

ANNUAL
REPORT
1989

The impressive growth in numbers of graduates and countries served demonstrates the Institute's achievement over the past three decades and its enduring contribution to Asia's development.

ASIAN
INSTITUTE OF
TECHNOLOGY

The 1989 Annual Report of the Asian Institute of Technology has been prepared by the Office of Media and Information Services.

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*Asian Institute
of Technology*

*1989 Ramon Magsaysay Award
for
International Understanding
in recognition of its shaping a new
generation of engineers and managers committed
to Asia, in an atmosphere of academic
excellence and regional camaraderie.*

Manila on 31 August 1989

Jan Magsaysay

Richard D. Alborn

*"My pride and pleasure are the greater since you
honor not one person, but the many who have made
the Institute, what it is today".*

President Alastair North

THIRTY YEARS OF SERVICE TO ASIA'S DEVELOPMENT

"... It maybe significant that the Ramon Magsaysay Foundation and the Institute were both conceived at the same point in history: the one to continue in Asia the inspiration of a great leader after his tragic death; the other to halt the flow out of Asia of future leaders in science and technology. While today we remember the vision of the late Ramon Magsaysay, in AIT we remember, too, the foresight of Dr. Pote Sarasin, who, as Secretary General of the South East Asia Treaty Organization, saw as a building brick for peace, the creation of an international post-graduate engineering school..."

Prof. Alastair North
AIT President
Manila
August 31, 1989



Mr. Pote Sarasin (left), with Prof. Bender (below).
Bottom: the old campus at Chulalongkorn University.



In the autumn of 1957 H.E. Mr. Pote Sarasin, Secretary General of the South East Asia Treaty Organization, proposed the idea of a regional graduate school of engineering to be sponsored by SEATO. The principal financial support was to come from Australia, France, New Zealand, Thailand, the United Kingdom and the United States, with additional support from the other regional member countries, Pakistan and the Philippines.

In March 1958 the SEATO Graduate School of Engineering project was approved by the Council of Ministers of the South East Asia Treaty Organization at its meeting in Manila.

THE FIRST DECADE 1959-1969

1959

January /February

Prof. Maurice L. Albertson and Prof. Thomas H. Evans, representing Colorado State University, undertook a preliminary survey for the United States International Cooperation Administration.

April

The SEATO Council of Ministers meeting in Wellington approved the plan for the establishment of the School in September 1959.

30 July

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

August

Prof. Thomas H. Evans arrived from Colorado State University to become Dean of the SEATO Graduate School of Engineering.

10 September

The SEATO Graduate School of Engineering began its first classes with 18 students from Pakistan, the Philippines and Thailand studying Hydraulic (now Water Resources) Engineering. There were only eight faculty members.

September

The Board of Management of the SEATO Graduate School of Engineering was established by the SEATO Council.

1960

June

Majors in Highway (now Transportation) Engineering and Structural Engineering were introduced.

1961

March

The first graduation ceremony was held to confer the degree of Master of Engineering on eight students. The degrees were conferred jointly by Chulalongkorn University and the SEATO Graduate School of Engineering.

June

Dr. Robert M. Holcomb of Texas A & M University succeeded Prof. Thomas H. Evans as Dean of the SEATO Graduate School of Engineering.

1963

May

Dr. Milton E. Bender, Jr. of Colorado State University succeeded Dr. Holcomb as Dean of the SEATO Graduate School of Engineering.

1964

May

The SEATO Council of Ministers, meeting in Manila, passed a resolution that the SEATO Graduate School of Engineering should remain regional, and engaged an expert study group to make recommendations on the future of the School.

June

A new field of study in Public Health was inaugurated.

December

The expert study group, composed of leading engineers and educators from SEATO member countries, convened to discuss the future of the School. The group recommended eventual independence and control by a Board of Trustees.

1965

May

The SEATO Council of Ministers, meeting in London, agreed that the School should continue as a regional graduate school of engineering and that it should become independent, with SEATO gradually phased out.

1966

The Division of Geotechnical and Transportation Engineering was established.

June

The SEATO Council of Ministers, meeting in Canberra, took the necessary steps towards the School's establishment as an independent institution to be called the Asian Institute of Technology.

November

The first session of the interim Board of Trustees was held to draft an organizational structure for AIT.

1967

26 October

The Constituent Assembly of Thailand approved legislation for the Charter of the Asian Institute of Technology.

23 November

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

24 November

The Asian Institute of Technology came into being as an independent, autonomous, international institution of higher learning devoted to instruction and research in engineering, the sciences, and related fields.



H. M. King Bhumibol Adulyadej of Thailand presenting the first AIT degrees.

1968

The Division of Environmental Engineering was established, from the Public Health field of study.

January

The Board of Trustees of AIT held its first meeting to formulate and adopt bye-laws, and to elect the officers of the Institute. Dr. Puey Ungphakorn was elected Chairman of the Board and Prof. Milton E. Bender, Jr. as President.

4 May

His Majesty King Bhumibol Adulyadej of Thailand graciously presided over the Eighth Annual Graduation, the first in which AIT conferred its own degrees. 52 students graduated, bringing the total number of alumni since 1961 to 227.

July

The Board of Trustees, at a special meeting, approved a 10-year development program for AIT.

THE SECOND DECADE
1969-1979

1969

January

The Board of Trustees, at its annual meeting, received a Development Report and Master Plan for the new AIT campus.

July

The Board of Trustees accepted the recommendation that a program leading to the Doctor of Engineering degree, and a program leading to the Diploma of AIT, be introduced starting in 1970.

August

The AIT Alumni Association was established.

1971

January

A new field of study in Systems Engineering and Management was introduced.

The construction contract for the first stage of AIT's new 400-acre campus was signed, and work began.

1972

The Institute had established the following Academic Divisions: Environmental and Chemical Engineering, Fluid and Energy Engineering, Geotechnical Engineering, Structural Engineering and Mechanics, and Systems Engineering and Management.

January

Following a Board resolution, the Institute's academic organizations consisted of divisions, fields of study and programs. Each Division functioned as an administrative unit but fields of study and programs did not.

1973

The Division of Industrial Engineering and Management and the Asian Information Center for Geotechnical Engineering were established. Human Settlements Planning was introduced as a field of study.

14 February

His Majesty King Bhumibol Adulyadej of Thailand opened the new campus in Pathum Thani province.

15 February

Prof. Milton E. Bender, Jr. resigned from office as President after 10 years of service (initially as Dean) and was succeeded by Dr. Harold E. Hoelscher.

Dr. Puey Ungphakorn resigned from the Chairmanship of the Board and was succeeded by Mr. Oscar Mapua.

1974

August

The AIT Center, offering facilities for regional and international conferences, was officially opened.

1975

The Regional Experimental Center, constructed with funds from Chinese Taipei, was opened.

The Regional Computer Center was founded as the result of a unique five-year partnership with the AIT Foundation, IBM World Trade Americas Far East Corp., and USAID.

January

Dr. Harold E. Hoelscher resigned from the office of President of AIT. Prof. Milton E. Bender, Jr., President Emeritus, accepted the Board's invitation to act as President until a new President was appointed.

Dr. Thanat Khoman was elected Chairman of the Board of Trustees in succession to Mr. Oscar Mapua.

May

At its 18th graduation ceremony, the Institute conferred its first Honorary Degree, the degree of Doctor of Engineering, on His Majesty King Bhumibol Adulyadej of Thailand. His Majesty presented degrees and diplomas to 143 graduates, bringing the total number of graduates since 1961 to 965.

1976

The International Ferrocement Information Center was established.

The construction contract for the Regional Computer Center was signed.

1977

Agricultural and Food Engineering became an independent division. Formerly Agricultural Engineering was a component in the Division of Community and Regional Development.

The Regional Documentation Center, comprising initially the Asian Information Center for Geotechnical Engineering and the International Ferrocement Information Center, was established.

Human Settlements Development, formerly a component in the Division of Community and Regional Development, became an independent division.

January

Prof. Robert B. Banks succeeded Prof. Milton E. Bender Jr., as President of the Institute.

THE THIRD DECADE
1979-1989

August

The new Regional Computer Center building was officially opened.

1978

July

The establishment of the Division of Computer Applications was approved. Approval was also given for a new Division of Energy Technology.



Dr. Puey Ungphakorn



Mr. Oscar Mapua



Dr. Thanat Khoman



Prof. Milton Bender, Jr.



Dr. Harold Hoelscher



Prof. Robert Banks



Prof. Alastair North

1979

The English Language Center (renamed Language Center in January 1987) was established.

January

The Division of Computer Applications (renamed Computer Science in 1986) admitted its first students in the Master's Program. Its first Doctoral students were admitted in August 1980.

April

The Institute celebrated its twentieth anniversary. Student enrollment had increased to 485 students. There were 65 full-time faculty members. Financial support was being provided by 27 governments and more than 20 organizations, foundations and industries.

1980

The Continuing Education Center became operational.

January

The first 19 students began studies in the new Division of Energy Technology, the ninth division at AIT.

The Institute Council was introduced to function as an advisory body to the President

1981

The Asian Regional Remote Sensing Training Center was established and commenced courses in 1982.

August

The Library and Media Building, constructed from funds donated by the Government of Japan, was officially opened.

The Institute began converting its academic programs to a three-term, three-admission system, in an effort to reduce peak loadings of the Registry, the dorms, the Library, RCC and other academic/administrative units.

1982

The Regional Research and Development Center was established to help promote research projects at the Institute.

April

Energy Technology (ET) Building 1, a gift from the Government of the Federal Republic of Germany, was officially opened. The ET complex is supplemented by the Energy Research Park, which was constructed from funds donated by the Government of France.

1983

January

To strengthen the Institute's long-term planning, the Board of Trustees proposed and approved the establishment of the Institute Policy and Planning Committee.

May

Construction of the Regional Experimental Center extension began, using funds donated by Chinese Taipei.

July

Prof. Robert Banks completed six and a half years as AIT President.

August

Prof. Alastair North assumed office as AIT President.

1984

September

The Institute marked its 25th anniversary with a donors' meeting which unveiled the 1985-1988 Academic Plan, aimed at achieving a reasonable balance between classical engineering and management fields. The Plan also recommended the consolidation of existing academic divisions, along with new ventures in natural resources management and manufacturing technology. The external doctoral program was proposed.

1985

January

ET Building II, a gift from the Government of France, was officially opened.

1986

The Asian Disaster Preparedness Center was established to provide training courses and other assistance to strengthen the disaster management systems of countries in Asia and the Pacific.

May

The Division of Human Settlements Development admitted its first Doctoral students. All nine Academic Divisions now offer Doctoral programs.

1987

Programs related to natural resources, computer-related manufacturing technology, and management underwent further development.

January

The Joint Irrigation and Drainage Program (later renamed Agricultural Land and Water Development) admitted its first students. The program is jointly offered by the AFE and WRE Divisions.

The Education Policy Committee and the Institute Policy and Planning Committee were merged as the Policy and Planning Committee of the Board of Trustees.

May

The Interdisciplinary Natural Resources Development and Management Program admitted its first students in the certificate program. The first Master's students were admitted in May 1988.

July 21

The Institute presented its first Gold Medal Award to His Majesty King Bhumibol Adulyadej of Thailand in recognition of his outstanding leadership in rural development.

1988

CAD/CAM activities in the Industrial Engineering and Management Division, the Computer Science Division and the Regional Computer Center, were integrated.

September

The Ambient Laboratory, a gift from the Royal Thai Government, and the Environmental Research Station, a gift from the Government of the Federal Republic of Germany, were opened.

October

The Agricultural and Food Engineering Building, a gift from the Royal Thai Government, was officially opened by Her Royal Highness Princess Maha Chakri Sirindhorn of Thailand.

December

The Asia-Pacific Forum on Telecommunications was held, under the sponsorship of the Government of Finland, to study the requirements and parameters of the proposed graduate program in telecommunications.

1989

The Institute marked its third decade of service to Asia's development.

May

The HSD Division admitted its first M. Sc. students in the SPRING Program (Spatial Planning of Regions in Growing Economies), a joint program with the University of Dortmund in the Federal Republic of Germany.

August

The 30th anniversary forum on "Higher Education in Technology for Asia into the 21st Century" was held from August 17 to 19.

On August 17 at the 56th graduation ceremony, the Honorary Degree of Doctor of Technology was conferred on Her Royal Highness Princess Maha Chakri Sirindhorn of Thailand.

On August 31 in Manila, the Institute was honored with the 1989 Ramon Magsaysay Award for International Understanding.

September

The School of Management admitted its first Master's students in the Management of Technology.

1989 IN BRIEF

STUDENT BODY

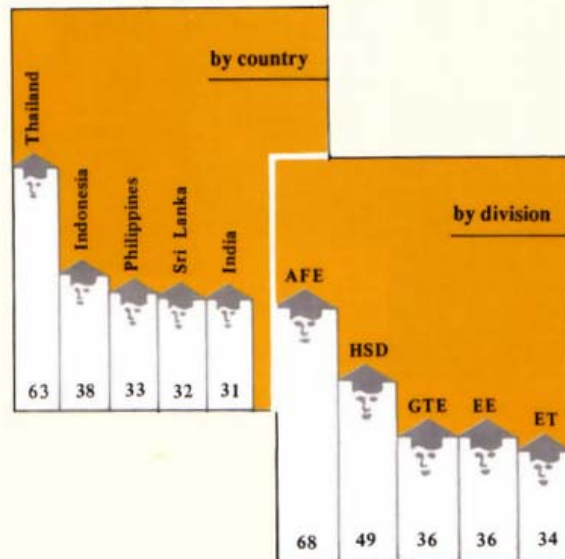
Enrollment

	Divisions	Centers	Total
Jan	734	52	783
May	734	36	770
Sept	711	65	776
Average	726	51	776

Degrees Awarded

	Apr	Aug	Dec	Total
D. Eng.	1	3	6	10
M. Eng.	76	92	47	215
M. Sc.	16	39	58	113
Dip. AIT	1	1	2	4
	94	135	113	342

The five largest groups of graduates are from



ALUMNI

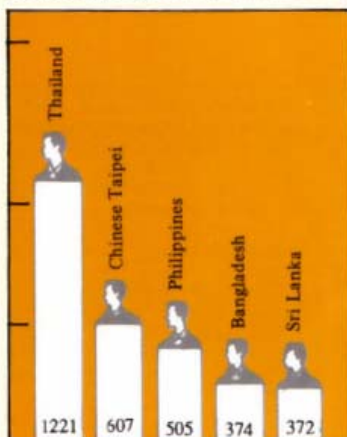
Total Alumni

4855 from 34 countries

Total AITAA Members

2689 from 16 AITAA chapters

The five largest groups of alumni are from

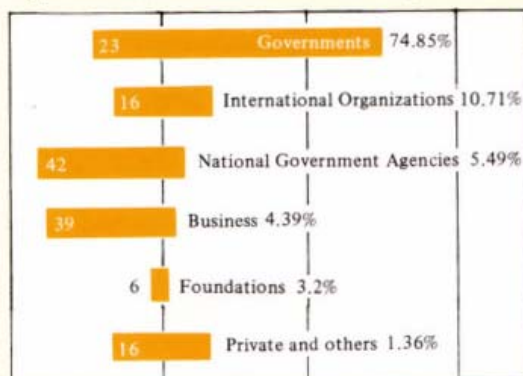


DONORS

Total Contributions Received

Baht 326.47 million

Type and Number of Donors and Their Percentage Contribution



PRESIDENT'S MESSAGE



Prof. Alastair North

"1989, the thirtieth birthday year of AIT, was essentially a time of looking back, recognizing the achievements of the Institute, and planning forward to the closing years of this century and beyond."



