Center conducted research work on issues linked to the role of the private sector in sustainable development: From general research on CSR practices in Thailand, to a larger research and engagement project funded by the Swedish International Development Cooperation Agency (Sida) on harnessing the innovative capacity of the private sector for climate change adaptation in South and Southeast Asia.

The CSRACA collaborated with UNEP to organize an Industry Roundtable in the margins of the 22nd Meeting of the Parties to the Montreal Protocol in Bangkok. It was engaged with outreach and network building activities with businesses and their stakeholders in Thailand, the Mekong region, and beyond. It sought to explore linkages and collaboration opportunities with organizations and networks in the field to maximize impact towards its mission. And it contributed to various events and meetings in its pursuit to further knowledge development about strategic approaches to CSR and the generation of capacity for sustainable business practices and partnerships with business for development.

As CSR is only slowly being integrated into the curricula of MBAs and other management and development qualifications in Asia and globally, many executives tasked with a CSR portfolio do not have formal training and specialised expertise to deliver on meaningful CSR programmes linked to core business strategies. A key focus for the Center was the development of a Professional Master’s Degree program in CSR. In partnership with CSR Asia, delivered through AIT’s School of Management, and coordinated by the CSRACA, AIT is pioneering a flexible executive style professional Master’s degree in CSR to respond to this capacity gap. The first of the eight intensive modules that comprise the taught part of the program will be delivered at AIT in September 2011.
The United Nations AIT Office (UNAIT) successfully developed and established contacts with several UN agencies in 2010. These activities included collaborative projects, training programs, student exchanges and workshops. With UNESCO-IHE Delft, The Netherlands, a double degree program on environmental technologies for sustainable development (DD-ETSuD) was successfully established, and students are expected to enroll in the program starting from August 2011. The dual Master’s degree program on Urban Water Engineering and Management (UWEM) continued to attract students for the third consecutive year. Furthermore, an Erasmus Mundus Doctoral program on Environmental Technologies for Contaminated Solids, Soils and Sediments (ETeCoS3) funded by the European Union has also been established and was in its second year of operation. Two Master’s students from AIT secured scholarships from the ETeCOS3 program for conducting research at UNESCO-IHE Delft, The Netherlands and Università degli Studi di Cassino, Italy.

In 2010, the UNAIT Office also held a workshop on Management of Heavy Metal Discharges from abandoned coal mines and coal ash dumpsites. Researchers and policy experts from France, Philippines, and Thailand participated in the workshop. Two research projects are in progress with funding from UPaRF and SDCC/AIT-France network. Several projects are under consideration for funding including applications for USAID, GEO. Several initiatives with UN agencies were also undertaken by AIT faculty including: the 4th Batch of E-learning Program on Integrated Water Resource Management, funded by UNU-INWEH and participants; the Regional Water Virtual Learning Center (WVLC), part of the ProSPER.Net Joint Project on Integrating Sustainability in Business School Curricula, UNU-IAS, under the guidance of Education for Sustainable Development (EfSD) Programme of the UNU-IAS, which is the Secretariat of the Promotion of Sustainability in Postgraduate Education and Research Network (ProSPER.NET), and the E-learning Course on Renewable Energy and Energy Policy funded by UNESCO, Jakarta. In order to further streamline the cooperation between AIT and UNEP, both mutually agreed to establish a Deputy Director position.
Italian Dr. Sandro Calvani became Director of the ASEAN Regional Center of Excellence on Millenium Development Goals (MDGs) at AIT on 1 September 2010. Dr. Calvani joined AIT after 30 years of international public service with international NGOs and UN programmes as a senior manager, director and director general at various duty stations on four continents (1980-2010).

- ASEAN Third Initiative for ASEAN Integration Development Cooperation Forum (IDCF-3): Building Strategic Partnerships towards Narrowing the Development Gap in CLMV on 19 October 2010, in Jakarta where he delivered a keynote speech on MDGs policies in the region. At the conference, ARCMDG was invited to become a member of the working group to prepare such an ASEAN MDG report to be published for the first time in September 2011.

The “Regional Workshop towards the ASEAN Statistical Report on the Millennium Development Goals” was attended by national MDGs authorities from ASEAN. The workshop was organized with the assistance of the EU-ASEAN Statistical Capacity Building (EASCAB) Programme.

- Over 400 participants gathered in Bangkok for a “Language, Education and the Millennium Development Goals (MDGs)” conference co-organized and sponsored by the ARCMDG. H.E. Abhisit Vejvajiva, Prime Minister of Thailand, inaugurated the event which featured keynote speaker Professor Suzanne Romaine from Oxford University. Prof. J.K. Routray of ARCMDG represented AIT as a member of the Conference Steering Committee and was coordinator of the track 4 activities on “Language and Sustainable Development”, which was largely the responsibility of AIT faculty members. The sub-themes of this track were Language and Achievements of Development Goals (Moderator Dr. M. M. Ahmad, AIT); Tradition, Ethnicity and Culture (Moderator Dr. Raquel Castillo); Empowerment of Indigenous Communities (Moderator Dr. Ellen A Herda); Sustainable Development (Moderator Dr. Jonathan Shaw, AIT); Linguistic and Cultural Considetations (Moderator Matthew Laszewski, AIT); and Education and Training for Sustainable Development (Moderator Prof. J.K. Routray, AIT).

- The ARCMDG Director attended the “International Conference on Security and Solidarity in Europe,” in Olbia. He addressed the participants on the subject of migration and MDGs.

- From 29 November - 2 December, the ARCMDG Director participated in the “World Economic Forum Summit on the Global Agenda” in Dubai as a guest of the UAE Government and had meetings with executives of the African Development Bank, OPIC (US Government Agency which supports private sector investment in developing countries), Global Governance Solutions, Millennium Promise, the MIT Senseable Laboratory, JICA and PAHO to consult on possibilities for cooperation with ARCMDG and other AIT initiatives.

- On 8 December, upon the invitation of UNDP, ARCMDG participated in a UN Brainstorming Meeting on the proposed subjects for the UN Human Development Report in 2010.

- In the last quarter of 2010, ARCMDG obtained UNDP and ASEAN agreement and support to organize a major consultation of UN and ASEAN senior officials on “The Road Map towards the Attainment of MDGs”, which was scheduled for January 2011.

“Localizing MDGs, empowering people, putting goals into actions”
In its first 20 years, the Regional Resource Centre for Asia and the Pacific (RRC.AP) has undertaken dramatic changes in its working panorama. Emerging from a narrow focus on geographical information systems and remote sensing to assist countries in Southeast Asia, the Global Resource Information Database (GRID-Bangkok) facility that was established by United Nations Environment Programme (UNEP) Assessment Division, has evolved into a broadly focused technical Centre that serves countries in Asia and the Pacific.

RRC.AP responds to the region’s needs for capacity building in science, assessment, policy tools, emerging environmental issues, knowledge and information dissemination, and pilot projects for demonstration and replication. RRC.AP is structured into four major components corresponding to the type of support that they provide: Regional, Network, Knowledge and Institutional.

2010 Highlights

Asia-Pacific Climate Change Adaptation Forum: Over 550 policymakers, scientists, development experts, and representatives from Asia-Pacific governments and bilateral and multilateral donors gathered in Bangkok on 21-22 October 2010 for the Asia-Pacific Climate Change Adaptation Forum 2010. The first day focused on general approaches and large-scale financing of climate change adaptation, while the second day concentrated on details concerning adaptation governance, mainstreaming adaptation into development planning, and the importance of effective knowledge management. The participants debated on critical issues on how to best approach climate change adaptation and how to integrate adaptation into development.

World Environment Day: The theme for World Environment Day 2010 was “Many Species. One Planet. One Future.” On this occasion, AIT-UNEP RRC.AP, together with several partners/sponsors, carried out various activities to raise and enhance awareness of pressing environmental issues, including preventing biodiversity loss in support of the International Year of Biodiversity in 2010. A video message from Mr. Achim Steiner, UNEP Executive Director, highlighted the event held at the AIT Conference Center on 4 June.

11th Annual Meeting of the Collaborative Action Network (CAN): The CAN held its 11th Annual Meeting on 20 October 2010. AIT-UNEP RRC.AP’s CAN partners and donors from Central Asia, South Asia, Southeast Asia, Northeast Asia, and The Pacific, as well as other international relevant organizations and experts were present. The meeting followed-up on the 10th CAN Annual Meeting and discussed strategic partnerships and initiatives with regards to atmospheric resources. Regional contributions to the upcoming Rio+20 Earth Summit were also explored.

Twelfth Session of the Intergovernmental Meeting on Acid Deposition Monitoring Network in East Asia (EANET): The Intergovernmental Meeting (IG12) on the Acid Deposition Monitoring Network in East Asia held its Twelfth Session in Niigata, Japan on 23-24 November 2010. The session approved Decision 1/IG12 which adopted the “Instrument for Strengthening the Acid Deposition Monitoring Network in East Asia (EANET)” and decided on the operational date of the instrument.
Habitech Center

Habitech is a research and development center established in 1989 in the Human Settlement Development Program of AIT. Habitech’s ultimate goal is to seek alternative technical and environmental solutions in the development of human settlements.

Technology Transfer

- **Technology Transfer to Myanmar**: In order to construct child-friendly schools in remote Cyclone Nargis affected areas of Delta, Myanmar, Habitech Center has supplied through its Myanmar Center, Manual Brick Presses and Hydraulic Brick Presses to UNICEF Myanmar. Result of this technology transfer, a total of 45 Child friendly Primary Schools were built.

- **Technology Transfer to Bhutan**: For last 2 and half years, Habitech Center has provided more than 25 private entrepreneurs with Manual Brick Presses, Micro-concrete Roofing Tiles workstations, Hydraulic Testing Presses and paddle mixers and one concrete mixer. Since interlocking soil-cement bricks are getting very popular in Bhutan, more and more entrepreneurs are coming forward. So, Habitech Bhutan Center is already established in Bhutan.

- **Technology Transfer to Bangladesh**: With the successful implementation of the construction of Primary schools in Myanmar, UNICEF Bangladesh also requested for the supply of Manual Brick Presses and Hydraulic brick Presses to construct Primary Schools in Bangladesh. So far, equipments are already provided to UNICEF Bangladesh, but the implementation work is still pending.

Projects Completed

- **Knowledge City Police Sub-Station**: This project consists of the construction of Police sub-station located just outside of Asian Institute of Technology, Pathumthani Thailand. The Police substation will be serving 3 institutions Asian Institute of Technology, Thammasat University of Rangsit and National Science Park. Habitech Center designed and constructed using interlocking brick technology developed at its center.

- **Construction of Primary Schools in Myanmar**: This project consists of the construction of 5 Primary schools in 5 remote villages of Delta areas in Myanmar. This project is supported by Oxfam-Novib and implemented by Sitagu Buddhist Missionary Center, Myanmar. The interlocking-bricks technology developed by Habitech Center of SET, AIT was used to construct the schools. Habitech Center provided technical support by providing equipments to produce interlocking bricks and conducted Trainings on Production and Effective Construction with Interlocking bricks on sites.

