Asian Institute of Technology

Pride and Spirit

1996 Annual Report
COVER: Since assuming the Presidency on 1 August 1996, Prof. Roger G. H. Downer has focused his efforts on enhancing AIT’s capabilities as a college, a corporation, and a community. In his words:

AIT is an intellectually vigorous college of enthusiastic and dedicated scholars; a corporation which is efficient, well-managed, responsible and accountable; and a community composed of caring and supportive members.

This embodies the pride and spirit of AIT.

1996 Annual Report of the Asian Institute of Technology
Released in April 1997 by the Office of Media and Information Services

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The Year at AIT

A Royal Inauguration

Her Royal Highness Princess Maha Chakri Sirindhorn graciously presided over the Royal Inauguration of the Chalerm Prakiat Building on 26 November. A gift from AIT Trustee and Thai industrialist, Dr. Somisak Leesawadtrakul, the Chalerm Prakiat Building is dedicated to Their Majesties the King and Queen, in support of the Royal Family's commitment to work for the betterment not only of Thailand but of all countries in the region. The Royal Thai Government supported the construction of the academic wing.

AIT acknowledges the support of other major donors: the Royal Belgian Government for providing a water jet cutter and other CNC machines, the Austrian Government for its donation of CNC machines, Siemens for equipping the manufacturing systems control and automation laboratory, and other industrial partners for providing software support. The Chalerm Prakiat Building houses the Industrial Systems Engineering Program in the School of Advanced Technologies and also provides a base for the Skills Center.

NEW VPAA

Prof. Karl E. Weber was appointed Vice President for Academic Affairs effective 1 July 1996, succeeding Prof. Ricardo P. Pama. Prof. Weber, founding Dean of the School of Environment, Resources and Development, joined AIT in 1978 and served as Chairperson of the former Division of Human Settlements Development from 1982 to 1986. He has played key roles in the implementation of CIDA support programs at AIT. Prof. Weber obtained his M.A. in Ethnology and Dr. Phil. in Sociology from Ruperto Carola University, Heidelberg.

RESOURCE GENERATION

Total Contributions Received in FY1995-96: Baht 785,827,000

<table>
<thead>
<tr>
<th>Total Contributions by Sector</th>
<th>FY 1995-96 Percentages</th>
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<tr>
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<td>National Government Agencies</td>
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<tr>
<td>Business, Foundations, Private Sources</td>
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<table>
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<th>FY 1959-FY 1996 Percentages</th>
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<td>National Government Agencies</td>
</tr>
<tr>
<td>Business, Foundations, Private Sources</td>
</tr>
</tbody>
</table>
**ALUMNI**


- Thailand: 1849
- Chinese Taipei: 777
- Philippines: 744
- Sri Lanka: 568
- India: 558

Five Largest Groups of Graduates in 1996

- Thailand: 152
- Vietnam: 82
- PRC: 41
- India: 38
- Nepal: 37

**MILESTONES**

Prof. Dr. Her Royal Highness Princess Chulabhorn, President of Chulabhorn Research Institute, and Dr. Alexander M. North, former AIT President, signed a memorandum of understanding on 12 June, paving the way for the establishment of the Joint CRI/AIT Doctoral and Master's programs in environmental toxicology, technology, and management. International experts from North America, Europe, and Asia will help conduct the programs.

H.E. Mr. Alberto Fujimori, President of the Republic of Peru, accompanied by H.E. Mr. Domingo Palermo, Peruvian Minister of Education, and party, met Institute officials led by M.L. Birabhongse Kasemsri, Chairperson of the AIT Board of Trustees, on 18 November at the signing of an agreement to promote collaborative teaching and research activities in science and technology. The agreement was signed by Mr. Palermo and M.L. Birabhongse (right) in the presence of President Fujimori and M.R. Kasemsri, Deputy Prime Minister of Thailand (center).

H.E. Mr. Toshiki Kaifu, former Prime Minister of Japan, received an Honorary Degree of Doctor of Technology from AIT President, Prof. Roger C.H. Downer, at the 76th graduation on 12 December. Mr. Kaifu served as Prime Minister of Japan from 1989 to 1991 and as Minister of Education in 1976 and 1985. He was elected to the House of Representatives in 1960 and served 13 consecutive terms.

On 1 August Prof. Downer led Institute officials in welcoming H.E. Mr. Pekka Haavisto, Finnish Minister of Environment and Development. Immediately behind them is Prof. Pasihi Karasuddo, AIT Vice President for Development. The Finnish Minister and his party toured various research facilities at the Institute.
President’s Message

A few years ago, Clark Kerr, erstwhile President of the University of California at Berkeley, pointed out that of all the governments, organizations and institutions that existed in Europe 400 years ago, less than 70 remain today in more-or-less unaltered form. They include the Roman Catholic Church, the Government of the Isle of Man and over 60 universities. Thus, from the perspective of a biologist, universities are a remarkably successful and resilient species capable of adapting to change in a sensible, controlled manner.

This has been a reassuring thought as AIT embarked upon the current academic year with a new administration and a clearly recognized need to adjust to changing economic and political climates. It is encouraging to report that, during the past seven months, AIT has confirmed the hardiness of the university species and is effecting the required transitions without any diminution in quality or in the effectiveness with which the institutional mission is accomplished.

College

As an institute of higher learning, AIT is part of the global college of scholars dedicated to the discovery and promulgation of knowledge. Within this vast college, AIT occupies a vitally important niche - advanced graduate training, research and outreach activities in support of sustainable technological development throughout the Asian region. Statistical data presented in this report suggest that by all generally accepted criteria for evaluation of academic performance, AIT has fulfilled splendidly its collegial responsibilities. Students and alumni have enjoyed success, faculty have gained distinction in national and international fora, and our outreach activities have had a marked and positive impact throughout the region.

Sharing his vision of AIT
AIT Forum, May 1996

"...an intellectually vigorous college of enthusiastic and dedicated scholars; a corporation which is efficient, well managed, responsible and accountable; and a community composed of caring and supportive associates who take pride in being members of AIT."

Citing the opportunities and challenges to AIT
AIT Review, September 1996

"The pace of technological change and the rate of economic growth occurring throughout modern Asia are unparalleled in history. AIT is situated at the hub of this maelstrom of activity with a mandate to provide technological research graduate training and outreach in support of the countries of Asia. Thus, the opportunity for AIT to play a significant role in the economic and social welfare of Asia is considerable."

"Through viable, mutually beneficial partnerships with governments, aid agencies, business corporations and educational institutions, AIT facilitates attainment of its objectives. AIT must also be alert to opportunities for revenue generation through such vehicles as technology transfer, with income derived from license and royalty fees, and competitively priced executive training courses."
Corporation

In addition to its primary collegial role, AIT also has a corporate dimension with fiduciary responsibilities to over 1000 employees, bargaining units, and the many governments, agencies, corporations and individuals who partner the Institute in its various activities. Thus, it behooves AIT to conduct its business in an efficient, responsible, cost-effective manner. The change in administration which occurred at the beginning of the academic year provided opportunity to evaluate the current administrative structure and, as a result, a process of administrative reform is underway.

It is pleasing to report also that, although the lack of a permanent on-going operating budget introduces annual uncertainties in financial planning, the required operating income has again been generated and the Institute continues to operate “in the black” Physical resources were enhanced with the opening of the Chalemp Prakiat Building which houses the Industrial Systems Engineering Program and a skills center. The building was made possible through a generous donation from Dr. Somsk Leeswadtrakul, valued support from the Royal Thai Government, the provision of equipment and software support by Siemens and other major donors. A highlight of the campus year was the opening of the building in a splendid ceremony which was enriched by the gracious presence of HRH Princess Maha Chakri Sirindhorn.

Community

One of the great strengths of AIT continues to be the many talented men and women who comprise the AIT community. It is important to recognize the strengths and opportunities of the multi-cultural environment of AIT and strive to develop and preserve a collegial spirit of intellectual excitement and an ethos which emphasizes continual improvement in all aspects of our operation.

Thus, as I reflect on the year of transition, I am encouraged by what has been achieved, bullish about the future and confident that AIT will survive, flourish and continue to occupy with assurance, its pivotal position in higher education and economic development in Asia.

Roger G. H. Downer
President

Plenary lecture to First ASEAN Business Summit
Jakarta, March 1997

"The new economy with its emphasis on technology and knowledge-based industries will create new markets and business opportunities. Research and education are essential elements in the overall formula for success in promoting economic growth through technological change."

"In spite of the inevitable changes that will result from our institutional responses to changing conditions, the basic spirit and ethos of AIT must prevail. AIT is a multi-cultural community of scholars and students who pursue a quest for new knowledge and understanding in a spirit of collegiality, tolerance and trust."

[Signature]
OPERATIONAL PLANS

The preparation of operational plans has become an annual exercise in the Schools and Centers, following approval of the five-year Institute Strategic Plan at the January 1996 meeting of the Board of Trustees. In these plans, individual Schools and Centers spell out their operational objectives and targets, including budget requirements and activities planned for the year. A strong sense of teamwork, emphasizing support and positive action, characterized the preparation of the operational plans for 1997, attesting to a new era of participatory planning and budgeting at the Institute.

NEW PROGRAMS, NEW OPPORTUNITIES

■ DEGREE PROGRAMS

The high technology field of Mechatronics was established in the School of Advanced Technologies (SAT) in collaboration with the Technical University of Hamburg-Harburg and Siemens AG. The first student intake will be made in May 1997, while the first group of German students under the agreement will join the program in November 1997. Mechatronics, which integrates mechanics, electronics and information technology, is expected to be followed by the introduction of a program in Microelectronics.

Three degree programs became operational in 1996, namely Pulp and Paper Technology (PPT) and Urban Environmental Management (UEM), both in the School of Environment, Resources and Development (SERD) and a cross-School program in Water Supply, Drainage and Sewage Engineering, to be offered by SERD and the School of Civil Engineering (SCE).

The UEM Program has three major components: a graduate study program, an outreach program/unit, and a R&D/technology transfer unit.

The PPT Program, which became operational in July 1996, will admit a projected initial student intake of 20 in January 1998. Advance Agro Pte. has pledged support for the construction of a new building, while the Government of Finland will provide 12 million Baht for laboratory equipment.

SERD and SCE are also collaborating in the newly introduced Integrated Tropical Coastal Zone Management Program.

With support from the French Government, the School of Management (SOM) launched a bilingual English and French program in September 1996. The first group of 16 students came from Cambodia and Laos.

■ DISTRIBUTED LEARNING

Following a strategic planning workshop in distance learning in October 1996, the Institute has firm up its commitment to pursue distributed education approaches and enhance existing activities, initially in projects such as the Industrial Systems Engineering Diploma Program, which is offered at the AIT Center in Vietnam in collaboration with SAT. All being well, new ventures where distance learning partnerships can extend the Institute's role and competitiveness, will be explored.

■ ACADEMIC SUPPORT SERVICES

An impressive combination of support services represents an admirable and concerted effort by the Institute to meet its special responsibilities to students from disadvantaged academic backgrounds, without in any way compromising its high academic standard. These services, which are managed mainly by the Center for Language and Educational Technology in close collaboration with the Schools, include the academic support network, research writing program and tutorial support for third, fourth and fifth term students.

1996 ENROLMENT

<table>
<thead>
<tr>
<th>DOCTORAL, MASTER'S AND DIPLOMA PROGRAMS*</th>
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<th>MAY</th>
<th>SEPT</th>
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<tr>
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<tr>
<td>Ph.D.</td>
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<td>175</td>
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<tr>
<td>Sub-total</td>
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<tr>
<td>Master's</td>
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<td>479</td>
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<tr>
<td>M.Sc.</td>
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<tr>
<td>MBA</td>
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<td>873</td>
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<tr>
<td>Sub-total</td>
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<td>2238</td>
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* Excluding post doctoral and research fellows.
STUDENT BODY

APPLICATIONS
Application trends saw notable improvements in 1996. 1254 applications were received for the intake of academic units in the September 1996 term, compared with 1213 in September 1995, and 1233 in September 1994. Application figures for the January 1997 term were also on the high side. The Institute received the largest number of applications from Nepal (195), Thailand (128), India (108), Sri Lanka (99), Vietnam (86), and Bangladesh (85).

The application pattern remains complex, nevertheless, reflecting interactions between country, regional, and specialization demands, and the availability of external scholarships.

With more time and resources given to support student recruitment and other promotional activities carried out by individual Schools and Programs, a more market-oriented admission culture is expected to emerge throughout the Institute. Targeted marketing efforts could further strengthen and stabilize the student application pattern.

1996 STUDENT ENROLMENT

<table>
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<tr>
<th>Term</th>
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<tr>
<td>May</td>
<td>1096</td>
<td>64</td>
</tr>
<tr>
<td>Sept</td>
<td>1182</td>
<td>87</td>
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</tbody>
</table>

* Excluding post doctoral and research fellows.
** Including trainees in the Program for Computer Applications Development, Bridging Program and Talkbase.

ENROLMENT
Student enrolment rose in 1996, as seen in the annual average enrolment presented below.

In the September 1996 term, there were a total of 169 self-supporting students (85 for the full period and 84 for three terms), compared with 40 and 83, or a total of 123, in September 1995. While commendable, viewed from the Institute's self-support student targets, the increase suggests the need to further strengthen the self-sustainability of the Institute's tuition fee funding. The crucial "bottom-line" number, that is, the full-fee equivalent, was 940 for September 1996, up from 855 in May 1996 and comparing favorably with the 915 termly target for 1996-97.

Full fee-paying enrolment is expected to further increase in 1997-98, averaging at 1147 and exceeding the 880 projected in the Institute Strategic Plan. Much of the increase is anticipated in the MBA program and the new interdisciplinary program in Mechatronics.

The number of non-fee paying degree program students rose from 212 in September 1995 to 268 in September 1996. Eighty-four of the non-fee paying enrollees were employee students on full salaries at the Institute, four were working students who were employed half-time. The September 1996 figure also included 40 students whose study periods were extended beyond the normal duration and whose tuition fees were waived, and 17 students who earned full-fee waivers for their final term.

The most significant increase in the non-fee paying enrollees was due to the growing number of partial scholarship holders, who move from the paying to the non-paying phase of their study period (or the last two terms of the five-term Master's program). In the September 1996 term, there were 101 such students, compared with 60 a year ago.

Rising student enrolment has raised an urgent need for additional on-campus housing and the introduction of an integrated management information system that will support the Institute's forward planning, by providing enrolment distribution and student financial support data, and by linking key academic and administrative departments.
FEMALE STUDENT ENROLMENT

Among the distinct changes in the profile of the AIT student body is the growing number of female students.

Female student enrolment in the September 1996 term was 27.6% of total enrolment, compared with 26% in September 1995 and 22.8% in September 1994. In the Human Settlements Development Program, 56.9% of the total number of students were female.

Schoolwise, female students accounted for 39.1% of total enrolment in SERD, 33% in SOM, 25.3% in SAT, and 11.7% in SCE.

<table>
<thead>
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<th>Sept</th>
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<td>Belgium</td>
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<tr>
<td>China/Taipei</td>
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<tr>
<td>Laos</td>
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<tr>
<td>Zambia</td>
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Total | 1135 | 1110 | 1216

*Excluding PCAD trainees, post doctoral fellows and TALEBASE students.