Events seemed to peak in the month of August. Her Royal Highness Princess Maha Chakri Sirindhorn graciously accepted the Honorary Degree of the Institute at the 56th graduation ceremony, bringing real pleasure to us all and particularly to those who have been privileged to assist in her work and development projects. Coincident with the graduation, the Institute sponsored a high-level international forum entitled "Higher Education in Technology for Asia into the Twenty-First Century". This examined changes in regional needs for human resource development against the background of the Institute's own objectives and capabilities. On August 31 the Institute was honored to receive the prestigious Ramon Magsaysay Award for International Understanding. It gave me great pride to represent the alumni and student body, the trustees, faculty and staff (past as well as present) at the award ceremony, to acknowledge the achievements of everyone associated with AIT, and to pledge our continuing dedication to our purpose.

With the 1989 Ramon Magsaysay Awardees and Mrs. Luz B. Magsaysay (third from left), widow of Philippine President Ramon Magsaysay. From left: Father James Reuter, Kim Im Soon, Chand Jain, and Dato Zakian Hanum binti Abdul Hamid.

Presenting the Doctor of Technology hood to Her Royal Highness Princess Maha Chakri Sirindhorn (inset).

Presiding at the 30th anniversary forum with Prof. Fumio Nishino, former Vice President for Academic Affairs and leading Japanese economist Dr. Saburo Okita (inset).



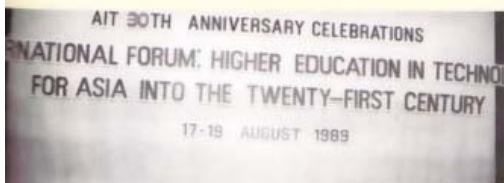
The evolution of the academic activities of the Institute was clearly demonstrated in the September term when the new School of Management admitted its first M.B.A. students. At the same time consultant teams have analyzed the means of implementing programs in telecommunications and biotechnology. The first steps in both initiatives will be taken in 1990, signifying the Institute's wish to expand activities in new high technologies alongside consolidation of the three academic areas: civil or infrastructure engineering, agricultural and natural resources technologies, and management and planning.

Applications for admission and scholarship donations grew over the year so that 1990 commenced with more than 800 students on the Institute's mainstream programs (excluding short certificate courses). Austria and the People's Republic of China joined our other scholarship donors in providing the most essential component in bringing students to study in the Institute.

The year saw the close of the 1988-1989 financial period with, again, an excess of income over expenditure. This was transferred to reserves against the imminent equipment and building renewal needs of the Institute. Scientific equipment, of course, becomes obsolete or worn out with a relatively short average half life, but with many buildings now seventeen years old and suffering subsidence damage, expensive maintenance and renovation are necessary. Hopefully the Institute will continue to offer the leadership facilities in both equipment and fabric which have characterized its first thirty years.

The forward look of the Institute also took shape in a new version of the three-year rolling Institute Plan. In this, analysis of the physical infrastructure needs of less developed countries and the science and technology infrastructure requirements of more developed countries is used to set Institute academic strategies for the future, as well as determining the realizable financial, human and physical resources which will be necessary for their achievement.

It was a rewarding year for us all, and in enjoying the plaudits I want particularly to state that these go not to any single person, but to the whole AIT team. Trustees, alumni, former faculty, all have guided and assisted my colleagues on the faculty and staff. I give my warmest thanks particularly to my colleagues, whose support, energy, and dedication have never been more evident.



A handwritten signature in dark ink, which appears to be "S. K. Chandra".

ACADEMIC AFFAIRS



*Prof. Helmut Eggers
Vice President for
Academic Affairs*

CURRICULAR DEVELOPMENTS

Fields of Study, Academic Programs and Courses

The establishment of three new fields of study – manufacturing systems engineering, management science, and rational use of energy – has been formally approved.

Thirty-one new courses were introduced, 16 revised and one deleted. A total of 285 regular courses was offered, compared with 256 in 1988.

Interdisciplinarity

The overlay of interdisciplinary programs encouraged by the Board of Trustees at its January 1988 meeting has emerged in various forms.

The updated Institute Plan provides for twelve interdisciplinary fields compared with seven in the previous version. The new Plan also refers for the first time to an interesting proposal from the civil engineering divisions (SEC, GTE, WRE) for the development of a range of interdisciplinary fields, including engineering for coastal zones (on-, off-shore engineering), infrastructure planning and development and engineering for land, water, and environmental conservation. The various mathematical courses will be combined under engineering computation, relevant for all civil engineering divisions.

INRDM, the Institute's most explicitly interdisciplinary initiative, is expected to have its own degree-giving status in future.

New Ventures

The Institute's academic ventures in telecommunications and biotechnology have moved towards implementation. Telecommunications has a program and funding proposal, while biotechnology is developing towards bioprocess technology with an interdivisional orientation in agricultural and environmental engineering.

These two new areas of specialization are expected to attract scholarship support by the second and third years of the triennium.

Joint Ventures

AIT is ideally placed and resourced for joint academic ventures with other universities and continues to pursue effective resource-sharing initiatives.

In 1989 the first group of 29 students from the diploma program of the Bangladesh University of Engineering and Technology successfully completed their one term at AIT.

Eleven students on the joint AIT/University of Dortmund M.Sc. degree program in Spatial Planning for Regions in Growing Economies (SPRING) left for Germany for a year, after their first term here. They will return to AIT for their final two terms of workshop, survey and research activity.

A management plan for the proposed AIT settlements and regional development center at Kotmale, Sri Lanka, is under consideration.

ENROLLMENT TRENDS

Full-time student enrollment averaged a record 776 over the three terms in 1989. Enrollment per term in the academic divisions increased by 11% from 643 in 1988 to 726 last year.

Student Enrollment 1989

Term	Divisions	Centers	Total
Jan	734	52	783
May	734	36	770
Sept	711	65	776
Average	726	51	776

Enrollment in the Doctoral program continued to increase significantly, accounting for 12% of total enrollment in the regular degree programs. It is gradually approaching the 20% target set in the 1988-1991 Institute Plan.



In its first student intake in September 1989, the School of Management admitted 31 students from 12 countries.

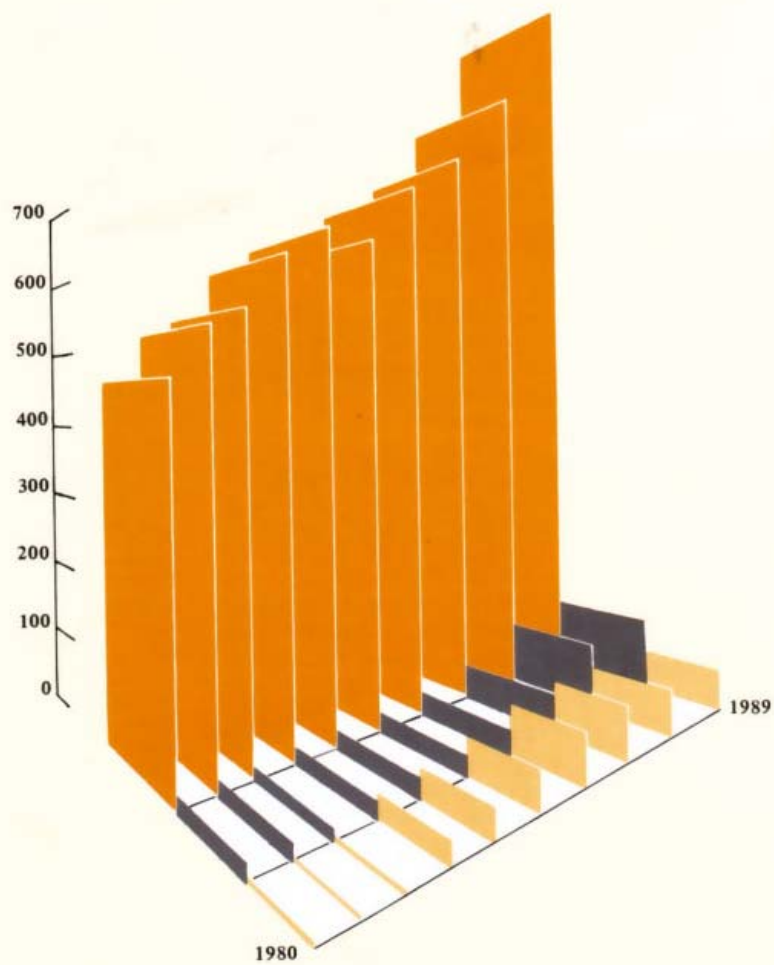
The center programs (PCAD, Remote Sensing and Pre-Master's English) accounted for around 7% of the total full-time student enrollment.

AIT's student body remains truly international. Students from Thailand account for 20% of enrollment in the degree program, while those from South Asia represent about one-third. A recent trend is the increased number of students from the People's Republic of China and Vietnam.



STUDENT ENROLLMENT 1989 BY COUNTRY

	Jan	May	Sept
Afghanistan	1	1	1
Australia	-	-	1
Bangladesh	71	40	33 ✓
Belgium	-	1	-
Bhutan	7	2	6
Brunei	-	-	1
Burma	11	13	21
Canada	1	1	-
Chinese Taipei	51	48	55 ✓
Denmark	-	1	-
Egypt	1	1	1
Fiji	-	1	1
Federal Republic of Germany	1	-	-
Hong Kong	7	5	7
India	63	73	55 ✓
Indonesia	68	56	48 ✓
Japan	4	1	4
Kiribati	1	1	-
Republic of Korea	13	12	15
Laos	2	5	8
Malawi	1	1	1
Maldives	1	-	-
Malaysia	22	15	25 ✓
Nepal	63	66	67 ✓
Pakistan	40	45	45 ✓
People's Republic of China	31	38	37 ✓
Philippines	79	77	77 ✓
Singapore	2	1	1
Sri Lanka	58	55	57 ✓
Sudan	-	1	1
Switzerland	1	1	1
Tanzania	1	1	1
Thailand	148	167	165 ✓
USA	-	1	1
Vietnam	34	39	40 ✓
Total	783	770	776



AVERAGE ANNUAL ENROLLMENT 1980 TO 1989

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
PCAD, Remote Sensing and Pre-Master's English Programs	7	5	9	35	40	58	63	71	54	51
Doctoral Programs	18	17	15	20	26	27	31	40	68	81
Master's, Diploma, Certificate and Special Programs	466	504	506	548	561	535	575	596	641	746

- PCAD, Remote Sensing and Pre-Master's English Programs
- Doctoral Programs
- Master's, Diploma, Certificate and Special Programs

1989 GRADUATIONS



BY DIVISION

	M. Eng.	M. Sc.	D. Eng.	Dip. AIT	Total
AFE	29	38	1		68
CS	19	11			30
ET	28	4	2		34
EE	27	4	4	1	36
GTE	28	7	1	-	36
HSD	-	47	1	1	49
IEM	29	2	-	-	31
SEC	25	-	-	-	25
WRE	30	-	1	2	33

BY DEGREE

	Apr	Aug	Dec	Total
D. Eng.	1	3	6	10
M.Eng.	76	92	47	215
M.Sc.	16	39	58	113
Dip.AIT	1	1	2	4
Total	94	135	113	342

BY COUNTRY

	M.Eng.	M.Sc.	D.Eng.	Total
Bangladesh	12	4	1	20
Burma	2	2	-	4
Canada	-	1	-	1
Chinese Taipei	17	3	2	22
Hong Kong	2	-	-	2
India	21	9	1	31
Indonesia	21	17	-	38
Japan	3	-	-	3
ROK	3	2	-	5
Malaysia	11	2	-	13
Nepal	16	7	1	24
Pakistan	12	4	-	16
Philippines	22	11	-	33
PRC	9	5	-	14
Sri Lanka	19	11	-	31
Thailand	32	26	5	63
Vietnam	4	9	-	13

There were four Diploma graduates,
3 from Bangladesh and 1 from Sri Lanka.

Graduation Awards

	April	August	December
Hisamatsu Prize , given from funds provided in 1982 by Prof. Yoshihiro Hisamatsu, former Dean of the Faculty of Engineering at the University of Tokyo and now Adviser (Technology) of Nisshin Steel Co. Ltd. of Japan.	Supramaniam Suthaker (EE), Sri Lanka Adviser: Prof. Chongrak Polprasert	Asit Das (ET) , India Adviser: Dr. S.C. Bhattacharya	Le Van Minh (HSD), Vietnam Adviser: Prof. H.D. Dias
James A. Linen III Memorial Prize (formerly known as the Institute Prize), established in 1988 in memory of Mr. James Linen, a charter founding and life member of the Board of Trustees from 1967-1988.	Benjamin Indrawan (SEC), Indonesia Adviser: Dr. M. Wieland	Madan Prasad Pariyar (AFE), Nepal Adviser: Prof. G. Singh	
Tim Kendall Memorial Prize , established in 1981 from funds provided by the UK-AIT Appeal, in memory of Mr. R.M. Kendall, member of the Board of Trustees from 1971-1981.	Wu Chong Tzong (GTE), Chinese Taipei Adviser: Dr. K. Kuroda	Nguyen Ngoc An (WRE), Vietnam Adviser: Prof. Suphat Vongvisessomjai	U.L.J.S. Rohan Perera (IEM), Sri Lanka Adviser: Dr. O. Fujiwara

ANNUAL AWARDS

Norsk Data Prize, presented by Norsk Data to the most outstanding graduate in the CS Division. Presented in December to **Engthue Co Ong** of the Philippines. Adviser: Dr. Vilas Wuwongse.

Mahesh Varma Prize, provided by Prof. Mahesh Varma, for the most outstanding graduate in the SEC Division. Presented in April to **Tirath Manojya Pallewatta** of Sri Lanka. Adviser: Dr. R. Chauhan.

HONORARY DEGREES

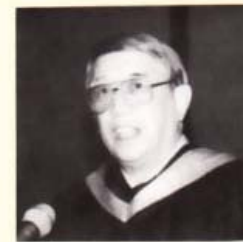
TO LIFE TRUSTEES

Dr. Puey Ungphakorn

In recognition of the many facets of his outstanding contribution to the Institute: as the first Chairman of the Board, from November 1966 to February 1973; for his leadership during the period of the SEATO Graduate School of Engineering; for his influential endeavors in the development of the Rangsit campus and the growth of assistance from the Royal Thai Government; and for his unstinting service to the economic, social and educational development of Thailand and the Asian region.

Mr. Oscar Mapua

In recognition of his enduring support and academic contribution to AIT, the key consolidating role he played as Chairman of the Board during a particularly testing phase in the Institute's history, and his continuing endeavors as an ally and advocate of the Institute in the Philippines and throughout the Southeast Asian region.



Dr. Thanat Khoman, Chairman of the Board of Trustees, and AIT President Alastair North presided over the presentation of the award to Dr. Puey at a special ceremony on March 29.

