

ANNUAL REPORT

ASIAN INSTITUTE OF TECHNOLOGY

استیتوت تکنالوجی آسیا

এশিয়ান ইন্সটিটিউটে অর টেকনোলজী

INSTITUT TEKNOLOGI ASIA

အာရှ ဝက် ဖူ တက္ကသိုလ်

亞洲理工學院

ASIATISK TEKNOLOGISK INSTITUTT

INSTITUT ASIATIQUE DE TECHNOLOGIE

ASIATISCHE TECHNISCHE HOCHSCHULE

استیتوت تکنالوجی آسیا

ISTITUTO ASIATICO DI TECNOLOGIA

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एशियन तकनीकी संस्थान

アジア工科大学院

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एशियन इंस्टीट्यूट ऑफ टेक्नोलॉजी

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انسٹیوٹ تکنالوجی آسیا

TEKNOLOGY SKUL BILANG ASIA

Institusyon ng Asya Sa Teknolohya

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Asian Institute of Technology

Power to manage the affairs of the Institute is vested by the Charter in the Board of Trustees, consisting of not less than nine nor more than sixty members. The Charter stipulates that the Board shall be international in character and composition to the highest degree practicable and that it shall always include the President of the Institute. The Board elects one of its members to serve as Chairman. The President, who is the chief executive officer of the Institute, is responsible for conducting the affairs of the Institute within the policies and budgets established by the Board.

Notes

- Ex Officio Member
- Life Member
In all other cases, the period of appointment terminates in the year shown in brackets, normally after the January Board meeting.
- + Elected by the Faculty

Ex Member of Executive Committee

Ep Member of Education Policy Committee

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Foreword



Calendar year 1981 was a year which saw considerable activity in the strengthening of the Institute's academic programs, enlargement of its physical facilities, and planning for the future. There were significant increases in the number of faculty members and students. A total of 250 degrees and diplomas were awarded during 1981.

The General Reserve and Endowment Funds both rose by about 25 percent during the year; the Net Investment in Plant increased by approximately 17 percent. During the year, 28 new sponsored research projects, with an aggregate gross income of \$1.4 million, were initiated.

Several construction projects were completed during 1981 including the Library, the Energy Technology Building, the Staff Dormitory, and the Staff Housing Complex. The Energy Research Park was improved and elaborated. The space previously utilized by the Library, Regional Documentation Center, and English Language Center was remodeled to provide new general-purpose classrooms and also offices and laboratories for the Asian Regional Remote Sensing Training Center, the Division of Computer Applications, and the Division of Industrial Engineering & Management.

During the year two major new construction projects were commenced: Village Number III (the "German Village"; to be completed in July 1982) and the Student Center (the "Korea House"; to be completed in April 1982).

Late in the year, preliminary plans were completed for a new building for the Division of Agricultural & Food Engineering and for an enlargement of the Engineering Experiment Station. Preliminary planning was carried out for a possible six or eight additional small houses for faculty and staff.

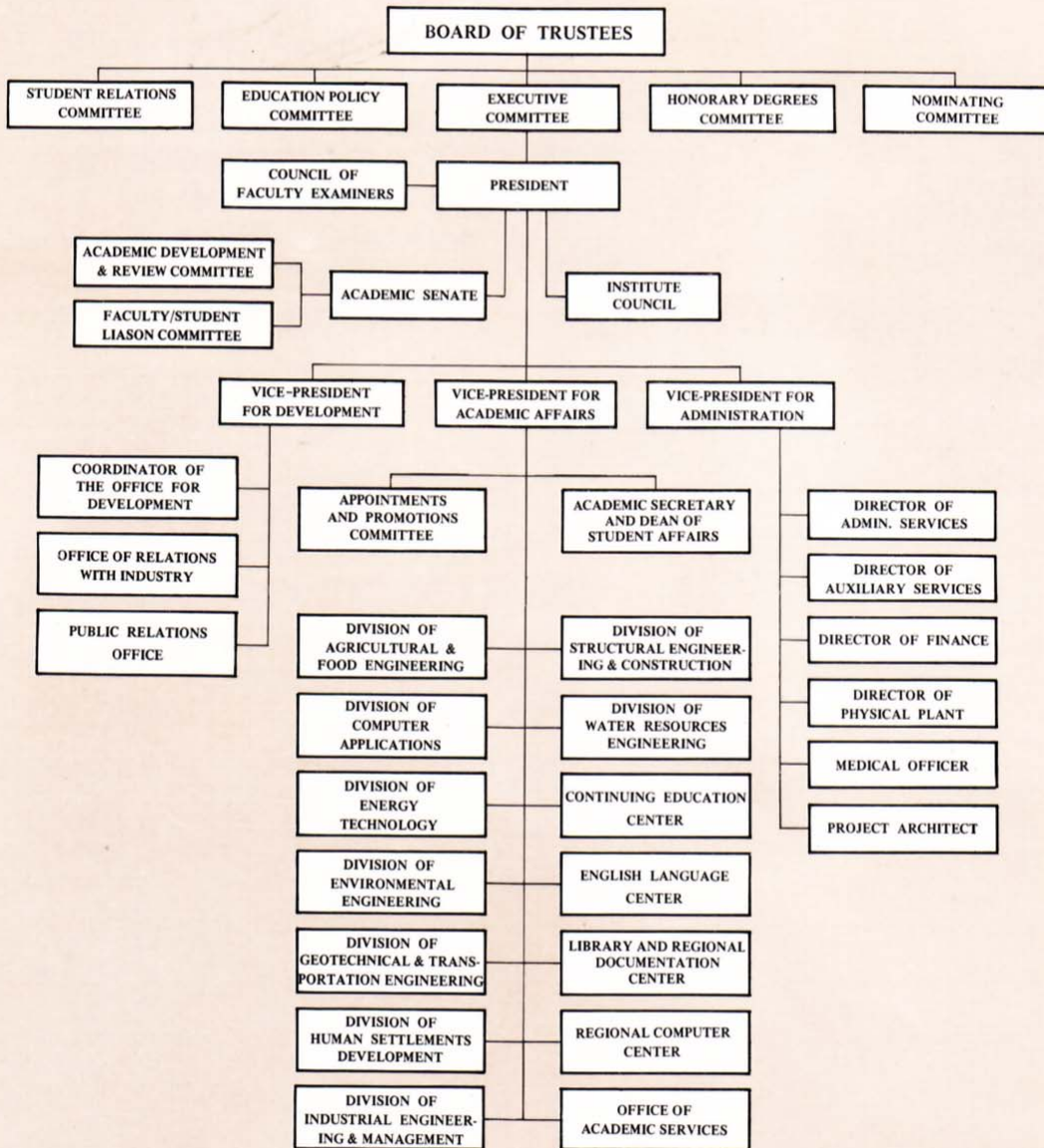
Thus, during the past twelve months the Institute made numerous further advances toward its continuing objective of helping, through the mechanisms of science and technology, to improve the economic and social conditions of the people of the region.

As it enters its twenty-third year, the Institute is deeply committed to the attainment of this objective. As in past years, the Institute will continue to make contributions to the countries of Asia.