- **Child-Friendly Primary Schools for Cyclone Nargis victim Children of Myanmar**: With the partnership with UNICEF Myanmar, Habitech Center, as a consultant, played a vital role to build Child Friendly Primary Schools in 35 remote villages of Delta areas in Ayeyarwady and Yangon Division of Myanmar. The interlocking-bricks technology developed by Habitech Center of SET, AIT was used to construct the schools Habitech Center provided equipments to produce soil-cement interlocking bricks and conducted trainings on “Production of Interlocking Bricks” and “Effective Construction with Interlocking Bricks” on sites. A total of 10 Primary Schools built in the first phase (2009) and 25 Primary Schools built in the second phase (Jan-June 2010).
The Asian Center for Soil Improvement and Geosynthetics (ACSIG) consolidated its current soil/ground improvement related activities in the Soil Engineering Program, liaised with other Centers relevant to ACSIG, and acted as a catalyst for the advancement of soil/ground improvement techniques. The Center continued to spearhead effective utilization of geosynthetics for environmental preservation and to mitigate existing geotechnical problems in Asia and the Pacific through competent, updated and sustainable education, research and outreach activities.

In 2010, ACSIG brought numerous QA/QC testing for geosynthetic products from both Thailand-based and international geosynthetics companies. The course Geosynthetic Engineering Design (CE71.55) was also carried out in the ACSIG laboratory. ACSIG has served as the headquarters of the International Geosynthetics Society – Thailand Chapter (IGS-Thailand) since its establishment in 2002. ACSIG published 2 issues of newsletters for both IGS-Thailand (June and December 2010 issues) and the Southeast Asian Geotechnical Society or SEAGS (February and August 2010 issues).

Part of ACSIG’s annual outreach activities involved the organization of symposiums and short training courses. Thus, the “International Symposium and Exhibition on Geotechnical and Geosynthetics Engineering: Chall-

Trainings, Seminars and Exhibitions

The Minister was accompanied by Mr. Sangay Dorjee, Director of Department of Occupational Standards, and Mr. Kuenzang Dechen, Counselor of Embassy of Bhutan to Thailand.

- H.E. Mr. Tsering Dorji, Ambassador of Bhutan to Thailand, Australia and Singapore accompanied by his wife made an informal visit to Habitech Center to learn about the interlocking Brick technology, which has been so popular in Bhutan for the last two and a half years. The Coordinator of Habitech Center made presentation on Habitech Building Technology to H.E. Mr. Tsering Dorji. (14 August 2010).

- H.E. Mr. Dorji Wangdi, Minister of Labor and Human Resources, Government of Bhutan, has expressed keenness in using the building technology created by Habitech Center of the Asian Institute of Technology (AIT), in large construction projects in Bhutan. While visiting AIT on 7 August 2010, the Minister stated that AIT’s Habitech Center could positively contribute and support capacity development in the construction sector of Bhutan.

- UNICEF Seminar / Workshop (2-4 August 2010):

Habitech Center was invited by UNICEF as a special guest speaker to present its technology at the Seminar / Workshop organized for the UNICEF staffs, which was attended by the UNICEF staffs of more than 15 countries.

- Exhibition of Habitech Building Technology at Construction Expo-2010, Bhutan (2–6 June 2010): Habitech Center was invited by Bhutan Chamber of Commerce and Industry to exhibit its technology at the Construction Expo-2010. The exhibition stall was visited by very high level officials as well as more than 100 Private and Public entrepreneurs.

- Presentation on Habitech Building System was made to decision-makers from UN Habitat (Nepal), Director General of Department of Building, Housing and Urban Development, representative from Urban Development through Local Efforts (GTZ) and many senior engineers and architects of Nepal.
The Regional Network Office for Urban Safety (RNUS) is a collaborative center jointly operated by the School of Engineering and Technology (SET), AIT, and the International Center for Urban Safety Engineering (ICUS), Institute of Industrial Science, University of Tokyo. RNUS was founded in 2002 to promote research and educational activities for improving urban safety and disaster prevention in Asian countries by promoting collaborative research with various organizations in areas of urban safety engineering.

In 2010, RNUS organized two big seminars on geospatial technologies for environment and disaster management and the water resources management as follows: On 27th November 2010, a half day symposium on the “Forefront and Challenges of Geospatial Technologies for Environmental and Disaster Management in Southeast Asia” was held in Bangkok which attracted 8 distinguished speakers, from both Japan and Thailand. Approximately 140 participants joined the symposium: 40% from universities; 40% from governments; and 20% from the private sector and other sectors.

On 29th January 2011, half day symposium on the “Forefront and Challenges of Water Resources Management in Southeast Asia” took place in Bangkok. This event saw 6 distinguished speakers, from Thailand and the United States in the field of water resources management from both the academic field and government. The event attracted more than two hundred applicants.

In 2010, the Geoinformatics Center (GIC) of AIT formally began operating as the Project Manager (under the auspices of the International Charter for Emergency Satellite Observations and Rapid Satellite Data Analysis) to provide critical support in response and post-disaster recovery operations. GIC took responsibility as the Project Manager for work concerning the Sumatra tsunami in Indonesia in October, 2010.

This year the Geoinformatics Center successfully implemented the ASEAN Cooperation Project on Utilization of Satellite Images for Disaster Risk Reduction in Thailand, Lao PDR, Cambodia, Philippines and Myanmar. This project is aimed at capacity building in processing and utilization of satellite data in disaster management in the respective countries. The project was implemented in collaboration with the Asian Disaster Reduction Center (ADRC), Japan. The Geoinformatics Center also took up nine small-scale projects, called “mini-projects”, in Bhutan, Indonesia, Lao PDR, Nepal, Sri Lanka, Thailand and Vietnam. The main objective of the project was to build individual and institutional capacities in applications of remote sensing and GIS. Disasters, as well as environment and climate change related issues in the above mentioned countries, were addresses through the project with sponsorship from the Japan Aerospace Exploration Agency (JAXA), Japan.
The Center of Excellence In Nanotechnology (CoEN)

The Center of Excellence In Nanotechnology (CoEN), supported jointly by the National Nanotechnology Center (NANOTEC) of the National Science and Technology Development Agency (NSTDA) of Thailand and the Asian Institute of Technology (AIT), is located on the AIT campus in the Outreach Building. The CoEN was established on 25 May 2006 and its state-of-the-art laboratory was officially inaugurated on the 8 September 2009. The graduate program in nanotechnology at AIT was launched in August 2009 and is designed to push forward knowledge-based industries of the 21st century.

Current research activities at the CoEN focus on dye-sensitized solar cells, piezotronic devices, gas sensors, bio-diagnostic tools, environmental mitigation through visible light photocatalysis, self-organization of nanoparticles, and layer-by-layer growth from colloidal particles, amongst others. The center’s researchers carry out cutting-edge cross-disciplinary research.

Key results
Twenty peer reviewed journal and international conference papers were published in 2010. *Fundamentals of Nanotechnology* a publication co-authored by our Visiting Professor Gabor L. Hornyak from Colorado School of Mines and Prof. Joydeep Dutta, Director of CoEN, was acclaimed as one of the world’s Outstanding Academic Titles for 2009 by “Choice: Current Reviews for Academic Libraries”, a publication of the Association of College and Research Libraries, and a Division of the American Library Association.

The Center of Excellence in Nanotechnology organized many events in 2010. On 23 September 2010 a Nanotechnology forum was organized at AIT. Prof. Sirirurg Songsivilai (Executive Director, NANOTEC); Dr. Meyya Meyyappan, Chief Scientist for Exploration Technology, NASA Ames Research Center, USA; Prof. Heinrich Hofmann, Director, The ERU Surface Coating and Particle Engineering (SPERU), Swiss Federal Institute of Technology, Lausanne, Switzerland; Prof. Joydeep Dutta, Vice President for Academic Affairs (AIT), and Prof. Gabor (Louis) Hornyak of AIT participated in this forum. The Center of Excellence in Nanotechnology was actively involved in designing and conceptualizing the Nanotechnology Pavilion at the National Science and Technology Fair 2010 held in August 2010 at Bangkok International Trade and Exhibition Center (BITEC), Bang-na, Bangkok.

WHO Collaborating Center

The Center continued its operation 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. Activities include research on health impact assessment, health risk assessment and environmental management for health risk reduction and to provide technical guidance and consulting to WHO, its Member States and development partners. The Center continued to educate and train engineers, scientists and health professionals in the field of environmental health, related to drinking water supply and waste disposal, water management and wastewater use, and other related areas. Work on introduction of Water Safety Plans into the AIT curricula was also carried throughout 2010.
Asian Regional Programme on Environmental Technology (ARRPET) Phase II

The Swedish International Development Cooperation Agency (Sida)-funded project on Asian Regional Programme on Environmental Technology (ARRPET) Phase II concluded on 31 December 2010. The ARRPET project was a networking-type, research project coordinated by the Asian Institute of Technology. The project successfully established a network of researchers from 18 national research institutions from 8 Asian countries such as China, India, Indonesia, Malaysia, Philippines, Sri Lanka, Thailand and Vietnam. The project yielded substantial capacity building of the researchers involved, as evidenced by over 500 publications in international refereed journals and conferences and numerous popular articles. The project held over 100 seminars, training programs, conferences and workshops for researchers and policy experts for establishing policy initiatives for environmental preservation. Links with industry were also established through pilot-scale investigations on the processes developed through ARRPET research. Several spin-off projects and activities were also established. Further details of ARRPET research activities can be found on project website, http://www.arrpet.ait.ac.th.

The project was coordinated by Prof. Ajit P. Annachhatre and dealt with environmental issues in Asia such as Wastewater Treatment and Management (Principal Investigator: Prof. Ajit P. Annachhatre); Solid Waste Landfill Management in Asia (Principal Investigator: Prof. C. Visvanathan); Improving Air Quality in Asian Developing Countries (Principal Investigator: Prof. Nguyen Thi Kim Oanh); and Industrial and Hazardous Waste Treatment and Management (Principal Investigator: Prof. Ajit P. Annachhatre).

Asian Center for Engineering Computations and Software (ACECOMS)

In 2010, the Asian Center for Engineering Computations and Software (ACECOMS) conducted a wide range of activities including seminars, workshops, and research and consulting projects, as well as working on software development.

Several new projects were initiated and completed in various countries including Thailand, Philippines and Bangladesh, in collaboration with reputable local engineering companies. Projects ranged from damage investigations to new structural designs of buildings for earthquake resistance.

ACECOMS conducted trainings and seminars in several countries including Myanmar, Philippines, Pakistan, Sri Lanka and Thailand. Participants ranged from professional engineers and public officials to academics. ACECOMS also organized the 3rd Asia Conference on Earthquake Engineering (ACEE) 2010 jointly with the Association of Structural Engineers of the Philippines, Inc. (ASEP), at Bangkok, Thailand.
The Internet Education and Research Laboratory (intERLab) spearheaded numerous trainings and workshops to fulfill its commitment to human resource development in the field of ICT, specifically utilization of the internet in education and research. As a research center for internet applications, intERLab partnered with like-minded institutions in research activities, specifically Car Talk and DUMBONET-III. intERLab also furthered the development and scope of its e-education facilities by providing workshops on distance education and modifying VClass according to needs and local requirements. Follow-up projects and activities were also arranged to utilize the knowledge and learning acquired through the preparatory workshops.

**Research**

**Car Talk**

intERLab continued to conduct its research activities in Vehicular Networking as well as in Disaster Emergency Networking. In Vehicular Networking research, intERLab received a one-year grant from the National Science and Technology Development Agency (NSTDA) to conduct a research titled “Epidemic Protocol for Car Talk”. In March and December 2010, at Thailand Science Park, intERLab demonstrated its vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) networking prototypes which utilize cutting-edge technologies including Disruption Tolerance Networking (DTN), Epidemic Protocol, and Social Networking for Vehicles. Since 2009, intERLab, along with other institutions, has collaborated in the so-called “Car Talk” research group steered by NECTEC’s Intelligent Transportation Systems (ITS) cluster to produce inter-vehicle communication systems which have the capabilities to warn vehicle drivers of potential dangers while driving.