Mr. Mapua received the award at the Institute's 55th graduation.

TO HER ROYAL HIGHNESS PRINCESS MAHA CHAKRI SIRINDHORN OF THAILAND

As an expression of our respect and admiration for the excellence of Her Royal Highness' achievement.

The distinguished academic career pursued by Her Royal Highness has brought the award of the Bachelor of Arts degree of Chulalongkorn University, of the Master's degree of Silpakorn University, and of a Doctorate in development education from Srinakharinwirot University. AIT is most privileged to have also contributed towards the technological and practical training of Her Royal Highness as a student on a remote sensing training program in 1984. Her Royal Highness continues to collaborate with AIT faculty in her study of land use and land cover, in the development and management of Thailand's natural resources.

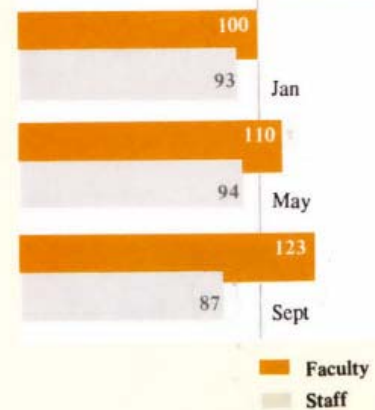
FACULTY AND PUBLICATIONS

1989 saw five promotions to the rank of Professor and two to Associate Professorships. Twenty long-term appointments were made in 1989, three as Professors, twelve as Associate Professors, five as Assistant Professors, and one as Instructor. Of the 26 Visiting Faculty appointed, five were for durations of more than a year, and 21 for less.

The number of publications produced during the year was marginally lower than in 1988, with faculty members averaging four publications each.

The Appendix provides a full list of 1989 faculty and details promotions, appointments, and resignations.

1989 FACULTY AND STAFF



SUMMARY OF PUBLICATIONS DURING 1989

	Journal Paper	Conference Paper/Proceedings	AIT Research Report	Book/Chapter in a Book	Others*
AFE	21	34	-	1	5
CS	13	24	2	1	2
ET	16	28	9	-	32
EE	18	29	8	6	1
GTE	13	37	2	1	15
HSD	10	21	3	2	13
IEM	11	14	-	7	21
SEC	14	39	-	4	1
WRE	10	22	4	-	14
SOM	3	-	-	3	-
INRDM	2	12	-	-	5
LC	3	4	-	-	-
LRDC	3	8	-	-	18
ADPC	3	15	3	1	-

- Journal Paper
- Conference Paper/Proceedings
- AIT Research Report
- Book/Chapter in a Book
- Others*



Monographs, working papers, reports (progress, interim, consultancy, etc.), reviews, division research reports and papers, newsletters, reference materials, course handbooks, lecture notes.

CONTRACT AND GRANT RESEARCH, CONTINUING EDUCATION AND CONTRACT PROGRAMS

Contract and grant research projects completed over the year totalled 49, while 101 projects are still in progress.

Some 2,000 professionals participated in continuing education programs held during the year.

1989 continuing education activities, contract and grant research projects (completed and on-going), and contract programs are listed in the Appendix.

DONOR RELATIONS



*Prof. Ricardo P. Pama
Vice President
for Development*

1959-89

In its 30 years, AIT has demonstrated a remarkable capacity to generate funding support and sustain it over the long-term. Contributions received by the Institute during the period 1959-89 totalled some Baht 4.6 billion.

From a small group of funding governments and donor agencies in the Institute's early years, AIT today is supported by governments, international organizations, national government agencies, business enterprises, foundations, and individuals, from developed and developing countries.

1988-89

In FY 1988-89 total contributions provided the Institute amounted to Baht 326.47 million.

Long-term Programs of Cooperation

The trend toward long-term cooperation programs continued in FY 1988-89. Denmark and Norway, which previously provided one-year programs of support, joined the growing number of donor countries that extend multi-year support to the Institute.

New Donor Countries

Extensive promotional and outreach activities have brought the Institute two new donor countries, Austria and the People's Republic of China, with each providing three-year cooperation programs for scholarships and faculty secondments.

Public and Private Sector Support

91% of total contributions received in FY 1988-89 was provided by 23 governments, 16 international organizations, and 42 national government agencies.

While the public sector continued to be the major funding source, the Institute achieved new breakthroughs in partnerships with the private sector. In FY 1988-89 some 40 industrial and business enterprises contributed a total of Baht 29.75 million, 30% of which was presented in the form of equipment as well as CAD/CAM related software and training.



AIT President Alastair North thanking H. E. Mr. Erik Hochleitner, Director General of the Cooperation Department at the Austrian Federal Ministry for Foreign Affairs, following the MOU signing ceremony.

From left: Mr. Zhu Kaixuan, Vice Chairman of the State Education Commission of the People's Republic of China, Dr. Thanat Khoman, Chairman of the AIT Board of Trustees, and H. E. Mr. Li Shichun, the Ambassador of the People's Republic of China to Thailand.



General Reserve Fund

This Fund has increased by 11% from Baht 133.81 million last year to Baht 150.86 million.

AIT Endowment Fund

This Fund increased from Baht 50.1 million to Baht 52.48 million, accounting for contributions received from Pakistan and the Education and Public Welfare Foundation of Thailand, as well as interest earned from previous contributions made by Japan and the Republic of Korea.

Faculty Secondment

Donors provided 788 man/months of faculty and staff secondments of which 92% came from 17 governments. France, Japan, and the Federal Republic of Germany provided 54% of all faculty secondments, maintaining the same level as in 1987-88.

Investment in Plant

Investment in plant (referring to the value of physical facilities, equipment and books) is slightly over Baht 1 billion.

TOTAL DONATIONS FY 1988-89 IN CASH AND IN KIND (BAHT '000)

	Cash	In Kind	Total
Scholarships	140,005		140,005
Research Projects	52,018		52,018
Continuing Education	28,588		28,588
Capital Grant	5,560		5,560
Equipment/ Books	11,520	371	11,891
Endowment Fund	1,545		1,545
Faculty/Staff	26,681	38,222	64,903
Operating Grant	20,720		20,720
Local Currency Grant	1,241		1,241
Total	287,878	38,593	326,471



Presiding at ceremonies to sign the AIT-Denmark and AIT-Norway MOUs were H. E. Mr. Frederik Kiaer, the Ambassador of Denmark to Thailand, and H. E. Mr. Johan Henrik Dahl, the Ambassador of Norway to Thailand (from top photo).

**FACULTY AND STAFF
SECONDMENTS 1988-89**

Sponsoring Country/Organization	Man Months
Australia	14
Belgium	42
Canada	12
Chinese Taipei	12
Denmark	24
Finland	4
France	171
Federal Republic of Germany	121
India	20
Italy	12
Japan	128
Republic of Korea	2
Netherlands-ISS	24
Norway	8
Switzerland	24
UK	84
USA	25
EC	14
UNDP/FAO	12
IBM	35
TOTAL	788



AIT President thanking former Pakistan Ambassador to Thailand, H. E. Mr. Abdul Hameed Aliani, and H.E. Mr. Lawrence Smith, the Canadian Ambassador to Thailand.



Far left: Grant presentations by Mr. Michel Doucin, Sub Director of Scientific Cooperation in the French Ministry of Foreign Affairs, and by Prof. Krirkkiat Phipatseriham, University Rector of Thammasat.



Left: Mr. Heitor Gurgulino de Souza, Rector of the United Nations University, signing an AIT/UNU MOU. Scholarship presentation by H. E. Mr. Bernd Oldenkott, the Ambassador of the Federal Republic of Germany to Thailand.



**DONORS' CUMULATIVE
CONTRIBUTIONS
FY 1959-60 TO FY 1988-89 (%)**

76.35 Governments

13.22 Business, Foundations,
Private and Others

10.43 International Organizations,
National Government
Agencies

**DETAILS OF TOTAL CONTRIBUTIONS
RECEIVED FY 1959-60 TO FY 1988-89
IN CASH AND IN KIND (%)**

Governments	
Australia	5.52
Austria	0.02
Bangladesh	0.03
Belgium	1.15
Canada	4.79
Chinese Taipei	3.31
Denmark	1.33
Finland	0.17
France	3.04
Federal Republic of Germany	9.00
India	0.27
Indonesia	0.14
Israel	0.04
Italy	0.33
Japan	10.99
Republic of Korea	0.31
Nepal	0.03
Netherlands	3.58
New Zealand	0.80
Norway	1.87
Pakistan	0.17
Philippines	0.19
Sri Lanka	0.02
Sweden	0.06
Switzerland	0.80
Thailand	12.19
United Kingdom	3.99
United States of America	12.20
Vietnam	0.01
	76.35
International Organizations	4.85
National Government Agencies	5.58
Business, Foundations Private and Others	13.22
Total	100.00

**SUMMARY OF DONATIONS RECEIVED FY 1988-89
IN CASH AND IN KIND (%)**

Governments

Australia	0.42
Belgium	3.41
Canada	1.53
Chinese Taipei	1.77
Denmark	0.63
Finland	0.42
France	7.17
Federal Republic of Germany	12.31
India	0.5
Italy	1.47
Japan	12.22
Republic of Korea	0.04
Nepal	0.16
New Zealand	0.65
Netherlands	1.02
Norway	2.52
Pakistan	0.32
Sri Lanka	0.02
Sweden	0.35
Switzerland	1.16
Thailand	12.68
United Kingdom	4.55
United States	9.53
	74.85

International Organizations

ADB	2.96
Commonwealth Secretariat	0.06
EC	3.61
ESCAP	0.49
FAO	0.15
ICIMOD	0.04
ICLARM	0.10
Mekong Secretariat	0.01
UNCHS-HABITAT	0.44
UNDRO	0.04
UNDP	1.40
UNEP	0.20
UNESCO	1.05
UNU	0.01
UNO-Geneva	0.06
World Bank	0.09
	10.71

National Government Agencies

Bangladesh	
Bangladesh Water Development Board	0.30
Brunei	
Ministry of Communications	0.03
Canada	
IDRC	0.74
Hong Kong	
Auxiliary Medical Services	0.02
Indonesia	
Indonesian Institute of Science	0.08
Indonesian National Institute of Aeronautics and Space	0.04
Ministry of Public Works	0.60
National Agricultural Extension Project III	0.12
Agency for Assessment and Application of Technology	0.17
Overseas Fellowship Program	0.04
Implementation Unit	
Petra Christian University	0.09
University of Tarumanagara	0.31
Malaysia	
Malaysia Agricultural Research Institute	0.02
Ministry of Education	0.12
Penang Development Corporation	0.02
Universiti Teknologi Malaysia	0.02
Philippines	
Mandala Agricultural Development	0.04
Sri Lanka	
Computer and Information Technology Council	0.01
Department of Agriculture	0.03
Department of Animal Protection and Health	0.02
Mahaweli Authority of Sri Lanka	0.32
Ministry of Education	0.04
National Water Supply and Drainage Board	0.03
Rubber Control Department	0.18
Sri Lanka Survey Department	0.07

Thailand

ALRO	0.08
BMA	0.02
Dept. of Forest Management, KU	0.01
DTEC	0.09
EGAT	0.42
FMO	0.06
KMIT	0.06
National Agricultural Research Project	0.04
NESDB	0.66
ONCB	0.03
Pichit Rural Development Support Project	0.02
Royal Forest Department	0.04
United States	
Academy for Educational Development	0.06
Institute of International Education	0.17
University of Michigan	0.24
University of Wisconsin	0.02
Ohio State University	0.01
	5.49



Scholarship presentations by H. E. Mr. Richard Butler A.M., the Ambassador of Australia to Thailand (above), and Mr. Robert T. Dakan, Deputy USAID Representative to ASEAN (right).

Business

AR & H Consultants Ltd.	0.06
Baner Engineering Construction Pte. Ltd.	0.02
Bank of Indonesia	0.09
BES Engineering Corporation	0.14
British Club	0.02
Carrier Taiwan Co., Ltd.	0.01
China Technical Consultants, Inc.	0.14
Chinese Petroleum Corp., Chinese Taipei	0.31
Cisa International	0.02
Cisa Slot Joint Venture	0.01
Datamat Co., Ltd.	0.02
Eta Thailand Co., Ltd.	0.05
IBM Thailand Ltd.	0.78
IBU Pejabat, Indonesia	0.02
Kozai Club, Japan	0.02
Lutheran World Federation	0.05
Philippines Shell Petroleum Corp.	0.02
Penta-Oceans Construction Co., Ltd.	0.01
Rohm & Haas Asia, Inc.	0.02
Royal Brunei Airlines	0.02
General Engineering Co., Ltd.	0.01
National Petro Chemical Corp. Ltd.	0.06
Northwest Hydro Consultants, Ltd.	0.20
Norconsult a/s	0.16
Philips Electrical Co. of Thailand Ltd.	0.01
San Miguel Corp., Philippines	0.02
Shell Co. of Thailand Ltd.	0.03
Shell International Petroleum Corp.	0.08
Siam Cement Co., Ltd.	0.23
Taiwan Cement Corp.	0.28
Taiwan Power Company	0.31
Tata Consulting Engineers	0.38
TEAM Consulting Engineering Co., Ltd.	0.21
Thai Nishimatsu Co., Ltd.	0.06
Thai Shell Explorations Products Co., Ltd.	0.01
Thai Trade Fairs Co., Ltd.	0.02
T.M. Thomson and Associates Ltd.	0.09
TMX (Thailand) Ltd.	0.01
URS International, Inc.	0.39
TOTAL	4.39

Foundations

AIT Foundation	2.08
Education and Public Welfare Foundation	0.32
Express Highway Research Foundation, Japan	0.03
KEIDANREN	0.56
Stromme Memorial Foundation	0.02
Winrock International, USA	0.19
TOTAL	3.2

Private and Others

Care International, Nepal	0.03
Chamber of Commerce and Industry of Paris	0.13
Centre International de Formation en Politique	0.22
Christian Children Fund, Inc.	0.02
Family Planning Association of Nepal	0.01
Helen Keller International	0.01
IHP/OHP National Committees German	0.05
Lao-Swedish Forestry Project	0.07
Marden Family	0.14
Prof. Mahesh Varma	0.02
Menonite Central Committee	0.18
Pakistan Participant Training Program, USA	0.16
Save the Children Fund, UK	0.10
Save the Children Fund, Sweden	0.18
Thai/Canada Northeast Project	0.03
Thai/German Highland Development Program	0.01
TOTAL	1.36
TOTAL	100.00



Visits and joint projects. From top: Prof. Helmut Eggers with Dr. M. N. B. Ayiku, Project Coordinator of the Technology Transfer Center in Ghana; Dr. Panom Pongpaibul, AIT Trustee and Secretary General of the National Education Commission of Thailand; and Mr. T. Koezuka and Mr. K. Kawaji of the Japanese Ministry of Foreign Affairs.