A handwritten signature in dark ink, reading "Robert B. Banks". The signature is written in a cursive style with a prominent initial "R".

Robert B. Banks
President

ORGANIZATIONAL CHART OF THE ASIAN INSTITUTE OF TECHNOLOGY



Academic Development

During calendar year 1981, implementation of the substantial steps conceived by Professor M.N. Sharif, who served as Vice President for Academic Affairs through November 1981, to place academic affairs on a more systematic basis was undertaken. Admission of students by Division, rather than by field of study, began with September intakes to the Divisions of Environmental Engineering, Geotechnical & Transportation Engineering, and Structural Engineering & Construction. Thus began implementation of the Academic Development Plan (1981–1984), a part of the adopted Institute Plan.

Applications of students for admission in January 1982 to the Divisions of Agricultural & Food Engineering, Computer Applications, and Energy Technology were accepted until mid-May 1981. Applications for admission of students to the Divisions of Human Settlements Development, Industrial Engineering & Management, and Water Resources Engineering for entry in May 1982 were accepted until mid-September 1981. Thus, the Institute is approaching completion of the transition to three intakes each year. The benefits of this long-anticipated steady-state condition will include optimum use of Institute facilities by reducing the variation which had previously occurred in enrollments.

The Academic Senate, the principal legislative body of the Institute, continued its work with monthly meetings under the chairmanship of the Vice President for Academic Affairs, and through its two standing committees: the Academic Development & Review Committee (ADRC), and the Faculty Student Liaison Committee. Additionally, as in previous years, the Council of Faculty Examiners, comprised of all members of Faculty and those Associated Faculty who taught a course or supervised student research during the term, met in April, August, and December to review the performance of all students in residence during the term. The result of these deliberations was in each case a recommendation to the President for the dismissal from particular programs of study of those students whose performance failed to satisfy stipulated standards. For doctoral students, a meeting of the ADRC held a few days prior to each Council meeting dealt with each doctoral student to assess his performance during the term; the results of these deliberations were reported to the Council of Faculty Examiners.

A two-year feasibility study on how to access large computerized data bases started at the end of 1979. LRDC now offers two services for selective dissemination of information (SDI) for standard profiles ("Information Update"). With the successful installation at AIT of the software known as CDS/ISIS and CAN/SDI, AIT has become an "ISIS Resources Center" in Asia, helping other Asian Information Centers install or make better use of the software. In February 1981, at the request of UNESCO, the LRDC in cooperation with the RCC organized an "ISIS Training Course" at AIT for Centers in Thailand, Philippines, and Brazil wishing to acquire and use the ISIS system. (ISIS = Integrated Scientific Information System)

ACADEMIC DIVISIONS

Agricultural & Food Engineering
Computer Applications
Energy Technology
Environmental Engineering
Geotechnical & Transportation Engineering
Human Settlements Development
Industrial Engineering & Management
Structural Engineering & Construction
Water Resources Engineering

ACADEMIC CENTERS

Continuing Education Center
English Language Center
Library & Regional Documentation Center
Regional Computer Center

During 1981 training was provided at AIT for information specialists from Bangladesh, Philippines, Malaysia, Thailand in charge of operating specialized Information Centers on Cholera, Tropical Fruits, Fisheries and Water Buffalo. In addition two librarians from Sri Lanka received one-month training sponsored by UNESCO/UNDP. The year witnessed a continued increase in information dissemination activities, publications, reference and reprographic services. By December 1981 such services were being provided for 103 countries to a total of 1,404 subscribers of the four specialized AIT Information Centers.

Library and Regional Documentation Center

As of December 1981, the library collection included the following:

Books and bound journals	131,483	volumes
Maps	1,419	sheets
Microfilms	655	reels
Microfiches	3,138	titles
Periodicals	2,803	titles
Vertical files	5,125	items

On August 21, 1981 the new Library building donated by the Government of Japan was officially opened. This building, which added a substantial amount of furniture and equipment (computer terminals, text processor, microform readers, etc.), provides the LRDC with very fine facilities with possibility for expansion in the coming years.

The Regional Documentation Center, created in March 1977, developed its activities considerably in 1981, by initiating or continuing regional information projects aiming to improve the flow of information in the region. After completion of the first phase of the project to compile a "Union List of Serials in Thailand" and publication of the first edition in November 1980, AIT has handed over the continuation, expansion and updating of the Union List to the Central Library of Chulalongkorn University and is helping that library to implement the second phase of the project.

The Asian Information Center for Geotechnical Engineering (AGE), supported by International Development Research Centre (IDRC) now provides the most comprehensive and inexpensive existing geotechnical information system through seven serial publications, reference and reprographic services and a computerized data base. AGE has been officially endorsed by the Southeast Asian Geotechnical Society (SEAGS) and Asian National Societies for Soil Mechanics and Foundation Engineering. Closer cooperation with SEAGS has been formalized and implemented. AGE membership has reached a total of 400 members.

The International Ferrocement Information Center (IFIC), created in 1976, has received continuing support from New Zealand and from IDRC. Besides its "Journal of Ferrocement", it has expanded its publications activities by producing four issues of a "Do It Yourself" series on ferrocement applications, and an introductory brochure on ferrocement which has been translated into 13 languages. IFIC membership now totals 373 members.

The Renewable Energy Resources Information Center (RERIC), founded in June 1978, has been receiving support from France and UNESCO. It has fully implemented its initial program by regularly publishing a newsletter "RERIC NEWS" and a primary journal "Renewable Energy Review Journal". A series of research reports has been published on Solar and Wind Energy. The second volume of "AIT Research Reports and Publications on Renewable Energies" was published at the end of 1981. A grant from USAID of US\$80,000 for two years, effective in 1981, has been obtained. RERIC membership now totals 336 members.

The Environmental Sanitation Information Center (ENSIC), founded in August 1978 with support from IDRC (Canada), has been increasing its activities. Besides

its existing publications, a newsletter "ENFO" and the "Environmental Sanitation Abstracts - Low Cost Options", it has started publishing "Environmental Sanitation Reviews", prepared an "ENSIC Holdings List" and the Translation of a Vietnamese book on latrines. ENSIC membership totals 298 members.

Continuing Education Center

The Continuing Education Center (CEC), in collaboration with various AIT academic divisions and other agencies, co-organized an international conference, 12 seminars/workshops, 10 short courses and two special training programs. The special training program for Thai Government officials involved in water resources development included 11 short courses and 13 roving seminars.

It is of interest to note that the CEC was able to organize three short courses outside Bangkok, in particular in the Philippines, along the objective of CEC to undertake continuing education programs in the region. A course was held in Bangkok and subsequently repeated in Manila as a 'Roving Short Course'.