1996 STUDENT ENROLMENT

by School

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<th>School of Advanced Technologies</th>
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<td>MOT</td>
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<td>55</td>
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*Excluding Special Program, Certificate, and Certificate of Advanced Studies students.
GRADUATES

The December 1996 graduation, which added the first graduates from Kazakhstan to the AIT alumni roster, saw the total alumni figure surpass the 8000 mark. Details of the Institute's 1996 graduate record and awards for academic distinction are presented here.

1996 GRADUATE RECORD

<table>
<thead>
<tr>
<th>by Degree</th>
<th>Apr</th>
<th>Aug</th>
<th>Dec</th>
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by Country

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Total 198 177 165 540
GRADUATION AWARDS

April

Mr. Truong Hong Tien  
(SCE, WEM) Vietnam  
ALASTAIR M. NORTH PRIZE

Mr. Torsak Viravanichai  
(SCE, SEC) Thailand  
AOYAGI PRIZE

Mr. Mongkut Piantanaskulchai  
(SCE, TE) Thailand  
DARBARA AND JOHN HUGH JONES PRIZE

Mr. Teerawut Juinaraongrit  
(SCE, GE) Thailand  
CHIN FENG KEE PRIZE

Ms. Kanokthip Sphasakmontri  
(SOM, II) Thailand  
HAIDER RAZVI PRIZE AND HIROMICHI SEYA PRIZE

Mr. Xu Qiang  
(SCE, WEM) FRC  
HISAMATSU PRIZE

Mr. Zheng Peixi  
(SCE, WEM) FRC  
HODAKA PRIZE

Mr. Naveen Kumar  
(SOM, MOT) India  
JAMES A. LINEN III MEMORIAL PRIZE

Mr. Abdul Samad Kazi  
(SCE, SEC) Pakistan  
MAHESH YARMA PRIZE

Mr. Yo Minh Tue  
(SOM, II) Vietnam  
WILLIAM HILL PRIZE

August

Mr. Jagath Wickrama Rupasinghe  
(SERD, AAS) Sri Lanka  
HISAMATSU PRIZE

Mr. Kamel Kishore  
(SERD, ISE) India  
JAMES A. LINEN III MEMORIAL PRIZE

Mr. Absar Ahmad Kazmi  
(SERD, EEP) India  
ROBERT B. HANKS PRIZE

Mr. Wachara Mungwinitkul  
(SERD, EEP) Thailand  
SUJUK NAVAPAN PRIZE

Mr. Bhuvneshwar Prasad Sah  
(SERD, STAR) Nepal  
TIM KENDALL MEMORIAL PRIZE

Ms. Sorada Yoengyongbuddhagul  
(SERD, AFE) Thailand  
YOH KUROSAWA PRIZE

Mr. Pawan Preet Singh  
(SERD, AFE) India  
Y.Y. KISHIDA PRIZE

December

Mr. Surya Nepal  
(SAT, CSIM) Nepal  
HISAMATSU PRIZE

Ms. Supnon Chantaraprabha  
(SAT, CSIM) Thailand  
HISAMATSU PRIZE

Mr. Sumato Prapaipratool  
(SAT, ISE) Thailand  
JAMES A. LINEN III MEMORIAL PRIZE

Mr. Le Minh Tuan  
(SAT, ISE) Vietnam  
TIM KENDALL MEMORIAL PRIZE

Mr. Pitthnon Kimavong  
(SAT, TC) Thailand  
TELECOM-FINLAND PRIZE

Ms. Anchalee Kirch-Ansant  
(SAT, ISE) Thailand  
SHIOCHIRO TOYODA PRIZE

*Awarded by KEIDANREN in recognition of the best academic performance by a female graduate

GRADUATION SPEAKERS

At the 76th graduation on 18 April, Dr. Thanat Khoman, Chairperson Emeritus of AIT, received an Honorary Degree of Doctor of Technology and delivered the graduation address. With Dr. Thanat is Maj. L. Beakprongsi, Kasemsri, Chairperson of the AIT Board of Trustees. Dr. Yongyuth Yukhansong, Director of the National Science and Technology Development Agency of Thailand, delivered the graduation address at the 77th graduation on 22 August. With Dr. Yongyuth are Prof. Prasit Karasutthi, Vice President for Development, and Prof. Roger G. H. DOWNER, President. Addressing the 78th graduation on 12 December were Dr. Yong-Teh Lee (right), Chairman of Trizion Computer Co. Ltd., and His Excellency Mr. Yoshiaki Kaga (third from right), former Prime Minister of Japan who received an Honorary Degree of Doctor of Technology.
GRADUATION AWARD SPONSORS

ALASTAIR M. NORTH PRIZE
The Alastair M. North Prize is awarded from funds contributed in 1995 by Prof. Alastair M. North, former AIT President.

BARBARA AND JOHN HUGH JONES PRIZE
The Barbara and John Hugh Jones Prize is awarded from funds provided in 1994 by Prof. John Hugh Jones, former AIT Vice President for Academic Affairs.

CHIN FUNG KEE PRIZE
The Tan Sri Professor Chin Fung Kee Prize is awarded by the distinguished students of the late Prof. Chin Fung Kee, former Vice-Chancellor, University of Malaya, and past President of the Southeast Asian Geotechnical Society.

HAIDER RAZVI PRIZE
Mr. Syed Mushtaq Haider Razvi, sponsor of this prize which was established in 1995, served as Charge d’Affaires, Embassy of the Islamic Republic of Pakistan, Bangkok, and Permanent Representative of Pakistan to the United Nations Economic and Social Commission for Asia and the Pacific.

HISAMATSU PRIZE
The Hisamatsu Prize is supported since 1982 by Prof. Yoshihiro Hisamatsu, Technology Adviser for Nishin Steel Co., Ltd., Japan, and former Dean of the Faculty of Engineering, University of Tokyo.

HIROYOSHI SHI-IGAI PRIZE
This prize is awarded from funds contributed by AIT Trustee Prof. Hiroyoshi Shi-igai of the Institute of Engineering Mechanics, University of Tsukuba, Japan, jointly with the AIT Water Engineering Management Program.

JAMES A. LINEN III MEMORIAL PRIZE
Presented in memory of the late Mr. James A. Linen, a Charter Founding Member and Life Member of the Board of Trustees from 1967 to 1988.

AOYAGI PRIZE
Supported by Prof. Yuki Aoyagi, former AIT faculty member.

MAHESH VARMA PRIZE
Supported by Prof. Mahesh Varma, former AIT faculty member.

ROBERT B. BANKS PRIZE
The Robert B. Banks Prize, named after former AIT President, Prof. Robert B. Banks, was first presented in 1994. It is supported by funds generated from various continuing education and consultancy activities in geotechnical engineering.

SUKUM NAVAPAN PRIZE
The Sukum Navapan Prize is awarded from funds presented by Dr. Sukum Navapan, AIT Trustee since 1992 and Chairman of the Navatanee Group of Companies.

TIM KENDALL MEMORIAL PRIZE
Established in 1981 from funds provided by the United Kingdom AIT Appeal, in memory of the late Mr. R. M. Kendall, AIT Trustee from 1971 to 1981.

TELECOM-FINLAND PRIZE
The Telecom-Finland Prize is given from funds provided in 1991 by Telecom, Finland.

WILHELM HILL PRIZE
The Wilhelm Hill Prize is supported by Prof. Wilhelm Hill, AIT Trustee since 1993 and Head of the Strategic Studies Research and Publishing Unit, University of Basel, Switzerland.

Y.Y. KISHIDA PRIZE
Supported since 1982 by Mr. Yoshiyuki Kishida, owner of Shin Neninsha Co., Tokyo, Japan, in memory of his son, Yoshiyuke.
ALUMNI

The swelling average annual enrolment, rising from 19 students in 1959 to 1,201 in 1996, has created an impressive alumni body, which is composed of graduates from AIT's traditional disciplines and newly-introduced specializations.

Regular monitoring of the professional development of alumni speaks of a career mobility experienced by the majority of new graduates many of whom move from the ranks of professional staff to middle/senior management positions within a short period.

### AIT ALUMNI DISTRIBUTION 1961-1996

#### by Degree

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1 Includes graduates from the former program in Computer Applications and Computer Science.
2 Includes graduates from the former program in Industrial Engineering and Management.
3 Includes graduates from the former programs in Hydraulic Engineering, Water Resources Engineering, and Irrigation Engineering and Management.
4 Includes graduates from the former program in Energy Technology.
5 Includes 291 graduates from the former program in Community and Regional Development.
6 Includes graduates from the former Natural Resources Program and Interdisciplinary Natural Resources Development and Management Program.

Notes:

**SCHOOL OF CIVIL ENGINEERING**

Geotechnical Engineering
Transportation Engineering
(Formally offered as the Geotechnical and Transportation Engineering Program. First student intake into the individual programs - Sept 1985; first graduation - Apr 1997)

Infrastructure Planning and Management
(First student intake - Sept 1995; first graduation - Apr 1997)

**SCHOOL OF ENVIRONMENT, RESOURCES AND DEVELOPMENT**

Agricultural and Aquatic Systems
(First student admission into the Master's Program - Jan 1996; first graduation - Aug 1997. To-date, two alumni graduated from the Diploma program)

Bioresources Technology
(First student intake - Jan 1996; first graduation - Aug 1997)
The five largest groups of AIT alumni are from:

- Thailand: 1,686
- Chinese Taipei: 777
- Philippines: 744
- Sri Lanka: 566
- India: 556

By Country of Residence:

- South East Asia, Pacific, and Australia (49.96%)
  - Australia: 325
  - Brunei: 10
  - Cambodia: 28
  - Fiji: 1
  - Indonesia: 367
  - Laos: 22
  - Malaysia: 203
  - Maldives: 3
  - Myanmar: 67
  - New Zealand: 7
  - Papua New Guinea: 8
  - Philippines: 473
  - Singapore: 109
  - Thailand: 2085
  - Vietnam: 321

- East Asia (13.11%)
  - PRC: 186
  - Chinese Taipei: 620
  - Hong Kong: 74
  - Japan: 83
  - Kazakhstan: 1
  - ROK: 87
  - Macao: 2
  - Mongolia: 4

- Middle East (0.45%)
  - Bahrain: 1
  - Iran: 2
  - Kuwait: 1
  - Qatar: 2
  - Saudi Arabia: 27
  - United Arab Emirates: 4

* Others (10.98%)

By Nationality:

- South East Asia and Western Asia (20.27%)
  - Afghanistan: 4
  - Bangladesh: 332
  - Bhutan: 8
  - India: 284
  - Nepal: 273
  - Pakistan: 405
  - Sri Lanka: 325
  - Turkey: 3

- North and South America, and Europe (5.17%)
  - Belgium: 2
  - Bolivia: 1
  - Brazil: 1
  - Canada: 58
  - Denmark: 2
  - France: 14
  - Germany: 3
  - Italy: 1
  - Netherlands: 1
  - Norway: 1
  - Spain: 1
  - Sweden: 1
  - Switzerland: 3
  - United Kingdom: 19
  - United States: 285

- Africa (0.31%)
  - Egypt: 1
  - Ethiopia: 1
  - Ghana: 2
  - Kenya: 5
  - Malawi: 3
  - Nigeria: 4
  - Sudan: 1
  - Tanzania: 8

* Alumni whose addresses are unknown and alumni with two AIT degrees (859) and deceased alumni (40).
FACULTY

STRENGTH

Comparative faculty statistics in the September 1996 term and the May 1996 term provide evidence of sustained faculty strength.

There were a total of 184 faculty members in September 1996 (including 23 visiting, 22 associated and 12 affiliated), compared with 187 in May 1996 (including 23 visiting, 26 associated and 14 affiliated).

Of the 138 full-time faculty in September 1996, 96 were direct-hire while 42 were seconded, compared with 144 full-time faculty in May 1996, of whom 98 were direct-hire while 46 were seconded. The proportion of seconded faculty (30 per cent in September 1996 and 32 per cent in May 1996) was below the 50 per cent target. Faculty secondments are expected to decrease further, thus setting a trend for more recruitment of direct-hire and sponsored faculty positions.

On student faculty ratio, the target ratio of nine to one still figures prominently. Clearly, the critical mass for the optimal delivery of postgraduate education must be a key criterion for establishing the appropriate ratios.

by Academic Rank | D | S | Total
--- | --- | --- | ---
Chair Professor | 4 | 4 | 4
Professor | 21 | 8 | 29
Associate Professor | 40 | 15 | 55
Assistant Professor | 23 | 10 | 33
Instructor | 1 | 1 | 1
Visiting Faculty | 11 | 12 | 23
Long-term | (8) | (8) | 16
Short-term | (3) | (4) | 7
Associated Faculty | 17 | 5 | 22
Affiliated Faculty | 6 | 6 | 12
Adjunct Faculty | 5 | 5 | 10
Total | 127 | 57 | 184

by Country | D | S | Total
--- | --- | --- | ---
Australia | 1 | 1 | 2
Bangladesh | 4 | 4 | 8
Belgium | 1 | 3 | 4
Bulgaria | 1 | 1 | 2
Canada | 2 | 1 | 3
Chinese Taipei | 1 | 1 | 2
Denmark | 1 | 3 | 4
Finland | 6 | 6 | 12
France | 5 | 9 | 14
Germany | 3 | 5 | 8
India | 20 | 3 | 23
Japan | 13 | 13 | 26
Korea | 2 | 2 | 4
Lebanon | 1 | 1 | 2
Myanmar | 1 | 1 | 2
Nepal | 4 | 1 | 5
Netherlands | 3 | 3 | 6
New Zealand | 2 | 2 | 4
Nigeria | 1 | 1 | 2
Norway | 1 | 1 | 2
Pakistan | 2 | 2 | 4
PRC | 2 | 1 | 3
Philippines | 6 | 6 | 12
Sri Lanka | 7 | 7 | 14
Sweden | 1 | 1 | 2
Switzerland | 1 | 1 | 2
Thailand | 39 | 39 | 78
UK | 4 | 6 | 10
USA | 10 | 10 | 20
Vietnam | 5 | 5 | 10
Total | 127 | 57 | 184

The opportunity to pursue graduate studies with distinguished scholars from all over the world - within the context of Asia - draws promising young men and women to study at AIT.
FACULTY PUBLICATIONS

There were 643 faculty publications over 1996, including journal papers, proceedings, research reports and books. This output provides an indication of an active academic faculty, aware of the importance of publishing for their own professional advancement and the Institute’s academic credibility. Throughout the Institute, there is strong recognition of the important role which internationally known faculty play in sustaining the high standard of teaching and research programs.

FACULTY DEVELOPMENT

Along with the School and Center retreats, the annual faculty development workshops contribute significantly to the professional and personal well-being of faculty. Most of the key recommendations of the April 1996 faculty workshop on academic quality audit and advisorship are being pursued actively, including the call to re-activate the Education Development Working Group and provide special financial support for book and journal orders placed through CLAIR.

1996 ACADEMIC ACTIVITIES

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* Monographs, working papers, consultancy reports, reviews, academic unit research reports, occasional papers, newsletters, reference materials, handbooks, lecture notes, etc.
RESEARCH

The Institute is committed to region-oriented applied technological research and to academic subject-developmental research. In 1996 the Schools and Centers were involved in 219 sponsored and grant research projects. A few selected projects completed in 1996 are summarized in this section. A list of research projects in progress is found in the Appendix.