**DUMBONET-III**

The research team of intERLab put together Disruption Tolerance Networking (DTN), Mobile Ad Hoc Network (MANET), and Social Networking technologies to create a third innovative revision of its well-known Digital Ubiquitous Mobile Broadband OLSR Network, dubbed DUMBONET-III. With the generous support of the Thai Network Information Center (THNIC) foundation, intERLab researchers demonstrated the III framework at the Khao Yai National Park, Thailand, in March 2010. The technical demonstration was a part of the Thailand Networking Group (THNG) 1st Camp, and also included a technology training workshop to familiarize trainees and rescue volunteers on how to deploy and utilize the multimedia information dissemination capabilities of DUMBONET-III during large-scale natural disaster emergencies.
e-education

UniChannel Project

UniChannel is a cost-effective e-learning platform designed and implemented by intERLab to enable large-scale sharing and archiving of teaching and learning resources among Thai universities and institutes of education, through the National Research and Education Network (NREN) infrastructure namely UniNet. Using ordinary computer hardware, together with intERLab's own distance learning application know as VClass, the platform provides a low-cost system setup without compromising on performance and flexibility. Shared content such as video lectures can be delivered in real-time and schedule-mode using two popular high definition video formats: DVTS and H.264 on both IPV4 and IPV6 technology.

Telemedicine

A telemedicine workshop titled “Strengthening efforts of Tele-medicine by deployment of CanalAVIST Application among TEIN3 Communities”, was organized by intERLab to explore the major hindrances for strengthening tele-medicine and e-health initiatives in the Asia-Pacific region. The workshop was jointly hosted by Nepal Research and Education Network (NREN) and Asian Institute of Technology (AIT) and was broadcasted to all TEIN3 members. Remote participants from seven member countries were able to receive high-definition video presentations of medical teleconsultations between Kathmandu Model Hospital in Nepal and Pramongkut Hospital in Thailand via CanalAVIST delivery platform. The workshop clearly demonstrated the use of CanalAVIST as a key application to enable regional collaboration on telemedicine, which could lead to the sustainable development of learning environments for research and education in the e-health area.

Distance Education Workshop

intERLab organized a three-day workshop on Distance Education (DE) that provided a comprehensive overview of distance learning concepts and technologies. Experts in the field of DE were both invited and remotely joined the workshop to provide up-to-date information on existing and future technologies in DE. Participants from five different countries were given an opportunity to work on intERLab's own distance learning application through VClass training sessions.

Trainings

intERLab trainings provided technical information and updated knowledge to its participants in the Asia Pacific region. intERLab maintained collaboration with its partners in order to bring in experts from technical fields and provide up-to-date information in various workshop topics. Among its partners are Trans-Eurasia Information Network 3 (TEIN3) Project, Delivery of Advanced Network Technology to Europe (DANTE), Network Startup Resource Center (NSRC) - University of Oregon, Asia Pacific Advanced Network Japan (APAN-JP), Thai Network Information Center (THNIC), CISCO Systems, China Education and Research Network (CERNET), TOT Public Company Limited Thailand, and Asia Pacific Network Information Center (APNIC).

Workshops were held on timely topics of necessity to TEIN3 network members such as: Internet Resources Management, IPv6, MPLS Network Design and Deployment, Distance Education, and Multicast Hands-On. As part of its growing ICT human resource development objective, in December 2010 intERLab partnered with the Royal University of Bhutan to hold a 10-day workshop for its technical team through a hands-on workshop VoIP: Asterisk and Analog PBX Integration.
The 14th Joint Meeting of the GMSARN Board and Council of Advisors was held in Luang Prabang, Lao PDR on 17 November 2010. The meeting brought together rectors, vice rectors, vice presidents and authorized representatives from sixteen GMSARN Board Member institutions along with council of advisors and observers. Prof. Worsak Kanok-Nukulchai, Vice President for Resource Development, AIT, and Dr. Weerakorn Ongsakul, Dean of the School of Environment, Resources and Development, and GMSARN Secretary General attended the meeting. Establishing a new GMSARN Foundation; development of GMSARN Research and Education Projects, including the Greater Mekong Subregion Academic Research Network Project (GMSEENet Project) and the Greater Mekong Subregion Development Studies Programs Project (GMS DSP Project); and the GMSARN journal application for impact factors were the primary outcomes of the meeting. Thailand’s Chulalongkorn University was also welcomed as a new Associate GMSARN Member. GMSARN now comprises a total of sixteen members and associate members.

This meeting was held prior to the 5th GMSARN International Conference 2010, which is a multi-disciplinary conference. The Conference in Luang Prabang on November 17-19 saw 122 abstract submissions out of which 93 chosen presentations were defended. 140 academics attended the conference.

The Board Meeting and Conference were both featured in Laos’ national newspaper the Vientiane Times. Luang Prabang Provincial Deputy Governor, Mr. Khamkan Chanthavisouk was invited to open the Conference.

The 14th Joint Meeting of GMSARN Board Members and Council of Advisers was hosted by the National University of Laos. The 5th GMSARN International Conference was organized by GMSARN and co-organized by Asian Institute of Technology, National University of Laos, Souphanouvong University, Ubon Rajathani University, Nakhon Phanom University and Khon Kaen University.

The 6th GMSARN International Conference is planned on 16-18 November 2011 at Udon Thani, Thailand and co-organized by GMSARN, Khon Kaen University, Ubon Rajathani University and the Asian Institute of Technology.

GMSARN Research and Development Projects
Research and Education Projects under GMSARN continued to strengthen the sixteen-member university network throughout 2010.

Greater Mekong Subregion Academic Research Network (GMSEENet) Project
As one of the premier Research and Education Projects Orchestrated by GMSARN, the GMSEENet working team introduced and demonstrated developments of the established platform. The team improved the existing platform to launch a novel network of databases in Energy and Environment amongst the fifteen premier institutes within GMSARN. An online demonstration was held during the Board Meeting 2010.

Currently there are Six Nodes classified as “Development Group A” in the node development phase. The coordinators of the five nodes are currently uploading information to the network. The six Nodes are: Asian Institute of Technology, Royal University of Phnom Penh, Nakhon Phanom University, Ubon Rajathani University, Hanoi University of Science and Technology and Ho Chi Minh City University of Technology. The Nodes in “Development Group B” are National University of Laos, Mekong River Commission and Kunming University of Science and Technology. The rest of the Nodes belong to “Development Group C”.

The GMSEENet Nodes in the Node Development Phase have been clustered into three segments based on networking indicators (Development Groups A, B and...
C). The criteria for classification are based on:

1. Levels of communication made through conversations, meetings, e-mails, telephone conversations, fax and various other means.

2. Establishment of GMSEENet Coordinator.


5. Amount of changes made to the Node Web Portal.

**Greater Mekong Subregion Development Studies (GMS DS) Programs**

Under the guidance of Dr. Kyoko Kusakabe, GMS DS Programs introduced joint study programs which are intended to maximize and strengthen GMSARN programs focused on specific problems in the Greater Mekong Subregion (GMS).

Currently there is a need to improve the academic quality of facilities in the region. Development is still very much uneven across the region. There is also an increase in common, regional-specific problems that require interdisciplinary and cross-border cooperation in research and development. The aims of the Development Studies Program are the following.

1. The Joint Degree Program is involved with innovating new approaches and methodologies along with finding solutions to emerging regional problems by experimenting with new academic courses that explore these problems.

2. It also aims to incubate/pilot new academic courses to identify new areas of study that would better suite the needs of the region.

During the past year, GMS DS Programs were able to develop nine courses and mobilize scholarships from the Government of Japan and the Ministry of Foreign Affairs, Thailand for at least three students from Laos, Cambodia and Vietnam. This is set to grow during the forthcoming years.

In 2010, there were constructive discussions to explore possibilities for exchange programs with other member institutes that have been developed or initiated on their own accord.

A GMS Certificate leading to a Master’s Degree Program is to be offered with a credit waveriing scheme in the pipeline. Funding sources are being explored to execute these developments.
This year the Wetlands Alliance deepened its engagement in the Mekong River region. The Alliance has over 45 partners, and AIT, together with the three other regional partners - CORIN-Asia, WorldFish and WWF - supported local partners in coastal and inland areas in Cambodia, Laos PDR, Thailand and Vietnam. The Alliance Secretariat, which is hosted by AIT, oversaw a budget of US$ 2 million during 2010.

Since the inception of the Alliance, students have been encouraged to develop research topics with local partners and communities which address researchable issues of relevance to those communities. Over the years a number of students from the region (primarily from AIT) and beyond, such as Europe, have undertaken research within the Alliance framework. In 2010, a total of 9 students (all from AIT) undertook Masters and PhD research for their dissertations.

Through the research support the Alliance provides, AIT students are encouraged to view their thesis research as something that goes beyond the written thesis report that will be catalogued in the institute’s library. They are encouraged to directly engage with Alliance local partners to address issues of concern of Alliance beneficiaries and to make their research results valuable and usable to these local communities. An example was “An Assessment of Vulnerability & Adaptation of a Fishing Community to the lowest water level in Mekong River in Stung Treng Ramsar Site, Cambodia,” which is an ongoing research that contributes to the assessment of local communities’ capacities to adapt to climate change.

Another area of AIT’s engagement with Alliance partners was in the development of sustainable financing strategies and mechanisms for improving access to financial capital for small, household and community-level business development.

In order to succeed, one of the challenges is to bring a change of attitudes to its partners. For Alliance partners, just as many other aid organizations, giving has been the main approach to lift people out of poverty, while more market-oriented approaches, such as lending, are viewed with a certain degree of resistance and skepticism. This is a change that the Alliance cannot force, but is encouraging through dialogue and consultations to establish a mutual understanding. AIT is doing this by emphasizing that activities should always aim for social and economic sustainability. Through its involvement, AIT encourages activities that reduce dependencies and seeks to avoid Alliance partners becoming permanent distributors of aid. In other words, instead of giving fish to communities, the Alliance provides training on how to use fishing gear, and then lends them the money to buy it. AIT accompanies local partners in the process of building sustainable communities and has conducted a series of consultations with regional and local partners in Cambodia, Vietnam and Thailand.

**Poverty Reduction and Agricultural Management (PRAM)**

During 2010, the professional Bachelor degree in Poverty Reduction and Agricultural Management (PRAM), an in-service training programme supported by AIT together with Thai and Lao partners, saw 34 students undertake over 100 projects that address poverty in
remote villages in Lao PDR.

In October, members of ProSPER.Net participated in a workshop in Savannakhet, Lao PDR, which aimed to identify mechanisms to improve postgraduate curricula among ProSPER.Net members so that curricula can be influenced and guided by the agenda and needs of the region's poorer groups. A follow up is planned which will focus on documenting the PRAM process for wider dissemination.

In November, AIT President Prof. Said Irandoust visited one of the villages where PRAM students undertook projects (Lamtuay Tangway, Lao PDR) to see how educational success is not only measured by written exams, but by the students’ ability to actually reduce poverty. The enthused students talked about their projects and the success they were having in directly helping some very poor people, and showed how education can motive people and accelerate development directly. Examples included simple aquaculture techniques which provided a poor family with much needed additional protein and a combined animal vaccination and micro-biogas project providing improved animal health and cheap energy. This unique and innovative approach to education has now sparked interest in other countries, such as Cambodia, Philippines, Malaysia, Vietnam, Myanmar and Thailand.