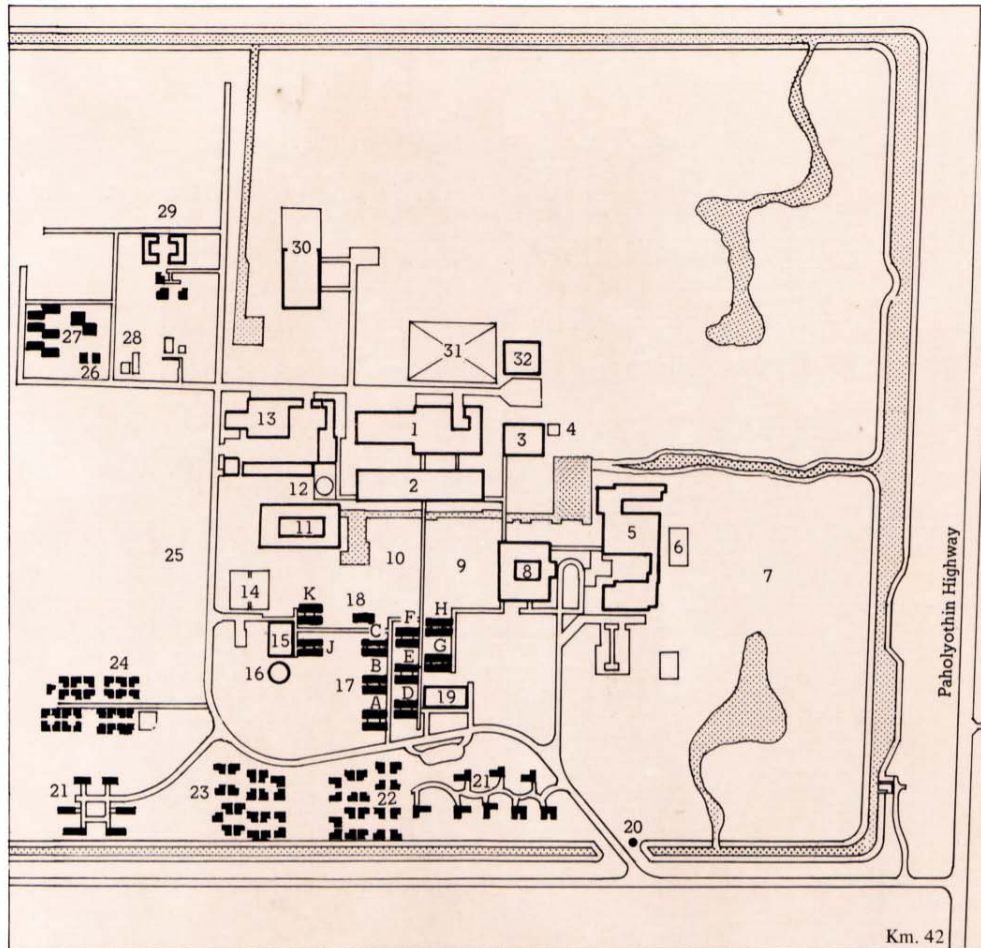
German Program Coordinator (GPC) Activities - Mr Gunter Tharun has been very effective and useful in the planning, administration, implementation, and evaluation of the German scholarship program at AIT. He has expedited the appointment of scholarship holders and facilitated the preparation and submission of the required financial and other reports to the German Government.

The GPC was responsible for co-organizing two workshops held at AIT in collaboration with CDG/GTZ of Germany. Various projects involving special training and new German-AIT cooperative projects have been initiated.

English Language Center - The Language and Media Center was reorganized into the English Language Center and the Office of Academic Services during 1981. Dr Murtagh J. Murphy was appointed the Director of the English Language Center. He was seconded to the Institute by the British Council in January 1981.

Office of Academic Services - This newly created Office includes an Instrumentation Unit, Drafting, and Media Unit. The Media Unit offers photographic and video tape services. The Office is housed in the new Library building. Mr Prida Thimakorn, Associate Professor of Water Resources Engineering, was additionally appointed Coordinator of the Office of Academic Services.

French Language Activities - Mr Bernard Mouton, the first French language teacher left in July 1981 when his contract expired. Mr Jean-Marc Moura succeeded Mr Mouton starting September 1981. Four courses in French language have been offered every term. A total of 50 students are enrolled in these classes.



SITE PLAN OF AIT CAMPUS

Scale 1:5,000



- | | |
|----------------------------|--|
| 1 Academic Building North | 17 Dormitories |
| 2 Academic Building South | 18 Staff Dormitory II |
| 3 Regional Computer Center | 19 Student Recreation Center |
| 4 Utility Building | 20 Gate House |
| 5 AIT Center | 21 Faculty Houses |
| 6 Swimming Pool | 22 Student Village I |
| 7 Golf Course | 23 Student Village II |
| 8 Administration Building | 24 Student Village III |
| 9 Football Field | 25 Cricket Pitch |
| 10 Hockey Field | 26 Building Together Demonstration Houses |
| 11 Library | 27 Staff Housing Project III |
| 12 Water Tower | 28 Plant Nursery |
| 13 Physical Plant | 29 Staff Dormitory I |
| 14 Tennis Courts | 30 Regional Engineering Experiment Station |
| 15 Cafeteria | 31 Energy Research Park |
| 16 Student Center | 32 Energy Technology Building |

Faculty & International Research Staff

During the January 1981 term, there were 66 full-time faculty members and 19 senior research staff members. During the May term the numbers were 70 and 20, respectively, and during the September term the numbers were 69 and 19. The table below lists the distribution of faculty and senior research staff by academic term and country.

Faculty and International Research Staff During 1981

Country of Origin	January Term			May Term			September Term		
	Faculty	Staff	Total	Faculty	Staff	Total	Faculty	Staff	Total
Australia	6	2	8	6	2	8	6	1	7
Austria	—	—	—	—	—	—	1	—	1
Bangladesh	—	—	—	—	—	—	1	—	1
Belgium	2	—	2	2	—	2	2	—	2
Canada	1	—	1	2	—	2	2	—	2
China, Republic of	1	—	1	1	—	1	1	—	1
Denmark	2	—	2	2	—	2	2	—	2
France	3	2	5	3	2	5	3	3	6
Germany, Fed. Rep. of	5	1	6	4	1	5	4	1	5
India	3	—	3	8	—	8	5	—	5
Iran	—	1	1	—	1	1	—	1	1
Israel	1	—	1	1	—	1	1	—	1
Italy	1	—	1	1	—	1	1	—	1
Japan	7	—	7	7	—	7	8	—	8
Nepal	1	—	1	1	—	1	1	—	1
Norway	—	—	—	—	1	1	—	1	1
Pakistan	2	1	3	2	1	3	2	1	3
Philippines	2	1	3	2	1	3	2	1	3
Singapore	—	1	1	—	1	1	—	1	1
Sri Lanka	3	1	4	2	1	3	3	1	4
Switzerland	1	—	1	1	—	1	1	—	1
Thailand	16	6	22	15	6	21	13	6	19
U.K.	6	—	6	6	—	6	7	—	7
U.S.A.	2	2	4	3	2	5	2	2	4
Vietnam	1	1	2	1	1	2	1	—	1
TOTAL	66	19	85	70	20	90	69	19	88