School of Advanced Technologies

Development and implementation of MRP II system: a feasibility study
Investigators: Erik Bohez, V. Wuwongse
Sponsor: Notes Printing Works, Bank of Thailand

The Notes Printing Works of the Bank of Thailand produces Thai banknotes, excise stamps, and revenue stamps. With production demands exceeding human capacity for production tracking and database maintenance, a computerized manufacturing resources planning (MRPII) became an urgent need. AIT was commissioned to develop a customized software for material requirements planning (MRP) and manufacturing resources planning (MRPII), to suit the specific production environment.

To do this, a feasibility study and thorough analysis of the system were carried out. Initial data and information were collected.

Suggestions concerning MRPII requirements were presented to the Notes Printing Works. Other tasks dealt with the probability of interfacing the existing software with the MRPII system and the formulation of MRP implementation guidelines.

Applicability analysis of waterjet cutting in textile and leatherware industries
Investigator: J. R. Duflo
Sponsor: Bangkok Rubber Co. Ltd., Body Fashion (Thailand) Ltd.

Waterjet cutting is a manufacturing process that is capable of cutting non-conventional materials (e.g., composites, ceramics, and glass), by means of a high pressure water beam (up to 3800 bars). However, there is little available data pertaining to the relevant characteristics of different types of textiles, rubbers and leathers (natural and artificial).

Unlike typical engineering materials, the cutting of these materials does not require the addition of abrasive to the water beam. Owing to the anisotropy and high elasticity of some of these materials, it is useful to identify suitable cutting parameters and to determine the technical suitability of cutting these materials with non-abrasive waterjet techniques and the economic feasibility of applying such methods.

This study was supported by industrial partners who saw opportunities in adopting these relatively new manufacturing methods. The Belgian Ministry of Cooperation provided an equipment grant.
School of Civil Engineering

Investigation of traffic-induced vibration and its effect on the integrity and stability of Pra Pathom Chedi, Nakorn Pathom
Investigators: W. Kanok-Nukulchai, N. Phien-wej
Sponsor: Wat Pra Pathom Chedi

Thailand’s largest chedi (pagoda) is put at risk by vibration due to heavy traffic volume in the surrounding areas. Vibration levels were investigated and monitored using geophones, which measured peak particle velocity and acceleration. Data were analyzed using GRL - RSV (response of soil and structural vibration program) software. A preliminary evaluation of the effects of vibration was carried out and attenuation of maximum particle velocity with distance was investigated. An in-depth structural dynamic analysis of the pagoda allowed a more precise evaluation of the response of the structure to the vibration, using findings from the field and laboratory investigations.

Constuction management strategy for mass housing contracts
Investigators: S. O. Ogunlana, C. Charoenangam
Sponsor: National Housing Authority, Thailand

Cost and time overruns and quality shortfalls characterized many NHA housing construction projects in the past. In anticipation of a four-fold increase in NHA projects under Thailand’s 7th National Development Plan, NHA needed effective construction management strategies. This study analyzed NHA’s current construction management system and technology use and proposed appropriate improvements.

Load tests of a five-storey hospital
Investigators: P. Nimityongsukul, C. Choeypunt
Sponsor: Nakorn Pathom Province

An experimental in-situ load test was conducted to verify the structural integrity of a five-storey hospital building, in particular the loading capacities of beams, columns and piles. Codes specified by the American Concrete Institute were used in the testing.

Interaction of non-woven geotextiles with locally available soils on soft ground
Investigator: D.T. Bergado
Sponsor: Polyfelt Geimh, Linz, Austria

In coastal plains, earth structures are subjected to large settlements, unstable slopes, and large lateral movements. Mechanical stabilization of earth (MSE) embankments involves the insertion of foreign materials (strong in tension) into the backfill soil (strong in compression) to form a strong composite material. MSE construction minimizes lateral spreading and slope instability. Through three full scale embankment tests, using cheap, locally available backfill soils reinforced with Polyfelt geotextiles, the project confirmed the advantages of MSE construction on weak grounds.

Engineering review of Pantabangan and Masiway Dams (hydrological aspect)
Investigators: S. Tingsoochal,
Sponsor: National Irrigation Administration, Philippines

In July 1990 an earthquake with a magnitude of 7.7 on the Richter scale slightly damaged the Pantabangan and Masiway Dams in the Philippines. This engineering review studied methods used to collect hydrological data and estimate maximum probable flood. Available topographical data downstream of the dams were examined and additional surveys recommended as needed. The review also investigated flooding downstream of the dams, in the event of dam breakage caused by seismic shocks or unexpected flooding in severe typhoons. It evaluated the current system of flood warning downstream of the dams, reservoir operation and sufficiency of spillways, taking into account existing and anticipated conditions.

Flood modeling program In Thailand
Investigators: S. Vongvisessomjai, A. Nielsen, H.C. Ammentorp
Sponsor: Danida

Southern Thailand experienced its worst flood in November 1998, with losses estimated at five billion Baht. Some 400 deaths were reported. AIT and the Danish Hydraulic Institute collaborated in a project aimed at introducing flood forecasting capabilities by conducting hardware and software training at flood relief centers, supporting the actual operation of real-time flood forecasting systems for focus areas, improving the capability of the Royal Irrigation Department in flood control planning by transferring adequate modeling systems and supporting their application. The project enhanced the capability of concerned officials to plan, design and implement flood mitigation measures and supported the establishment at AIT of a permanent training capability in mathematical modeling for real-time flood forecasting and flood control.

Transportation network in developing countries
Investigator: Y. Okuyama
Sponsor: JICA

This study showed the actual pattern of cargo flow in international ports in Thailand and the estimation of future cargo volume for each port. Changes in ship size and relevant economic trends were duly considered.

Optimal production planning under stochastic lead times
Investigators: O. Fujiwara
Sponsor: JICA

This research project concentrated on a multi-part, single-product, single-stage assembly system, with random part procurement lead times and product demand arrival. Earlier literature on the subject matter only dealt with the issue of when to order each part, not on its demand arrival. This research considered the issue of when to order and how much to order in a stochastic environment. Thus, the problem setting was realistic and applicable, although the nature of the problem became complex.
Acid rain and emission reduction in Asia
Investigators: R.M. Shrestha, S.C. Bhattacharya
Sponsor: ADB

This study, a part of an international collaboration among research institutions in Asia, Europe and USA, focused on policy analyses pertinent to emerging acid rain problems in various parts of Asia, through the development of RAINS-ASIA, an integrated micro-computer based assessment model.

An energy/emission and socio-economic database for selected Asian countries was prepared at sub-country regional levels and used as inputs to the RAINS-ASIA model. The study monitored atmospheric sulphur dioxide concentrations in selected Asian countries and carried out activities to support national institutional building, information dissemination, and regional outreach. A regional symposium on reducing acid rain emissions in Asia was organized and a network of national focal centers was established for the purpose of preparing energy/emissions database and monitoring sulphur dioxide concentrations.

Policies for rational use of energy in developing countries
Investigator: G.Y. Dang
Sponsor: EC

The project, a part of the COPED research program of activities, explored and assessed policy changes which affect efficient rational use of energy in developing countries.

A comparative analysis was conducted to highlight lessons drawn from selected countries. Developing countries which face financial constraints to pay for energy imports have a good reason to develop strategies which stress rational use of energy.

Sustainable natural resource management in Sangkhong District, Laos
Investigator: Gopal R. Thapa
Sponsor: Lao-German Forestry Project

Adopting an area approach to natural resource management planning, this study analyzed the causal nexus of natural resource degradation in Sangkhong District, using information obtained through rapid appraisal and household survey methods. Policy measures were suggested to control the depletion of resources.

Aerial view of 400 sq. m. earthen ponds and 200 sq. m. earthen ponds with duck houses in northeastern Thailand.

Natural resource degradation has reduced areas of Sangkhong District into a wasteland.

Pond dynamics collaborative research support program
Investigators: C.K. Lin, J.Szyper, P. Edwards
Sponsor: USAID

Launched in 1987, this project has vastly improved our understanding of how management practices affect the dynamics of fertilized tilapia ponds in tropical climates. Its findings have provided useful inputs to the formulation of fertilization guidelines in Thailand and Indochina.

As part of this program, research studies were carried out on campus and at fisheries stations belonging to the Royal Thai Government. Recently, on-station research in Northeast Thailand was launched in collaboration with the Department of Fisheries. Close attention will be given to studies in rainfed, deep water ponds which are more representative of farm conditions in the area.
Women and land systems in China

Investigators: G. Kelkar, W. Yunxiang
Sponsors: IDRC/NORAD

China's efforts in the 1950s to empower women by giving them access to land and economic resources proved successful. This research studied the Chinese experience and evaluated significant changes in women's role, resulting from the introduction of the rural responsibility system in the 1970s. The work included a comparative analytical reference to India.

The study sought to evolve development strategies for women, based on a historical/political process of formulating and implementing policy to extend familial and social equality and economic independence to women in agrarian China and India.

Active participation in agriculture and other economic activities has significantly improved the role of women in rural communities in China.

Preparation of current land use map for the Western Seaboard Regional Development master plan

Investigator: K. Honda,
S. Raj Pathak, N. Van Dai
Sponsor: JICA

Current land use maps were prepared for six provinces namely Kanchanaburi, Samut Songkhram, Ratchaburi, Prachub Khirikhan and Chumphon.

The methodology adopted was visual and digital interpretation of LANDSAT TM images in the scale of 1:100,000, with rigorous ground truthing. A new GIS database was developed using the result of interpretation and various other kinds of existing maps.

The study demonstrated a real application of RS and GIS technologies and their integration in the planning process. This newly developed GIS database will be utilized by experts from various fields in planning and decision making.

School of Management

Investment opportunities in infrastructure development in Asia

Investigators: J. P. Gupta, L. M. Johri,
I. M. Pandey, M. Speece
Sponsor: EC

Using a demand forecast and policy framework analysis, this research focused on a study of investment requirements in infrastructure development in China, Korea, India and Thailand.

Some SOM projects in progress

Project financing

Investigator: J. P. Gupta
Sponsors: EC/French Government

Most Asian countries which lack financial, technical and managerial resources to meet infrastructure investment turn to partnerships with industrialized countries for help. These partnerships, in particular Euro-Asian partnerships in the power and transport sector, are the focus of this research.

In many cases, the funding structures of these partnerships, many of which are implemented using project financing techniques based on risk-sharing among the partners, should be modified to ensure equal benefits to all concerned.

Multi-cultural management:
European and Asian perspectives

Investigators: F. W. Swierczek,
G. Hirsch; Sponsor: EC

Euro-Asian business relationships, in the form of strategic alliances and joint ventures, are increasing. This study seeks to give both European and Asian managers a better understanding of how cultural considerations influence the organization and management of Euro-Asian business partnerships.

Strategies and approaches to build successful joint ventures will be developed during the course of this study. A conceptual framework, which looks at the impact of culture from the European and Asian frames of reference, has been completed and some of the resulting papers have been published. A questionnaire, to be used for further empirical research, is being developed.
OUTREACH

In 1996 the Institute laid the foundation for new strategic developments in support of its outreach mission.

Under development is the Program for Professional Practitioners (PPP), which will be offered by the Schools and Centers. The PPP is designed for professionals who are unable to attend full-time continuous studies, but who require technical updating and upgrading in order to advance in their field. The Executive MBA Program proposed by the School of Management and approved in principle by the Senate comes within the PPP framework.

In 1996, no fewer than 261 conferences, seminars, workshops, short courses and special lectures were conducted by the Schools and Centers.

• SCHOOL-BASED SPECIALIZED CENTERS

Specialized centers within the Schools provide focal points for outreach activities.

School of Civil Engineering
ACECOMS In 1996, the Asian Center for Engineering Computations and Software, SCE’s software development and training arm, completed the design of a box girder for the Rama VIII bridge in Bangkok and conducted the 9th and 10th sessions of the MSEAP workshop series in microcomputer application and practice in structural engineering. MSEAP-9 was held at AIT and MSEAP-10 in Bangladesh and Sri Lanka.

School of Advanced Technologies
SKILLS CENTER Since its establishment in April 1996, the Skills Center has been conducting short courses for technical personnel from industry, developing and marketing software for industrial use, and carrying out research and consultancy.

School of Environment, Resources and Development
GAC The Geographic Information Systems Applications Center conducts training and provides technical facilities to support the Space Technology Applications and Research Program.

GENDEV The Gender and Development Studies Center acts as a resource to promote and develop the gender dimension across AIT’s range of subject areas.

AQUACULTURE Extensive training and R&D activities in aquaculture are being carried out in Cambodia, Northeast Thailand, Laos and Vietnam.

HABITECH As a center for human settlement technologies, Habitech provides technology and services to institutions, NGOs, community groups, and private sector ventures involved in housing projects.

School of Management
MOTIC The Management of Technology Information Center carries out core outreach activities for SOM. Through regular executive seminars, MOTIC facilitates networking between business associations, companies and managers based in Asia and the Pacific and those in Europe and North America. These networking efforts are expected to provide inputs to the proposed establishment of a Global Executive Management MBA.

Above and directly above: Software developed by ACECOMS for structural analysis and design. Finite element analysis of an ancient chedi (pagoda) used by SCE and ACECOMS to study the effects of traffic vibration.

REMIC The recently established Regional Environmental Management Center is carrying out a 19 million Baht research project for the Public Works Department of Thailand.

Planning is underway for a third SCE center, to be named the Transportation Research Center. A School wide outreach activity in 1996 was an international conference on urban engineering in Asian cities in the 21st century, which was held in November.

Habitech emphasizes affordable construction techniques aimed at improving the quality of life and living environment of communities.
ASIAN DISASTER PREPAREDNESS CENTER (ADPC)

ADPC marked its first decade in 1996, witnessing the growth of its alumni body from various countries in the region and the increasing demand for in-country disaster management training. These positive trends strengthen continuing efforts to ensure the Center's long-term sustainability. Closer collaborations are being forged with School faculty in the delivery of disaster management courses and provision of technical assistance. Linkages with SEFI and the Gender and Development Studies Center and Human Settlements Development Program, both under SERD, are being explored.

CENTER FOR LANGUAGE AND EDUCATIONAL TECHNOLOGY (CLET)

CLET’s remit has expanded over the past five years. Its areas of responsibility now cover language support services, development of teaching-learning systems and general studies. These are carried out through on- and off-campus teaching, classroom-based research and regional outreach activities. CLET plays key roles in the implementation of the AIT Aquaculture Program, the second phase of the Swiss-AIT-Vietnam Management Development Program in Ho Chi Minh City, and the operation of the revitalized language and training unit at the Hanoi-based AIT Center Vietnam.

CONTINUING EDUCATION CENTER (CEC)

CEC collaborates with AIT academic units and faculty in developing up-to-date training curricula, organizing international conferences, and cultivating potential partners and clients for its training courses and consultancy services. With a view to serving as a model technology-based learning center for continuing education, CEC is working towards establishing a building complex equipped with up-to-date multi-media training facilities for the development and delivery of training programs. The complex will provide office and hostel facilities and will be ergonomically designed to Asian standards.