In Laos, much focus is on the Technical Service Center (TSC), and the PRAM has made a real impact in developing the functionality and sustainability of these Centers nationwide. In discussions with H.E. Sittaheng Rasaphone, Minister for Agriculture and Forestry (MAF), Lao PDR, it was agreed that AIT and MAF would cooperate to secure funding for expanding the PRAM in Laos, initially focusing on ensuring 200 graduates for the TSCs in the poorest regions of Southern Laos.

More information about the Wetlands Alliance can be found at www.wetlandsalliance.org and details about PRAM at www.pramlaos.org.
AIT continued to be the lead partner along with Yonsei University, South Korea; University Sains Malaysia, Malaysia; and Universitas Gadjah Mada, Indonesia in the development of ProSPER.Net (Promotion of Sustainability in Postgraduate Education and Research); a post-graduate sustainability-related teaching curriculum initiative sponsored by Japan’s Ministry of Environment via the United Nations University Institute of Advanced Studies.

In what was only the second year of the program, the university partners were key contributors in researching and publishing eleven social business cases. The teaching cases ranged from indigenous business topics, including an online craft business in Indonesia, a biotic coffee farming initiative in Laos and a biscuit manufacturer in South Korea, to corporate social business activities of Hewlett Packard in China, Pepsico in the Philippines and DHL Supply-Chain in Thailand. This was subsequently enhanced by a complementary contribution from the AIT School of Management, whereby Dr. Alan Marshall and Dr. David Ferguson provided each case with teaching notes and presentation slides for use by the expanding twenty-one affiliate member base and others as open source materials in their post-graduate business teaching curriculum. The CSR Asia Center at AIT was also commissioned to provide four additional, short UN Global Compact cases containing corresponding curriculum outlines and teaching aid packs for use in classroom environments. This year’s activities were pulled together in a small symposium of the partners conducted at AIT in April 2010.

AIT’s School of Management intends to develop on this success and take the principal investigator lead role in 2011, with an emphasis on facilitating an even broader participation of the growing membership base towards developing more cases around climate change and biodiversity. Piloting experiential learning, and supporting a teaching experience training and development workshop format to further enable the embedding of sustainability themes within business teaching curriculums across Asia, are also planned.

(Top left) Manufactured products by a Social Business Case in South Korea – “We CAN Cookies.” (Bottom left) Local arts and crafts sold through one of the Social Business Cases in Malaysia – “EVELYN.” (Right) Socially and ecologically responsible coffee bean farming in a Social Business Case from Laos – “Bolaven Farms.”
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.
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  - Government of Cambodia
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  - Ministry of Agriculture and Rural Development, Ethiopia
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- France
  - Ministry of Foreign and European Affairs
- India
  - Government of India
- Indonesia
  - Government of Indonesia
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  - Iranian Research Organisation for Science and Technology (IROST), Iran
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  - Government of Japan
  - Japan Aerospace Exploration Agency (JAXA)
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- Korea
  - Korea International Cooperation Agency (KOICA)
- Lao PDR
  - The Mekong River Commission
  - Ministry of Education, The Government of Lao People’s Democratic Republic
- Nepal
  - Government of Nepal
  - National Centre for Educational Development (NCED), Ministry of Education, Government of Nepal
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  - Government of the Punjab, Nepal
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  - Government of Pakistan
  - Commission on Science and Technology for Sustainable Development (COMSATS)
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  - Government of Philippines
  - Department of Science and Technology (DOST), Philippines
- Seychelles
  - Government of Seychelles
- Sri Lanka
  - Government of Sri Lanka
  - Ministry of Housing and Common Amenities, Sri Lanka
  - The Urban Development Authority (UDA), Sri Lanka
- Sweden
  - Government of Sweden
  - Swedish International Development Agency
- Thailand
  - Government of Thailand
  - National Institute of Metrology
  - Software Park Thailand, Technology Management Center, National Science and Technology Development Agency
  - National Nanotechnology Center (NANOTEC), National Science and Technology Development Agency (NSTDA)
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  - Sirindhorn International Environmental Park Foundation under the Patronage of HRH Princess Maha Chakri Sirindhorn
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- University of Engineering & Technology, Lahore (UET)
- NED University of Engineering and Technology, Karachi
- Sukkur Institute of Business Administration (SIBA)
- University of Engineering & Technology, Taxila (UET)
- National University of Sciences & Technology, Islamabad (NUST)
- The University of Faisalabad (TUF)
- Balochistan University of Engineering and Technology, Khuzdar (BUETK)

Philippines
- Asian Institute of Management
- Mindanao Polytechnic State College

Poland
- University of Technology and Life Sciences
- Poznan University of Economics
- University of Gdansk
- University of the West of Poland

Singapore
- National University of Singapore
- Nanyang Technological University
- Singapore University of Technology and Design
- National University of Singapore
- Singapore Management University

Spain
- Universitat Politècnica de Catalunya
- Poznáň University of Economics
- Escuela de Alta Dirección y Administración (EADA), Barcelona

Sri Lanka
- University of Vocational Technology
- South Asian Institute of Technology and Management
- Sabaragamuwa University
- Rajarata University
- International College of Business and Technology (ICBT), a member of Ceylinco Consolidated

Sweden
- University of Boras
- KTH, Kungliga Tekniska högskolan
- Chalmers University of Technology
- The University of Kalmar
- Linköping University

Switzerland
- University of Applied Sciences Eastern Switzerland
- National Centre of Competence in Research North-South (NCCR N-S), Center for Development and Environment, University of Berne Steigerhubelstrasses 3
- Swiss Federal Institute of Technology Zurich (ETH Zurich) and Asian Disaster Preparedness Center (ADPC)

Thailand
- Kasetsart University, Faculty of Forestry
- Chiang Mai University
- Ruamrudee International School
- Chulabhorn Research Institute and Mahidol University
- Pathumthani Province and Educational and Research institutions in Pathumthani Province
- Rangsit University
- Chulabhorn Research Institute
- Asian University (AU)
- Srinakharinwirot University - Software Industry Promotion Agency
- Srinakharinwirot University - Institute for the Promotion of Teaching Science and Technology
- Naresuan University
- Faculty of Engineering, Chulalongkorn University
- Chulachomklao Royal Military Academy
- Thanmasat University

United States of America
- Robert Morris University
- Oregon State University (OSU)
- Department of Agricultural Economics, Kansas State University, Kansas
- University of Rhode Island, The Coastal Resources Center
- Institute for Scientific Research (ISRI), Boston College

Vietnam
- Hong Duc University
- Hanoi University of Agriculture
- International University
- University of Transport and Communications
- Vietnam National University
- Nong Lam University
- University of Economics and Business
- FPT University
- Hanoi University of Technology
- Hanoi University of Agriculture
- Hue University of Agriculture and Forestry
- Vietnam Petroleum Institute
- Danang University of Technology (DUT)
- FPT University

Yugoslavia
- University of Novi Sad, Faculty of Technical Sciences, Serbia
PRIVATE SECTOR

Bangladesh
- Institute of Microfinance
- Bangladesh Bank
- Design Planning and Management Consultants Ltd. (DPM)

Finland
- Metso Paper, Inc.

Hong Kong
- CSR Asia Ltd.

India
- Speck Systems Ltd., Hyderabad
- GIS Development Private Limited, Noida
- Modi International Studies, Indore
- Global Reach
- United Group of Institutions

Iran
- Research and Consulting Company of Shakhres-Sazan

Japan
- Ebara Hatakeyama Memorial Fund

Myanmar
- Myanmar Computer Company Ltd.
- Water, Research and Training Center (WRTC)
- United Network - Management and Business Center (UN-MBC)

Nepal
- NEC Consultants (Private) Limited

Norway
- Norwegian Electricity and Vietnam Electricity (EVN)

Singapore
- Skydoor Pte Ltd
- LifeWay Holdings Pte Ltd

Sri Lanka
- Sri Lanka Land Reclamation & Development Corporation, Sri Lanka
- Ceylinco Education Group
- Sri Lankan Airlines Limited

Thailand
- The Siam Cement Public Company Limited
- Western Digital (WD) (Thailand) Co., Ltd.
- Thai Carbon Black PCL
- Total Gas & Power
- Donaldson (Thailand) Ltd.
- IBM, Thailand
- Global Siam Gate Company Limited (GSG)
- Buildersmart Public Co., Ltd.
- Schlumberger Overseas S.A.
- Amata Corporation Public Company Limited
- Commerce Siam Institute
- Sodexo Support Services (Thailand) Ltd.
- Innotech Golf Co., Ltd.
- Siam City Bank Public Company Ltd.

Vietnam
- Portcoast Consultant Corporation

ASSOCIATIONS

Europe
- EM Euro Asia (Erasmus Mundus)

Myanmar
- Myanmar Engineering Society (MES)

Nepal
- Nepal Education Foundation - Consortium of Colleges (NEF-CCN)
- National Information Technology Institute (NITI)
- Nepal Airlines Corporation

Sri Lanka
- Epic Lanka Group

Thailand
- The AIT Alumni Association
- Total E&P Thailand (TEPT) and Total Professors Association (TPA)

USA
- Southern States Energy Board (SSEB)

INTERNATIONAL ORGANIZATIONS

Bangladesh
- Yunus Center

France
- Télécoms Sans Frontières (TSF)

Germany
- Katholischer Akademischer Auslander-Dienst (KAAD)

Indonesia
- ASEAN Foundation
- ASEAN Center for Energy (ACE)
- UN Partnership Research Fund - O WATER Project

Japan
- Institute for Global Environmental Strategies (IGES)

Maldives
- The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)

Nepal
- International Centre for Integrated Mountain Development (ICIMOD)

The Netherlands
- The UNESCO-IHE Institute for Water Education
- Gender and Water Alliance (GWA)

Sri Lanka
- United Nations Development Programme, Regional Centre in Colombo

Tanzania
- The Global Horticulture Initiative (GlobalHort)

Thailand
- Asia-Pacific Association of Agricultural Research Institutions (APAARI)
- Habitat for Humanity Thailand
- The Asian and Pacific Centre for Transfer of Technology (APCTT), ESCAP
- United Nations Environment Programme Regional Resource Centre for Asia and the Pacific (UNEP RRC.AP)
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
- Asian Disaster Preparedness Center (ADPC)
- Coordinating Committee for Geoscience Programmes in East and Southeast Asia
- Thai Network Information Center Foundation
- Coastal Resources Institute Foundation (CORIN-Asia)

United Nations
- The United Nations Development Fund for Women (UNIFEM)

United States of America
- International Fellowships Fund, Inc.
- International Bank for Reconstruction and Development (World Bank Group)
- Asian Development Bank
- The Bridge Fund (TBF)
Audit Report of
Certified Public Accountant

To the Board of Trustees of Asian Institute of Technology

I have audited the accompanying balance sheets of Asian Institute of Technology as at 31 December 2010 and 2009, and the related statements of revenues and expenses, changes in fund balances and cash flows for the years 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 audits.

I conducted my audits 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 audits provide 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 2010 and 2009, and the revenues and expenses, the changes in fund balances and cash flows for the years then ended, in accordance with generally accepted accounting principles appropriate for non-profit organization as set out in Note 2 to the financial statements.