Students

Number of Students by Country in 1981

Country	January	May	September
Afghanistan	4	1	1
Bangladesh	62	47	48
Brunei	2	1	1
Burma	7	8	8
China, Republic of	49	34	56
Ghana	2	—	1
Hong Kong	7	2	4
India	34	32	30
Indonesia	42	41	37
Iran	1	1	—
Japan	6	5	6
Korea, Republic of	8	6	9
Malaysia	25	16	20
Nepal	26	27	30
Pakistan	32	26	26
Papua New Guinea	1	2	2
Philippines	58	48	45
Singapore	6	10	5
Sri Lanka	57(1)	47(1)	51(1)
Thailand	114(2)	108(2)	113(2)
U.S.A.	1	—	—
Vietnam	9	5	5
Total	553(3)	467(3)	498(3)

Student Enrollments in 1981 by Academic Division

	January Term					May Term					September Term				
	Dip.	Masters	Doctors	Other	Totals	Dip.	Masters	Doctors	Other	Totals	Dip.	Masters	Doctors	Other	Totals
Agricultural and Food Engineering	8	62	1	—	71	2	57	1	—	60	1	29	1	—	31
Computer Application	1	59	1	—	61	1	56	1	—	58	2	30	1	—	33
Energy Technology	—	40	—	—	40	—	39	—	—	39	2	33	—	—	35
Environmental Engineering	—	52(1)	5	—	57(1)	—	30(1)	5	—	35(1)	—	66(1)	6	—	72(1)
Geotechnical and Transportation Engineering	6	77	1	2	86	—	41	1	2	44	5	82	1	1	89
Human Settlements Development	3	60	—	—	63	3	59	—	—	62	3	55	—	—	58
Industrial Engineering and Management	3	44	4(1)	—	51(1)	3	45	5(1)	—	53(1)	—	44	3(1)	—	47(1)
Structural Engineering and Construction	2	55(1)	3	—	60(1)	—	32(1)	2	—	34(1)	—	60(1)	1	—	61(1)
Water Resources Engineering	3	56	3	2	64	8	57	2	5	72	9	52	1	4	66
PCAD	—	—	—	—	—	—	—	—	—	10*	—	—	—	—	6*
Totals	26	505(2)	18(1)	4	553(3)	17	416(2)	17(1)	7	467(3)	22	451(2)	14(1)	5	498(3)

() AIT Staff *Program in Computer Applications Development

Graduation

GRADUATION 1981

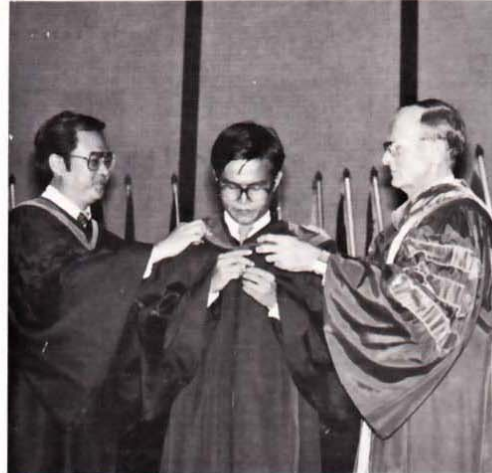
During 1981 a total of 155 Master of Engineering, 65 Master of Science, six Doctor of Engineering degrees, and 24 Diplomas of AIT were awarded by the Institute, bringing the total number of graduates to 2,302.

At the 32nd Graduation ceremony on April 24, 1981 Doctor of Engineering degrees were awarded to Mr Malwila Gamini Dissanake of Sri Lanka in Environmental Engineering, Mr Rein Boondiskulchok of Thailand in Industrial Engineering and Mr Chin Wai-Hing of the Republic of China in Industrial Engineering.

At the 33rd Graduation ceremony on August 21, 1981 Doctor of Engineering degrees were awarded to Mr Akkalgadda Venkata Sreedhara Rao of India in Structural Engineering & Construction, Mr Le Bat of Vietnam in Water Resources Engineering and Mr Nagalingam Subramaniam Sivakumaran of Sri Lanka in Water Resources Engineering.

An Honorary Doctor of Technology was awarded to Mr Soedjatmoko, Rector of the U.N. University, during the 33rd Graduation.

Mr John Hansen, Head of the Delegation of the Com-



mission of the European Communities for South and South-east Asia delivered the commencement address at the April graduation and Mr Soedjatmoko delivered the commencement address at the August graduation.

1981 Graduates Record

Degree	Graduation	COUNTRY																DIVISION										Totals		
		Afghanistan	Bangladesh	Brunei	Burma	Ghana	Hong Kong	India	Indonesia	Japan	Korea	Malaysia	Nepal	Pakistan	Philippines	Republic of China	Sri Lanka	Thailand	United States	Vietnam	Agricultural & Food Eng.	Computer Applications	Energy Technology	Environmental Eng.	Geotechnical & Trans.	Human Settlement Dev.	Industrial Eng. & Mgt.		Structural Eng. & Cons.	Water Resources Eng.
M.Eng.	April	1	6	1			4	9	11	2	3	7	2	5	14	18	13	17	1	5			11	34	2	20	22	20	114	
	August		6	4					3		1	1	5	10	1	3	7			20	12	3				3		3	41	
M.Sc.	April	2			3		1	1				3	3	3	7	2	4	10	1	2		1	10		3	25	2	1	42	
	August		3						2			1		1	2	2	1	10	1	6	12	1			4				23	
D.Eng.	April															1	1	1					1			2			3	
	August							1									1		1								1	2	3	
Dip. AIT	April		17			1		1						1		1				7	1			6	2	1	2	2	21	
	August		2											1												3			3	
Totals		3	34	5	3	1	5	11	17	2	3	12	6	16	33	24	24	45	1	5	38	26	14	12	43	33	31	25	28	250

Continuing Education

Since its establishment in 1981 the Continuing Education Center, directed by Dr Nicanor C. Austriaco, has witnessed a rapid expansion in the number of activities and participants. In collaboration with various AIT academic division and other agencies, the CEC co-organized an international conference, 12 seminars/workshops, 10 short

courses and two special training programs. Besides the workshops, conferences and seminars listed below, there have been numerous private and government organizations who have availed themselves of the excellent facilities at the AIT Center.