CENTER FOR LIBRARY AND INFORMATION RESOURCES (CLAIR)

CLAIR provides adequate and affordable information services as an important academic support component for learning and teaching. Training and outreach programs are carried out by four self-sustaining units namely, GEIRC, ENSIC, IFIC and HERIC, which are responsible for the AIT Technical Information Access service to outside users. They also offer current awareness services and other outreach activities.

REGIONAL COMPUTER CENTER (RCC)

RCC conducts programs in computer applications development, organizes tailored courses to suit clients’ specifications, and provides consultancy service in software and hardware selection, computer-aided design, and other related topics. RCC also administers and maintains AIT’s network infrastructure, the AITnet, which links LANs and information servers in 12 major buildings throughout the campus, using a 10 Mbps Ethernet backbone.

VIETNAM

In Vietnam, AIT’s focal points for outreach activities are the Hanoi-based AIT Center Vietnam (AITCV) and the Swiss-AIT-Vietnam (SAV) Management Development Program in Ho Chi Minh City.

Since its establishment in February 1993 as AIT’s first satellite campus in the region, AITCV has enabled the Institute to combine its brokering management and educational roles in a high-demand area at a crucial period in Vietnam’s development.

AITCV now offers a Belgian Government-supported Diploma Program in Industrial Systems Engineering (ISE), introduced in 1995. Qualified graduates from this program may seek admission to the Master’s program at AIT, so may qualified graduates of the Swiss-supported Management Development Program in Ho Chi Minh City.

Collaboration between AIT’s Vietnam-based activities and the Schools and Centers is expected to broaden. In Hanoi, a two-stage Master’s program in Energy, patterned after the ISE format, is under development. Future AITCV offerings are being considered in public administration, regional and rural planning, environment, natural resources management and planning, urban development planning and environmental management, postharvest and food process engineering.

Under negotiation is a new MOU with the Ministry of Education and Training for the continued use of AITCV’s present building. Efforts to develop a campus in Thach That are continuing.

In Ho Chi Minh City, the Swiss Development Cooperation has agreed to support the next phase of the SAV Program, starting 1 January 1997.
RESOURCES AND ADMINISTRATION

RESOURCE GENERATION

ACHIEVEMENTS

■ RENEWAL OF COLLABORATIONS
Of the major collaborations renewed in FY 1995-96, the largest were those signed with the Royal Thai Government and various Thai state enterprises and educational institutions (cumulative estimated value: US$ 8.4 million), followed by our renewed collaboration with Finland (estimated value: US$ 7.9 million), in support of the continued operation of the Telecommunications Program and ATCV and the establishment of the Pulp and Paper Technology Program. Another new program to which special support was extended was Bioprocess Technology. Germany provided 10 Master’s scholarships for the program’s first student intake in January 1996.

■ NEW COLLABORATIONS
In Thailand, the most significant new institutional collaboration was signed with the Chulabhorn Research Institute. This collaboration paved the way for the establishment of the joint AIT/SCRI Doctoral and Master’s programs in environmental toxicology, technology and management. Other Thai institutions signed new collaborations for joint research in bioprocess technology. Scholarship support was the main component of new collaborations with the Thai private sector, as well as with Indonesian institutions and the European Commission.

■ INSTITUTIONAL COLLABORATIONS

Thailand AIT carried out a training project for Deputy Governors from the Ministry of Interior and a flood protection design project for Thammasat University, Rangsit campus, as part of its collaboration with the Ministry of Finance in the construction of a sports complex for the 13th Asian Games.

COLLABORATIONS RENEWED AND TYPE OF SUPPORT PROVIDED FY 1995-96

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NEW COLLABORATIONS AND TYPE OF SUPPORT PROVIDED FY 1995-96

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* Others include support to research, continuing education and related activities.

CIS Efforts to establish collaborative training and educational programs with the newly independent countries of Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan and Kyrgyzstan are continuing. The parties in agreement will intensively work together to seek financing from unilateral, bilateral and/or multilateral agencies. The Ministry of Higher and Secondary Education in the Republic of Uzbekistan has expressed support to AIT’s commitment to the Japanese Government to recruit more Master’s students from Central Asia.
Prospects

- **Donor Governments**
  The largest prospective renewal is expected from Sida for the period July 1996-December 1999 (estimated value: US$7.4 million). The next largest is a proposal for Japan’s annual renewal for 1997-98 (estimated value: US$7 million).

  Other prospective renewals are expected from the following donor governments: Austria, Belgium, Canada, PRC, India, New Zealand, Norway, the Philippines, Switzerland, and Thailand. A number of these prospective renewals have been modified since their first submission, to incorporate the new development goals and orientations adopted by some donors.

- **Thai State Enterprises**
  New human resource development and personnel recruitment programs with different Thai state enterprises are in the planning stage. As a condition for future renewals, some of them have requested to conduct an evaluation of their on-going academic cooperation programs with AIT.

  Funding support to enable their staff to attend academic programs is under consideration by the Security and Exchange Commission (for the CSIM and MOT Programs) and the Petroleum Authority of Thailand (for the EE and Energy Programs).

  Together with the Chulabhorn Research Institute (CRI) and the Faculty of Science at Mahidol University, AIT will submit to the Thai Ministry of University Affairs a joint proposal to undertake a higher education development project in science and technology, providing 15 scholarships annually for five years (5 Ph.D. and 10 Master’s), to support qualified Thai students in the CRI/AIT Program in environmental toxicology, technology and management.
### RESOURCES AND ADMINISTRATION

#### PROSPECTIVE RENEWALS AND PROSPECTS AND TYPE OF SUPPORT REQUESTED

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(Renewals refer to pending proposals with traditional donor governments. Prospects refer to proposals submitted to potential new partners)

*Others include support for research, continuing education and related activities.

#### INSTITUTIONS

**With Asian institutions:**

**National University of Lao Project:**
In collaboration with the Midwest Universities Consortium for International Activities, Inc. (MUCIA), USA, AIT will provide expertise and consultancy services to the National University of Lao Project of which MUCIA is a lead partner. A funding proposal has been submitted to ADB.

**Expressway and Rapid Transit Authority of Thailand:** Under discussion is a project management training course to be conducted by the School of Civil Engineering.

**Centre for Water Resources Development and Management (CWRDM), Nepal:** Under discussion is a joint collaboration in water resources management training programs and research projects.

**With non-Asian institutions:**

**Norwegian Institute of Science and Technology:** Under request is the secondment of a senior faculty to the Pulp and Paper Technology Program in 1997.

Immediately after FY 1995-96, cooperation agreements were signed with the **Interstate Institute of Technology St. Gallen, Switzerland**, for an International Network on Reverse Engineering and with **C.U.S.T. University Blaise Pascal (Clermont Ferrand 2)**, France, for a pre-agreement in international cooperation in geotechnical engineering, in association with the French Embassy Regional Cooperation Service.

Towards the end of 1996, technical cooperation agreements were signed with **L'Universite Pierre et Marie Curie (Paris 6)** and the **National Council of Science and Technology of Peru**.

#### MARKETING

**STRATEGIC PLANNING WORKSHOP**
A strategic planning workshop on marketing AIT was held on 19-20 February under the co-sponsorship of GTZ. It is envisioned that the responsibility for centralized marketing will be placed in a small highly qualified and experienced marketing unit to be headed by a professional marketing officer and attached to the office of the VPD. Decentralized marketing functions will become the responsibility of the Schools and Centers, with coordinating procedures to be established between them and the proposed marketing unit. The unit will develop a corporate marketing plan and market information system for the Institute.

**AITAA MARKETING WORKSHOP**
The Asian Institute of Technology (AIT) and the AIT Alumni Association (AITAA) organized a marketing workshop on 15-16 July. Representatives from AITAA national chapters presented and discussed draft marketing strategies at the country level. The country-level strategies will be confirmed following consultations between the individual representatives and their respective Chapters.

Dr. K. Ramanathan (IEM'82), a faculty member in the School of Management, assisted in conducting the workshop. Former AIT President, Dr. Alastair M. North, and President of AITAA, Mr. Surendra Shrestha, presided over the workshop.
CENTRAL ADMINISTRATION FUNCTIONS

Significant improvements were introduced in central administration functions over the last decade.

Staff recruitment for central administration local hire positions was maintained at a headcount of 200 despite a 70% increase in student numbers.

Reductions were achieved in KwH energy consumption (down to 15% per staff and student and 10% per square meter of building space), expenditure for campus-wide services (down from 20% to 10% of Central Fund expenditures), and aged receivables, i.e., three months old or more (down from 50% to 20% of total receivables). Insurance claims for losses due to theft also dropped.

Another significant change was the introduction of an improved housing allocation system.

The anticipated introduction of a campus-wide management information system, computerization of vital operations, such as visa processing, human resources management/payroll, catering and financial operations, and other developments are expected to lead to further improvements in 1997.

In the financial area, priority will be given to implementing an effective account receivable collection function, redeveloping the budget control system, integrating the inventory system and related value transaction system into one program, and computerizing investment control.

■ ONE-STOP BENEFITS ASSISTANCE CENTER

New initiatives were taken to provide a one-stop benefits assistance center for faculty and staff through the operations of the Human Resources Office. The initiatives included the introduction of individualized orientation sessions for incoming faculty and staff and wider dissemination of information through published materials and the AIT Home Page on the Internet. A new IFS Blue Cross major medical scheme was implemented, and reimbursement procedures for educational expenses were streamlined.

■ ENERGY CONSERVATION

New measures are underway to support Institute-wide energy conservation. A chilled water storage tank will be installed to help reduce peak electricity demand on campus. The ongoing energy conservation campaign will be intensified through joint activities to be initiated by the Environmental Engineering and Energy Programs. Classrooms and bathroom/toilet facilities will be redesigned to increase their energy efficiency.

■ TELECOMMUNICATION FACILITIES

1996 saw the installation of additional overseas card phones in the library and dormitory areas, the commencement of services offered by the Klong Luang Post Office, registration of a new AIT post box number in Klong Luang, introduction of a credit system to handle mail at the AIT post office, replacing the franking machine, and arrival of a new PBX machine with provision for 2,000 extension lines. Another PBX machine is proposed to be acquired in 1997 to support telephone connections to student dormitories and villages.

Working and living on campus are a rewarding experience. Combining the relaxed atmosphere of a small town with the amenities of an urban community, the AIT campus provides a convivial environment for study and leisure.
## SUMMARY OF CONTRIBUTIONS (CASH AND KIND) FY 1995-96

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<td>0.15</td>
</tr>
<tr>
<td>Asian Society for Environmental Protection</td>
<td>0.03</td>
</tr>
<tr>
<td>Assumption University</td>
<td>0.02</td>
</tr>
<tr>
<td>Bydhalle Foundation</td>
<td>0.03</td>
</tr>
<tr>
<td>Catholic Relief Service - Cambodia</td>
<td>0.01</td>
</tr>
<tr>
<td>Care - Bangladesh</td>
<td>0.04</td>
</tr>
<tr>
<td>Chulaborn Research Institute</td>
<td>0.04</td>
</tr>
<tr>
<td>Concern Worldwide</td>
<td>0.07</td>
</tr>
<tr>
<td>Corporate Network for Disaster Response</td>
<td>0.08</td>
</tr>
<tr>
<td>Halowais, Bhutan</td>
<td>0.11</td>
</tr>
<tr>
<td>Harvard University</td>
<td>0.06</td>
</tr>
<tr>
<td>Int'l. Fed. Library Association</td>
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</tr>
<tr>
<td>Int'l. Fed. Red Cross and Red Crescent Society</td>
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<tr>
<td>Japan-Indonesia Soc. &amp; Tech Forum</td>
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</tr>
<tr>
<td>Nepal Red Cross Society</td>
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</tr>
<tr>
<td>Netherlands Devt. Organization-Bhutan</td>
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</tr>
<tr>
<td>Phil-German Energy Center</td>
<td>0.01</td>
</tr>
<tr>
<td>Ford Foundation</td>
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</tr>
<tr>
<td>German Foundation for International Development</td>
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</tr>
<tr>
<td>Konrad Adenauer Foundation</td>
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<tr>
<td>Nishihara Foundation, Japan</td>
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<tr>
<td>Pats Chamber of Commerce and Industry</td>
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<tr>
<td>Red Barna/South Asia</td>
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<tr>
<td>Sumitomo Foundation, Japan Inc.</td>
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<tr>
<td>Thai Tapecca Development Institute</td>
<td>0.27</td>
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<tr>
<td>Wat Yannasun, Chiangrai</td>
<td>0.26</td>
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<tr>
<td>World Council of Churches</td>
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</tr>
<tr>
<td>World Vision of Bangladesh</td>
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</tr>
<tr>
<td>World Vision International</td>
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<tr>
<td>Sir William Halcrow &amp; Partners</td>
<td>0.02</td>
</tr>
<tr>
<td>Dr. Somai Latvejakun</td>
<td>0.18</td>
</tr>
<tr>
<td>Mr. James P. Wamung</td>
<td>0.02</td>
</tr>
<tr>
<td>Prof. Hiroshi Shi-Itai</td>
<td>0.01</td>
</tr>
<tr>
<td>Dr. Nyom Desawongsok</td>
<td>0.01</td>
</tr>
<tr>
<td>Others</td>
<td>0.18</td>
</tr>
</tbody>
</table>

| TOTAL | 190.00 |

The following donors also provided support:
- South Pacific Commission
- Environmental Protection Dept., India
- Eastern Indonesia Univ. Development Project
- Hokkaido University
- Netherlands-Eindhoven Univ. of Technology
- Burapha University
- Chiangmai University
- Dept. of Fisheries, Thailand
- Ketsart University
- Prince of Songkla University
- Rajasthan Institute Thepsoin
- Trammart University
- Agro Enterprise Center, Nepal
- Asia Foundation
- Carst Sam Tech. Co., Ltd.
- Direkt P.T. (Pensero) Petubuhan
- Freysinet Plts., Inc.
- Hewlett Packard (Thailand) Co., Ltd.
- Hydro Rail Co., Ltd.
- Hyundai Engineering Construction Co., Ltd.
- IGS Co., Ltd.
- Int'l. Engineering PLC Co., Ltd.
- Italian-Thai Development PLC Co., Ltd.
- Ipnon Koo Co., Ltd.
- Pasavant Works & G. Germany
- Southwest Asia Tech. Co., Ltd.
- Thai Carbon Block P&L Co., Ltd.
- Thai Cogenesis Co., Ltd.
- Thai Prakrith Co., Ltd.
- The Value Sylens Co., Ltd.
- Thai Contech Co., Ltd.
- Victor Engineering Co., Ltd.
- Oxford Cambodia
- Wal Phanhomphan
FINANCIAL STATEMENTS AND AUDITORS’ REPORT

TO THE BOARD OF TRUSTEES OF ASIAN INSTITUTE OF TECHNOLOGY

We have examined the balance sheet of the Asian Institute of Technology as at June 30, 1996, the statement of revenues and expenditures of unrestricted current fund and restricted general fund and the related statement of changes in fund balance for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The comparative financial statements of the Asian Institute of Technology for the year ended June 30, 1995, was audited by another auditor whose report dated September 21, 1995 expressed an unqualified opinion.