CENTRAL ADMINISTRATION



*Mr. Edward Mayer
Bursar*

FINANCIAL PERFORMANCE OF THE INSTITUTE

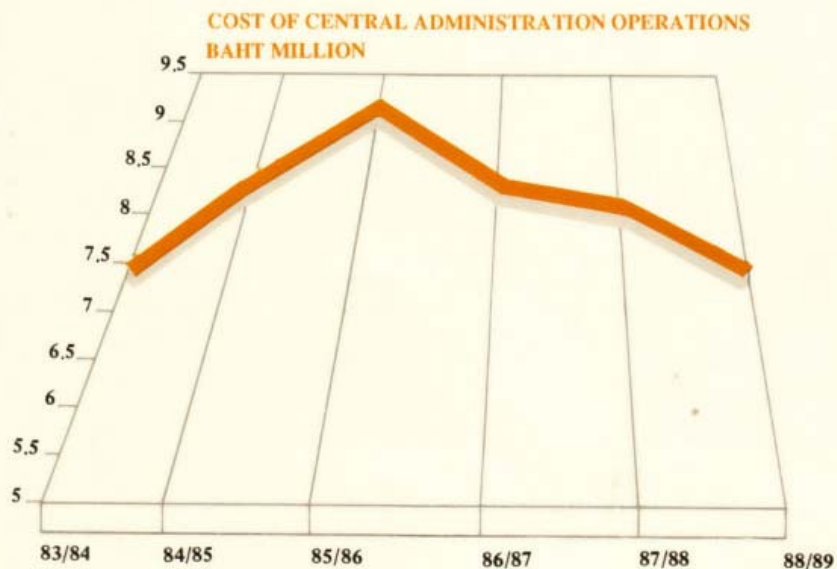
The Unrestricted Fund's overall outcome was similar to that of last year. With both income and expenditures exceeding last year's level by 11%, the Institute recorded a surplus of about Baht 10 million, before transfers to reserves. The most significant feature was the rise in income, the highest since FY 1984-85 (not accounting for inflation). This income performance allowed AIT to replenish its stock of library books and periodicals, and to begin a major upgrading of equipment in the Physical Plant.

REORGANIZATION AND MANAGEMENT CHANGES IN PERSONNEL SECTION

Major changes were implemented in the management and staffing of the Personnel Section of Administrative Services.

Under a new management strategy, the Personnel Section was reorganized into three basic functions: recruitment, evaluation and compensation, and training and orientation.

To upgrade the quality of AIT staff, the Personnel Section adopted more rigorous recruitment procedures, new training policies, and comprehensive orientation programs. Procedures for employee evaluation were revised.





On-campus housing for staff and students.

DEVELOPMENTS IN PHYSICAL PLANT OPERATIONS

Although the fully developed area of the AIT campus increased by 7%, expenditures incurred by the Physical Plant in providing a wider scope of services were lower than in previous years.

The Instrumentation Unit in the Physical Plant took over the task of repairing non-RCC and Computer Science Division micro-computers. The unit, which is again fully staffed after suffering a complete loss of its former staff, is liaising well with the academic sector of the Institute.

CAMPUS DEVELOPMENT

New Dormitory Project

The project provides for three dormitory blocks to house 180 students. The first block of 68 units was completed in November 1989, while the two others are expected to be ready by January 1990. One of the dormitory blocks will be converted to much needed married student accommodation, another one will temporarily house certain categories of short-term students. The third will be used for regular student accommodation immediately.

Staff Housing 1 (ST-1)

The earthwork and piling for the project have been completed. Underway is work on the flood control system, the installation of electrical transformers and the water supply system, and construction of an elevated tank. The project is expected to be completed by July 1990.

AIT Center Extension

A study was carried out for additional hotel accommodation and training facilities, as well as the upgrading of existing facilities.

Outreach Building

The proposed building which covers 2,000 sq. m. will house offices and research facilities. Work on the project is scheduled as follows: December 1989 (site clearing, relocation of roads and some utility lines, construction of a tarmac for a car park); January 1990 (call for tender and contract awarding, start of construction); September-October 1990 (completion of construction).

Subsidence Repairs

Remedial work on the ground floor of the Academic Building North will be carried out in stages.



Clearing of site for the Outreach Building.

**ORGANIZATIONAL CHART OF THE
ASIAN INSTITUTE OF TECHNOLOGY**

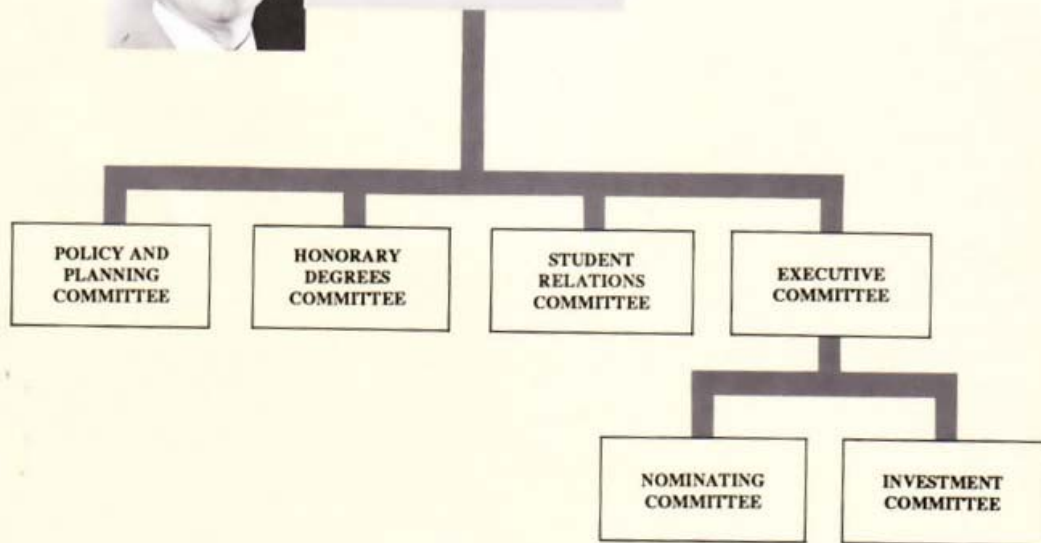


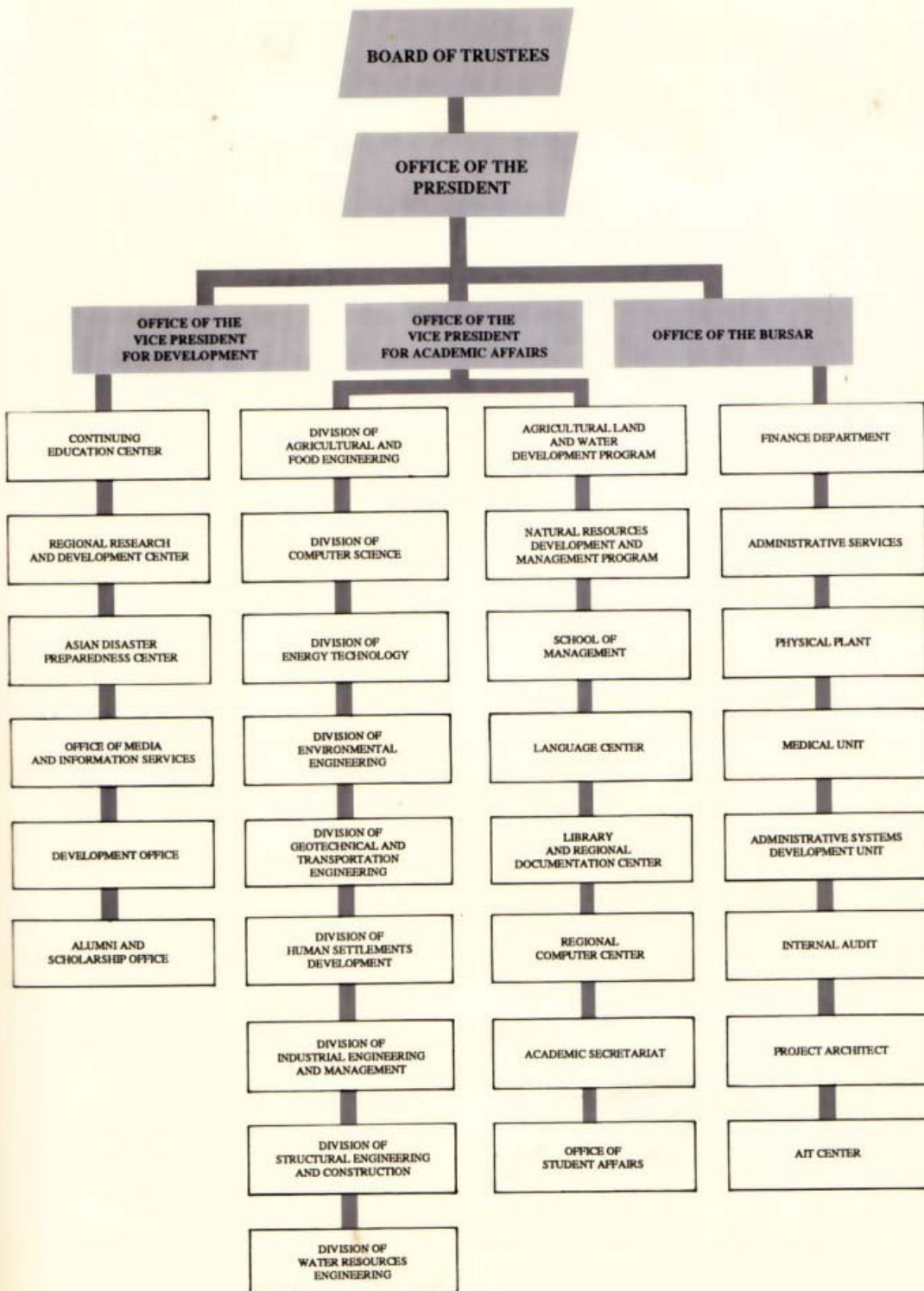
BOARD OF TRUSTEES

Chairman:
Dr. Thanat Khoman



Vice-Chairman:
Prof. D.W. George, AO





ALUMNI AFFAIRS



*Prof. Srisakdi Charmonman
AITAA President*

19TH ANNUAL MEETING OF THE GOVERNING BOARD OF THE AIT ALUMNI ASSOCIATION

Role and tasks of AITAA Executive Committee

Following a comprehensive review of the objectives of AITAA, the 19th Governing Board Meeting has redefined the role and tasks of the Executive Committee.

Under its redefined role, the Executive Committee will act as a full time coordinating body linking AIT and the chapters, implement the general direction set by the AITAA Governing Board and provide guidelines to the chapters. It will also stimulate, accelerate and monitor chapter activities.

The functions of the Executive Committee include submission of an annual report to the Board of Trustees, maintenance of communication with and among the chapters, and coordination of the chapters' fund raising activities.

The term "mother chapter" will no longer be used in referring to the Executive Committee.

Towards a stronger AITAA

Prof. Srisakdi Charmonman, AITAA President, urged graduating students to sign up for membership at the time of graduation and called on all AITAA chapter members to double their efforts in recruiting graduates to join AITAA.

Of the current alumni body of 4,855 graduates, only 2,689 or slightly over 55% are life members of AITAA. Only 15 to 20% of graduating students sign up for membership at the time of graduation. "We need to take some action to ensure that a higher percentage of graduates do so," said Prof. Srisakdi, stressing that membership should remain voluntary.

Of the 16 AITAA local chapters, the three largest are those in Thailand, Chinese Taipei and the Philippines. Initial discussions on the establishment of alumni chapters in the People's Republic of China and Vietnam have been made.

Prof. Srisakdi announced fund-raising activities to support AITAA projects, including the research grant to support AIT students doing thesis research in their home countries, publication of the "AITAA Who's Who", and a hymn contest.

The Baht 50,000 raised through the AITAA Homecoming Golf Tournament in December 1989 will go to a fund in support of AIT.

1989 AITAA ALBUM

**AIT 30th Anniversary
Celebration in Hong Kong**

Mr. P.W. Pao (HSD '80), President of the AITAA-Hong Kong/Macau Chapter, led chapter members in a celebration of AIT's 30th anniversary, held on October 2 at the Furama Hotel.

Commending AIT graduates for their involvement in various development projects in Hong Kong and Macau, the Hon. H. K. Chang, JP (Member of the Executive and Legislative Councils) said, "The expertise of AIT and its graduates can contribute a lot to the future of Hong Kong in the different fields of planning, management and engineering."



AIT President North and AITAA Hong Kong/Macau Chapter President, Mr. P.W. Pao, proposing a 30th birthday toast.

**Members of AITAA-Philippines
Witness Magsaysay Award
Presentation**

"We applaud AIT..."

Mr. Ildefonso Santos (HSD'82), President of AITAA-Philippine Chapter, together with chapter members were on hand to congratulate AIT President Alastair North and party at the Ramon Magsaysay Award presentation ceremonies held on August 31 in Manila. With President North were Prof. Ricardo Pama, Vice President for Development; Prof. Helmut Eggers, Vice President for Academic Affairs; and Prof. Srisakdi Charmonman, AITAA President.



Members of AITAA-Philippines led by Chapter President, Mr. I. Santos (fifth from left), in photo with Institute officials at the Ramon Magsaysay Award ceremony.

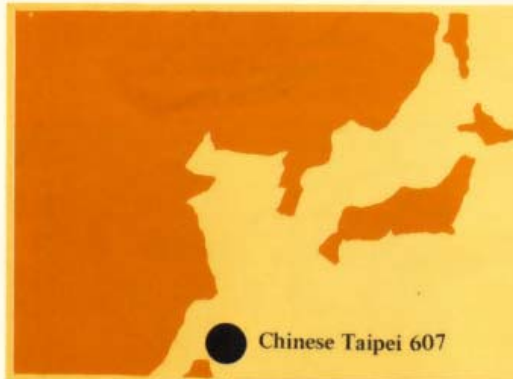


**AITAA
Honorary Membership for
HRH Princess Maha Chakri
Sirindhorn of Thailand**



To celebrate Her Royal Highness Princess Maha Chakri Sirindhorn's acceptance of the Honorary Degree of Doctor of Technology and Honorary Membership of AITAA-Thailand Chapter, Thai alumni hosted a dinner party in August at the Ambassador Hotel in Bangkok.

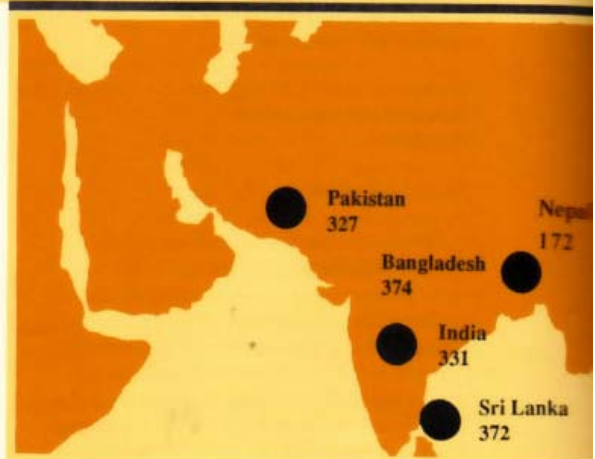
Top : Her Royal Highness in a group photo with some members of AITAA-Thailand. Above : Her Royal Highness being welcomed by Dr. Chaovana na Sylvania (left), Privy Councillor to His Majesty the King of Thailand, and by Chapter President, Mr. Roongrueng Chulajata, WRE '61 (right).