Continuing Education Center

International Conference			
Title	Date	Co-Organizers	No. of Participants
1. Agricultural Engineering & Agro-Industries in Asia	10 – 13 November 1981	Division of Agricultural & Food Engineering	109
Seminars/Workshops			
2. Exchanges of Technologies in the Third World	19 – 24 January 1981	ENDA, Senegal	44
3. Software Engineering	1 – 5 June 1981	Division of Computer Applications	28
4. Mini Hydropower	8 – 11 June 1981	NESDB (Thailand)/NRECA, (USA)	06
5. Information Systems Project Management	20 June – 3 July 1981	Division of Computer Applications	34
6. Managing Computer Centers	6 – 10 July 1981	Division of Computer Applications	20
7. Exploration & Evaluation of Tin Deposits in Southeast Asia	20 – 25 July 1981	Carl Duisberg Gesellschaft, e.V.	37
8. Follow-up Workshop on Housing	3 – 21 August 1981	UNCHS-PGCHS/KUL/Division of Human Settlements Development	20
9. Mathematical Software for Scientists & Engineers	17 – 22 August 1981	Division of Computer Applications	
10. Higher Education & Development	19 – 24 October 1981	Carl Duisberg Gesellschaft, e.V.	90
11. Energy Management for Industries	30 November – 4 December 1981	Division of Industrial Engineering & Management	15
12. Rural Development and Regional Planning in the 80's: Challenges and Priorities	23 – 27 November 1981	Division of Human Settlements Development	11
13. Satellite Technology for Remote Sensing	15 December 1981	French Government/Regional Computer Center	50
Short Courses			
14. On-Farm Water Management	30 March – 11 April 1981	Royal Irrigation Department/Division of Agricultural & Food Engineering	24
15. On-Farm Water Management	26 April – 9 May 1981	RID/AFE Division	24
16. Recent Developments in Construction Materials	27 April – 1 May 1981	Assoc. of Gov't Civil Engineering of the Philippines/Division of Structural Engineering & Construction	55

Title	Date	Co-Organizers	No. of Participants
17. Rural Water Supply Management	4 May – 7 August 1981	Department of Technical & Economic Cooperation/Division of Environmental Engineering	20
18. On-Farm Water Management	17 – 30 May 1981	RID/AFE Division	24
19. Industrial Waste Monitoring & Disposal – Bangkok	17 – 21 August 1981	–	15
20. Industrial Waste Monitoring & Disposal – Manila	24 – 28 August 1981	–	20
21. Construction Planning Through Network Techniques	6 – 28 November 1981	Division of Structural Engineering & Construction	36
22. On-Farm Water Management	9 – 28 November 1981	RID/AFE Division	24
23. Structural Analysis of Bridge Structures – Manila	23 – 28 November 1981	Philippine Institute of Civil Engineers/Assoc. of Structural Engineering of the Philippines/Division of Structural Engineering & Construction	96

Training/Study Visits

24. Visit to AIT of Asian Energy Scientists and Technologists	November 1981 – March 1982	French Government/Division of Energy Technology	20
25. Training Program for Thai Government Officials Involved in Water Resources Development	February 1981 – February 1982	Division of Agricultural & Food Engineering/Khon Kaen University	
a) Group 1-1	20 – 30 April 1981		23
b) Group 1-2	6 – 16 May 1981		38
c) Group 1-3	19 – 23 May 1981		64
d) Group 1-4	1 – 9 June 1981		47
e) Group 1-5	16 – 20 June 1981		40
f) Group 1-6	21 – 30 July 1981		15
g) Group 1-7	27 August – 5 September 1981		46
h) Group 1-8	8 – 18 September 1981		33
i) Group 1-9	22 September – 2 October 1981		40
j) Group 1-10	13 – 21 October 1981		36
k) Group 1-11	24 November – 3 December 1981		36

Roving Program for Thai Government Officials

a) Group 2-1	20 – 22 October 1981		40
b) Group 2-2	25 – 27 October 1981		40
c) Group 2-3	28 – 30 October 1981		40
d) Group 2-4	4 – 6 November 1981		43
e) Group 2-5	7 – 9 November 1981		39
f) Group 2-6	11 – 13 November 1981		36
g) Group 2-7	16 – 18 November 1981		46
h) Group 2-8	23 – 25 November 1981		36
i) Group 2-9	27 – 29 November 1981		40
j) Group 2-10	14 – 16 December 1981		32
k) Group 2-11	10 – 12 December 1981		41
l) Group 2-12	2 – 4 December 1981		44
m) Group 2-13	18 – 20 December 1981		40

In addition to the various continuing education activities previously listed, which were mainly produced jointly by the Academic Divisions and the Continuing Education Center, several Divisions and Centers undertook similar activity on their own initiative; these are listed below.



Title	Organized by	Co-Sponsors	Date
1. Workshop in Management of Water Supply and Sanitation Programs for 19 Indian Senior Officials	Division of Environmental Engineering	WHO, New Delhi	2 – 22 December 1981
2. Symposium on Modern Techniques in Underground Construction and Tunnelling Works	Division of Geotechnical & Transportation Engineering	South East Asia Geotechnical Society	19 – 21 May 1981
3. Short Course and Symposium on Geotechnical Aspects of Offshore and Coastal Structures	Division of Geotechnical & Transportation Engineering	South East Asia Geotechnical Society	7 – 18 December 1981
4. Short Course: Training in Rural Development in Nepal	Division of Human Settlements Development	CIDA	12 August – 19 September 1981
5. Workshop on Land Distribution Procedures in Land Reform Areas, Thailand	Division of Human Settlements	CIDA	9 – 11 September 1981
6. Meeting: Water Handpumps	Division of Structural Engineering & Construction	World Bank	6 – 7 November 1981
7. Southeast Asian Regional Symposium on Problems of Soil Erosion and Sedimentation	Division of Water Resources Engineering	Hydraulics Research Station, Wallingford, U.K.	27 – 29 January 1981
8. Regional Training Course on Groundwater	Division of Water Resources Engineering	UNESCO	7 – 18 December 1981
9. Integrated Scientific Information System Training Course	Library & Regional Documentation Center	UNESCO	February 1981

Sponsored & Grant Research

Sponsored research is an important activity at AIT because it:

- enables the Institute to contribute to the solution of urgent problems impeding the development of the region.
- brings the faculty into working contact with development agencies, government departments and practitioners in engineering and planning.
- provides topics for student thesis research.
- provides an additional source of income to the Institute.

Contract and grant research completed during 1981 amounted to more than US\$1.08 million and contract and grant research in progress during the year amounted to more than US\$2.7 million.

In addition to external sponsorship of research, AIT makes available a small sum each year to support promising research projects proposed by younger members of the faculty.

Contract and Grant Research Completed During 1981

Title	Sponsor	Principal Investigator (s)	Amount US\$
Division of Agricultural & Food Engineering			
1. Mechanics of Hammer Mill Grinding of Grains as Related to their Mechanical Properties	Academic Research, AIT	Dr Jindal	4,000
2. Study on Northeast Small Scale Irrigation	USAID/Thailand	Dr Apichart Prof. Anat Dr Weber Dr Vokes	75,252
3. Pedological Soil Tests	Lahmeyer International, Gmbh	Dr Apichart	13,613
4. Small Water Resources Development and Soil Conservation Measures in Land Reform Area	Ministry of Agriculture & Co-operatives, Royal Thai Government	Dr Apichart	23,330
Division of Energy Technology			
1. Development of Low Cost Rice Dryer, Phase II	IDRC, Canada	Dr Exell	25,590
2. Solar Cell Calibration and Measurement	French Solar Energy Commission	Dr Follea	10,784
Division of Environmental Engineering			
1. Measurement of Vehicle Exhaust Emission	Caltex Oil (Thailand) Ltd.	Mrs Samorn	14,757
2. Measurement of Air Emission at Lever Brothers	Lever Brothers	Mrs Samorn Dr Thanh Dr Lohani	19,735
3. Refuse Analysis	Asian Pacific Engineering Consultants	Mrs Samorn Dr Thanh	13,215