In our opinion, the financial statements referred to above present fairly the financial position of the Asian Institute of Technology as at June 30, 1996, the statement of revenues and expenditures of unrestricted current fund and restricted general fund, and the related statement of changes in fund balance for the year then ended, in conformity with generally accepted accounting principles appropriate for a non-profit organization as set out in Note 1 to the financial statements, applied on a basis consistent with that of the preceding year.

Samboon Supasiripinyo
Certified Public Accountant
Peat Marwick Suthee Limited
Bangkok, November 27, 1996

NOTES TO FINANCIAL STATEMENTS JUNE 30, 1996 AND 1995

NOTE 1 BASIS OF PRESENTATION FINANCIAL STATEMENTS

FUND ACCOUNTING

In order 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”. 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. As for the unrestricted fund, the governing board retains full control to use in achieving any of its institutional purposes.

Investments income are recognised as income in the unrestricted current fund except for endowments, general reserve and capital funds which are accounted for in the fund to which it is restricted.

Other unrestricted revenues are recognised as income in the unrestricted current fund.

Restricted contributions, grants, appropriations and other restricted resources are accounted for in the appropriate restricted funds.
NOTE 2
SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

■ ACCTRUAL BASIS
The financial statements have been prepared on an accrual basis except for depreciation of fixed assets and contributions.
Depreciation of fixed assets is not recorded in accordance with the fund accounting concept.
Contributions are recognized on a cash basis due to the uncertainty in receiving contributions which are at the discretion of the donors.
The statement of revenues and expenditures of unrestricted current fund and restricted general fund is a statement of financial activities of current fund related to the current reporting period. It does not purport to present the results of operations for the period as would an earnings statement.
Contributions in kind are reflected in the financial statements on a fair value basis at the time of receipt.

■ INVENTORIES
Inventories are valued at the lower of cost (first-in, first-out basis) and net realizable value.

■ FIXED ASSETS
Fixed assets are stated at cost at the time of acquisition or fair value at the time of donation in the case of contributions in kind.

■ FOREIGN CURRENCIES
Exchange rates adopted:
Foreign currency transactions during the year - at the rates ruling on transaction dates.

Assets and liabilities in foreign currency outstanding on the balance sheet date - at the rates ruling on the balance sheet date.

Exchange gains and losses are included in determining income.

NOTE 3
INVESTMENTS

Investments as at June 30, consisted of:

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BAHT</td>
<td>BAHT</td>
</tr>
<tr>
<td>Time deposits with banks</td>
<td>198,072,961</td>
<td>177,578,841</td>
</tr>
<tr>
<td>Deposits with finance companies</td>
<td>195,180,130</td>
<td>283,290,877</td>
</tr>
<tr>
<td>Debenture</td>
<td>12,500,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Warrant</td>
<td>4,040,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Total</td>
<td>409,793,091</td>
<td>464,369,718</td>
</tr>
</tbody>
</table>

The investments of each fund as at June 30, are as follows:

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted current fund</td>
<td>8,236,898</td>
<td>21,343,805</td>
</tr>
<tr>
<td>Restricted fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>86,761,170</td>
<td>69,238,800</td>
</tr>
<tr>
<td>Endowment</td>
<td>66,826,137</td>
<td>65,175,013</td>
</tr>
<tr>
<td>General reserve</td>
<td>150,838,788</td>
<td>131,432,906</td>
</tr>
<tr>
<td>Total</td>
<td>304,426,095</td>
<td>265,846,809</td>
</tr>
</tbody>
</table>

Capital fund

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid assets</td>
<td>2,253,162</td>
</tr>
<tr>
<td>Repairs and Maintenance reserve</td>
<td>1,729,351</td>
</tr>
<tr>
<td>Total</td>
<td>3,984,513</td>
</tr>
<tr>
<td></td>
<td>76,997,741</td>
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</tbody>
</table>

Sponsored program fund

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency fund</td>
<td>33,410,049</td>
</tr>
<tr>
<td>Total</td>
<td>59,735,536</td>
</tr>
<tr>
<td></td>
<td>69,165,612</td>
</tr>
</tbody>
</table>

Time deposits with banks amounting to Baht 33.45 million (1995: Baht 4.4 million) of the restricted general reserve fund has been pledged with a bank as a collateral against outstanding letter of guarantee issued by the bank (see Note 10).
NOTE 4
ADVANCE DUTIES AND TAXES

These represent advance duties and tax payments to the Government of Thailand which will be subsequently refunded to the Institute in accordance with the letter of the Office of the Secretary-General to the Cabinet dated July 16, 1985. The refund of the advance is for non-Thai faculty and staff and is subject to the annual government budget of the Government of Thailand.

The details of advance duties and taxes as at June 30, are as follows:

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees personal income tax</td>
<td>24,673,733</td>
<td>9,533,884</td>
</tr>
<tr>
<td>Import and tax duty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Automobile</td>
<td>1,299,895</td>
<td>526,249</td>
</tr>
<tr>
<td>- Wine and spirits</td>
<td>230,094</td>
<td>174,082</td>
</tr>
<tr>
<td>Total</td>
<td>26,203,722</td>
<td>10,234,215</td>
</tr>
</tbody>
</table>

NOTE 5
FIXED ASSETS

Fixed assets as at June 30, are as follows:

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baht</td>
<td>Baht</td>
<td>Baht</td>
</tr>
<tr>
<td>Campus development</td>
<td>32,930,352</td>
<td>24,708,452</td>
</tr>
<tr>
<td>Buildings</td>
<td>744,245,706</td>
<td>715,466,242</td>
</tr>
<tr>
<td>Furniture and equipment</td>
<td>756,627,913</td>
<td>742,081,710</td>
</tr>
<tr>
<td>Library acquisitions</td>
<td>107,347,930</td>
<td>98,365,928</td>
</tr>
<tr>
<td>Construction in progress</td>
<td>41,730,627</td>
<td>9,027,027</td>
</tr>
<tr>
<td>Total</td>
<td>1,682,882,528</td>
<td>1,589,709,359</td>
</tr>
</tbody>
</table>

Depreciation for the year amounting to Baht 74,690,016 (1995: Baht 75,494,006) has not been recorded in accordance with the fund accounting concept.

NOTE 6
CONTRIBUTIONS IN KIND

This represents services donated to the Institute in the form of seconded faculty or staff of which the value is estimated on a basis in accordance with the approved Institute professional salary scale. The amounts are recognized as revenues and expenditures in the restricted general fund.

NOTE 7
FUND BALANCES

Fund balances as at June 30, are as follows:

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baht</td>
<td>Baht</td>
<td>Baht</td>
</tr>
<tr>
<td>Restricted fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>56,496,379</td>
<td>18,769,362</td>
</tr>
<tr>
<td>Endowment</td>
<td>67,101,783</td>
<td>65,230,319</td>
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<tr>
<td>General reserve</td>
<td>250,434,269</td>
<td>230,847,687</td>
</tr>
<tr>
<td></td>
<td>374,032,431</td>
<td>314,847,368</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed assets</td>
<td>1,682,882,528</td>
<td>1,589,709,359</td>
</tr>
<tr>
<td>Liquid assets</td>
<td>23,225,140</td>
<td>16,398,979</td>
</tr>
<tr>
<td>- Unallocated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Allocated</td>
<td>(15,014,433)</td>
<td>59,718,231</td>
</tr>
<tr>
<td>Repairs and maintenance reserve</td>
<td>1,729,350</td>
<td>1,203,302</td>
</tr>
<tr>
<td></td>
<td>1,692,822,585</td>
<td>1,667,029,871</td>
</tr>
</tbody>
</table>

NOTE 8
AIT INSURED SAVINGS FUND

The Institute and its staff have jointly set up an insured savings fund scheme. The fund is contributed by staff and the Institute at the rate of 5% and 10% of basic salary, respectively. This fund is managed by Aon Consulting (Thailand) Ltd. Withdrawal and refund of the contributions and the related earnings by staff have to comply with the rules of the Insured Savings Fund.

NOTE 9
CAPITAL COMMITMENTS

As at June 30, 1996, the Institute had capital commitments in respect of building construction amounting to approximately Baht 6.22 million (1995: Baht 23.10 million).

NOTE 10
BANK GUARANTEES

As at June 30, 1996, there were outstanding bank guarantees of approximately Baht 33.45 million (1995: Baht 4.4 million) issued by a bank on behalf of the Institute in respect of certain performance bonds as required in the normal course of activities of the Institute.
# ASIAN INSTITUTE OF TECHNOLOGY
## BALANCE SHEETS
### AS AT JUNE 30, 1996 AND 1995

<table>
<thead>
<tr>
<th></th>
<th>Unrestricted Current Fund</th>
<th>Restricted Fund</th>
<th>Capital Fund</th>
<th>Sponsored Program Fund</th>
<th>Agency Fund</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1996 (Bath)</td>
<td>1995 (Bath)</td>
<td>1996 (Bath)</td>
<td>1995 (Bath)</td>
<td>1996 (Bath)</td>
<td>1995 (Bath)</td>
</tr>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and banks</td>
<td>2,761,441</td>
<td>6,151,390</td>
<td>72,522,205</td>
<td>52,542,621</td>
<td>10,616,236</td>
<td>2,473,472</td>
</tr>
<tr>
<td>Advance duties and taxes (Note 4)</td>
<td>20,263,722</td>
<td>16,234,215</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable and accrued income</td>
<td>5,073,798</td>
<td>3,414,603</td>
<td>5,807,597</td>
<td>4,005,596</td>
<td>714,819</td>
<td>588,540</td>
</tr>
<tr>
<td>Deposits</td>
<td>910,622</td>
<td>884,843</td>
<td>53,862</td>
<td>63,362</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>671,212</td>
<td>707,167</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due from other funds</td>
<td>48,000,000</td>
<td>98,300,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed assets (Note 5)</td>
<td>1,682,682,528</td>
<td>1,585,709,359</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>43,266,421</td>
<td>42,029,362</td>
<td>481,551,031</td>
<td>421,757,756</td>
<td>1,098,109,000</td>
<td>1,660,566,512</td>
</tr>
</tbody>
</table>

## LIABILITIES AND FUND BALANCES

### LIABILITIES

<table>
<thead>
<tr>
<th></th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>3,559,861</td>
<td>2,558,129</td>
<td>7,953,920</td>
<td>6,943,958</td>
<td>3,373,503</td>
<td>2,538,641</td>
<td>631,946</td>
<td>304,357</td>
<td>1,289,531</td>
<td>1,184,573</td>
<td>4,996,750</td>
<td>13,527,554</td>
</tr>
<tr>
<td>Deposits</td>
<td>1,054,845</td>
<td>556,522</td>
<td>1,554,696</td>
<td>1,464,630</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due to other funds</td>
<td></td>
<td>98,000,000</td>
<td>98,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>4,614,706</td>
<td>3,514,647</td>
<td>16,513,510</td>
<td>10,402,588</td>
<td>5,375,505</td>
<td>2,538,641</td>
<td>631,946</td>
<td>304,357</td>
<td>1,289,531</td>
<td>1,184,573</td>
<td>4,996,750</td>
<td>13,527,554</td>
</tr>
</tbody>
</table>

### FUND BALANCES (Note 7)

<table>
<thead>
<tr>
<th></th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
<th>1996 (Bath)</th>
<th>1995 (Bath)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Liabilities and Fund Balances</td>
<td>43,266,421</td>
<td>42,029,362</td>
<td>481,551,031</td>
<td>421,757,756</td>
<td>1,098,109,000</td>
<td>1,660,566,512</td>
<td>74,337,773</td>
<td>78,717,016</td>
<td>116,001,972</td>
<td>124,264,407</td>
<td>2,396,296,287</td>
<td>2,355,853,965</td>
</tr>
</tbody>
</table>

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

President
<table>
<thead>
<tr>
<th>REVENUES:</th>
<th>1996</th>
<th>1995</th>
<th>Restricted Fund - General</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic unit</td>
<td>223,537,220</td>
<td>194,404,288</td>
<td></td>
<td>417,941,508</td>
</tr>
<tr>
<td>Computer center</td>
<td>6,836,590</td>
<td>6,722,868</td>
<td></td>
<td>13,559,458</td>
</tr>
<tr>
<td></td>
<td>230,373,810</td>
<td>201,127,156</td>
<td></td>
<td>431,499,966</td>
</tr>
<tr>
<td>Gifts and contributions:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>19,377,212</td>
<td>15,209,900</td>
<td></td>
<td>34,587,112</td>
</tr>
<tr>
<td>In-kind</td>
<td>147,911,885</td>
<td>140,887,871</td>
<td></td>
<td>288,799,756</td>
</tr>
<tr>
<td></td>
<td>15,267,707,219</td>
<td>222,725,744</td>
<td></td>
<td>315,992,963</td>
</tr>
<tr>
<td>Grants and contracts</td>
<td>22,497,700</td>
<td>24,159,740</td>
<td></td>
<td>38,657,440</td>
</tr>
<tr>
<td>Sales and services:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational activities</td>
<td>37,736</td>
<td>22,816</td>
<td></td>
<td>60,552</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from investments</td>
<td>21,161,314</td>
<td>19,461,276</td>
<td></td>
<td>40,622,590</td>
</tr>
<tr>
<td>Auxiliary services</td>
<td>23,831,990</td>
<td>28,735,100</td>
<td></td>
<td>52,567,090</td>
</tr>
<tr>
<td></td>
<td></td>
<td>121,522,508</td>
<td>104,747,475</td>
<td>226,269,983</td>
</tr>
<tr>
<td>AIT sponsored programs</td>
<td>6,511,972</td>
<td>4,745,974</td>
<td></td>
<td>11,259,946</td>
</tr>
<tr>
<td>Physical Plant support</td>
<td>28,666,475</td>
<td>27,999,152</td>
<td></td>
<td>56,665,627</td>
</tr>
<tr>
<td>Exchange stabilization</td>
<td>4,036,304</td>
<td>3,686,775</td>
<td></td>
<td>7,722,080</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>16,287,781</td>
<td>16,247,761</td>
<td></td>
<td>32,535,542</td>
</tr>
<tr>
<td>Total Revenues</td>
<td>317,274,681</td>
<td>288,657,930</td>
<td></td>
<td>605,932,611</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXPENDITURES:</th>
<th>1996</th>
<th>1995</th>
<th>Restricted Fund - General</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and associated costs:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>221,344,354</td>
<td>200,987,747</td>
<td></td>
<td>422,332,101</td>
</tr>
<tr>
<td>In-kind (Note 5)</td>
<td>7,019,973</td>
<td>6,675,179</td>
<td></td>
<td>13,695,152</td>
</tr>
<tr>
<td></td>
<td>228,364,327</td>
<td>207,662,926</td>
<td></td>
<td>435,027,253</td>
</tr>
<tr>
<td>Academic units</td>
<td>29,735,960</td>
<td>25,791,557</td>
<td></td>
<td>55,527,517</td>
</tr>
<tr>
<td>operating costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student related costs</td>
<td>1,476,104</td>
<td>1,461,745</td>
<td></td>
<td>2,937,849</td>
</tr>
<tr>
<td>Administrative support costs</td>
<td>4,738,818</td>
<td>4,218,534</td>
<td></td>
<td>8,957,352</td>
</tr>
<tr>
<td>Capital purchases</td>
<td>13,372,787</td>
<td>14,977,763</td>
<td></td>
<td>28,350,550</td>
</tr>
<tr>
<td>Campus wide services</td>
<td>45,621,542</td>
<td>30,126,771</td>
<td></td>
<td>75,748,313</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>316,222,585</td>
<td>286,251,226</td>
<td></td>
<td>602,473,811</td>
</tr>
</tbody>
</table>

| Excess of revenues over expenditures (Expenditures over revenues) | 1,052,066 | 2,406,604 | | 3,458,670 |
### ASIAN INSTITUTE OF TECHNOLOGY