Japan	38
Republic of Korea	76
Chinese Taipei	607
Hong Kong	77
Macau	5
PRC	61



Singapore
Malaysia
Vietnam
Khmer Republic
Laos
Burma
Thailand
Philippines
Brunei
Indonesia
Papua New Guinea



**ALUMNI DISTRIBUTION
BY COUNTRY
1961-1989**

TOTAL 4,855

● **10 LARGEST
ALUMNI GROUPS**

EAST ASIA

**SOUTH EAST ASIA
AND THE PACIFIC**

**SOUTH
AND WEST ASIA**

NOT SHOWN

27
227
90
3
1
37
1,221
505
8
234
5

Bangladesh	374
Sri Lanka	372
Nepal	172
India	331
Pakistan	327
Afghanistan	18
Iran	12
Turkey	6

Canada	3
Ethiopia	1
Ghana	2
Honduras	1
Malawi	1
Tanzania	6
UK	2
USA	4
Kenya	1

APPENDICES

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ASIAN INSTITUTE OF TECHNOLOGY BALANCE SHEET AS AT 30th JUNE, 1989 and 1988

	Note	Unrestricted Current Fund				Restricted Funds				Capital Funds				Sponsored Program Fund				Agency Fund				Total					
		1989		1988		1989		1988		1989		1988		1989		1988		1989		1988		1989		1988			
		BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$	BAHT	US\$		
ASSETS																											
Cash at banks		2,890,877	1,727,988	6,861,490	4,154,704	13,416,834	16,026,938	8,965,838	10,068,377	1,712,692	5,838,398	31,847,731	37,816,425														
Investments	2	17,902,429	32,286,700	258,754,291	239,313,280	27,329,192	27,506,516	16,135,824	17,680,092	40,504,096	62,417,957	360,645,832	379,204,545														
Advance duties and taxes	3	23,123,612	14,358,495	—	—	—	—	—	—	—	—	23,123,612	14,358,495														
Accounts receivable and accrued income		2,945,913	2,228,085	6,502,699	5,213,322	49,240	189,615	2,106,052	1,706,103	946,340	652,167	12,610,154	9,989,292														
Deposits		326,593	262,793	941,181	602,581	—	144,298	—	—	—	—	1,267,774	1,029,672														
Inventories		—	—	654,880	629,313	—	—	—	—	—	—	654,880	629,313														
Due from other fund		4,996,637	—	3,158,400	—	—	—	3,744,755	—	—	—	11,899,792	—														
Fixed assets	4	—	—	—	—	1,011,831,074	1,005,160,152	—	—	—	—	1,011,831,074	1,005,160,152														
TOTAL ASSETS		52,186,061	50,884,061	276,872,851	249,913,200	1,052,626,340	1,049,027,539	31,032,469	29,454,572	43,163,128	68,908,522	1,455,880,849	1,448,187,894														
LIABILITIES AND FUND BALANCES																											
LIABILITIES																											
Accounts payable and accrued expenses		1,751,341	535,941	2,869,715	2,786,107	2,518,748	—	863,516	34,238	1,869,759	394,411	9,973,079	3,750,697														
Deposits		498,400	411,800	510,637	476,647	—	—	—	—	—	—	1,009,037	888,447														
Due to other funds		—	—	1,284	97,871	—	—	—	—	11,899,792	—	11,901,076	97,871														
TOTAL LIABILITIES		2,249,741	947,741	3,481,636	3,360,625	2,518,748	—	863,516	34,238	13,769,551	394,411	22,883,192	4,737,015														
FUND BALANCES	6	49,936,320	49,936,320	273,391,215	246,552,575	1,050,107,592	1,049,027,539	30,168,953	29,420,334	29,393,577	68,514,111	1,432,997,657	1,443,450,879														
TOTAL LIABILITIES AND FUND BALANCES		52,186,061	50,884,061	276,872,851	249,913,200	1,052,626,340	1,049,027,539	31,032,469	29,454,572	43,163,128	68,908,522	1,455,880,849	1,448,187,894														

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

ASIAN INSTITUTE OF TECHNOLOGY
STATEMENTS OF CHANGES IN FUND BALANCES
FOR THE YEAR ENDED 30th JUNE 1989 (WITH COMPARATIVE TOTAL FOR 1988)

	Capital Funds																	
	Unrestricted			Restricted Funds			Liquid Assets			Maintenance and Construction Reserve			Sponsored Program Fund		Agency Fund		Total	
	Current Fund		General	Endowment		General Reserve	Fixed Assets		Unallocated	Allocated	Reserve		Program Fund	Agency Fund	1989	1988		
	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT	BAHT
Balance, 1st July, 1988 (Note 6)	49,936,320	62,525,437	50,100,776	133,926,362	1,005,160,153	2,185,815	37,850,037	3,831,334	29,420,334	68,514,111	1,443,450,879	1,280,891,294						
Adjustment:																		
Disposal of assets					(55,267,758)													
Additions:																		
Excess of revenues over expenditures (expenditures over revenues)	10,153,000	7,519,905																
Investment income			900,345	13,250,844														
Government grants and appropriations			1,243,924				14,691,039											
Gains (loss) on exchange			240,000	299,289														
Miscellaneous income and contributions						992,438	24,859,565											
Contributions in kind-Fixed assets							846,751											
	60,089,320	70,045,342	52,485,045	147,476,495	949,892,395	3,178,251	78,247,392	603,220	30,168,953	29,393,377	1,421,579,990	1,445,889,339						
Deductions:																		
Inter-land transfer from (to)																		
— Unrestricted current Fund																		
— Restricted Current Fund																		
— General Reserve	(3,384,333)			3,384,333			3,384,334	3,384,333			10,153,000	9,761,841						
— Liquid Assets Capital Fund																		
— Allocated	(3,384,334)																	
— Maintenance and Construction Reserve	(3,384,333)																	
Expenditures for plant facilities																		
— Cash																		
— Kind																		
Other costs																		
	(10,153,000)			3,384,333	61,938,679	(908,866)	(46,227,812)	3,384,333			11,417,667	(1,638,460)						
Balances, 30th June 1989 (Note 6)	49,936,320	70,045,342	52,485,045	150,860,828	1,011,831,074	2,269,385	32,019,580	3,987,553	30,168,953	29,393,577	1,432,997,657	1,443,450,879						

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

ASIAN INSTITUTE OF TECHNOLOGY
STATEMENTS OF REVENUES AND EXPENDITURES-UNRESTRICTED CURRENT FUND AND RESTRICTED FUND-GENERAL
FOR THE YEARS ENDED 30th JUNE, 1989 and 1988

	TOTAL			UNRESTRICTED			RESTRICTED			KIND	
	1989	1988		1989	1988		1989	1988		1989	1988
	BART	BART		BART	BART		BART	BART		BART	BART
REVENUES:											
Tuition and fees	143,829,154	127,996,287		143,829,154	127,996,287		—	—		—	—
Cash contributions	22,988,783	29,859,785		6,497,000	7,734,895		16,491,783	22,124,890		—	—
Contributions in kind — services (Note 5)	64,175,458	72,612,571		—	—		—	—		64,175,458	72,612,571
Sales and services	73,086,103	72,328,181		1,016,008	519,899		72,070,095	71,808,282		—	—
Contract and grant research	9,331,511	15,148,155		4,488,735	7,977,991		4,842,776	7,170,164		—	—
Sponsored programs	8,413,306	4,045,824		—	—		8,413,306	4,045,824		—	—
Other revenues	50,033,973	35,497,970		20,775,750	15,507,242		29,238,223	19,990,728		—	—
TOTAL REVENUES	371,858,288	357,488,773		176,606,647	159,756,314		131,076,183	125,139,888		64,175,458	72,612,571
EXPENDITURES:											
Salaries and associated costs (Note 5)	167,278,640	167,251,919		96,627,012	86,105,641		6,476,170	8,533,707		64,175,458	72,612,571
Academic related costs	70,171,111	77,859,844		20,339,285	19,726,940		49,831,826	58,132,904		—	—
Student related costs	5,895,239	6,226,282		1,194,666	1,449,961		4,710,573	4,776,321		—	—
Administrative costs	2,714,716	2,822,848		2,529,169	2,765,810		185,547	57,038		—	—
Capital expenditure purchases	14,998,218	6,229,481		9,278,738	6,229,481		5,719,480	—		—	—
Other costs	36,494,777	34,247,380		36,494,777	33,696,640		—	550,740		—	—
Sponsored programs	1,229,052	5,447,164		—	—		1,229,052	5,447,164		—	—
Other services	26,000,011	17,061,276		—	—		26,000,011	17,061,276		—	—
Enterprise expenses	29,403,619	28,364,319		—	—		29,403,619	28,364,319		—	—
TOTAL EXPENDITURES	354,185,383	345,510,513		166,433,647	149,974,473		123,556,278	122,923,469		64,175,458	72,612,571
EXCESS OF REVENUES OVER EXPENDITURES	17,672,905	11,978,260		10,153,000	9,761,841		7,519,905	2,216,419		—	—

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

NOTES TO FINANCIAL STATEMENTS

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

1.1 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 unrestricted fund, the governing board retains full control to use in achieving any of its institutional purposes.

Investment income are recognized 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 recognized as income in the unrestricted current fund.

Restricted contributions, grants, appropriations and other restricted resources are accounted for in the appropriate restricted funds.

1.2 Accrual 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.

1.3 Contributions in-kind

Contributions in-kind are reflected in the financial statements on a fair value basis at the time of receipt.

1.4 Inventories

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

NOTE 2 INVESTMENTS

Time deposits with banks
Deposits with finance companies

1.5 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.

1.6 Foreign currencies

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

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

Exchange gains and losses are recognized as revenue and expenditure and taken up in the statement of changes in fund balances.

	1989 BAHT	1988 BAHT
Time deposits with banks	213,810,212	190,731,976
Deposits with finance companies	146,835,620	188,472,569
	<u>360,645,832</u>	<u>379,204,545</u>
The investments of each fund as at 30th June, 1989 and 1988 are as follows:-		
Unrestricted current fund	17,902,429	32,286,700
Restricted fund		
General	62,216,034	57,231,662
Endowment	52,377,897	49,944,081
General reserve	144,160,360	132,137,537
	<u>258,754,291</u>	<u>239,313,280</u>
Capital fund		
Liquid assets	23,341,639	23,674,982
Maintenance and construction reserve	3,987,553	3,831,534
	<u>27,329,192</u>	<u>27,506,516</u>
Sponsored program fund	16,155,824	17,680,092
Agency fund	40,504,096	62,417,957
	<u>360,645,832</u>	<u>379,204,545</u>

Time deposits with banks amounting to Baht 0.9 million (1988: Baht 4.8 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 8).

**NOTE 3
ADVANCE DUTIES AND TAXES**

This represents advance duties and taxes 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 14th May, 1968. The refund of the advance is however subject to the annual government budget of the Government of Thailand.

**NOTE 5
CONTRIBUTIONS IN KIND -
SERVICES**

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
CAPITAL COMMITMENTS**

As at 30th June, 1989, the Institute had capital commitments in respect of building construction amounting to approximately Baht 17.1 million (1988 : Baht 12.9 million).

**NOTE 8
BANK GUARANTEES**

As at 30th June, 1989, there were outstanding bank guarantees of approximately Baht 0.9 million (1988 : Baht 4.8 million) issued by a bank on behalf of the Institute in respect of certain performance bonds as required in the normal course of business of the Institute.

**Accountants' Report to the
Board of Trustees of
Asian Institute of Technology**

We have examined the balance sheets of Asian Institute of Technology as at 30th June, 1989 and 1988, the statements of revenues and expenditures of unrestricted current fund and restricted fund-general and the related statements of changes in fund balances for the years then ended. Our examinations were

The details of advance duties and taxes as at 30th June, 1989 and 1988 are as follows:-

	1989 BAHT	1988 BAHT
Employees personal income tax	15,940,082	10,034,145
Import duty and business tax		
- Automobile	5,011,528	1,841,842
- Wine and spirit	2,125,005	2,356,525
- Other	46,997	125,983
	23,123,612	14,358,495

**NOTE 4
FIXED ASSETS**

	1989 BAHT	1988 BAHT
Campus development	18,934,290	15,533,132
Buildings	444,668,104	428,443,333
Furniture and equipment	471,165,288	494,620,064
Library acquisitions	57,059,661	51,195,098
Construction in progress	20,003,731	15,368,525
	1,011,831,074	1,005,160,152

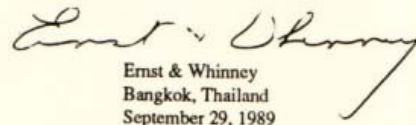
**NOTE 6
FUND BALANCES**

	1989 BAHT	1988 BAHT
Restricted fund		
General	70,045,342	62,525,437
Endowment	52,485,045	50,100,776
General reserve	150,860,828	133,926,362
	273,391,215	246,552,575
Capital fund		
Fixed assets	1,011,831,074	1,005,160,153
Liquid assets - Unallocated	2,269,385	2,185,815
Liquid assets - Allocated	32,019,580	37,850,037
Maintenance and construction reserve	3,987,553	3,831,534
	1,050,107,592	1,049,027,539

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.

In our opinion, the aforementioned financial statements present fairly the financial position of Asian Institute of Technology as at 30th June, 1989 and 1988, the revenues and expenditures of

unrestricted current fund and restricted fund-general and changes in fund balances for the years then ended, in conformity with generally accepted accounting principles appropriate for non-profit organisations as set out in Note 1 to the financial statements, applied on a consistent basis.