Title	Sponsor	Principal Investigator (s)	Amount US\$
4. In-Plant Evaluation and Treatment Feasibility Study of Wastewater at Shell 'CNS Installation'	Shell Co., Thailand Ltd.	Mrs Samorn Dr Thanh	21,275
5. Mathematical Optimization Model for Regional Water Quality Management: A Case Study of Chao Phraya River (Phase II)	National Environment Board of Thailand	Dr Lohani Mrs Samorn Dr Thanh	16,123
6. Monitoring and Evaluation of Village Demonstration Plants – Slow Sand Filtration Project	Rural Water Supply Division, Department of Health, Ministry of Public Health, Thailand	Dr Thanh Mrs Samorn	10,689
7. Heavy Metals, DDT and PCBs in the Upper Gulf of Thailand (Phase II)	National Environment Board of Thailand	Dr Chongrak Dr Lohani Mrs Samorn	41,871
Division of Geotechnical & Transportation Engineering			
1. Evaluation of Performance of a Proposed Reservoir at Bang Pakong Thermal Plant, Thailand	Electricity Generating Authority of Thailand	Dr Jerasak Mr Prida Prof. Balasubramaniam	40,204
2. Site Investigation for Power House Site at Chao Phraya Project	Electricity Generating Authority of Thailand	Prof. Balasubramaniam Mr Sataporn	19,862
3. Geotechnical Aspects of Ban Tha Si Project, Stage II	Electricity Generating Authority of Thailand	Prof. Balasubramaniam Mr Sataporn	2,865
4. Geotechnical Aspects Related to Construction Material for Clay Core, Kud Project	Royal Irrigation Department, SEATEC	Prof. Balasubramaniam Mr Sataporn	5,000
5. Geotechnical Properties of Soils for Upper Quae Yai Dam (Phase II)	Electricity Generating Authority of Thailand	Prof. Balasubramaniam Mr Sataporn	11,880
6. Geotechnical Properties of Soils from Ban Tha Si Project (Mae Chang)	Electricity Generating Authority of Thailand	Prof. Balasubramaniam	4,250
7. Geotechnical Parameters for Slope Stability Analysis of the Mae Moh Lignite Deposit	Universal Exploration Co., Ltd.	Prof. Balasubramaniam	1,560
8. Effective Stress Strength Parameters of Soil Samples from Multi-Storey Hotel Cum Shopping Complex, North Bridge, Coleman Street, Singapore	Fondisa Far East Co., Ltd.	Prof. Balasubramaniam	6,300
9. Investigation of Land Subsidence Caused by Deep Well Pumping in the Bangkok Area (Phase III)	National Environment Board of Thailand	Dr Prinya Prof. Balasubramaniam Dr Brenner Prof. Akagi	97,622
10. Settlement Studies on 2-Storey Bank and Eleven Storey Office Building, Northam Road, Penang, Malaysia	Franki Piling (Singapore) Pte. Ltd.	Prof. Balasubramaniam Dr Tomiolo	6,500
11. Evaluation of Geotechnical Characteristics of Impervious Core Material for Chiew Larn Project	Electricity Generating Authority of Thailand	Prof. Yudhbir Prof. Balasubramaniam	4,405

Title	Sponsor	Principal Investigator(s)	Amount US\$
12. Evaluation of Central Area Traffic Management Programme, Bangkok, Thailand	Transport and Road Research Laboratory, U.K.	Prof. Jones	62,935
Division of Human Settlements Development			
1. Local Participation in Northeast Thailand	CIDA	Dr Weber	5,500
2. Rural Development Model for Sri Lanka	CIDA	Dr Dias	6,000
3. Methodological Approaches to Urban Planning	CIDA	Dr Kaji	4,000
4. Rural Sub-district Development Planning, Sri Lanka	CIDA	Dr Dias	11,000
5. Feasibility Study of the Rehabilitation of Tank Irrigation in North Thailand	USAID/Thailand	Dr Vokes Dr Weber Dr Apichart Prof. Anat	75,252
Division of Industrial Engineering & Management			
1. The Role of Japanese Joint Ventures in the Development of the Automobile Industry in Thailand	Japan Foundation	Prof. Pakorn Dr Tabucanon Dr Tang	21,502
2. Prefeasibility Study of Selected Industries in Thailand for Investment Promotion	Board of Investment, Thailand	Dr Tabucanon Dr Tang Prof. Pakorn	29,557
Division of Structural Engineering & Construction			
1. Mechanical Properties of Rock Salts and Related Ores	Mineral Resources Department, Thailand	Prof. Pisidhi Dr Pichai	5,000
2. Rigidifying Structure for a 10-Storey Building	Franki Piling (Singapore) Pte. Ltd.	Prof. Pisidhi Dr Loo	12,000
Division of Water Resources Engineering			
1. Thermal Diffusion – Ao Phai	Electricity Generating Authority of Thailand	Dr Suphat	71,250
2. Water for the Northeast: a Strategy for the Development of Small-Scale Water Resources	National Economic and Social Development Board, Thailand	Dr Apichart	83,744
3. Morphological Study on the Effects of Sand Dredging in the Chao Phraya River, Thailand	National Economic and Social Development Board, Thailand	Dr Tawatchai	59,114
4. Thermal Diffusion – Bang Pakong	Electricity Generating Authority of Thailand	Mr Prida	44,652

Title	Sponsor	Principal Investigator (s)	Amount US\$
5. Development and Management Studies of Groundwater Resources in the Bangkok Area (Phase III)	National Environment Board of Thailand	Dr Das Gupta	96,089
6. Salinity Intrusion Problem During Severe Drought in the Chao Phraya River	Royal Irrigation Department	Dr Tawatchai	6,294

Contract and Grant Research in Progress During 1981

Division of Agricultural & Food Engineering

1. Manual Soybean Seeder	Canadian Embassy, Bangkok	Dr Singh	1,600
2. Recycling Urban and Rural Nightsoil in Thailand	IDRC, Canada	Dr Edwards Dr Chongrak	93,844
3. Small Scale Fisheries in Pathumthani Province, Central Thailand: A Socioeconomic and Technological Assessment of Status and Potential	ODA, U.K.	Dr Edwards Dr Chongrak Dr Vokes Dr Weber	81,331
4. Integrated Farm Unit	Kamol Kij Co., Ltd. Bangkok International Center for Living Aquatic Resources Management (ICLARM)	Dr Edwards	1,941
5. Fertilizer and Water Management Effects on Yield, Mineral Composition, Protein Production and Protein Quality of Tropical Food Crops	Danish International Development Agency	Dr Eppendorfer	54,933
6. Farm Machinery	Japanese International Cooperation Agency	Dr Koike	6,986
7. Small Scale Integrated Farm	Ministry of Foreign Affairs, The Netherlands	Dr Edwards Dr Apichart Dr Eppendorfer Dr Singh	39,991
8. Development of a Computer-Base Decision Support System for Monitoring Water Resource Projects in Thailand	Office of the Prime Minister, Royal Thai Government	Dr Apichart Dr Krisorn	12,225
9. Rehabilitation and Development of Bung Boraped and Nong Han	Department of Fisheries, Ministry of Agriculture & Co-operatives, Thailand	Dr Apichart Dr Edwards Mr Prida Dr Watanabe Dr Chongrak	292,621
10. Water Resources Planning and Development for the Fifth Plan	National Economic and Social Development Board, Thailand	Dr Apichart	38,392
11. Feasibility Study of Fish-Duck Integrated Farming at the Family Level in Central and Northeast Thailand	USAID/Thailand	Dr Edwards	21,845