**STATEMENT OF CHANGES IN FUND BALANCES**

**FOR THE YEAR ENDED JUNE 30, 1996 (WITH COMPARATIVE TOTALS FOR 1995)**

<table>
<thead>
<tr>
<th></th>
<th>RESTRICTED FUND</th>
<th>CAPITAL FUND</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrestricted</td>
<td></td>
<td>Liquid Assets</td>
<td>Repeal &amp;</td>
</tr>
<tr>
<td></td>
<td>Current Fund</td>
<td>General</td>
<td>Capital Fund</td>
<td>Maintenance</td>
</tr>
<tr>
<td></td>
<td>Baht</td>
<td>Endowment</td>
<td>Baht</td>
<td>Reserve</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baht</td>
<td>Baht</td>
<td>Baht</td>
</tr>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balances July 1, 1995 (Note 7)</td>
<td>38,514,715</td>
<td>18,769,362</td>
<td>652,303,319</td>
<td>230,847,687</td>
</tr>
<tr>
<td>Adjustments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposal of assets</td>
<td>(67,616,677)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess of revenues over expenditures/expenses</td>
<td>1,052,096</td>
<td>97,727,317</td>
<td>1,921,464</td>
<td>19,060,534</td>
</tr>
<tr>
<td>Investment income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government grants and appropriations</td>
<td>350,000</td>
<td></td>
<td>17,432,117</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous income and contributions</td>
<td>7,822,756</td>
<td>43,998,732</td>
<td>31,334,185</td>
<td></td>
</tr>
<tr>
<td>Contributions in-kind</td>
<td>7,822,756</td>
<td>43,998,732</td>
<td>31,334,185</td>
<td></td>
</tr>
<tr>
<td>Due from other fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>39,266,611</td>
<td>56,496,379</td>
<td>87,191,783</td>
<td>249,908,221</td>
</tr>
<tr>
<td><strong>Deductions</strong></td>
<td>526,048</td>
<td></td>
<td>526,048</td>
<td></td>
</tr>
<tr>
<td>Interfund transfer from (to)</td>
<td></td>
<td>(326,048)</td>
<td>(326,048)</td>
<td></td>
</tr>
<tr>
<td>- Restricted Current Fund - General Reserve</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Liquid Assets Capital Fund - Allocated - Repairs &amp; Maintenance Reserve</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Other cost - General - Due to other fund</td>
<td>(956,500)</td>
<td>(89,395,853)</td>
<td>(106,392,498)</td>
<td>(44,941,381)</td>
</tr>
<tr>
<td><strong>Balances as of</strong></td>
<td>(1,002,096)</td>
<td>(56,496,379)</td>
<td>(87,191,783)</td>
<td>249,908,221</td>
</tr>
<tr>
<td>June 30, 1996 (Note 7)</td>
<td>38,514,715</td>
<td>56,496,379</td>
<td>67,101,783</td>
<td>250,434,269</td>
</tr>
</tbody>
</table>

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

*ROE - Rate of Exchange*
COMMUNITY
CAMPUS EVENTS

Celebrating His Majesty King Bhumibol's Golden Jubilee

The AIT Community joined the Thai nation in honoring the Golden Jubilee of His Majesty King Bhumibol Adulyadej. A special Golden Jubilee Book, conveying greetings from the AIT community, was presented to the Bureau of the Royal Household.

In observance of His Majesty's Golden Jubilee, the AIT Foundation (USA) created a special fund to benefit AIT Doctoral graduates whose academic pursuits are of special interest to His Majesty.

The AIT Foundation (USA) King Bhumibol Prize Fund is supported by an initial contribution of US$20,000 from the Foundation's Directors. The amount was transferred to AIT in October 1996. The Fund's interest earnings will be used to support deserving award recipients.

H. M. King Bhumibol, the longest-reigning monarch in Thai history, guided Thailand's development as a newly established democracy, earning the respect, love and esteem of His loyal subjects.

GUEST LECTURES

Fourth Milton Bender Lecture

Prof. Imberger

The annual Milton Bender Lecture honors the first AIT President, Dr. Milton E. Bender, and is given by a distinguished university professor who is selected on a global basis. Prof. Jörg Imberger, an eminent environmentalist from the University of Perth, presented the Fourth Milton Bender Lecture, "Environmental Technology and Science", on 21 March. The guest lecturer in 1997 is Prof. Douglas Wright, a renowned expert in systems designs engineering and former President of the University of Waterloo, Canada (1981-1993).

21st Century Megatrends

Mr. Shih

Global competition and cooperation and borderless development are distinct megatrends for the 21st century, said Mr. Stan Shih, Chairman & CEO of the Acer Group, when he lectured at AIT on 13 May. Asia will grow even bigger as we approach the 21st century, he predicted, attributing the region's increasing competitiveness to four main factors: its emergence as a major international manufacturing base coupled with its continued economic growth and expansion, a growing demand for goods in Asian markets, and a strong purchasing power worldwide.
WELCOMING THE DOWNERS

In northern Thailand, rod num dum hua or the pouring of lustrous water on the hands of honored guests, is a well-loved tradition of welcome. At a ceremony on 11 October, AITians welcomed Prof. and Mrs. Roger G. H. Downer with a rod num dum hua rite. The program also featured classical performance by dancers from the Fine Arts Department of Thailand. Prof. Pisidhi Karasudhi, AIT Vice President for Development and Chairperson of the organizing committee for the Thai welcome ceremony, led the AIT community in extending warm wishes to the Downers.

Prof. Downer and his wife, Jean, together with their daughter, Tara, were introduced to the AIT family and distinguished guests at a reception held on 31 July at the Regent Hotel in Bangkok. Sharing the honor with the Downers was outgoing AIT President, Dr. Alastair North, who was farewelled at the same event.

Dr. Thanees Khoman, AIT Chairperson Emeritus, led the AIT Board in hosting the celebration, which was attended by senior Thai Government officials, representatives from international organizations, members of the Diplomatic Corps, members of the AIT community, and other distinguished guests.

In a group photo with Dr. Thanees Khoman are the new AIT President, Prof. Roger G. H. Downer, and his predecessor, Dr. Alastair North, members of the Diplomatic Corps and the AIT Board of Trustees, together with Mrs. Jean Downer and Mrs. Sutthiborn Karasudhi.

WITH THANKS AND ALL GOOD WISHES

At a campus farewell held on 26 July, the AIT community honored the outgoing President by unveiling the Alastair M. North Lecture Theatre. The dedication provided a fitting recognition of Dr. North’s achievements during his 13-year term as President.

Dr. Ricardo P. Pama, former Vice President for Academic Affairs, and his wife, Minda, said goodbye to colleagues and friends from their 26-year association with AIT and the SEATO Graduate School of Engineering, at a party held at the Sukhothai Hotel on 21 June and at a staff luncheon on 27 June.

The Pamas are now based in Manila. Dr. Pama has joined Schena Konult International as President, while Minda is a faculty member of Brent International School.
COMMUNITY

STUDENT AND ALUMNI RELATIONS

- ENRICHMENT ACTIVITIES

AIT instills in the students a desire to learn what lies beyond the confines of the classroom. Opportunities to interact with people from different nations and cultures enable all members of the AIT community to enjoy an enriching cultural experience and to build a network of international friends and contacts.

The AIT Student Union (SU) organizes a broad range of extra-curricular programs and support services to facilitate the students' adjustment to campus life and help them develop their team spirit and leadership potential.

- STUDENT UNION ELECTION

The Student Union elected Mr. Premseak Wanuchsoontorn as President, succeeding Mr. Muzhar Ul Islam. Mr. Premseak and his team will serve in the January 1997 and May 1997 school terms.

Serving on the board with Mr. Premseak are Nyoman Pujawan (General Secretary), Chompoonut Chuuyaraksa (Treasurer), and officers in charge of specific sectors and activities, as follows: Sunimal Weerasooriya (External Affairs), Suresh B. Ranjit (Culture and Debate), Sumet Sompradeekul (Snack Bar), Moe Kyaw Aung (Film and Video), Raghunath B. Shivappa (Academic Affairs), Kanchana Nakhapakorn (Trip and Transport), Golam Menawar Kamal (Photography), Huang Neng Geng (Sports), Mohammad Haneef Khan (Literary Activities and Publications), Zahed Iqbal (MCEC), Shabbir H. Chevala (Housing), and Samir Kumar Khanal (Environment).

Mr. Premseak

At annual cultural shows held on campus, students introduce the indigenous and contemporary art, music and dance of their respective countries.

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AITAA MARKS SILVER JUBILEE

The AIT Alumni Association (AITAA) celebrated its silver jubilee at the 25th Governing Board Meeting, which was hosted by the AITAA-Pakistan Chapter on 23-26 April in Islamabad. The annual meeting was co-hosted by the National University of Sciences and Technology of Pakistan and was attended by delegations from ten national chapters, as follows: Bangladesh, Chinese Taipei, Japan, the Republic of Korea, Malaysia, Myanmar, Nepal, Pakistan, Philippines, and Thailand. It was the first-ever AITAA meeting attended by alumni from Bangladesh and Myanmar.

Mr. Shaukat Khan (AFE '79), President of AITAA-Pakistan Chapter, welcomed the delegates to the GBM, a highlight of which was the unveiling of the AITAA Strategic Plan.

The 25th GBM also provided an appropriate occasion to say thank you and goodbye to former AIT President, Dr. Alastair North, and Vice President for Academic Affairs, Dr. Ricardo P. Pama.

Major decisions reached at the GBM included approval of the AITAA Strategic Plan and its publication by July 1996, endorsement of the AIT/AITAA MoU on marketing. The Board set a target of SUS 1.5 million to be solicited for AIT during the period 1996-97.

The Board approved use of the Internet for AITAA communications. Contact details for individual alumni will be made available through the Internet.

Recommendations for the AIT Alumni Tracer Study were presented and appreciation of the Institute’s support for this regular activity was expressed. The study is conducted every three years.

The Board requested the AITAA President to take up with the Board Chairperson and Institute President a proposed advisory role for AITAA Chapters on the selection and appointment of AIT Trustees.

The venue for future AITAA GBMs will be Malaysia in 1997, the Philippines in 1998, AIT in 1999, and Australia in 2000.

CAMPUS DEVELOPMENT

New Cafeteria

The new cafeteria, which is expected to be ready by April 1997, is being constructed at a cost of 13,144,731 Baht, obtained from a Royal Thai Government grant and the AIT Housing Reserve.

Car Parks

Additional parking for 40 cars (between ST-9 and P Dorm) and for 20 cars (in the ET area), expected to be ready for use by February 1997, is being constructed at a cost of 2,350,000 Baht, obtained from the AIT Housing Reserve and the Central Fund.

Bund Improvement

Earthwork for erosion control is being carried out using a grant from the Royal Thai Government. AIT will fund the development of the area fronting Phaholyothin Highway and the construction of a road on the west side of the campus.

Proposed Academic Buildings

A construction budget of 34 million Baht has been allocated for the proposed School of Management Building, which will be sited on the north side of the campus.

Construction of the Pulp and Paper Technology Building will be supported by Advance Agro Pte. The building will rise east of the Biotech Building. A groundbreaking ceremony is scheduled to take place in March 1997.

DIALOGUING WITH AITAA CHAPTERS

Dr. Primitivo C. Cal (CRD '70), Undersecretary of the Department of Transportation and Communications of the Philippines and President of AITAA-PHILIPPINES, led Filipino alumni in a series of meetings with AIT President, Prof. Roger G. H. Downer. Their discussions covered topics of mutual interest including the Philippine Government’s plan to establish a science and technology institute, marketing AIT’s continuing education courses in pollution control, and creating a greater AIT presence in the Philippines.

Prof. Downer met some 30 Vietnamese alumni during a promotional trip to Hanoi in October.
Appendix

ON-GOING SPONSORED AND CONTRACT RESEARCH

School of Civil Engineering

Full Scale Test Embankments for PVD Tests at Second Bangkok Int’l Airport
Investigators: A.S. Balasubramaniam, D.T. Bergado, N. Phien-wej, S.A. Ashford
Sponsor: AAT, Thailand.

Lime/Cement Columns of Soft Bangkok Clay

Monitoring and Evaluation of Vacuum Consolidation with PVD for Second Bangkok Int’l Airport
Investigator: D.T. Bergado
Sponsor: Geotechnics (Thailand) Co. Ltd.

Solid Waste Landfill Design in Thailand
Investigator: S.A. Ashford
Sponsor: AIT Research Initiation Grant

Amplification of Earthquake Ground Motions by Soft Bangkok Clay
Investigator: S.A. Ashford
Sponsor: Chulalongkorn Univ.

Geotechnical Investigation on Foundation Materials of Nam Theun 2 Hydroelectric Project, Lao PDR
Investigator: N. Phien-wej, Sponsor: Nam Theun 2 Project Development Group

Buddha Image Sculpturing on Khao Chee Chan Cliff Face, Wat Yannasangwararam, Satthaburi, Chonburi
Investigator: P. Nualaya, N. Phien-wej
Sponsor: Wat Yannasangwararam

Trial Mix Study for Deep Mixing Method Bangma- Bang Pakong Highway Project
Investigators: N. Phien-wej, D.T. Bergado
Sponsor: Ubon Sahathan Transport Co., Ltd.

Investigation and Design to Improve Flood Protection System of Thammasat University, Rangsit
Investigators: T. Tingsanchali, N. Phien-wej
Sponsor: Ministry of Finance, Thailand.

Geotechnical Services for Engineering Construction Supervisions of Underground Powerhouse Caverns and Associated Tunnels and Shafts, Lam Ta Khong Pumped Storage Project, Nakorn Ratthasima, Thailand
Investigator: N. Phien-wej
Sponsor: EPDC/EGAT

Investigation of Mechanical Properties of Typical Soils in Northeast Thailand for Construction of Irrigation Facilities
Investigator: Y. Kohyo, Sponsor: Japan Int’l Research Center for Agricultural Sciences

Integrated Decision Support System for Groundwater Monitoring and Management
Investigators: A.D. Gupta, R. Loof, P.R.onta
Sponsor: CTZ GmbH

Chao Phraya Flood Management Review
Investigators: S. Yongvisessomjai, A. MacDonald (Senior Hydrologist, DHI), J. E. Cowley (Senior Flood Control Engineer, ACRES); Sponsor: World Bank

Flood Protection Master Plan for Thailand
Investigators: S. Yongvisessomjai, P. Nualaya, A. D. Gupta, R. Loof, N. Phien-wej, S. Weesakul, M. Nachabe
Sponsor: Public Works Dept., Thailand

Wave Measurement for Fishery Complex Study on Andaman Sea Coast; Investigator: S. Weesakul; Sponsor: Tetra Co. Ltd.