Ernst & Whinney
Bangkok, Thailand
September 29, 1989

1989 CONTRACT AND GRANT RESEARCH

AGRICULTURAL AND FOOD ENGINEERING

Completed

Development of a Crop/Livestock/Fish Integrated Farming System for Small-Scale Farmers

Principal Investigator: Peter Edwards

Sponsor: ODA, UK (£47,490)

In Progress

AIT Aquaculture Outreach : Interactive Field Trials with Farmers in Northeast Thailand

Principal Investigator: Peter Edwards

Sponsor: ODA, UK (£654,921)

Assessment of a Low-Cost Fertilization/Supplementary Feeding System for Small-Scale Farmers

Principal Investigator: Peter Edwards

Sponsor: ODA, UK (£60,133)

Human Excreta Reuse in Aquaculture

Principal Investigator: Peter Edwards

Sponsor: ODA, UK (£39,716)

Improving the Performance of Agricultural Vehicles and Implements in Wet Paddy Fields

Principal Investigator: David Gee-Clough

Co-Investigator: V.M. Salokhe

Sponsor: EC (US\$128,000)

Improvement of Irrigation System Management and Irrigation Efficiency in the Southeastern Region of Asia

Principal Investigator: Akira Goto

Sponsor: JICA, Japan (US\$25,000)

Farmer Driven Electrostatic Low Volume Sprayer

Principal Investigators: C.P. Gupta and G.Singh

Co-Investigator: G. Manor, I.I.T. Haifa, Israel

Sponsor: USAID (US\$200,000)

Development of a Decision Model for Planning Agro-Industrial Projects in Developing Countries Phase I

Principal Investigator: Sarath G. Ilangantileke

Sponsor: CIDA, Canada (US\$2,750)

Pond Dynamics/Aquaculture Collaborative Research Supportive Program

Principal Investigators: C. Kwei Lin, P. Edwards

Sponsor: USAID (US\$108,000)

Introduction and Development of Channel Catfish Culture in the Tropics

Principal Investigator: C. Kwei Lin

Sponsor: Charoen Pokphand Inc., Thailand (Baht 2,836,513)

Development of Fry Production and Nursing Strategies for the Nile Tilapia

Principal Investigator: David Little

Sponsor: ODA, UK (£50,676)

Muscovy Ducks

Principal Investigators: David Little, Peter Edwards

Sponsor: IDRC, Canada (CAD\$111,700)

Study of Selected Environmental Parameters in Large Irrigation Projects Using Geographical Information Systems

Principal Investigator: V.V.N. Murty

Sponsor: CIDA (Baht 75,000)

Farm Irrigation System Design Constraints and Improvements in Major Irrigation Projects

Principal Investigator: V.V.N. Murty

Sponsor: CIDA (Baht 75,000)

Agroforestry

Principal Investigator: Jens Møller Nielsen

Sponsor: DANIDA (US\$5,600)

Integrated Fruit/Paddy Cultivation

Principal Investigator: Jens Møller Nielsen

Sponsor: DANIDA (US\$5,600)

Pest Control Alternatives

Principal Investigator: Jens Møller Nielsen

Sponsor: DANIDA (US\$5,600)

Development of Agricultural Experimentation Station

Principal Investigator: Jens Møller Nielsen

Sponsor: DANIDA (US\$11,000)

Fertilization System on Computer

Principal Investigator: Jens Møller Nielsen

Sponsor: DANIDA (US\$2,800)

Application of Enamel to Improve the Performance of Some Agricultural Implements

Principal Investigator: V.M. Salokhe

Sponsor: AIT (Baht 44,000)

Testing and Manufacturing of AIT Jab Seeder in Nepal

Principal Investigators: Gajendra Singh, Madan P. Pariyar

Sponsor: ICIMOD (US\$6,000)

Promotion of Jab Seeder (Thailand)

Principal Investigators: Gajendra Singh, David Gee-Clough

Sponsor: IDRC (CAD\$18,094)

Agricultural Equipment (Rice Transplanters) Testing
Principal Investigator: Gajendra Singh
Sponsor: Siamati Ltd. (Baht 100,000)

Study of Rainfed Agriculture in Nakhon Nayok Province
Principal Investigator: Hermann Waibel
Sponsor: AIT (Baht 44,000)

Economics of Agriculture/Aquaculture Systems in Asia
Principal Investigator: Hermann Waibel
Co-Investigator: Peter Edwards
Sponsor: GTZ (Baht 1,138,000)

Environmental and Social Costs of Pesticide Use in Asian Vegetable Production Systems
Principal Investigator: Hermann Waibel
Co-Investigators: S.H. Upasena, Jens Møller Nielsen
Sponsor: GTZ (Baht 1,202,000)

COMPUTER SCIENCE

In Progress

Performance Evaluation of Computer Systems Through Petri Net Tools
Principal Investigator: N.K. Nanda
Sponsor: AIT (Baht 27,000)

Development of an Expert System for Banknote Production Control
Principal Investigator: Vilas Wuwongse
Sponsor: Bank of Thailand (Baht 191,793)

Implementation of an Inventory Status Reporting System
Principal Investigator: Vilas Wuwongse
Sponsor: Bureau of Budget, Thailand (Baht 390,390)

Microcomputer-Based Medical Expert Systems
Principal Investigator: Vilas Wuwongse
Sponsor: UNU (US\$28,800)

ENVIRONMENTAL ENGINEERING

Completed

Hygienization and Stabilization of Night-Soil and Septic Tank Sludge by Aerobic-Thermophilic Treatment
Principal Investigators: H.M. Orth, J. Verink, F. Tran
Sponsor: GTZ (DM 70,000)

Environmental Impact Study for Bang Pa-kong Power Plant Extension
Principal Investigators: Samorn Muttamara and RRDC
Sponsor: EGAT, Thailand (Baht 1,966,000)

Integrated Development of Nong Song Hong, Khon Kaen and Na Po, Buriram, Thailand (An inter-disciplinary project involving EE, WRE, HSD, INRDM, RRDC)
Overall Coordinator: Prida Thimakorn, RRDC
Sponsor: NESDB (Baht 3,584,500)

Integrated Socio-Ecosystem Model of Pru To Daeng, Narathiwat, Thailand
Principal Investigators: Chongrak Polprasert and RRDC
Sponsor: RID, Thailand (Baht 1,597,500)

Wastewater Treatment Using Membrane Bioreactor: Its Application to Urban Areas in South East Asia
Principal Investigator: K. Yamamoto
Sponsor: JICA (Baht 220,000)

Saba Yoi Power Plant Project Seawater Quality Study
Principal Investigators: Samorn Muttamara and RRDC
Sponsor: EGAT, Thailand (Baht 150,000)

In Progress

Integrated Socio-Ecosystem Model of Pru To Daeng, Narathiwat, Thailand
Principal Investigators: Chongrak Polprasert and RRDC
Sponsor: RID, Thailand (Baht 1,597,500)

Total Treatment and Recovery System for Agro-Based Industrial Wastewater-Phase I: Technical and Economic Feasibility
Principal Investigator: Chongrak Polprasert
Sponsor: IDRC (CAD\$120,570)

Upgrading and Management of Sludge Treatment Facility at North Bangkok Water Treatment Plant
Principal Investigators: Chongrak Polprasert, S. Vigneswaran and Prida Thimakorn
Sponsor: MWA, Thailand (Baht 1,200,000)

Simple Sand-Gravel Filtration System for Rural Communities Water Supply
Principal Investigator: S. Vigneswaran
Sponsor: CIDA (Baht 150,000)

Applicability of Mobile Bed Filtration for Reuse of Domestic Wastewater in Bangkok
Principal Investigator: S. Vigneswaran
Sponsor: CIDA (Baht 75,000)

Sewage Purification through Aquatic Plants
Principal Investigators: H.M. Orth and J. Verink
Sponsor: GTZ (DM 233,750)

Domestic Sewage Treatment Using Multi-Stage Reversing-Flow Bioreactor (MRB)
Principal Investigator: Takashi Mino
Sponsor: JICA (Baht 200,000)

Detoxification of Municipal Sludge of Bangkok by Highly Active Bacterial Strains (heavy metals removal)
Principal Investigators: Francis Tran, R.D. Tyagi, Chongrak Polprasert
Sponsor: CIDA (Baht 75,000)

Rotating Porous Biomass Support System for Treating High-Strength Organic Wastes
Principal Investigator: Francis Tran
Sponsor: AIT (Baht 35,000)

Air-lift Biological Contactor for the Removal of Heavy Metals by *Thiobacillus ferrooxidans*
Principal Investigators: Francis Tran, D. Couillard, R.D. Tyagi
Sponsor: CQVB, Canada (CAD\$ 90,000)

High Rate Anaerobic Treatment of Wastewaters by UASB Process
Principal Investigator: Hideki Harada
Sponsor: JICA (Baht 130,000)

Krabi Thermal Plant
Principal Investigators: Samorn Muttamara and RRDC
Sponsor: EGAT, Thailand (Baht 2,114,780)

ENERGY TECHNOLOGY

Completed

Biocoal Project, Phase 1
Principal Investigators: S.C. Bhattacharya, R.M. Shrestha
Sponsor: GTZ (DM 315,000)

Testing of Equipment for Adaptation to Tropical Climate
Principal Investigators: P. Bouix, B. Mohanty
Sponsor: AFME (US\$ 100,000)

Technical Advice for Energy Conservation in an Industrial Building
Principal Investigators: B. Mohanty, J.P. Traisnel
Sponsor: ETA Co. (Baht 155,000)

Experimentation on Solar Pond
Principal Investigators: B.E. Cubizolles, P. Bouix, S. Jumba
Sponsor: AFME (US\$ 30,000)

Sectoral Energy Demand Analysis
Principal Investigators: B. Lapillonne, D. Bosseboeuf
Sponsor: AFME (US\$ 45,000)

Testing and Construction of the Testing Facility for Refrigerators and Freezers
Principal Investigators: F. Lasnier, P. Bouix
Sponsor: AFME (US\$ 16,000)

Pumping Survey in Thailand
Principal Investigator: F. Lasnier
Sponsor: BP (US\$ 15,000)

Suan-Som Photovoltaic Project, Thailand
Principal Investigator: F. Lasnier
Sponsor: Systems A.M.I. (US\$ 2,000)

Regional Animation in Photovoltaic
Principal Investigator: F. Lasnier
Sponsor: AFME (US\$ 25,000)

Training in the Pacific Islands in Photovoltaics for Rural Electrification
Principal Investigator: F. Lasnier
Sponsor: ESCAP (US\$ 5,000)

Phra Yuen Photovoltaics Pumping Project
Principal Investigator: F. Lasnier
Sponsor: Thai/Australia Team (US\$ 2,500)

AIT-ESCAP Photovoltaic Project in Pakistan
Principal Investigator: F. Lasnier
Sponsor: ESCAP (US\$ 35,000)

Energy Demand Analysis and Forecasting in Thailand
Principal Investigators: G.V. Dang, P. Pongsa
Sponsor: EC (US\$ 257,600)

Characterization of Rural Energy Uses
Principal Investigators: G.V. Dang, H. D. Jose, W. Voravit, and M.L. Canlas
Sponsor: EC (US\$ 63,800)

Asian and Pacific Energy Planning Network (APENPLAN) Second Year
Principal Investigators: N.J.D. Lucas, R. Codoni, G.V. Dang
Sponsor: EC (US\$ 33,000)

In Progress

Biocoal Project, Phase 2

Principal Investigators: S.C. Bhattacharya,
R.M. Shrestha

Sponsor: GTZ (Baht 1.3 million)

Rational Use of Energy in Buildings

Principal Investigators: B.Mohanty, J.P.Traisnel

Sponsor: AFME (US\$ 10,000)

Digestion of Rice Straw/Cow Manure and Water
Hyacinth with the Leach Bed and Hybrid System

Principal Investigator: W. Tentscher

Sponsor: GTZ (DM 94,600)

Ageing Test with Locally Available

Plastic Films as Gasholders

Principal Investigator: W. Tentscher

Sponsor: GTZ (DM 1,000)

Energy and Environment: Membrane Technology

Principal Investigators: J.C. Mora, S. Vigneswaran

Sponsor: CNRS (Phase I - US\$ 10,000),

(Phase II - US\$ 90,000)

Development of Regional Energy Data Base, Phase 2

COPEL Energy Research Project

Energy Diagnosis and Demand Forecasting of

Capiz Province, Philippines

Principal Investigator: G.V. Dang

Sponsor: EC (US\$ 88,000)

GEOTECHNICAL AND TRANSPORTATION ENGINEERING

Completed

Investigation of Integrity of Concrete Piles

Damaged by Soil Sliding at Lad Phrao Pump Station

Principal Investigators: Noppadol Phien-wej,

Worsak Kanok- Nukulchai

Sponsor: CISA-Slot Joint Venture Thailand (Baht 73,335)

Investigation of Mining or Excavation Induced

Instability and the Development of a Methodology

for Optimum Ground Control

Principal Investigator: B. Indraratna

Sponsor: AIT (Baht 50,000)

Diversion Rate of Expressways in Developing Countries

Principal Investigator: K. Kuroda

Sponsor: AIT (Baht 44,000)

Design and Construction of a Low Cost Fully
Automated Data Acquisition System Controlled
IBM-Personal Computer

Principal Investigator: B. Indraratna

Sponsor: AIT (Baht 67,500)

Investigation and Recommendation on the Stability
of Man-made Lake Slopes at Nichada Park

Principal Investigators: Noppadol Phien-wej, D.T.Bergado

Sponsor: Anichata Co. Ltd. (Baht 230,160)

Stability of Natural Deposits

Principal Investigator: J. Kuwano

Sponsor: JICA (Baht 320,000)

Role of Chao Phraya Express Boat as Public

Transportation in the Bangkok Metropolitan Area

Principal Investigators: Y. Tanaboriboon, H. Inamura

Sponsor: IDRC (Baht 297,000)

In Progress

Development of Under-Reamed Piling Technique and
Equipment for Foundations of Low-Rise Houses/Structures
in Low-Lying Marshy Areas Consisting of Organic
Clay and Peat Deposits

Principal Investigators: A.S. Balasubramaniam,

D.T. Bergado

Sponsor: UNDP through UNCHS, Kenya (US\$ 30,000)

Welded Wire Reinforced Earth (Mechanically Stabilized)

Embankments with Cohesive Backfill on Soft Clays

Principal Investigators: D.T. Bergado,

A.S. Balasubramaniam

Sponsor: USAID (US\$ 150,000)

Feasibility Studies on Transportation

Projects in Southeast Asian Regions

Principal Investigator: H. Inamura

Sponsor: JICA (Baht 425,000)

Traffic Operation and Management

Principal Investigator: K. Kuroda

Sponsor: JICA (Baht 356,984)

Impact of Quaternary Geology on Urban Development
and Land Use in Central Thailand

Principal Investigators: Prinya Nutalaya, R.N. Yong

Sponsor: IDRC (Baht 1,900,260)

Granular Piles for Foundation Treatment of Approach

Embankments for Bridges and Viaducts on Soft Ground

Principal Investigator: D.T. Bergado

Sponsor: CIDA/AIT-CUC/PP (Baht 75,000)

Study Tour to Japan

Principal Investigator: K. Kuroda

Sponsor: Express Highway Research Foundation of Japan (Baht 640,000)

Investigation and Improvement of Dispersive Soils in Thailand

Principal Investigator: B. Indraratna

Sponsor: CIDA/AIT-CUC/PP (Baht 75,000)

Finding Water for Laem Talumpuk Village

Principal Investigator: Prinya Nutalaya

Sponsor: CIDA/AIT-CUC/PP (Baht 75,000)

A Comprehensive Water Transportation Study in the Bangkok Metropolitan Area

Principal Investigator: Y. Tanaboriboon

Sponsor: IDRC (Baht 590,000)

Geotechnical Problems Concerning Soft Ground in South East Asia

Principal Investigator: Y. Honjo

Sponsor: JICA (Baht 212,040)

Test Embankment on Improved Ground by Deep Mixing Method

Principal Investigator: Y. Honjo

Sponsor: Takenaka Civil Eng. Co. (Baht 355,160)

Managerial Policies and Techniques for Public Bus Transit System

Principal Investigators: D.L. van Oudheusden,

Y. Tanaboriboon, E. Bohez

Sponsor: Government of Belgium (Baht 4,000,000)

HUMAN SETTLEMENTS DEVELOPMENT

Completed

Training Course Manual for

Labour Administration in Urban Informal Sector

Principal Investigator: A.T.M. Nurul Amin

Sponsor: CIDA/AIT-CUC/PP (Baht 82,100)

Evaluation of Pak Chong ADP, Lao PDR

Principal Investigators: H. Demaine, Sirilak Surisap,

Prida Thimakorn

Sponsor: Mekong Secretariat (US\$ 7,000)

In Progress

Microcomputer Software Development: "SILP 2"

(Services Identification and Location Package, Version 2)