Title	Sponsor	Principal Investigator(s)	Amount US\$
12. Improvement and Evaluation of a Manual Soybean Seeder	IDRC, Canada	Dr Singh	27,496
13. Re-use of Human Waste (Cesspool Sludge) and Cellulose Agriculture Residues for Fish Culture, Bangkok	ODA, U.K.	Dr Edwards	136,582
Division of Energy Technology			
1. Development of Low Cost Rice Dryer (Phase II)	IDRC, Canada	Dr Exell	100,000
2. Study of Appropriate Transfers of Solar Technologies and Energy Park Operations	French Government and French Solar Energy Commission	Prof. Saunier	77,000
3. Evaluation of the Developing Countries Energy Needs	Commission of the European Communities	Prof. Saunier	48,700
Division of Environmental Engineering			
1. Recycling Urban and Rural Nightsoil in Thailand	IDRC, Canada	Dr Chongrak Dr Edwards	93,844
2. Treatment of Pesticides at CNS Installation	Shell Co. (Thailand) Ltd.	Mrs Samorn Dr Thanh	14,352
Division of Geotechnical & Transportation Engineering			
1. Determination of In-Situ Modulus of the Foundation Rock at Lang Suan Dam Site	Electricity Generating Authority of Thailand	Dr Brenner	4,325
2. Rural Roads and Poverty Alleviation in Thailand	International Labour Office, Geneva	Prof. Jones	3,000
3. Tanks Settlements at Bangkok Waterworks	Metropolitan Waterworks Authority	Dr Tomiolo Dr Jerasak	9,519
4. Investigation of Land Subsidence Caused by Deep Well Pumping in the Bangkok Area, Phase IV (Extension of Subsidence Observation Network)	National Environment Board, Thailand	Dr Prinya Prof. Balasubramaniam Dr Ohta	106,374
5. Geotechnical Properties of Construction Material for Upper Quae Yai Project, Phase III	Electricity Generating Authority of Thailand	Prof. Balasubramaniam Dr Tomiolo	8,105
6. Investigation of Bank Failure, Main Canal of Lam Pao Irrigation Project, Northeastern Thailand	Royal Irrigation Department, Thailand	Dr Ohta Dr Prinya Prof. Yudhbir Prof. Balasubramaniam	22,837
7. Settlement Studies on two Storey Bank and Eleven Storey Office Building, Northam Road, Penang, Malaysia	Franki Piling (Singapore) Pte. Ltd.	Dr Tomiolo Prof. Balasubramaniam	14,000

Title	Sponsor	Principal Investigator(s)	Amount US\$
8. Problems Related to the Landslide Affecting the Indosuez Bank, Kuala Lumpur, Malaysia	Indosuez Bank, France	Dr Tomiolo	1,500
9. Bangkok – Its Environment and Geological History	Asian Institute of Technology	Dr Prinya	25,000
Division of Human Settlements Development			
1. The Chinese Shophouse in Southeast Asia	CIDA	Mr Kammeier	5,000
2. Local Participation in FELDA Schemes, Malaysia	CIDA	Dr Weber	13,000
3. Appropriate Technology for Village Development, Malaysia	CIDA	Dr Vokes	6,000
4. Monitoring and Evaluation of the Building Together Project	CIDA	Dr Angel	13,000
5. The Position of Women in Low-Income Residential Areas	CIDA	Dr Weber	3,500
6. The Potential of Small Towns in Rural Development	CIDA	Mr Kammeier	11,000
7. Development of Self-Help Building Technology	CIDA	Mr Etherington	7,000
8. Small Farm Development Issues in Northeast Thailand	CIDA	Dr Weber Dr Vokes	10,000
9. Land Policy for Housing	CIDA	Mr Archer	5,500
10. Comparative Study of Slum Clearance in Asian Cities	CIDA	Dr Angel	7,000
11. Integrated Rural Development Planning in Sri Lanka	CIDA	Dr Dias Dr Vokes Dr Weber	20,000
12. Monitoring the Implementation of Production Programs in Selfhelp Land Settlements Projects in Thailand	GTZ	Dr Weber	103,000
13. Introduction of Appropriate Village Technology, Tambon Na Mai	CIDA	Dr Dias	26,000
14. Building Together Project, Bangkok (Phase III)	CIDA	Dr Angel	20,000
15. Building a Productive Community After Land Reform, Chumphuang	CIDA	Dr Weber	17,000
16. Training Manual on Rural Development Planning	CIDA	Dr Dias	16,000
17. Lessons in Participatory Planning	CIDA	Dr Dias	12,500
18. Tambon Information Center Project	Canadian Embassy, Bangkok	Dr Dias	12,500

Title	Sponsor	Principal Investigator(s)	Amount US\$
19. Small Town Development in Guangdong Province, China	CIDA	Mr Kammeier	5,000
Division of Industrial Engineering & Management			
1. Improved Industrial Management Through Computer Support	UNIDO	Dr Tabucanon Dr Kanchit Mr Hovde	292,810
Division of Structural Engineering & Construction			
1. Handpump Development for Rural Thailand	IDRC	Prof. Pisidhi Dr Pichai Dr Worsak	85,000
2. Comparative Study of Suksawat Interchange	National Engineering Consultants Co., Ltd.	Dr Worsak Prof. Pisidhi	6,700
Division of Water Resources Engineering			
1. Thermal Diffusion – Bang Pakong (Phase II)	Electricity Generating Authority of Thailand	Mr Prida	12,631
2. Flood Pattern and Potential Scour Downstream of Mae Ngat Dam Spillway, Mae Ngat Dam Project, Thailand	Royal Irrigation Department, Thailand	Mr Prida	21,867
3. Development of Flood Forecasting and Warning System for Nam Pong, Nam Chi and Nam Mun Rivers, Northeast Thailand	The Salzgitter Consult GmbH Consulting Engineers, Electricity Generating Authority of Thailand	Dr Tawatchai	104,846
4. Nam Chon Dam Spillway Hydraulic Model Study	Electric Power Co., Ltd., Foreign Activities Department, Japan	Mr Prida	28,414
5. Development and Management Studies of Groundwater Resources in the Bangkok Area (Phase IV)	National Environment Board of Thailand	Dr Das Gupta	62,736
6. Cooling Water Intake South Bangkok Thermal Power Plant	Elmatech Engineering Co., Ltd., Thailand	Mr Prida	21,085
7. Evaporation Control Using Monomolecular Organic Surface Films	Canadian Embassy, Bangkok	Dr Christoph	10,000
Library & Regional Documentation Center			
1. Asian Information Center for Geotechnical Engineering (AGE)	IDRC	Dr Valls Dr Yudhbir	125,000
2. International Ferrocement Information Center (IFIC)	New Zealand, (1979–80) IDRC (1977–82)	Dr Valls Dr Pama	45,000 62,000
3. Renewable Energy Resources Information Center (RERIC)	France UNESCO USAID (1981–83)	Dr Valls Dr Exell	14,000 2,000 80,000
4. Environmental Sanitation	IDRC (1979–83)	Dr Valls	22,000

Campus & Physical Plant

In the course of the year the **Library Building** funded by the Government of Japan at a cost of US\$4,000,000 was completed. The opening ceremony was held on 21 August, 1981.