Detail Design of Rubble Mound Breakwater to Conserve Fossilized Shell Beds, Ban Laem Pho, Krabi
Investigators: S. Yongvisessomjai, P. Nualaya, N. Phien-wej, S. Weesakul
Sponsor: Dept. of Mineral Resources, Thailand

Royal Initiative Projects on Water Resources Development for MWA
Team Leader: T. Tingsanchali
Sponsor: Metropolitan Waterworks Authority, Bangkok

Engineering, Environmental and Economic Study of Waste Materials in Highway Construction for Southeastern Asia
Investigator: J. S. Chen
Sponsor: Sustainable Development Project
School of Environment, Resources and Development

Rural Development through Aquaculture in Indochina; Investigators: H. Demaine, R. Gregory, N. Imnes-Taylor, P. Edwards, D. Little, L. T. Lau (Research Inst. for Aquaculture No. 1, Hanoi), L. T. Hang, N. V. Tu (Univ. of Agriculture and Forestry, Ho Chi Minh City); Sponsor: SIDA

Support to AIT Aquaculture Outreach Program in Indochina and Northeast Thailand; Investigators: H. Demaine, M. Korn, H.B. Nielsen, P. Edwards, Sponsor: Danida

Support for Regional Aquaculture Development; Investigators: P. Edwards, H. Demaine, J. Hambrey, D. Little, ODA

Pond Dynamics Collaborative Research Support Program (Phase II); Investigators: C.K. Lin, P. Edwards, Sponsor: USAID

Assessment of Bio-chemical Monitoring System for Coastal Contamination; Investigators: C.K. Lin, T. Reutenburg; Sponsor: SIDA

Comparative Study of Transition to Alternative Agriculture Practices in Thailand and Japan; Investigators: S. Sethonsamrung; Sponsor: Sumitomo Foundation

Comparison of Nutritional Energetics of Two Nile Tilapia Strains: an Experimental GIFT Strain and the Widely Farmed Thai Chitrada Strain; Investigators: A. Yukupiyage, P. Edwards; Sponsor: ICARM/ODA

WaterWeed Harvester; Investigators: D. Gee-Clough, Sponsor: AIT

Soil-tine Interactions in Loam Soil; Investigators: V. M. Salekha, J.T. Makanaga; Sponsor: JICA

Design and Development of a Tractor-Mounted Pineapple Dressing Machine; Investigators: V. M. Salekha, C. Kaewprasitsangkul; Sponsor: Siam Agro Industry Pineapple Public Co. Ltd., Thailand and other companies

Irradiation Heat Synergism for Semi-dried Meat; Investigator: A. Noomhorm; Sponsor: IAEA, Vienna

Post Harvest Handling System for Selected Fruits and Vegetables in Thailand; Investigator: A. Noomhorm; Sponsor: Ministry of Industry, Thailand

Experimentation of a Fluidized Bed Coffee Roaster; Investigator: J.C. Vincent; Sponsor: CIRAD

Development of a New Starchmeter; Investigators: S. Win, W. F. Stevens; Sponsor: Thai Tapicoa Development Inst.

Industrial Systems for the Isolation of Chitin and Chitosan from Shrimp Waste; Investigators: S. Chandrakarang, W. F. Stevens

Application of Chitin and Chitosan Membranes for Wound Healing; Investigators: R. Molley, S. Chandrakarang, W. F. Stevens; Sponsor: MTEC, Thailand


Asian Regional Post-Doctoral and Research Fellowship Program; Investigators: S.C. Bhattacharya; Sponsors: SAREC, SIDA

Renewable Energy Technologies in Asia: A Regional Research and Dissemination Program; Investigators: S.C. Bhattacharya, S. Kumar; Sponsors: SAREC, SIDA

Assessment of Energy Economics Situation in Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam; Investigator: G.Y. Dang; Sponsor: EC/DP17 (THERMIE)

Marketing Strategies and Actions to Open the Asian Market for European Technologies in the RES Field; Investigator: G.Y. Dang; Sponsor: EC/DP17 (THERMIE)

Advanced Education at AIT in the Context of Academic Cooperation between Europe and Asia; Investigator: G.Y. Dang; Sponsor: EC/DP17 (SYNERGY)
Appendix

Strategies to Strengthen Regional Institutional Capabilities in Energy-Environment Policy Definition, Formulation and Networking; Investigator: G.V. Dang; Sponsor: EC/DG17 (SYNERGY)

Energy Policy Dialogue between Europe and Asia; Investigator: G.V. Dang Sponsor: EC/DG17 (SYNERGY)

Solar Air Dryer for Value Added Food Product; Investigator: S. Kumar Sponsor: AIT Research Initiatives Grant

Status of Fruit and Vegetable Drying Using Solar Energy in Thailand Investigator: S. Kumar, B. Mohanty Sponsor: ADEME

Solar Thermal Energy for Sustainable Development in Rural Asia Investigator: S. Kumar Sponsor: Royal Netherlands Govt./AIT

Interfuel Substitution Analysis and Modelling in Asian Developing Countries Investigators: T. Lefèvre, X. Chen, B. Baerle, N.D. Dam; Sponsor: French Govt.-MAEF/AIT

Energy Saving Analysis and Modelling in Asian Developing Countries Investigators: T. Lefèvre, X. Chen, B. Baerle, N.D. Dam; Sponsor: French Govt.-MAEF/AIT

RAS/92/071: Program for Asian Cooperation on Energy and the Environment: (sub-activities: EEPI, 2, 3, 5 and 6 of the Energy Environmental Planning Project); Investigators: T. Lefèvre, R. Pucudan, S.K. Acharya; Sponsors: UNDP/French Govt.-MAEF


Wood Energy Today Investigators: T. Lefèvre, G.R. Timilsina, J. Todoc; Sponsor: FAO (RWEDP, FOPW, FOND)

Macro-Economic and Financial Database Investigators: T. Lefèvre, L. Schwab; Sponsors: French Govt. (MAEF/CFVG)


Electricity Sector in the Philippines Investigators: T. Lefèvre, R. Pucudan, J. Todoc; Sponsors: OECD/IEA

Assessment of Reduced Cycling Costs of Thermal Units due to DSM in Integrated Resource Planning Investigators: A. S. Malik; Sponsor: AIT

Development of Environmentally Sound and Energy Efficient Industrial Technologies in Asia; Investigators: B. Mohanty, C. Visvanathan; Sponsor: SIDA

Computer Package for Cogeneration Using Steam Turbines; Investigators: B. Mohanty, A. N. Oc, Sponsor: ADEME


Development of State Estimation for Power Distribution Automation Using Artificial Neural Networks Investigators: S.C. Srivastava, Sponsor: AIT

Methodology for Retrofitting Library Building for Energy Conservation, Phase II Investigators: S. Chirattaranon; Sponsor: Energy Conservation Promotion Fund

Daylighting, Efficient Electric Lighting Integration and Related Envelope Improvement - Phase I: Station Investigation Investigators: S. Chirattaranon, J. Kaewkiew; Sponsors: ECP Fund, NEPO

Methodology for Energy Conservation for Existing Buildings; Investigator: S. Chirattaranon; Sponsor: DEDP (ongoing activity of Energy Code Project)

Testing of Solar-Powered Vaccine Refrigerator by TATA BP Solar India Investigator: G. Mirk; Sponsors: EPI, WHO (New Delhi)

Testing of Vaccine Refrigerator by Norwest Refrigerator, Australia Investigator: R. Islam; Sponsors: EPI, WHO

Improvement of Water Quality Management Techniques from the Viewpoint of Algae Bloom Control; Investigator: Y. Ishibashi; Sponsor: Environment Agency, Japan

Foresight and Control of Harmful Algae Pollution; Investigator: Y. Ishibashi, Sponsor: Science and Technology Agency, Japan
Optimum Water Supply System in Thailand
Investigator: T. Kanet, Sponsor: JICA

Waste Minimization and Energy Saving for Selected Industries; Investigator: S. Multamara, C. Vivavanathan; Sponsor: PTT

Environmental Awareness Raising on Handling and Treatment of Heavy Metal and Toxic Wastes (Phases I, II)
Investigator: C. Polprasert; Sponsor: SIDA

Septage Treatment in Constructed Wetlands in Attached-Growth Waste Stabilization Ponds
Investigator: C. Polprasert; Sponsor: EAWAG/SANDEC/Swiss Federal Inst. for Environmental Science and Technology

Developing Environmental Sustainability through Solid Waste Management
Investigator: C. Vivavanathan; Sponsor: Royal Netherlands Govt.

Development of Energy Efficient and Environmentally Sound Industrial Technologies in Asia
Investigator: C. Vivavanathan, B. Mohanty; Sponsor: SAREC, SIDA

Financing the Advance Construction of Network Infrastructure in Urbanizing Areas: Focus on Beneficiary Finance Sources
Investigator: R.W. Archer; Sponsor: Metropolitan Research Trust, et al


Land, Housing and Urban Development in Thailand; Investigator: R.W. Archer; Sponsor: Metropolitan Research Trust, et al

Sustainable Rural Industrial Development in China
Investigator: B.W.E. Wickramanayake; Sponsor: Royal Netherlands Govt.

Housing Factory Workers in the Northern Corridor of the Bangkok Metropolitan Area; Investigator: Y. Koe Sheng; Sponsor: National Housing Authority, Thailand

Sustainable Solid Waste Management in Kathmandu, Nepal; Investigator: G.B. Thapa; Sponsor: Royal Netherlands Govt.

Utilization of GIS for Planning in Developing Countries
Investigator: H. Morishita; Sponsor: JICA

High Strength Interlocking Concrete Blocks; Investigators: B. Lefebvre, Research Associates; Sponsor: Habitech

Micro Concrete Roofing Tiles
Investigator: B. Lefebvre, Research Associates; Sponsor: Habitech

Feasibility Study on Agricultural Use and Land Application of Sewage Sludge and Night soil Sludge for BMA
Investigators: H. Eckhardt, C. Polprasert, P. Parkpian, R. Tinsley; Sponsor: BMA

Monitoring Cassava Cultivation and Production for Yield Forecasting: a Scientific and Technological Approach; Investigators: A. Eunomoh, A. Noomborn, B. Aiminoung (Met. Dept.), P. Kesawipitak (DOA); Sponsor: Thai Tapioca Development Inst.

Biodiversity and Gender Relations: A Case Study on the Impact of Intensive Shrimp Farming on Natural Resource Management in Chantaburi
Investigator: D. Tantwiwatsamand; Sponsor: AIT Research Initiation Grant

Gender and Telework; Investigators: G. Kelkar, K. Kancharana; Sponsor: NORAD

Cross-cultural Research on Women/Gender and Development in Asia; Investigators: G. Kelkar, H. Hara; Sponsor: Japanese Govt.

Matrilineal Societies: Gender Relations and Economic Development; Investigator: G. Kelkar; Sponsor: The Netherlands Govt.

School of Management

International Risk Management Insurance in Asia
Investigator: F. Gugeon; Sponsor: French Govt.

Innovation Management in Medium-sized Firms; Investigator: B. Igel; Sponsor: AIT Research Initiation Grant

Entrepreneurship in High-technology Firms in Thailand
Investigator: B. Igel; Sponsor: (in cooperation with Inst. of Strategy and Int'l Business, Helsinki Univ. of Technology)

Comparative Financial Markets in Asia
Investigator: F.W. Swierczek, J.P. Gupta; Sponsor: EC

AIT School of Management-ESC Partnership
Investigator: J.P. Gupta, F. Swierczek, P. Gugeon (ESC); Sponsor: EC

Financing Technological Investment
Investigator: J.P. Gupta, Sponsor: French Govt.

International Joint Venture: A Case Analysis
Investigator: J.P. Gupta; Sponsor: EC

SAV Marketing Research Textbook
Investigator: M. Speece; Sponsor: SAV

Joint Venture Management
Investigators: B. Büchel, G. Frobst, C. Rüling, C. Prange; Sponsor: Swiss National Foundation for Research

Competitive Strategies of Asian Airline Companies
Investigator: L.M. Johri; Sponsor: AIT/SOM

Management of Science and Technology: A Benchmarking Study of Korea with Reference to France and Japan
Investigator: L.M. Johri, S. Surp; Sponsor: Korean Govt.

Joint Venture Projects in Vietnam: Success and Failure Factors
Investigator: D.B. Khang; Sponsor: AIT Research Initiation Grant
## 1996 List of Faculty Members

### Full Time Faculty

*Note: The following faculty members are listed in alphabetical order. The italicized entries within the parentheses are their respective Schools or Academic Centers. Please refer to the list of abbreviations on page 47.*

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
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<tr>
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</tr>
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</tr>
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</tr>
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Robert Mather  
B.Sc. (Hons.), Univ. of London;  
Ph.D., Univ. of Cambridge.

Md. A. Quader Miah  
B.Sc.Eng., Dhaka; M.Eng., D.Eng., AIT.
1996 Annual Report of the Asian Institute of Technology

Yangianti Pimansathean
B.Arch. (Hons.), Chulalongkorn; M.Sc., AIT; D.Eng., Tokyo.

Soparth Pengquan
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Lokendra P. Poudyal
B.Com., M.A. (Econ.), B.L., Tribhuvan Univ., Nepal; M.Sc., D.Tech. Sc., AIT.

Robert L.G. Schumann
B.Sc., Polytechnic of Central London.

James P. Scyper
B.Sc., Wisconsin; M.S., Ph.D., Hawaii.

Sejal Worah
B.Sc., St. Xavier’s College, India; M.S., State Univ. of New York, USA; Ph.D., Univ. of Poona, India.

VISITING FACULTY

SCHOOL OF ADVANCED TECHNOLOGIES

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Lic., M.Sc., Ph.D., Brussels.

Alain Delichambre
M.Eng., Ph.D., Brussels.

Francis J. Devadasan
B.Sc., B.Lib.Sc., Madras; Associateship in Documentation (ORTC) ISI, Calcutta; Ph.D., Kasthak. Dharward.

Gerrit Janssen
M.Sc., Gent; Ph.D., Brussels.

Helmut Haber
Dipl., Technical Univ. Brunswick; Dipl.-Ing. Univ., Dr.-Ing., Technical Univ. Munich.

Hugo Pastijn
B.Eng., M.Eng., Royal Military Academy, Brussels; M.Eng., Catholic Univ. of Louvain.

Hendrik R.G. van Landeghem
M.Sc., Ph.D., Ghent.

Dirk L. van Oudheusden
M.Sc., Ph.D., Brussels.

Qi Yulu
B.Sc., M.Sc., Ph.D. (Equiv.), Univ. of Science and Technology of China.

SCHOOL OF CIVIL ENGINEERING

Charles L. Abarnathy
B.Sc., Edinburgh Univ.

Kazuo Baba
B.Eng., Tokyo; M.S., Penn. State; Ph.D., Tokyo.

Venkata Chary
B.Sc., M.Sc., Ph.D., Osmania Univ.

Harry R. Clarke
B.A. (Hons.), Macquarie Univ.; M.A., Ph.D., Australian National Univ.