(Bongkot Amsageam)
Certified Public Accountant
Registration No. 3684

KPMG Phoomchai Audit Ltd. Bangkok
11 March 2011
## Balance sheets
As at 31 December 2010 and 2009

<table>
<thead>
<tr>
<th>Note</th>
<th>Assets (in Baht)</th>
<th>2010</th>
<th>2009 (Restated)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cash and cash equivalents</td>
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<td>336,142,199</td>
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<tr>
<td></td>
<td>Current investments</td>
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<td>419,214,785</td>
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<tr>
<td></td>
<td>Accounts receivable</td>
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<td>86,822,019</td>
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<tr>
<td></td>
<td>Receivables from Program fund</td>
<td></td>
<td>19,083,313</td>
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<tr>
<td></td>
<td>Inventories</td>
<td></td>
<td>-</td>
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<td></td>
<td>Assets held on behalf of donors</td>
<td>9</td>
<td>403,174,130</td>
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<tr>
<td></td>
<td>Assets held on behalf of UNEP RRC.AP</td>
<td>10</td>
<td>158,348,861</td>
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<tr>
<td></td>
<td>Other current assets</td>
<td></td>
<td>56,015,832</td>
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<td>Total current assets</td>
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<td>1,478,801,139</td>
</tr>
<tr>
<td></td>
<td>Non-current assets</td>
<td></td>
<td>667,831,358</td>
</tr>
<tr>
<td></td>
<td>Restricted deposits of financial institutions</td>
<td>5</td>
<td>20,273,741</td>
</tr>
<tr>
<td></td>
<td>Property and equipment</td>
<td>7</td>
<td>647,514,252</td>
</tr>
<tr>
<td></td>
<td>Advance deposits</td>
<td></td>
<td>43,365</td>
</tr>
<tr>
<td></td>
<td>Total non-current assets</td>
<td></td>
<td>667,831,358</td>
</tr>
<tr>
<td></td>
<td>Total assets</td>
<td></td>
<td>2,146,632,497</td>
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</table>

<table>
<thead>
<tr>
<th>Liabilities and fund balances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current liabilities</td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
</tr>
<tr>
<td>Advances from Program fund</td>
</tr>
<tr>
<td>Deposit payables</td>
</tr>
<tr>
<td>Amounts due to donors</td>
</tr>
<tr>
<td>Amounts due to UNEP RRC.AP</td>
</tr>
<tr>
<td>Total current liabilities</td>
</tr>
<tr>
<td>Fund balances</td>
</tr>
<tr>
<td>Endowment fund balances</td>
</tr>
<tr>
<td>Capital funds balances</td>
</tr>
<tr>
<td>General reserve</td>
</tr>
<tr>
<td>Total fund balances</td>
</tr>
<tr>
<td>Total liabilities and fund balances</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these financial statements.
## Statements of revenues and expenses

For the years ended 31 December 2010 and 2009

<table>
<thead>
<tr>
<th>Note</th>
<th>2010 (in Baht)</th>
<th>2009 (Restated)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition and other fees</td>
<td>550,239,379</td>
<td>611,127,115</td>
</tr>
<tr>
<td>Research grants and contract service income</td>
<td>95,850,122</td>
<td>176,888,271</td>
</tr>
<tr>
<td>Support operations</td>
<td>157,675,279</td>
<td>158,743,127</td>
</tr>
<tr>
<td>Training</td>
<td>158,612,058</td>
<td>211,535,819</td>
</tr>
<tr>
<td>Other contributions</td>
<td>17,542,478</td>
<td>2,954,699</td>
</tr>
<tr>
<td>Faculty secondments</td>
<td>48,723,713</td>
<td>57,582,027</td>
</tr>
<tr>
<td><strong>Total income</strong></td>
<td><strong>1,028,643,029</strong></td>
<td><strong>1,218,831,058</strong></td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries and benefits</td>
<td>426,698,740</td>
<td>501,704,567</td>
</tr>
<tr>
<td>Materials, supplies and services</td>
<td>190,507,029</td>
<td>233,989,845</td>
</tr>
<tr>
<td>Contracted services</td>
<td>230,065,191</td>
<td>179,149,427</td>
</tr>
<tr>
<td>Communication and travel</td>
<td>65,687,074</td>
<td>71,391,367</td>
</tr>
<tr>
<td>Utilities and insurance</td>
<td>49,790,827</td>
<td>53,014,040</td>
</tr>
<tr>
<td>Faculty secondments</td>
<td>48,723,713</td>
<td>57,582,027</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td><strong>1,011,472,574</strong></td>
<td><strong>1,096,831,273</strong></td>
</tr>
<tr>
<td><strong>Excess of income over expenses</strong></td>
<td><strong>17,170,455</strong></td>
<td><strong>121,999,785</strong></td>
</tr>
<tr>
<td>Depreciation</td>
<td>63,829,831</td>
<td>66,488,330</td>
</tr>
<tr>
<td><strong>Income over (under) expenses including depreciation</strong></td>
<td><strong>(46,659,376)</strong></td>
<td><strong>55,511,455</strong></td>
</tr>
<tr>
<td><strong>Non operating income (expenses)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment income</td>
<td>20,479,158</td>
<td>22,137,693</td>
</tr>
<tr>
<td>Gain (loss) on exchange rate</td>
<td>(7,100,719)</td>
<td>1,813,565</td>
</tr>
<tr>
<td>Gain (loss) on disposal of assets</td>
<td>128,270</td>
<td>(773,505)</td>
</tr>
<tr>
<td><strong>Income over (under) expenses</strong></td>
<td><strong>(33,152,667)</strong></td>
<td><strong>78,689,208</strong></td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these financial statements.
## Statements of changes in fund balances

For the years ended 31 December 2010 and 2009

<table>
<thead>
<tr>
<th>Note</th>
<th>Unrestricted Current fund</th>
<th>Restricted fund-general</th>
<th>Endowment fund</th>
<th>Program fund</th>
<th>Integrated facility management</th>
<th>Restricted general reserve</th>
<th>Restricted capital funds</th>
<th>31 December 2010</th>
<th>31 December 2009 (Restated)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(in Baht)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balances 1 January, as previously reported</td>
<td>-</td>
<td>-</td>
<td>162,304,747</td>
<td>-</td>
<td>-</td>
<td>415,108,763</td>
<td>646,992,642</td>
<td>-</td>
<td>1,224,406,152</td>
</tr>
<tr>
<td>Change in accounting policy</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>140,278,490</td>
<td>-</td>
<td>-</td>
<td>140,278,490</td>
</tr>
<tr>
<td>Restated balance</td>
<td>-</td>
<td>-</td>
<td>162,304,747</td>
<td>-</td>
<td>-</td>
<td>555,387,253</td>
<td>646,992,642</td>
<td>-</td>
<td>1,364,684,642</td>
</tr>
<tr>
<td>Accumulated surplus of agency fund from AITVN as of 1 January</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Adjusted loss on foreign currency translation of AITVN</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(16,604,923)</td>
<td>(480,497)</td>
<td>-</td>
<td>(17,085,420)</td>
</tr>
<tr>
<td>Adjustment of Fund Balances of AITVN as at 1 January</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>157,876</td>
<td>-</td>
<td>-</td>
<td>157,876</td>
</tr>
<tr>
<td>Adjusted Balances as at 1 January</td>
<td>-</td>
<td>-</td>
<td>162,304,747</td>
<td>-</td>
<td>-</td>
<td>538,940,206</td>
<td>646,512,145</td>
<td>-</td>
<td>1,347,757,098</td>
</tr>
<tr>
<td>Additional (Deductions):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income over (under) expenses for the year (AITTH)</td>
<td>81,073,305 (4,743,559)</td>
<td>553,140</td>
<td>15,954,182</td>
<td>(68,149,943)</td>
<td>1,908,309 (61,582,335)</td>
<td></td>
<td>-</td>
<td>(68,149,943)</td>
<td>(7,863,755)</td>
</tr>
<tr>
<td>Income over (under) expenses for the year (AITVN)</td>
<td>-</td>
<td>4,998,134</td>
<td>-</td>
<td>(1,744,674)</td>
<td>-</td>
<td>(1,419,226)</td>
<td>-</td>
<td>(68,149,943)</td>
<td>28,016,594</td>
</tr>
<tr>
<td>Total additional (deductions) for the year</td>
<td>81,073,305</td>
<td>254,575</td>
<td>553,140</td>
<td>14,209,508</td>
<td>(68,149,943)</td>
<td>540,848,515</td>
<td>583,510,584</td>
<td>-</td>
<td>1,314,604,431</td>
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<tr>
<td>Transfer to (from) other funds:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- General Fund</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>81,073,305</td>
<td>-</td>
<td>-</td>
<td>81,073,305</td>
</tr>
<tr>
<td>- Restricted current fund</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>254,575</td>
<td>-</td>
<td>-</td>
<td>254,575</td>
</tr>
<tr>
<td>- General</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>254,575</td>
<td>-</td>
<td>-</td>
<td>254,575</td>
</tr>
<tr>
<td>- Integrated facility management</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>254,575</td>
<td>-</td>
<td>-</td>
<td>254,575</td>
</tr>
<tr>
<td>- General Reserve</td>
<td>(81,073,305)</td>
<td>(254,575)</td>
<td>- (14,643,373)</td>
<td>68,149,943</td>
<td>-</td>
<td>55,837,904</td>
<td>28,016,594</td>
<td>-</td>
<td>(33,152,667)</td>
</tr>
<tr>
<td>- Program fund</td>
<td>-</td>
<td>-</td>
<td>(7,863,755)</td>
<td>-</td>
<td>-</td>
<td>(35,837,904)</td>
<td>-</td>
<td>-</td>
<td>(63,701,659)</td>
</tr>
<tr>
<td>- Capital Fund</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Property and equipment</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Transfers from funds held on behalf of others</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>Reclassification to receivables from Program fund</td>
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<td>64,665,995</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>64,665,995</td>
<td>-</td>
</tr>
<tr>
<td>Reclassification to advance from Program fund</td>
<td>-</td>
<td>-</td>
<td>(56,368,375)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>(81,073,305)</td>
<td>(254,575)</td>
<td>- (14,209,508)</td>
<td>68,149,943</td>
<td>(28,016,594)</td>
<td>64,003,667</td>
<td>-</td>
<td>8,599,628</td>
<td>7,226,002</td>
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<tr>
<td>Balances as at 31 December</td>
<td>-</td>
<td>-</td>
<td>162,857,887</td>
<td>-</td>
<td>-</td>
<td>512,831,921</td>
<td>647,514,251</td>
<td>-</td>
<td>1,323,204,059</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these financial statements.
## Statements of cash flows
For the years ended 31 December 2010 and 2009