Principal Investigator: H.D. Kammeier

Sponsor: UNCHS (Habitat), Kenya (US\$ 18,000)

LOK BILD Self-Contained Housing Delivery System and Demonstration Core House

Principal Investigators: B.G. Lefebvre, A.B. Etherington

Sponsor: CIDA/AIT-CUC/PP (Baht 168,000)

Human Settlements Through Medium-Scale Construction Material Production

Principal Investigators: B.G. Lefebvre, Yap Kioe-Sheng

Sponsor: CIDA (CAD\$ 5,000)

Regional Analysis of an Emerging Metropolis:

Cuttack-Bhubaneswar City Region in Eastern India,

A Case Study

Principal Investigator: J.K. Routray

Sponsor: AIT (Baht 44,000)

Developing Agro-Enterprises in Rice-Based Farming Systems Among Rural Women in Asian and Pacific Countries, Phase 1

Principal Investigator: E.D. Setty

Sponsor: CIDA/AIT-CUC/PP (US\$ 5,910)

People's Image of Development: A Cultural Case Study in Asian and the Pacific Basin, Phase 1

Principal Investigator: E.D. Setty

Sponsor: CIDA/AIT-CUC/PP (US\$ 4,334)

Low-Income Rental Housing in Bangkok

Principal Investigator: Yap Kioe-Sheng

Sponsor: AIT and CIDA/AIT-CUC/PP (Baht 175,000)

INDUSTRIAL ENGINEERING AND MANAGEMENT

Completed

Optimal Design of Water Distribution Network

Principal Investigator: O. Fujiwara

Sponsor: JICA (Baht 120,000)

In Progress

Production Planning and Kanban System

Principal Investigator: O. Fujiwara

Sponsor: JICA (Baht 120,000)

Reliability Analysis of Flexible Manufacturing Systems
Principal Investigator: N.N. Nagarur
Sponsor: AIT (Baht 50,000)

Managerial Policies and Techniques for
Public Bus Transit Systems in the Asian Region
Principal Investigator: D.L. van Oudheusden
Sponsor: RUCA (Baht 4,342,200)

Inventory of Scientific and Technological Research
Institutions in ASEAN Countries
Principal Investigator: J.C.S. Tang
Sponsor: EC (Baht 506,600)

INTERDISCIPLINARY NATURAL RESOURCES DEVELOPMENT AND MANAGEMENT PROGRAM

Completed

Geomorphic Units Appearing on
Remote Sensing Imageries in Thailand
Principal Investigator: Apisit Eiumnoh
Sponsor: National Research Council, Thailand
(Baht 83,500)

Environmental Impact Study for Pru To Daeng
Development, Narathiwat Province
(Agriculture, Soil and Land Use)
Principal Investigator: Apisit Eiumnoh
Sponsors: TEAM Consulting Engineering/RID, Thailand
(Baht 1,597,500)

A Study of Land Use/Land Cover Map Accuracy
Using Digital High Resolution Satellite Imagery
for Narathiwat Province
Leader: HRH Princess Maha Chakri Sirindhorn
Consultant: Apisit Eiumnoh
Grant: (Baht 184,500)

In Progress

Survey of Narcotic-growing Areas
Using SPOT Imagery, Phase 2
Principal Investigator: Bertrand Galtier
Sponsors: French Government (FF 620,000) and ONCB

Growth of Middle Income Group in Asian Cities:
Environmental Implications
Principal Investigator: Douglas R. Webster
Sponsor: CIDA (CAD\$ 5,000)

Surface Water Evaluation in Northeast Thailand :
A Pilot Project Using Satellite Remote Sensing
Principal Investigator: Kaew Nualchawee
Sponsor: NESDB (Baht 7,000,000)

STRUCTURAL ENGINEERING AND CONSTRUCTION

Completed

Investigation of Integrity of Concrete Piles
Damaged by Soil Sliding at Lardprao Pump Station
Principal Investigators: Worsak Kanok-Nukulchai,
Noppadol Phien-wej
Sponsor: CISA International, Italy (Baht 73,653)

Properties of Concrete Using Z/10A and Z/12C Additives
Principal Investigators: Pichai Nimityongskul,
Chalat Choeypunt
Sponsor: General Engineering Ltd., Thailand (Baht 100,000)

Load Test of Roof Slabs
Principal Investigators: Pichai Nimityongskul,
Chalat Choeypunt
Sponsor: Kamthorn Panich Co. Ltd., Thailand (Baht 70,000)

Finite Element Analysis of Rail Tank Wagon Structures
Principal Investigators: Worsak Kanok-Nukulchai,
Somporn Attasaernewong
Sponsor: Thai Shell Exploration and Production
Co. Ltd., Thailand (Baht 99,118)

Nondestructive Test of Bangkok Metropolitan Waterworks
Authority's Concrete Transmission Tunnel
Principal Investigators: Worsak Kanok-Nukulchai,
T. Ueda, and Chalal Choeypunt
Sponsor: Metropolitan Waterworks Authority of Thailand,
(Baht 178,888)

Effects of Floods of November 18-23, 1988 in Southern
Thailand on Highway Bridges and Large Dams
Principal Investigator: M. Wieland
Sponsor: Swiss Disaster Relief Unit

In Progress

MICRO-ACE Software Development Project

Principal Investigators: Worsak Kanok-Nukulchai,
Somporn Attasaernewong

Sponsor: Supported by income generated through software distribution and from the Microcomputer Workshops for Structural Engineering Applications and Practice (M/SEAP) for practicing structural engineers in the region (Baht 200,000 annually)

Quantitative Classification of Tunnelling Conditions

Principal Investigators: R. Chauhan and R. Singh
Sponsor: Central Board of Irrigation and Power, India
(Indian Rs 84,000)

Fracture Mechanics and NDE for Infrastructures in ASEAN Countries

Principal Investigator: H. Horii
Sponsor: JICA (Baht 480,000)

WATER RESOURCES ENGINEERING

Completed

Power Production Improvement for the Selabam

Mini-Hydropower Station, Laos-PDR
Principal Investigators: Suphat Vongvisessomjai,
Prida Thimakorn, Preecha Kamronrithisorn
Sponsor: Tata Consulting Engineers, India (US\$ 65,418)

Hydraulic Model Study of Pak Mun Hydropower Project

Principal Investigators: Prida Thimakorn,
Preecha Kamronrithisorn
Sponsor: EGAT, Thailand (US\$ 79,994)

Environmental Impact Study for Bang Pakong
Power Plant Extension (Bang Pakong Phase 3)

Principal Investigators: Prida Thimakorn, Preecha
Kamronrithisorn, Prawit Suranirant, Samorn Muttamara
Sponsor: EGAT, Thailand (US\$ 78,015)

In Progress

Improved Large Scale Water Resources
Development Planning

Principal Investigators: J.J. Bogardi, R. Harboe
Sponsor: GTZ (US\$ 100,000)

A Study on Impacts of Thermal Discharge and Ash Pond
Effluent on the Receiving Water Environment from 75 MW
Lignite Krabi Thermal Power Plant

Principal Investigators: Prida Thimakorn, Preecha
Kamronrithisorn, Samorn Muttamara, Prawit Suranirant
Sponsor: EGAT, Thailand (US\$ 83,260)

Upgrading and Management of Sludge Treatment
Facility at North Bangkok Water Treatment Plant

Principal Investigators: Prida Thimakorn, Chongrak
Polprasert, S. Vigneswaran, Preecha Kamronrithisorn
Sponsor: MWA, Thailand (US\$ 48,554)

Monitoring of Shoreline and Seabed of Map Ta Phut Port

Principal Investigator: Suphat Vongvisessomjai
Sponsor: NSR Consulting Group, Thailand (US\$ 91,417)

Improved Operation and Management of Large Scale
Irrigation Systems

Principal Investigators: Rainer Loof, G.N. Paudyal
Sponsor: GTZ (US\$ 136,252)

Low Pa Mong Project - Reservoir Sedimentation, River
Degradation and Water Level Fluctuations at Downstream

Principal Investigator: Suphat Vongvisessomjai
Sponsor: Interim Committee for Coordination of
Investigation of the Lower Mekong Basin (US\$ 21,312)

Methods for Short Term Forecast of
Streamflow from Ungauged Catchments

Principal Investigator: N.E. Jensen
Sponsor: Danish Hydraulic Institute (US\$ 4,877)

Comparison Study: Comparing the NWS and
the MIKE 11 Dam Break Model

Principal Investigator: N.E. Jensen
Sponsor: Danish Hydraulic Institute (US\$ 1,760)

Stochastic Hydrological Modelling of Ungauged Catchments

Principal Investigator: N.E. Jensen
Sponsor: Danish Hydraulic Institute (US\$ 4,877)

Investigation and Research on Aquatic
Environment in ASEAN Countries

Principal Investigator: J. Akiyama
Sponsor: JICA (US\$ 28,000)

SCHOOL OF MANAGEMENT

In Progress

Barriers Faced by Executive Women

Principal Investigators: F. W. Swierczek, Unni Rost
Sponsor: CIDA/AIT/PP (Baht 75,000)

Comparative Entrepreneurial Style

Principal Investigator: F. W. Swierczek
Sponsor: AIT (Baht 50,000)

Impact of Industrial Estates on Small Business
Development and Technology Transfer

Principal Investigator: F.W. Swierczek
Sponsor: AIT/PP (Baht 75,000)

LANGUAGE CENTER

Completed

Development and Implementation of Extended Pre-masters Program for Hydropower Engineers from Laos
Principal Investigators: M. Laszewski, J. Shaw, W. Savage, B. Kenny
Sponsor: SIDA/EDL (US\$ 18,000)

Development and Implementation of Training Course for Hydropower Technicians in Vientiane. Phase I
Principal Investigators: S. Govindasamy, D. Hall, B. Kenny, M. Laszewski, G. Storer
Sponsor: SIDA/EDL (Baht 643,620)

In Progress

Needs Analysis and Program Development for Canada/ASEAN Forest Tree Seed Center, Muak Lek
Principal Investigators: D. Hall, W. Savage
Sponsor: CIDA (Baht 59,442).

LIBRARY AND REGIONAL DOCUMENTATION CENTER

In Progress

Strengthening Information Systems for Environmental Sanitation in Selected Developing Member Countries
Principal Investigators: H.A. Vespry, K. Bhattarai, Sein Mya
Sponsor: ADB (US\$ 350,000)

Ferrocement Information Network Activities for Rural Development
Principal Investigators: H.A. Vespry, L.R. Austriaco
Sponsor: IDRC (US\$ 148,200)

REGIONAL COMPUTER CENTER

In Progress

Mahaveli Downstream Development Projects Monitoring System
Principal Investigator: D.P.A. Dias
Sponsor: Mahaveli Authority, Sri Lanka (US\$ 52,000)

IMO Ship Pollutant Database Project: Maritime Incident Reporting System
Principal Investigator: D.P.A. Dias
Sponsor: International Maritime Organization (US\$ 14,500)

CAD Assisted Facilities Planning
Principal Investigator: H. Le Tien
Sponsor: Rice Engineering Supply Co., Ltd., Bangkok (Baht 90,000)

CONTRACT PROGRAMS

ASIAN DISASTER PREPAREDNESS CENTER

Completed

Seismic Hazard Mitigation in the Philippines
Principal Investigator: S.P. Gupta
Sponsor: ASEAN/Canada (CAD\$ 50,000)

Seminar on Socio-Economic Aspects of Disaster in the Asian-Pacific Region
Principal Investigator: Everett Ressler
Sponsor: US National Science Foundation (US\$ 12,950)

In Progress

Core Shelter Project in the Philippines
Principal Investigator: S.P. Gupta
Sponsor: UNDP/UNDRO (US\$ 24,584)

Disaster Management Program in the Philippines
Principal Investigator: Brian Ward
Sponsor: UNDP/UNDRO (US\$ 50,000)

CONTINUING EDUCATION ACTIVITIES DURING 1989

Date	Academic Unit at AIT	Title of Short-term Training Course, Seminar or Workshop	Sponsor/ Co-organizers
9-20 Jan	CS/CEC	Information Systems Management	UNDP
11-13 Jan	SEC	EASEC 2	AIT/CMU/UOT/EIT
16 Jan-3 Feb	RCC/RRDC	Mircocomputers for Oceanographic Data Management	IOC-UNESCO
16 Jan-7 Apr	Library	Management of Library and Information Services	UNESCO
30 Jan- 10 Feb	HSD	NUDC Staff Training 1: Urban Action Area Planning, Bhutan	UN Habitat
30 Jan- 10 Feb	CS/IEM/CEC	Managing Computer Centers	UNDP
5 Feb-19 Mar	ENSIC	Repackaging/Information Handling: Water Supply and Sanitation	IDRC
6-24 Feb	CEC	Quality Control in Food Industry	US-ASEAN/IEM
9 Feb	ET	Computer Software for Designing and Retrofitting of Buildings for Energy Conservation	ESCAP/REDP/ET
21 Feb-31 Mar	RCC	Farming Systems Data Collection and Analysis	FAO
24 Feb-12 May	CEC/WRE	Flood Control and Reservoir Operation	Netherlands-DSO
27-28 Feb	CEC/CS	Expert Systems	RONAST
27 Feb- 3 Mar	ET/CEC	Energy Policy	CIFOPE
26 Feb-8 Apr	CEC	Flood Control and Reservoir Operation	Netherlands/WRE/CS/IEM/ALWDP
1-3 Mar	CS/CEC	Expert Systems for Development	RONAST
6-17 Mar	SOM	Management of Technology	French Government
6-17 Mar	LRDC/RERIC	Newsletter Preparation	IDRC
20 Mar-12 May	CEC	Rural Infrastructure Development: Planning and Management	Adv/HSD/IEM/EE/LRDC/AFE/ET/ALWDP
30 Mar	SOM	Conflict Management	SOM
4 Apr	ET	Transportation and Energy Consumption	ECCT /ET
5 Apr	ET	Stakes on Urban Transportation Policies; Transportation and Energy Consumption	HSD/ET
6-20 Apr	HSD	NUDC Staff Training 2: Housing, Bhutan	UN Habitat
10-21 Apr	LRDC/RERIC	Micro CDS/ISIS and Database Development	USAID
14 Apr	ET	French Policies for New Cities: Stakes of Urban Transportation Policies	Silapakorn University / ET
17 Apr	HSD	Regional Development Planning: Past, Present and Future, held at the Centre of Geography and Natural Resources, Hanoi	AIT-ISS
17 Apr-26 May	ADPC	Disaster Management Course No. 1	ADPC
17 Apr-26 May	CEC	Project Management	ADB/IEM/HSD
21 Apr-2 May	HSD	NUDC Staff Training 3: Plan Implementation and Land Management, Bhutan	UN Habitat
24-28 Apr	ET	REDP: Sectoral Energy Demand Studies	ESCAP/UNDP/ET
24 Apr-12 May	CEC/WRE/GTE	Dam Engineering	OECE