Atsushi Fukuda

Byoung Nam Lee
B.A., Yonsei, M.S., Ph.D., Korea Advanced Inst. of Sci. and Tech.

Slobodan Simonovic
B.Sc., M.Sc., Univ. of Belgrade; Ph.D., Univ. of California (Davis).

SCHOOL OF ENVIRONMENT, RESOURCES AND DEVELOPMENT

Juan B. Heredia

C.B. Lantican
B.S.F., UPLB; M.S., State Univ. New York; D.Phil., Oxford.

R.O. Malinan
M.Sc., D.Tech., Helsinki Univ. of Tech.

Shunji Murai

Jacques Percebois
M.Econ., Ph.D., Grenoble I; Ph.D., Paris.

Vinod K. Tewari
M.A., Ph.D., Univ. of Delhi.

Richard L. Tinsley
B.A., Lafayette College; M.Sc., Univ. of Maryland; Ph.D., Univ. of Florida.

Jean-Claude Vincent
B.Sc., M.Sc., Ing. (Al Gx Belgium).

Byung-So Yang
B.S., Konkuk; M.Sc., AIT; Ph.D., Dong-A.

Cun Yi Yu
B.Eng., M.Eng., Xian Jiaotong Univ., China; Ph.D., Royal Inst. of Tech., Stockholm.

SCHOOL OF MANAGEMENT

Ellen Hertzberg
B.A., Oslo, Norway; B.Sc., Breman, Germany; M.Sc., Ph.D., Strathclyde, UK.

Byoung Nam Lee
B.A., Yonsei Univ.; M.Sc., Ph.D., KAIST, Korea.

Chulwon Lee
B.S., Seoul National Univ.; M.S., Ph.D., KAIST, Korea.

I.M. Pandey
M.Com., Ph.D., Univ. of Delhi.

Truong Quang

Abbreviations

SAT  School of Advanced Technologies
SCE  School of Civil Engineering
SERD School of Environment, Resources and Development
SOM  School of Management
CLAIR Center for Library and Information Resources
CLET  Center for Language and Educational Technology
1996 BOARD OF TRUSTEES

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AIT Foundation, Inc.
USA

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HTC President
and Director
Finance One Public Co. Ltd.
Bangkok, Thailand

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Dept. of Curriculum and Instruction
Development
Ministry of Education
Bangkok, Thailand

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Research and Development
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Chinese Taipei

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Education Development
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Seoul, Republic of Korea

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FRC Advisor on Women, Children, Youth,
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Prime Minister's Office
Royal Thai Government
Bangkok, Thailand

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Plenipotentiary
The French Embassy
Bangkok, Thailand

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Siemens AG
Germany

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Former US Ambassador to Thailand
Paris, France

EC
Prof. Roger G. H. Downer
PPC (Ex-officio)
HDC President
BFC
Asian Institute of Technology
NC
Pathumthani, Thailand
HTC

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Plenipotentiary
The Royal Norwegian Embassy
Bangkok, Thailand

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PPC Vice Chairperson
SRC
Former Vice-Chancellor and Principal
University of Newcastle
NSW, Australia

H.D.C.
H.E. Mr. Blaise Godet (1999)
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Ambassador Extraordinary and
Plenipotentiary
The Embassy of Switzerland
Bangkok, Thailand

H.E. Ms. Eva Heckscher (1960)*
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Plenipotentiary
The Swedish Embassy
Bangkok, Thailand

PPC
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Head, Strategic Studies and
Publishing Unit
University of Basel
Switzerland

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Provost Emeritus
Case Institute of Technology
USA

EC
Mr. Tauno Kaarla (1996)
EC
Mr. John Gunther Dean (1998)
Former US Ambassador to Thailand
Paris, France

PPC
Prof. Pidshid Kirasudh (Ex-officio)
PPC Vice President for Development
BFC
Asian Institute of Technology
NC
Pathumthani, Thailand

H.E. M.L. Birabhongse Kasemtri
PPC (1999)
HDC Chairperson
NC His Majesty's Principal Private
BFC Secretary
HTC
Grand Palace
Bangkok, Thailand

FRC
Prof. S. K. Khanna (1999)
Chairman
All India Council for Technical
Education
New Delhi, India

HTC
Dr. Thanat Khoman
Chair Emeritus
Former Deputy Prime Minister
Royal Thai Government
Bangkok, Thailand

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Corporate Advisor
Matsushita Electric Industrial Co., Ltd.
Tokyo, Japan

Dr. Jeffrey L.S. Koo (1998)
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China Trust Co., Ltd.
Chinese Taipei

EC
Prof. B. Krol (1997)
PPC Professor Emeritus
SRC University of Utrecht
FRC Technology of Food of Animal
Origin Department
The Netherlands

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Director, Global R&D Planning
Bell-Northern Research Ltd.
Ottawa, Canada

Dr. Somak Leesawadtrakul (1999)
President and CEO
SSP Group of Companies
Bangkok, Thailand

Dr. Berthold Leibinger (1999)
President
TRUMPF GmbH and Co.
Germany

Mr. Mian Amer Mahmood (1998)
Chairman, Punjab Group of Colleges
Lahore, Pakistan
# INSTITUTE ADMINISTRATION

## SENIOR ADMINISTRATIVE OFFICERS

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Prof. Roger G. H. Downer</td>
</tr>
<tr>
<td>Vice President for Academic Affairs</td>
<td>Prof. Karl E. Weber</td>
</tr>
<tr>
<td>Vice President for Development</td>
<td>Prof. Pridthi Karasudhi</td>
</tr>
<tr>
<td>Bursar</td>
<td>Mr. Edward Mayer</td>
</tr>
<tr>
<td>Academic Secretary</td>
<td>Dr. Roger Hawkey</td>
</tr>
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## DEANS OF SCHOOLS

<table>
<thead>
<tr>
<th>School</th>
<th>Professor</th>
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<tbody>
<tr>
<td>Advanced Technologies</td>
<td>Prof. Mario T. Tabucanon</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>Prof. Prinya Nutalaya</td>
</tr>
<tr>
<td>Management</td>
<td>Prof. Jyoti P. Gupta</td>
</tr>
<tr>
<td>Environment, Resources and Development</td>
<td>Prof. Chonggrak Polprasert</td>
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</table>

## CENTER DIRECTORS

<table>
<thead>
<tr>
<th>Center</th>
<th>Director</th>
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</thead>
<tbody>
<tr>
<td>Asian Disaster Preparedness Center</td>
<td>Mr. John Barret</td>
</tr>
<tr>
<td>Continuing Education Center</td>
<td>Dr. Nicaraor C. Austriaco</td>
</tr>
<tr>
<td>Center for Library and Information Resources</td>
<td>Prof. Robert D. Stewart</td>
</tr>
<tr>
<td>Regional Computer Center</td>
<td>Dr. Charoen Chirapassamkul</td>
</tr>
<tr>
<td>Center for Language and Educational Technology</td>
<td>Mr. Jonathan Shaw (Chairperson)</td>
</tr>
<tr>
<td>AIT Center in Vietnam</td>
<td>Dr. Risto Tatjarne</td>
</tr>
<tr>
<td>Swiss-AIT-Vietnam Management Development Program</td>
<td>Dr. Dominique Rohrer</td>
</tr>
</tbody>
</table>

## STUDENT AFFAIRS

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>Dean of Student and Community Affairs</td>
<td>Dr. Anila Sadananda</td>
</tr>
<tr>
<td>Student Union President</td>
<td>Mr. Abdul Samad Kazi</td>
</tr>
<tr>
<td></td>
<td>(Sept 1995 - Jan 1996 school terms)</td>
</tr>
<tr>
<td></td>
<td>Mr. Mazhar-ul-Islam</td>
</tr>
<tr>
<td></td>
<td>(May 1996 - Sept 1996 school terms)</td>
</tr>
</tbody>
</table>

Prof. Roger G. H. Downer took up his appointment as President on 1 August 1996, succeeding Dr. Alastair North.

Prof. Karl E. Weber succeeded Prof. Ricardo P. Pama as Vice President for Academic Affairs as from 1 July 1996. Prof. Chonggrak Polprasert, former SERD Associate Dean, assumed the Deanship on 1 July 1996, succeeding Prof. Weber.

Mr. Jonathan Shaw became Chairperson of the Center for Language and Educational Technology on 21 June 1996, succeeding Dr. Michael Connolly.

Dr. Anila Sadananda was appointed to the new position of Dean of Student and Community Affairs on 1 January 1996. Dr. Roger Hawkey formerly served as Dean of Student Affairs.
INTRODUCING AIT

Founded in 1959, the Asian Institute of Technology is Asia's premier international graduate school of engineering and management.

March 1958
The SEATO Graduate School of Engineering project, first proposed in 1957, was approved by the Council of Ministers of the South-East Asia Treaty Organization at its meeting in Manila.

July 30, 1959
His Majesty King Bhumibol Adulyadej of Thailand signed the Royal Decree establishing the SEATO Graduate School of Engineering.

September 10, 1959
The School began its first class in hydraulic engineering with 18 students from Pakistan, the Philippines, and Thailand.

June 1966
The SEATO Council of Ministers' Meeting in Canberra initiated steps to phase out its control of the Graduate School and to permit its establishment as an independent institution.

November 23, 1967
The Asian Institute of Technology Enabling Act was published in the Royal Thai Government Gazette. The SEATO Graduate School of Engineering ceased to exist.

November 24, 1967
The Asian Institute of Technology was established as an independent, autonomous, international institution of higher learning.

AIT is composed of four schools, five academic centers, and the AIT Center in Vietnam. AIT carries out its mission through

Regular Academic Programs, leading to the award of Doctoral and Master's degrees and Diplomas;

Outreach Activities, such as short-term training courses and consultancies; and

Research Programs, which are conducted by faculty and students, or in cooperation with various institutions in Asia and other regions.

Responsibility for policy direction rests with the Board of Trustees, which consists of some 40 members from Asia, Australia, Europe, and North America.

Governments, international organizations, NGOs, foundations, business and industry, and private individuals provide grants for scholarships for deserving students, faculty and staff secondment, operating funds, continuing education, equipment, research, campus development, and the AIT Endowment Fund.

Admission to the academic programs is open to academically qualified, self-supporting students.

LOOKING BACK (1959-1995)

May 4, 1968
H.M. King Bhumibol Adulyadej graciously presided over the eighth annual graduation, the first in which AIT conferred its own degrees.

February 14, 1973
H.M. King Bhumibol Adulyadej opened the new campus in Pathum Thani province.

April 1979
AIT marked its 20th anniversary, with annual enrollment averaging 485 students and the alumni body consisting of 1784 graduates.

June 22, 1987
AIT received the Science and Technology for Development Award from USAID and the National Research Council, USA.

July 21, 1987
AIT awarded the AIT Gold Medal to His Majesty King Bhumibol Adulyadej of Thailand for outstanding leadership in rural development.

August 31, 1989
AIT received the 1989 Ramon Magsaysay Award for International Understanding.

October 29, 1992
AIT awarded the AIT Gold Medal to Her Majesty Queen Sirikit of Thailand for outstanding leadership in environmental protection and natural resources conservation.

May 17, 1993
AIT opened its first academic program in Vietnam under the Swiss-AIT Vietnam Management Development Program.

July 1993
The Institute's academic restructuring resulted in the establishment of four Schools: Civil Engineering, Advanced Technologies, Management, and Environment, Resources and Development.

February 1994
The AIT Center in Vietnam based in Hanoi was officially inaugurated.

November 13, 1995
The Asian Management Awards, Asia's most rigorous examination of corporate and organizational excellence, honored AIT with an award for Development Management.

August 1996
Prof. Roger G. H. Downer assumed the Institute's Presidency, becoming AIT's fifth President. Prof. Downer joined AIT from the University of Waterloo in Ontario, where he was Chair of the Department of Biology from 1986 to 1989 and since 1989 was Vice President for University Relations.
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AAT</td>
<td>Airports Authority of Thailand</td>
</tr>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<td>ASEF</td>
<td>Asian Society for Environmental Protection</td>
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<tr>
<td>CEC</td>
<td>Commission of the European Communities</td>
</tr>
<tr>
<td>CUC</td>
<td>Canadian Universities Consortium</td>
</tr>
<tr>
<td>DANIDA</td>
<td>Danish International Development Assistance</td>
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<tr>
<td>ESA</td>
<td>European Space Agency</td>
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<tr>
<td>ESCAP</td>
<td>Economic and Social Commission for Asia and the Pacific</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<tr>
<td>ICIMOD</td>
<td>International Center for Integrated Mountain Development</td>
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<tr>
<td>IDRC</td>
<td>International Development and Research Centre, Canada</td>
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<tr>
<td>ILO</td>
<td>International Labour Organization</td>
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<tr>
<td>IUCN</td>
<td>International Union for the Conservation of Nature</td>
</tr>
<tr>
<td>IPST</td>
<td>Institute for the Promotion of Teaching Science and Technology</td>
</tr>
<tr>
<td>JICA</td>
<td>Japan International Cooperation Agency</td>
</tr>
<tr>
<td>KEIDANREN</td>
<td>Federation of Economic Organizations, Japan</td>
</tr>
<tr>
<td>NECTEC</td>
<td>National Electronics and Computer Technology Centre</td>
</tr>
<tr>
<td>RISDA</td>
<td>Rubber Industry Smallholders Development Authority</td>
</tr>
<tr>
<td>SEAMES</td>
<td>Southeast Asian Ministers of Education Secretariat</td>
</tr>
<tr>
<td>SIDA</td>
<td>Swedish International Development Cooperation Agency</td>
</tr>
<tr>
<td>UCL</td>
<td>University of Cambridge Local Examinations Syndicate</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNCHS</td>
<td>United Nations Commission for Human Settlements</td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organization</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
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<tr>
<td>UNEP</td>
<td>United Nations Environment Program</td>
</tr>
<tr>
<td>UNEP EAP/AP</td>
<td>UNEP Environment Assessment Program for Asia and the Pacific</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children's Fund</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WWF</td>
<td>Worldwide Fund for Nature</td>
</tr>
</tbody>
</table>

### SCHOOLS, PROGRAMS, AND CENTERS

#### SCHOOLS
- SAT: School of Advanced Technologies
- SCE: School of Civil Engineering
- SERD: School of Environment, Resources, and Development
- SOM: School of Management

#### PROGRAMS
- AFE: Agricultural and Food Engineering
- AAS: Agricultural and Aquatic Systems
- BPT: Bioprocess Technology
- CSIM: Computer Science and Information Management
- EE: Environmental Engineering
- EP: Energy Program
- GE: Geotechnical Engineering
- TE: Transportation Engineering
- HSD: Human Settlements Development
- IPM: Infrastructure Planning and Management
- ISE: Industrial Systems Engineering
- PPT: Pulp and Paper Technology
- SEC: Structural Engineering and Construction
- STAR: Space Technology and Applications Research
- TC: Telecommunications
- UEM: Urban Environmental Management
- WEM: Water Engineering and Management

#### CENTERS
- ADPC: Asian Disaster Preparedness Center
- AITCV: AIT Center in Vietnam
- CEC: Continuing Education Center
- CLET: Center for Language and Educational Technology
- CLAIR: Center for Library and Information Resources
- RCC: Regional Computer Center
- SAV: Swiss-AIT-Vietnam Management Development Program