<table>
<thead>
<tr>
<th>Note</th>
<th>2010</th>
<th>2009 (Restated)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(in Baht)</td>
<td></td>
</tr>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening fund balances</td>
<td>13</td>
<td>1,364,684,642</td>
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<tr>
<td>Closing fund balances</td>
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<td>1,323,204,059</td>
</tr>
<tr>
<td>Movement in fund balances</td>
<td></td>
<td>(41,480,583)</td>
</tr>
<tr>
<td><strong>Adjustments to reconcile movement of fund balances</strong></td>
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<td></td>
</tr>
<tr>
<td>Doubtful debts (reversal)</td>
<td>6</td>
<td>3,376,555</td>
</tr>
<tr>
<td>Doubtful debts for other receivable</td>
<td></td>
<td>2,420,000</td>
</tr>
<tr>
<td>Loss (gain) on disposal of assets</td>
<td></td>
<td>(128,270)</td>
</tr>
<tr>
<td>Depreciation</td>
<td></td>
<td>63,829,831</td>
</tr>
<tr>
<td>Unrealised loss on exchange rate</td>
<td></td>
<td>18,724,737</td>
</tr>
<tr>
<td><strong>Movement in fund balances from operating activities before changes in operating assets and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>46,742,270</td>
</tr>
<tr>
<td><strong>Changes in operating assets and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td></td>
<td>(14,640,414)</td>
</tr>
<tr>
<td>Receivables from Program fund</td>
<td></td>
<td>(407,914)</td>
</tr>
<tr>
<td>Inventories</td>
<td></td>
<td>111,803</td>
</tr>
<tr>
<td>Other current assets</td>
<td></td>
<td>(17,402,259)</td>
</tr>
<tr>
<td>Advance deposits</td>
<td></td>
<td>42,707</td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td></td>
<td>(4,366,921)</td>
</tr>
<tr>
<td>Advances from Program fund</td>
<td></td>
<td>(12,148,183)</td>
</tr>
<tr>
<td>Deposit payables</td>
<td></td>
<td>(440,019)</td>
</tr>
<tr>
<td><strong>Net cash provided by (used in) operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2,508,930)</td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decrease (increase) in current investment</td>
<td></td>
<td>(183,056,737)</td>
</tr>
<tr>
<td>Increase in restricted deposits of financial institutions</td>
<td></td>
<td>(5,000,000)</td>
</tr>
<tr>
<td>Purchase of property and equipment</td>
<td></td>
<td>(64,688,092)</td>
</tr>
<tr>
<td>Proceeds from sale of equipment</td>
<td></td>
<td>188,078</td>
</tr>
<tr>
<td><strong>Net cash provided by (used in) investing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(252,556,751)</td>
</tr>
</tbody>
</table>

Net increase (decrease) in cash and cash equivalents | | |
| (255,065,681) | 465,253,816 |

Cash and cash equivalents at beginning of year | | |
| 605,278,622 | 148,976,413 |

Effects of exchange rate changes on balances | | |
| held in foreign currencies | | (14,070,742) | (8,951,607) |

Cash and cash equivalents at end of year | 4 | 336,142,199 | 605,278,622 |

The accompanying notes are an integral part of these financial statements.
### Balance sheets
As at 31 December 2010 and 2009

#### Assets

##### Current assets
- **Cash and cash equivalents**: *(2,263,909) (2,469,816) 36,459 37,924,382 (5,374,831) 296,556,136 11,719,636 14,141 - 336,142,198 605,278,622*
- **Current investments**: *(21,521,043) - 162,851,304 18,584,550 - 216,257,289 - - - - 216,257,289 419,214,786*
- **Accounts receivable**: *(20,296,417) 9,436,219 - 50,014,746 7,074,636 - - - - - 79,756,827 86,822,018*
- **Inventories**: *(28,400,896) 2,552,050 5,983 12,293,260 12,510,847 18,496 594,300 - - - 56,015,832 41,033,573*

**Total current assets**: *(67,997,812) 9,518,453 162,894,346 137,900,251 158,173,992 162,851,304 659,828,188 14,141 561,522,992 2,146,632,497 2,370,128,214*

##### Non-current assets
- **Restricted deposits of financial institutions**: *(28,400,896) 2,552,050 5,983 12,293,260 12,510,847 18,496 594,300 - - - 20,273,741 20,273,741*
- **Property and equipment**: *(138,348,861) - - - 647,514,252 - - 647,514,252 646,992,642 647,171,126 647,171,126*
- **Advance deposits**: *(43,365) - - - - 647,514,252 - - 647,514,252 86,073 43,365*

**Total non-current assets**: *(43,365) - - 20,273,741 - - 647,514,252 - - 667,831,358 662,530,940*


#### Liabilities and fund balances

##### Current liabilities
- **Accounts payable and accrued expenses**: *(67,010,512) 8,176,268 36,459 40,289,704 10,400,010 - 12,313,936 11,719,636 14,141 - 138,241,030 142,607,952*
- **Advances from Program fund**: *(987,300) 1,342,185 - 117,884,288 - 3,450,642 - - - - 620,147,126 620,147,126*
- **Deposit payables**: *(987,300) 1,342,185 - 117,884,288 - 3,450,642 - - - - 620,147,126 620,147,126*
- **Amounts due to donors**: *(987,300) 1,342,185 - 117,884,288 - 3,450,642 - - - - 620,147,126 620,147,126*
- **Amounts due to UNEP RRC.AP**: *(987,300) 1,342,185 - 117,884,288 - 3,450,642 - - - - 620,147,126 620,147,126*


#### The accompanying notes are an integral part of these financial statements.
Statements of revenues and expenses
For the years ended 31 December 2010 and 2009

<table>
<thead>
<tr>
<th>Note</th>
<th>Unrestricted fund</th>
<th>Restricted fund-general</th>
<th>Endowment fund</th>
<th>Program fund</th>
<th>Integrated facility management</th>
<th>Restricted general reserve</th>
<th>Property and equipment</th>
<th>Liquid assets</th>
<th>31 December 2010</th>
<th>31 December 2009</th>
</tr>
</thead>
</table>

### Income

#### Tuition and other fees
441,133,721 - 109,105,658 - - - - 550,239,379

#### Research grants and contract service income
10,711,750 2,247,810 - 81,533,135 - 1,357,427 - 95,850,122

#### Support operations
3,134,124 42,248,997 - - 112,292,158 - - 157,675,279

#### Training
- (65,458) - 158,677,516 - - - 158,612,058

#### Other contributions
5,915,595 10,401,280 525,603 - - - - 17,542,478

#### Faculty secondments
- 48,723,713 - - - - - 48,723,713

#### Total income
460,895,190 103,556,342 525,603 349,316,309 112,292,158 1,357,427 700,000 - 1,028,643,029 1,218,831,058

### Expenses

#### Salaries and benefits
269,116,044 30,728,635 - 124,578,551 2,275,510 - - 426,698,740

#### Materials, supplies and services
61,127,612 15,892,549 241,391 92,911,261 20,334,216 - - 230,065,191

#### Contracted services
43,343,569 7,594,240 - 67,786,238 111,341,144 - - - 179,149,427

#### Communication and travel
13,246,207 5,322,609 - 47,111,001 7,257 - - - 65,687,074

#### Utilities and insurance
950,554 (363,451) - 2,719,750 46,483,974 - - - 53,014,040

#### Faculty secondments
- 48,723,713 - - - - - 48,723,713

#### Total expenses
387,783,986 107,898,295 241,391 335,106,801 180,442,101 - - 1,011,472,574 1,096,831,273

### Income over (under) expenses

73,111,204 (1,341,953) 284,212 14,209,508 (68,149,943) 1,357,427 700,000 - 1,028,643,029 1,218,831,058

#### Depreciation
7 - - - - - - - 63,829,831 66,488,330

#### Income over (under) expenses including depreciation
73,111,204 (4,341,953) 284,212 14,209,508 (68,149,943) 1,357,427 (68,149,943) - (46,659,376) 55,511,455

### Non operating income (expenses)

#### Investment income
11,412,992 8,246,356 268,928 - - 550,882 - - 20,479,158 22,137,693

#### Gain (loss) on exchange rate
(3,450,891) (3,649,828) - - - - - (7,100,719) 1,813,565

#### Gain (loss) on disposal of assets
- - - - - 128,270 - - - 128,270

#### Income over (under) expenses
81,073,305 254,575 553,140 14,209,508 (68,149,943) 1,908,309 (63,001,561) - (33,152,667) 78,689,208

The accompanying notes are an integral part of these financial statements.
Notes to the financial statements
For the years ended 31 December 2010 and 2009

These notes form an integral part of the financial statements.
The financial statements were authorised for issue by the President of the Institute on 11 March 2011.

1 General information

The Asian Institute of Technology ("the Institute") is a regional post-graduate institution. The Institute operates on a notfor-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 and presented in Thai Baht. All financial information presented in Thai Baht has been rounded in the notes to the financial statements to the nearest thousand unless otherwise stated. They are prepared on the historical cost basis except as stated in the accounting policies.

The financial statements are prepared in accordance with Thai Financial Reporting Standards ("TFRS"); guidelines promulgated by the Federation of Accounting Professions ("FAP"); applicable rules and with generally accepted accounting principles in Thailand.

The Institute has taken advantage of exemptions available under the announcement made by the FAP on 20 July 2007 and has not adopted the following TAS:

- TAS 14 Segment Reporting (formerly TAS 24)
- TAS 36 (revised 2007) Impairment of Assets

During 2010, the FAP announced the re-numbering of the following TFRS:

<table>
<thead>
<tr>
<th>Former no.</th>
<th>Revised no.</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAS 11</td>
<td>TAS 101</td>
<td>Doubtful Account and Bad Debts</td>
</tr>
<tr>
<td>TAS 26</td>
<td>TAS 102</td>
<td>Income Recognition For Real Estate Business</td>
</tr>
<tr>
<td>TAS 27</td>
<td>TAS 103</td>
<td>Disclosures in the Financial Statements of Banks and Similar Financial Institutions</td>
</tr>
<tr>
<td>TAS 34</td>
<td>TAS 104</td>
<td>Accounting for Troubled Debt Restructuring</td>
</tr>
</tbody>
</table>

The Company has adopted the revised Framework for the Preparation and Presentation of Financial Statements (revised 2009), which was issued by the FAP during 2010 and effective on 26 May 2010. The adoption of the revised framework does not have any material impact on the Institute's financial statements.

During 2010, the FAP has issued a number of new and revised TFRS which are not currently effective and have not been adopted in the preparation of these financial statements. These new and revised standards and interpretations are disclosed in note 17. On 24 December 2010, the FAP issued announcement number 62/2553 concerning the preparation of the financial statements of non-publicly accountable entities (NPAEs). The FAP allows NPAEs to continue to use TFRS effective for the period ended 31 December 2010 for preparing financial statements for periods beginning on or after 1 January 2011 until the FAP announces accounting standards for NPAEs.

The Institute is a non-publicly accountable entity under the definition of the said announcement. Accordingly, as the FAP has not yet announced accounting standards for NPAEs as at the reporting date, the Institute has not adopted the new and revised TFRS disclosed in note 17 in the preparation of these financial statements.

The preparation of financial statements in conformity with TAS and TFRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. Actual results may differ from estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which estimates are revised and in any future periods affected.

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: 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.

**Integrated facility management (Fund 24)**

This fund includes the operating account of the Institute for asset maintenance and for the provision of the Institute’s non-core operations, mainly on integrated facilities management service.

**Sponsored Program Fund (Fund 30 and Fund 31)**

The Sponsored program fund includes academic programs and non-academic projects. Non-academic programs is subject to restrictions by donors or other agencies limiting its use for funding specific research projects, conference, 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

**3.1 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**

The 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.

**3.2 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 reporting 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 reporting 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 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 reporting 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 if the carrying amount of an asset exceeds its recoverable amount. The impairment loss is recognised in the statement of income unless it reverses a previous revaluation credited to equity, in which case it is charged to equity. Adoption of this accounting policy does not constitute full compliance with all the requirements of TAS 36: Impairment of Assets.

(h) **Payables**

Payables are stated at cost.

(i) **Employee benefit**

**Defined contribution plans**

Obligations for contributions to the Social Security 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 other fees**

Tuition and other fees are recognised on an accrual basis.

**Research Grant and Contract service income**

Research grant and contract service income received from Donors/Sponsors under Sponsored Program Fund (Fund 30) is recognised when service are rendered and projects are completed.

**Support operations**

Support operations are recognised as services are provided.

**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 (Faculty secondments)**

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.
Annual Report 2010

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.