Date	Academic Unit at AIT	Title of Short-term Training Course, Seminar or Workshop	Sponsor/ Co-organizers
25 Apr	GTE	Earth Reinforcement	EIT, CEC
8 May	HSD	Appropriate Technology and Rural Regional Development	US Peace Corps
8 May-16 June	EE	Industrial Air Pollution Control	GTZ
8 May-23 June	CEC	Irrigation Project Rehabilitation and Management	WB/USAID/ALWDP/CS
8 May-29 July	LRDC/IEM	New Information Technology and Computerized Library Services	IDRC/USAID/ French Govt/CFTC/ADB/NORAD
8 May-11 Aug	INRDM	Natural Resources Information Management	USAID/ASEAN/Swiss Govt.
22 May-2 June	CS/CEC	Scientific Computation and Software Packages	UNDP
24-26 May	SOM	Marketing in Technology-based Business	EC
29 May-8 June	CS	Computer Network Management	Adv/CEC
29 May-21 July	CEC	Small Scale Flood Control, Drainage and Irrigation Projects	CIDA/WRE/CS/ALWDP
1 June	ET	Research Policy on Energy Management: The Case for France	AFME
4-16 June	HSD	Urban Area Planning and Plan Implementation, Kathmandu	GTZ
12 June-7 July	INRDM	Workshop on Satellite Crop Monitoring	UNDP/USAID
14-21 June	CS	Local Area Networks Design and Application	Norwegian Govt.
18-22 June	AFE	Aquaculture in Northeast Thailand: Management and Siting	BAAC, Thailand
19-20 June	CEC	Job Efficiency	Laos/SIDA
22-23 June	GTE	Bangkok Land Subsidence — What's Next ?	IDRC
26 June-5 July	CEC	Privatization and Management of Public Enterprises	Govt. of Sri Lanka
26 June-22 Sept.	CEC/RERIC	Management of On-Farm Water and Rainfed Agriculture	ADB/WRE/AFE
3-28 July	CEC	Managing Rural Development	Adv/HSD/IEM
3-28 July	CEC	Planning and Management of Engineering Education in Thailand	UNESCO/UNDP
16-27 July	INRDM	Geology, Image Processing, Coastal Zone Development, Jakarta	French Govt./BPPT
17 July-25 Aug	CEC	Management of Training Centers	Adv/RCC
19 July- 1 Sept	LRDC	CDS/ISIS	PacMar
24 July- 6 Aug	CEC	AIT-UC Berkeley Advanced Management Program	Adv/IEM
30 July-4 Aug	EE/ENSIC	Water Supply and Sanitation	ADB
31 July	IEM	System Dynamics for Reflective Practice	ORSJ (Japan)
31 July- 4 Aug	ENSIC/EE	Water and Sanitation Awareness	ADB
7-25 Aug	INRDM	Microcomputer for GIS	USAID/IRRI/AIFM/ADB/USM
20 Aug-4 Sept	CEC	Study Visit of Nepalese Officials on Rural Development	MECHI
4-5 Sept	CEC	Industrial Applications of Solid-Liquid Separation Technology	Adv/EE/INRDM
17-30 Sept	CEC	Study Visit of Sri Lankan Officials on School Clusters	GTZ

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**1989 FACULTY
AND INTERNATIONAL ACADEMIC
AND RESEARCH STAFF**

PROMOTIONS

Full Professor

V.K. Jindal	1 July
D. Gee-Clough	1 July
Chongrak Polprasert	1 July
Worsak Kanok-Nukulchai	1 July
J.C. Mora	1 July

Associate Professor

K. Yamamoto	1 July
T. Ueda	1 July

APPOINTMENTS

Chairman

S. Vigneswaran	1 Aug
Prem Vrat	30 Aug
Y. Honjo	4 Dec

Professor

R. Harboe	15 Mar
D.R. Webster	2 Jan
I.M. Robinson	1 Aug

Associate Professor

S.H. Upasena	10 Jan
Surapong Chirarattananon	1 Apr
D.J. Macintosh	1 Mar
T. Mino	9 May
Y. Honjo	1 May
Yordphol Tanaboriboon	16 Nov
Yap Kioe-Sheng	1 July
B.G. Lefebvre	1 May
K. Yamamoto	1 July
H. Horii	21 Apr
F.W. Swierczek	11 May
K. Ramanathan	23 May
R. Soegaard	1 Aug
H. Harada	24 Aug
H. Schroder	7 Oct

Assistant Professor

R.M. Shrestha	1 Apr
J. Verink	11 Jan
A. Yakupitiyage	1 June
T.Y. Gan	17 May
W.E. Savage, Jr.	1 Aug
A. Fukuda	15 Aug
J.L. Shaw	15 June

**Visiting Faculty Member
Over One Year**

Zong-Tae Bae	1 May
M.G. Korgaonker	1 Sept

Less Than One Year

R.W. Archer	1 Jan
E.A. Mesritz	1 Jan
J. Ruland	12 Jan
S.K. Jain	8 Jan
O.A. Varis	3 Jan
V.E.J. Kettunen	7 Feb
S.A. Nielsen	5 Jan
G.A. Ross	3 Jan
K. Harigopal	9 Jan
P.M. Dung	1 May
S.T. Wong	1 May
T. Panda	5 May
Yudhbir	8 May
A. Hartley	10 May
A.B. Etherington	15 May
G.K.E. Janssens	15 May
B.J. Hosking	23 Aug
G.S. Hira	1 Sept
R.H. de Ridder	1 Oct
C.R. Pathak	8 Sept
J.R.C. Hsu	13 Sept
T. Asaeda	4 Sept
T.P. Bagchi	4 Sept

RESIGNATIONS

Associate Professor

H. Inamura	4 Aug
K. Yamamoto	11 Sept
H.M. Orth	30 Sept
Kanchit Malaivongs	31 Oct
F. Lasnier	1 Sept
B. Chateau	30 Sept

Assistant Professors

V.M. Malhotra	8 Aug
J. Kuwano	11 May
C. Peacock	21 Jan

Visiting Faculty Members

T. Panda	4 Aug
T. Skjesol	30 June
S.T. Wong	14 Aug
P.G. Awate	30 Apr
G.A. Ross	2 May
A. Hartley	13 July
E.A. Mesritz	30 Apr
S.K. Jain	7 Apr
O.A. Varis	2 Mar
V.E.J. Kettunen	6 Apr
S.A. Nielsen	8 Apr
K. Harigopal	8 Apr
A.B. Etherington	14 Sept
B.J. Hosking	22 Dec
G.S. Hira	30 Nov
R.H. de Ridder	15 Nov
Kriengsak Udomsinrot	31 Aug
C.R. Pathak	7 Dec
J. Ruland	11 May
J.R.C. Hsu	12 Dec
T. Asaeda	3 Nov
T.P. Bagchit	2 Dec

LIST OF FACULTY MEMBERS

FULL TIME FACULTY

Juichiro Akiyama

B.E., Kyushu; M.S.C.E., Ph.D., Minnesota.
Assistant Professor, WRE

A.T.M. Nurul Amin

B.A. (Hons.), M.A., Dhaka; M.A., Ph.D., Manitoba.
Associate Professor, HSD

A.S. Balasubramaniam

B.Sc., Ceylon; Ph.D., Cambridge.
Professor, GTE

Dennes T. Bergado

B.S.C.E., Mindanao State; M.Eng., AIT; Ph.D., Utah State.
Associate Professor, GTE

S.C. Bhattacharya

B.E. (Mech.), M.E., Roorkee; Ph.D., Cambridge.
Associate Professor, ET

Surapong Chirarattananon

B.Eng., UNSW; M.Eng.Sc., Monash; D. Phil., Newcastle.
Associate Professor, ET

Rene Codoni

Ph.D., Basle.
Associate Professor, ET

Harvey Demaine

B.A., Oxford; M.Sc., Ph.D. London.
Associate Professor, HSD

Hiran. D. Dias

M.A., Ph.D., Cambridge.
Professor, HSD

Peter Edwards

B.Sc., Liverpool; Ph.D., Texas.
Professor, AFE

Helmut Eggers

Dipl. Ing., Dr. Ing., TH Karlsruhe.
Professor, WRE

Apisit Eiumnoh

B.Sc., Kasetsart; M.Sc., Sheffield; Ph.D., North Carolina State.
Associate Professor, INRDM

R.H.B. Exell

B.A. (Hons), M.A., D.Phil., Oxford
Professor, ET

Bertrand Fleutiaux

B.E., Zurich Polytechnic; Ph.D., Toulouse.
Associate Professor, INRDM

W.K. Foell

B.S., Stanford; S.M., MIT; Ph.D., Stanford.
Professor, ET

Okitsugu Fujiwara

B.S., M.S., Osaka; M.S., Stanford; M.A., M.Phil., Ph.D., Yale.
Associate Professor, IEM

Atsushi Fukuda

B.Eng., M.Eng., D.Eng., Nihon.
Assistant Professor, GTE

Bertrand Galtier

M.A. Ecology, Orsay; Ing. Ecole Polytechnique, Paris.
Assistant Professor, INRDM

Thian Yew Gan

B.E., Malaya; M.S.E., Texas at Austin; Ph.D., Washington.
Assistant Professor, WRE

Joseph A. Gartner

B.Agric.Sc., Queensland; Ph.D., Reading.
Associate Professor, AFE

David Gee-Clough

B.Sc., M.E., Wales; M.S., Cal. Tech.; Ph.D., California (Davis).
Professor, AFE

Akira Goto

B.Sc.A.E., M.Sc.A.E., Ph.D., Tokyo
Assistant Professor, ALWDP, WRE

Ashim Das Gupta

B.E., Gauhati; M.Eng. D.Eng., AIT.
Professor, WRE

Chandra P. Gupta

B.Sc. Agra; B.Tech, M.Tech., Ph.D., IIT, Kharagpur.
Professor, AFE

David R. Hall

B.A., Birmingham; M.A., Essex; PGCE, Leeds.
Associate Professor, LC

Hideki Harada

B.Eng., M.Eng., D.Eng., Tohoku.
Associate Professor, EE

Ricardo Harboe

B.Eng., Chile; M.Sc., Ph.D., UCLA.
Professor, WRE

G.S. Hirsch

Dip. ESSEC (Hons.); M.S. (Econ.), D.E.A., Paris;
Ph.D., Wharton.

Associate Professor and Director, SOM

Yasuke Honjo

B.Eng., NIT (Nagoya); M.Eng., Kyoto; S.M., Ph.D., MIT.
Associate Professor, GTE

Hideyuki Horii

B.S., University of Tokyo; M.S., Ph.D., Northwestern.
Associate Professor, SEC

Sarath G. Ilangantileke

B.Sc., Ceylon; M.S., Ph.D., Michigan State.
Associate Professor, AFE

Hajime Inamura

B.Eng., M.Eng., D.Eng., Tokyo Inst. of Tech.
Associate Professor, GTE

Buddhima Indraratna

B.Sc. (Hons.), M.Sc.; London; Ph.D., Alberta.
Assistant Professor, GTE

Niels Einar Jensen

M.Sc. Aalborg Univ. Center, Denmark.
Assistant Professor, WRE

Vinod. K. Jindal

B.Sc.A.E., Pantnagar; M.S., Nebraska;
Ph.D., Pennsylvania State.
Professor, AFE.

Hans Detlef Kammeier

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ABBREVIATIONS

ADB	Asian Development Bank	ICTP	International Centre for Theoretical Physics
AFME	French Agency for Energy Management	IDRC	International Development and Research Center, Canada
AIFM	ASEAN Institute of Forest Management	ILO	International Labor Organization, UN
ALRO	Agricultural Land Reform Office, Thailand	IOC	Inter-Governmental Oceanographic Commission
APT	Asian-Pacific Telecommunity	IRRI	International Rice Research Institute
ASEAN	Association of Southeast Asian Nations	ISS	Institute of Social Studies, Netherlands
ARPLA	Asian and Pacific Regional Center for Labour Administration	ITU	International Telecommunications Union
BARC	Bangladesh Agricultural Research Council	JICA	Japan International Cooperation Agency
BMA	Bangkok Metropolitan Administration	KEIDANREN	Federation of Economic Organizations, Japan
BPPT	Office for Assessment of Technology, Indonesia	KMIT	King Mongkut's Institute of Technology, Thailand
CFCT	Commonwealth Fund for Technical Cooperation	KU	Kasetsart University, Thailand
CIDA	Canadian International Development Agency	MECHI	Hill Irrigation and Related Development Programme (MPLD/MOA/SNV)
CIFOPE	Energy Development in South East Asia and Cooperation with the European Community	MOU	Memorandum of Understanding
CMU	Chiang Mai University, Thailand	NESDB	National Economic and Social Development Board, Thailand
CNES	Centre National D'Etudes Spatiales	NORAD	Norwegian Agency for International Development
CNRS	Centre National pour La Recherche Scientifique	ODA	Overseas Development Administration, UK
CQVB	Center Quebec Valorisation Biomass	OECF	Overseas Economic Cooperation Fund
CUC/PP	Canadian University Consortium/Partnership Project	ONCB	Office of the Narcotics Control Board, Thailand
DAAD	German Academic Exchange Service	ORSJ	Operation Research Society of Japan
DANIDA	Danish International Development Agency	REDP	Regional Energy Development Program
DHI	Danish Hydraulic Institute	RONAST	Royal Nepal Academy of Science and Technology
Netherlands/DSO	Netherlands/Direct Aid to Educational Establishments in Developing Countries	RUCA	State of University Antwerp
DTEC	Department of Technical and Economic Cooperation, Thailand	SEAMEO	Southeast Asian Ministers of Education Organization
EASEC	Second East-Asia Pacific Conference on Structural Engineering and Construction	SIDA	Swedish International Development Authority
EC	European Community	UNCHS	United Nations Commission for Human Settlements
EDL	Electricite du Laos	UNDP	United Nations Development Program
EGAT	Electricity Generating Authority of Thailand	UNDRO	United Nations Disaster Relief Organization
EIT	Engineering Institute of Thailand	UNEP	United Nations Environment Programme
ERTAT	Expressway and Rapid Transit Authority of Thailand	UNESCO	United Nations Educational, Scientific and Cultural Organization
ESCAP	Economic and Social Commission for Asia and the Pacific, UN	UNHCR	United Nations High Commissioner for Refugees
FAO	Food and Agriculture Organization, UN	UNICEF	United Nations Children's Fund
FIAM	Forum for Integrated Agricultural Management	UNU	United Nations University
FMO	Fish Marketing Organization, Thailand	UNO	United Nations Organization
GTZ	German Agency for Technical Cooperation	USAID	United States Agency for International Development
ICIMOD	International Centre for Integrated Mountain Development	USM	Universiti Sains Malaysia
ICLARM	International Center for Living Aquatic Resources Management	WB	World Bank
		WHO	World Health Organization

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Divisions and Programs

APE	Agricultural and Food Engineering
CS	Computer Science
EE	Environmental Engineering
ET	Energy Technology
GTE	Geotechnical and Transportation Engineering
HSD	Human Settlements Development
IEM	Industrial Engineering and Management
SEC	Structural Engineering and Construction
WRE	Water Resources Engineering
SOM	School of Management
ALWDP	Agricultural Land and Water Development Program
INRDM	Interdisciplinary Natural Resources Development and Management

Centers

ADPC	Asian Disaster Preparedness Center
CEC	Continuing Education Center
RCC	Regional Computer Center
LRDC	Library and Regional Documentation Center
LC	Language Center
RRDC	Regional Research and Development Center

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