(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

<table>
<thead>
<tr>
<th>Description</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank accounts</td>
<td>195,685</td>
<td>199,824</td>
</tr>
<tr>
<td>Fixed deposits with maturity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>three months or less</td>
<td>140,457</td>
<td>405,455</td>
</tr>
<tr>
<td><strong>Cash and cash equivalents</strong></td>
<td><strong>336,142</strong></td>
<td><strong>605,279</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Description</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai Baht (THB)</td>
<td>261,434</td>
<td>530,182</td>
</tr>
<tr>
<td>United States Dollars (USD)</td>
<td>16,094</td>
<td>21,950</td>
</tr>
<tr>
<td>Vietnamese Dong (VND)</td>
<td>58,614</td>
<td>53,147</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>336,142</strong></td>
<td><strong>605,279</strong></td>
</tr>
</tbody>
</table>

6 Accounts receivable

<table>
<thead>
<tr>
<th>Description</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and other fees</td>
<td>59,252</td>
<td>56,282</td>
</tr>
<tr>
<td>Others</td>
<td>47,847</td>
<td>40,375</td>
</tr>
<tr>
<td><strong>Net</strong></td>
<td><strong>107,099</strong></td>
<td><strong>96,657</strong></td>
</tr>
</tbody>
</table>

Reversal of doubtful debts expenses for the year

<table>
<thead>
<tr>
<th>Description</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3,377)</td>
<td></td>
<td>(5,009)</td>
</tr>
</tbody>
</table>

Aging analyses for accounts receivable were as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>31,571</td>
<td>36,336</td>
</tr>
<tr>
<td>Overdue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 3 months</td>
<td>15,850</td>
<td>11,341</td>
</tr>
<tr>
<td>3-6 months</td>
<td>20,953</td>
<td>13,977</td>
</tr>
<tr>
<td>6-12 months</td>
<td>5,840</td>
<td>19,376</td>
</tr>
<tr>
<td>Over 12 months</td>
<td>32,885</td>
<td>15,627</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107,099</strong></td>
<td><strong>96,657</strong></td>
</tr>
</tbody>
</table>

Less allowance for doubtful accounts

<table>
<thead>
<tr>
<th>Description</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(20,277)</td>
<td></td>
<td>(16,900)</td>
</tr>
<tr>
<td><strong>Net</strong></td>
<td><strong>86,822</strong></td>
<td><strong>79,757</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Description</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thai Baht (THB)</td>
<td>402,223</td>
<td>107,108</td>
</tr>
<tr>
<td>United States Dollars (USD)</td>
<td>5,703</td>
<td>6,314</td>
</tr>
<tr>
<td>Vietnamese Dong (VND)</td>
<td>31,563</td>
<td>48,010</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>439,489</strong></td>
<td><strong>251,432</strong></td>
</tr>
</tbody>
</table>

5 Current investments

<table>
<thead>
<tr>
<th>Description</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed deposits with maturity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>more than three months</td>
<td>439,489</td>
<td>251,432</td>
</tr>
<tr>
<td>Less Deposits pledged as collateral</td>
<td>(20,274)</td>
<td>(15,274)</td>
</tr>
<tr>
<td><strong>Net</strong></td>
<td><strong>419,215</strong></td>
<td><strong>236,158</strong></td>
</tr>
</tbody>
</table>

As at 31 December 2010, fixed deposits of Baht 20.27 million (2009: Baht 15.27 million) were pledged as collateral for bank overdraft and outstanding letters of guarantee issued by the same bank (see note 14).
## 7 Property and equipment

<table>
<thead>
<tr>
<th>Cost</th>
<th>Campus development</th>
<th>Buildings</th>
<th>and equipment</th>
<th>Furniture Transportation equipment</th>
<th>Library assets</th>
<th>Assets under construction</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 1 January 2009</td>
<td>51,105</td>
<td>1,143,812</td>
<td>880,421</td>
<td>17,987</td>
<td>266,959</td>
<td>149</td>
<td>2,360,433</td>
</tr>
<tr>
<td>Additions</td>
<td>580</td>
<td>2,517</td>
<td>20,704</td>
<td>133</td>
<td>7,056</td>
<td>5,484</td>
<td>36,474</td>
</tr>
<tr>
<td>Disposals</td>
<td>-</td>
<td>-</td>
<td>(471)</td>
<td>(3,195)</td>
<td>-</td>
<td>-</td>
<td>(3,666)</td>
</tr>
<tr>
<td>Transfers</td>
<td>-</td>
<td>-</td>
<td>(695)</td>
<td>695</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>At 31 December 2009 and 1 January 2010</td>
<td>51,685</td>
<td>1,146,329</td>
<td>899,959</td>
<td>15,620</td>
<td>274,015</td>
<td>5,633</td>
<td>2,393,241</td>
</tr>
<tr>
<td>Additions</td>
<td>3,492</td>
<td>377</td>
<td>40,365</td>
<td>197</td>
<td>7,122</td>
<td>13,135</td>
<td>64,688</td>
</tr>
<tr>
<td>Disposals</td>
<td>-</td>
<td>-</td>
<td>(12,850)</td>
<td>(348)</td>
<td>-</td>
<td>-</td>
<td>(13,198)</td>
</tr>
<tr>
<td>Foreign currency translation</td>
<td>-</td>
<td>(200)</td>
<td>(657)</td>
<td>(154)</td>
<td>-</td>
<td>-</td>
<td>(1,011)</td>
</tr>
<tr>
<td>At 31 December 2010</td>
<td>55,177</td>
<td>1,146,506</td>
<td>926,817</td>
<td>15,315</td>
<td>281,137</td>
<td>18,768</td>
<td>2,443,720</td>
</tr>
</tbody>
</table>

## Accumulated Depreciation

| At 1 January 2009 | 44,566 | 567,057 | 815,203 | 10,964 | 244,273 | - | 1,682,063 |
| Depreciation charge for the year | 1,244 | 28,824 | 26,481 | 1,453 | 8,486 | - | 66,488 |
| Disposals | - | - | (446) | (2,035) | - | - | (2,481) |
| Transfers | - | 66 | (1,120) | 1,054 | - | - | - |
| At 31 December 2009 and 1 January 2010 | 45,810 | 595,947 | 840,118 | 11,436 | 252,759 | - | 1,746,070 |
| Depreciation charge for the year | 1,193 | 29,055 | 24,152 | 1,482 | 7,948 | - | 63,830 |
| Disposals | - | - | (12,790) | (348) | - | - | (13,138) |
| Foreign currency translation | - | (108) | 198 | (646) | - | - | (556) |
| At 31 December 2010 | 47,003 | 624,894 | 851,678 | 11,924 | 260,707 | - | 1,796,206 |

## Net book value

| At 1 January 2009 | 6,539 | 576,755 | 65,218 | 7,023 | 22,686 | 149 | 678,370 |
| At 31 December 2009 and 1 January 2010 | 5,875 | 550,382 | 59,841 | 4,184 | 21,256 | 5,633 | 647,171 |
| At 31 December 2010 | 8,174 | 521,612 | 75,139 | 3,391 | 20,430 | 18,768 | 647,514 |

The gross amount of fully depreciated property and equipment that was still in use as at 31 December 2010 amounted to Baht 1,073.94 million (2009: Baht 1,027.35 million).
8 Accounts payable and accrued expenses

<table>
<thead>
<tr>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in thousand Baht)</td>
<td></td>
</tr>
<tr>
<td>Owing to suppliers</td>
<td>41,866 19,814</td>
</tr>
<tr>
<td>Provision for insured saving fund tax</td>
<td>9,365 10,526</td>
</tr>
<tr>
<td>Advance from students</td>
<td>25,368 23,142</td>
</tr>
<tr>
<td>Withholding tax payable</td>
<td>8,199 7,119</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>9,700 13,799</td>
</tr>
<tr>
<td>Payables to staff</td>
<td>17,028 30,286</td>
</tr>
<tr>
<td>Advance received from donors</td>
<td>782 1,051</td>
</tr>
<tr>
<td>Others</td>
<td>25,933 36,871</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138,241 142,608</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in thousand Baht)</td>
<td></td>
</tr>
<tr>
<td>Thai Baht (THB)</td>
<td>132,982 139,234</td>
</tr>
<tr>
<td>United States Dollars (USD)</td>
<td>3,082 3,357</td>
</tr>
<tr>
<td>Australian Dollars (AUD)</td>
<td>- 17</td>
</tr>
<tr>
<td>Euro (EUR)</td>
<td>2,177 -</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138,241 142,608</strong></td>
</tr>
</tbody>
</table>

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 2010 and 2009 and revenues and expenses for the years then ended were as follows:

<table>
<thead>
<tr>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in thousand Baht)</td>
<td></td>
</tr>
<tr>
<td>Funds received from donors</td>
<td>348,417 511,434</td>
</tr>
<tr>
<td>Application of funds</td>
<td></td>
</tr>
<tr>
<td>- Salaries and other benefits</td>
<td>7,563 5,376</td>
</tr>
<tr>
<td>- Scholarships</td>
<td>408,108 441,278</td>
</tr>
<tr>
<td>- Contracted services</td>
<td>56,885 64,831</td>
</tr>
<tr>
<td>- Communication, travel and utility expenses</td>
<td>4,828 7,844</td>
</tr>
<tr>
<td><strong>Total funds applied</strong></td>
<td><strong>477,184 519,329</strong></td>
</tr>
</tbody>
</table>

Income under expenses for the year | (128,767) (7,895)

Assets held on behalf of donors
Cash and deposits at financial institutions | 142,081 309,480 |
Fixed deposits | 259,805 211,277 |
Accounts receivable and other current assets | 1,288 1,263 |
**Total assets held on behalf of donors** | **403,174 522,020**

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

<table>
<thead>
<tr>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in thousand Baht)</td>
<td></td>
</tr>
<tr>
<td>Funds received from UNEP RRC.AP</td>
<td>100,233 184,305</td>
</tr>
<tr>
<td><strong>Total funds applied</strong></td>
<td><strong>142,460 95,203</strong></td>
</tr>
</tbody>
</table>

Income over (under) expenses for the year | (42,227) 89,102 |

Assets held on behalf of UNEP RRC.AP
Cash and deposits at financial institutions | 151,813 198,407 |
Accounts receivable | 4,110 3,992 |
Property and equipment | 2,426 2,165 |
**Total assets held on behalf of UNEP RRC.AP** | **158,349 204,564** |

Amounts due to UNEP RRC.AP
Balance at 1 January | 183,877 94,775 |
Income over (under) expenses for the year | (42,227) 89,102 |
Balance at 31 December | 141,650 183,877 |
Liabilities | 16,699 20,687 |
**Total amounts due to UNEP RRC.AP** | **158,349 204,564** |

11 Employee benefit expenses

<table>
<thead>
<tr>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Restated) (in thousand Baht)</td>
<td></td>
</tr>
<tr>
<td>Wages and salaries</td>
<td>391,047 455,887</td>
</tr>
<tr>
<td>Contribution to provident fund and insured saving fund</td>
<td>15,293 16,270</td>
</tr>
<tr>
<td>Merit expenses</td>
<td>6,477 11,444</td>
</tr>
<tr>
<td>Personal income tax of employees</td>
<td>5,982 9,513</td>
</tr>
<tr>
<td>Social security costs</td>
<td>5,018 4,679</td>
</tr>
<tr>
<td>Other costs</td>
<td>2,882 3,912</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>426,699 501,705</strong></td>
</tr>
</tbody>
</table>
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 (AITVN)

The Institute has a branch operation in Hanoi, Vietnam of which the purpose of 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), Program Fund (Fund 30), and Capital Fund (Fund 41) were summarised below:

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>137,134</td>
<td>142,887</td>
</tr>
<tr>
<td>Expenses</td>
<td>135,300</td>
<td>104,489</td>
</tr>
<tr>
<td>Income over expenses</td>
<td>1,834</td>
<td>38,398</td>
</tr>
</tbody>
</table>

Financial statements for the years ended 31 December 2010 and 2009 have been prepared and approved by the management of the branch.

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

13 Changes in accounting policy

Academic Programs under Sponsored Program Fund (Fund 30)

The Institute previously excluded net surplus of on-going projects in Academic Program under Sponsored Program Fund (Fund 30) from Statements of Revenues and Expenditures. From 1 January 2010, the Institute has changed its accounting policy for recognising the Academic Program on a yearly basis which is in line with academic year.

Non-Academic Projects under Sponsored Program Fund (Fund 30)

Until 31 December 2009, the institute had presented revenues and expenditures incurred during the year for both on-going and completed projects in the Statement of Revenues and Expenditures with the bottom line reversing of net surplus of on-going projects to Advances/Receivables from Sponsored Program Fund in Balance sheet. To improve the presentation, the Statement of Revenues and Expenditures only include completed projects' cumulative revenues and expenditures according to income recognition for research grant and contract service income which is recognised as revenue when the projects or services are completed. The final net surplus (deficit) remains unchanged by the new presentation.

The effects of these changes are recognised retrospectively in the 2009 financial statements which are included in the 2010 financial statements for comparative purposes. The impact of the change on the 2010 and 2009 financial statements was as follows:

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advances from Program Fund Balance at 1 January before restated</td>
<td>270,310</td>
<td>269,873</td>
</tr>
<tr>
<td>Decrease in income over expenses of Academic project of program fund</td>
<td>(140,278)</td>
<td>(104,709)</td>
</tr>
<tr>
<td>Balance at 1 January after restated</td>
<td>130,032</td>
<td>165,164</td>
</tr>
<tr>
<td>Total fund balances Fund balances for the year before restated</td>
<td>1,224,406</td>
<td>1,184,572</td>
</tr>
<tr>
<td>Increase in income over expenses of on-going project of program fund, net</td>
<td>140,278</td>
<td>104,709</td>
</tr>
<tr>
<td>Fund balances for the year after restated</td>
<td>1,364,684</td>
<td>1,289,281</td>
</tr>
<tr>
<td>Income over (under) expenses for the year Income over (under) expenses for the year before restated</td>
<td>(47,362)</td>
<td>43,120</td>
</tr>
<tr>
<td>Increase in income over expenses for the year of Academic project of program fund, net</td>
<td>14,209</td>
<td>35,569</td>
</tr>
<tr>
<td>Income over (under) expenses for the year after restated</td>
<td>(33,153)</td>
<td>78,689</td>
</tr>
</tbody>
</table>

14 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.

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:

<table>
<thead>
<tr>
<th>Currency</th>
<th>2010 (in thousand Baht)</th>
<th>2009 (in thousand Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnamese Dong (VND)</td>
<td>90,177</td>
<td>101,157</td>
</tr>
<tr>
<td>United States Dollars (USD)</td>
<td>63,879</td>
<td>81,496</td>
</tr>
<tr>
<td>Swedish Krona (SEK)</td>
<td>-</td>
<td>2,291</td>
</tr>
<tr>
<td>Euro (EUR)</td>
<td>222</td>
<td>1,074</td>
</tr>
<tr>
<td>Korean Won (KRW)</td>
<td>-</td>
<td>568</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>154,278</strong></td>
<td><strong>186,586</strong></td>
</tr>
</tbody>
</table>

Liabilities

<table>
<thead>
<tr>
<th>Currency</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States Dollars (USD)</td>
<td>3,082</td>
<td>3,357</td>
</tr>
<tr>
<td>Australian Dollars (AUD)</td>
<td>-</td>
<td>17</td>
</tr>
<tr>
<td>Euro (EUR)</td>
<td>2,177</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,259</strong></td>
<td><strong>3,374</strong></td>
</tr>
</tbody>
</table>

Net exposure

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net exposure</strong></td>
<td><strong>149,019</strong></td>
<td><strong>183,212</strong></td>
</tr>
</tbody>
</table>

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 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 receivables and accounts and other payables are approximate to their carrying value presented in balance sheet due to the relatively short-term maturity of these financial instruments.

15 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 2010, the scholarship commitment amounted to totaling Baht 77.8 million (2009: Baht 77.8 million).

Service Agreement

On 2 April 2009, the Institute entered into agreements with Sodexo Support (Thailand) Ltd. whereby Sodexo will provide three key areas of service line, namely 1. Facility Management included preventive and collective maintenance of academic building, residence and field zone; 2. Management of hotel service and food & beverage of AITCC, food and beverage in cafeteria; and 3. Management of the support services of transportation service, campus mail, and sport facilities. Under terms of the agreements, the Institute is committed to pay management fee, variable provision and a share of additional service fee to Sodexo, at the rates as indicated in the agreements. The term of the management agreement is for 5 years, counting from the effective date. The agreements can be extended by writing at least 8 weeks prior to the end of the initial term as specified in the said agreement.
**Bank guarantees**

As at 31 December 2010, 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 0.7 million (2009: Baht 0.3 million). These bank guarantees are collateralised by AIT’s fixed deposits as discussed in note 5.

**Others**

As at 31 December 2010, the Institute had obtained credit facilities for bank overdraft totaling Baht 5 million which are collateral by AIT’s fixed deposits as discussed in note 5. Bank overdrafts bear interest at the rate of F/D+1.25%.

**16 Contingent liabilities**

As at 31 December 2010, there are seven labour cases and three student cases. The seven labour cases are pending for trial at the Court involving with the claims under the Labour Protection Law and the Labour Relation Law. Four labour cases have been decided by the Central Labour Court favourably to the Institute. However, these four labour cases are still pending in the Supreme Court. Other three labour cases are pending for trial in the Central Labour Court. The three student cases are pending for trial in the Civil Court involving with the claim under the Civil and Commercial Code. The Management believes that the outcome of all these cases will be in favour of the Institute and the ultimate outcome cannot be presently and reliably determined or quantified. Thus, no liability is recorded in the accompanying financial statements as at 31 December 2010.

**17 Thai Financial Reporting Standards (TFRS) not yet adopted**

The Institute has not adopted the following new and revised TFRS that have been issued as of the reporting date but are not yet effective. The new and revised TFRS are anticipated to become effective for annual financial periods beginning on or after 1 January in the year indicated in the following table.

<table>
<thead>
<tr>
<th>TFRS</th>
<th>Topic</th>
<th>Year effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAS 1 (revised 2009)</td>
<td>Presentation of Financial Statements</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 2 (revised 2009)</td>
<td>Inventories</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 8 (revised 2009)</td>
<td>Accounting Policies, Changes in Accounting Estimates and Errors</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 10 (revised 2009)</td>
<td>Events after the Reporting Period</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 16 (revised 2009)</td>
<td>Property, Plant and Equipment</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 17 (revised 2009)</td>
<td>Leases</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 18 (revised 2009)</td>
<td>Revenue</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 19</td>
<td>Employee Benefits</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 21 (revised 2009)</td>
<td>The Effects of Changes in Foreign Exchange Rates</td>
<td>2013</td>
</tr>
<tr>
<td>TAS 36 (revised 2009)</td>
<td>Impairment of Assets</td>
<td>2011</td>
</tr>
<tr>
<td>TAS 38 (revised 2009)</td>
<td>Intangible Assets</td>
<td>2011</td>
</tr>
</tbody>
</table>

As described in note 2 to the financial statements, the Institute is a non-publicly accountable entity under the definition given in the FAP’s announcement number 62/2553 concerning the preparation of the financial statements of non-publicly accountable entities (NPAEs). The Institute has made the decision to comply with accounting standards for NPAEs as soon as such standards are announced by the FAP and become effective. Until such time, and as allowed by the FAP, the Institute will continue to adopt current TFRS effective for 2010 and has not considered the potential impact of adopting and initial application of the new and revised TFRS noted above.
## GLOSSARY

Some key terms used in Annual Report 2010

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAO</td>
<td>Alumni Affairs Office</td>
</tr>
<tr>
<td>ACECOMS</td>
<td>Asian Center for Engineering Computations and Software</td>
</tr>
<tr>
<td>ACSIG</td>
<td>Asian Center for Soil Improvement and Geosynthetics</td>
</tr>
<tr>
<td>AIT</td>
<td>Asian Institute of Technology</td>
</tr>
<tr>
<td>AIT Consulting</td>
<td></td>
</tr>
<tr>
<td>AIT Extension</td>
<td></td>
</tr>
<tr>
<td>AIT-UNEP RRC.AP</td>
<td>AIT-United Nations Environment Programme Regional Resource Centre for Asia-Pacific</td>
</tr>
<tr>
<td>American Chamber of Commerce in Thailand</td>
<td>AIT-United Nations Environment Programme Regional Resource Centre for Asia-Pacific</td>
</tr>
<tr>
<td>ARCMDG</td>
<td>ASEAN Regional Center of Excellence on Millennium Development Goals</td>
</tr>
<tr>
<td>ARRPET</td>
<td>Asian Regional Research Programme on Environmental Technology</td>
</tr>
<tr>
<td>ASAIHL</td>
<td>The Association of Southeast Asian Institutions of Higher Learning</td>
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<tr>
<td>AUAP</td>
<td>Association of Universities of Asia and the Pacific</td>
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<tr>
<td>British Chamber of Commerce Thailand</td>
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<tr>
<td>CLIQ</td>
<td>Center for Learning Innovation and Quality</td>
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<tr>
<td>CoEN</td>
<td>Center of Excellence in Nanotechnology</td>
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<tr>
<td>CoE SDCC</td>
<td>Centre of Excellence on Sustainable Development in the context of Climate Change</td>
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<tr>
<td>CSR ACA</td>
<td>CSR Asia Center at AIT</td>
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<tr>
<td>FoAIT</td>
<td>Friends of AIT Foundation</td>
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<tr>
<td>GIC</td>
<td>Geoinformatics Center</td>
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<tr>
<td>GMSARN</td>
<td>Greater Mekong Sub-region Academic and Research Network</td>
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<tr>
<td>Habitech Center</td>
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<tr>
<td>IIE</td>
<td>Institute of International Education</td>
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<tr>
<td>intERLab</td>
<td>Internet Education and Research Laboratory</td>
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<tr>
<td>RIMES</td>
<td>Regional Integrated Multi-hazard Early Warning System for Africa and Asia</td>
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<tr>
<td>RNUS</td>
<td>Regional Network Office for Urban Safety</td>
</tr>
<tr>
<td>SATU</td>
<td>Southeast and South Asia and Taiwan Universities (SATU) Presidents’ Forum</td>
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<tr>
<td>SEA-UEMA</td>
<td>Southeast Asia Urban Environmental Management Applications Project</td>
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<tr>
<td>SERD</td>
<td>School of Environment, Resources and Development</td>
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<tr>
<td>SET</td>
<td>School of Engineering and Technology</td>
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<tr>
<td>SOM</td>
<td>School of Management</td>
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<td>Thai - Swedish Chamber of Commerce</td>
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<td>Thailand Research Fund</td>
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<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<tr>
<td>UN-ESCAP</td>
<td>United Nations Economic and Social Commission for Asia and the Pacific WHO Collaborating Center</td>
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<td>Yunus Center at AIT</td>
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