The **Energy Technology Building** funded by the Government of the Federal Republic of Germany, at a cost of about US\$850,000, was completed during December. The building was occupied early in January and the opening ceremony will be held on April 8, 1982.

The **Staff Housing Project III** funded by the Royal Thai Government with of Grant of US\$200,000 and the Maintenance and Construction Reserve Funds (US\$30,000), was completed in April 1981 and provides accommodation for 54 single and 8 married staff.

The expansion of the **Cafeteria Facilities** was completed in March 1981 at a cost of US\$40,000, funded from the Maintenance and Construction Reserve Funds.

Student Village III, funded by the Government of the Federal Republic of Germany at a cost of \$1,250,000, is under construction and is due for completion in July 1982. The village will provide accommodation for 110 students (78 single and 32 married).

The **Student Center (Korea House)**, funded by the Korean Traders Scholarship Foundation at a cost of US\$110,000, is under construction and is due for completion in 1982. The building will provide recreation facilities for the students. The space formerly occupied by the Library is now being converted for use by the **Division of Computer Applications** and the **Asian Regional Remote Sensing Training Center**. The cost of the project is about US\$96,000 and is being funded by the Royal Thai Government. The conversion of the space for the Division of Computer Applications and the Asian Regional Remote Sensing Training Center has been completed and work is now proceeding on the areas occupied by the Division of Industrial Engineering and Management, and the Faculty Lounge.



Other Developments

TECHNOLOGY FOR THE PEOPLE FAIR MEXICO CITY

For the second time the Institute sent representatives and a display of appropriate technology to the "Technology for the People" fair. The November 1981 fair was held in Mexico City, Mexico. The 1980 fair was held in Geneva Switzerland. On both occasions the Government of Switzerland provided funds to develop the display, shipment of display material, airline tickets and hotel accommodation for AIT's representatives.

Vice President for Development, Dr Ricardo P. Pama and Dr Jacques Valls, Director of the Library and Regional Documentation Center attended the fair which was held in the Conference Hall of the Hotel de Mexico.

The fair was officially opened on November 6 by H.E. Mr Jose Lopez Portillo, President of the Republic of Mexico.

AIT's display consisted of wall posters about the Institute, ferrocement technology, solar rice dryer, solar refrigerator, soybean planter, bicycle pump, slow sand filtration and low cost housing. There were also scale models of a slow sand water filtration unit, solar rice dryer, low cost housing, a ferrocement canoe, biogas digester, grain storage bin, water tank and also samples of publications and brochures of the Regional Documentation Center.

A brochure, Facts About AIT, printed in both Spanish and English was distributed to visitors. There were some 250 participants from 40 countries, with the largest representation from Canada and the U.S.A.

STUDENT UNION

Apart from regular literary activities such as publication of a student magazine, inter-divisional quiz and debate competitions and a supplement in the weekly AIT Bulletin, the Student Union also organizes a number of recreational activities.

Regular weekend films are shown at the AIT Center auditorium, which is the venue for most social gatherings. Sight-seeing trips are organized to tourist locales in Thailand.

Most sports facilities and activities are supervised and organized by the Student Union. Among the various events, the most spectacular and awaited are the "Cultural Show" with participation from the various national groups at AIT and the "Sportsfest", an inter-divisional competition featuring 19 different sports popular in Asia.

All registered students at AIT are represented in the General Assembly by a body of elected nationality representatives, from which the President and Secretary/Treasurer of the Union are chosen. The President then appoints the members of the Executive Council who constitute an active working group. They are responsible for the planning, scheduling and organization of almost all student activities on campus.



BOARD OF TRUSTEES

The Board of Trustees, under the chairmanship of H.E. Dr Thanat Khoman, met from January 19 to 23, 1981. Newly elected members attending the meeting were Professor Wahiduddin Ahmed of Bangladesh, Mr Akira Harada of Japan, Professor Hiroyoshi Shi-igai of Japan, Gen. San Chitpatima of Thailand and Professor M. Nawaz Sharif of AIT.

The President, Dr Robert B. Banks, in his report to the Board stressed the urgent need for the Institute to review its long term funding base. The Board, on the 23rd, held a forum on this topic with a view to determining how the Institute could move its funding emphasis from scholarship grants to endowment and operational cost funding.

The Board agreed that a Donor's Meeting would be held during the February 1982 Board meeting.

President Banks announced his intention to leave the Institute, upon completion of his current contract, in June 1982. A Presidential Search Committee was appointed by the Board.

Donor Relations

The following are developments which took place during the fiscal year 1980-81 concerning our relations with various donors.

GOVERNMENTS :

1. Australia

The Government of Australia made a contribution of A\$949,000 towards the cost of scholarships and staffing assistance for the year 1980-81. A request for financial assistance from the Government of Australia for the next three fiscal years, 1982-83 to 1984-85, has been submitted.

2. Austria

The Republic of Austria has seconded one Austrian faculty member to AIT. We welcome the Republic of Austria as a new donor to the Institute.

3. Bangladesh

The Government of Bangladesh is continuing its financial support to AIT by providing the Institute with local funds in Bangladesh in the amount of Taka 1,000,000 spread over four years. The Government of Bangladesh is also supporting the Institute by requesting UNDP to provide funds for the training of Bangladeshi professionals at AIT. The initial three-year training program came to an end this year and a continuation of the program for another five years is being finalized. It is estimated that the new training program will bring in US\$140,000 per year in tuition and fees to the Institute over the next five years.

4. Belgium

The Royal Government of Belgium provided five scholarships and two Belgian faculty members. A third faculty member and some short-term experts have been pledged by the Royal Government of Belgium.

5. Canada

The Government of Canada provided a grant of US\$ 480,000 in FY 1980-81 under our present Memorandum of Understanding as support to the Institute. The Institute has discussed with Canada its request for assistance for the next three years, FY 1983-84 to FY 1985-86.

6. China, Republic of

During the fiscal year 1980-81, the Republic of China made a grant of US\$127,100 for scholarships and supported the secondment of one faculty member. Another faculty secondment has been pledged by the Government of the Republic of China.

In addition, China Technical Consultants, Inc., Chinese



Petroleum Corp., Taiwan Power Co., and Taiwan Cement Corp. provided US\$224,392 for Scholarships.

7. Denmark

The Royal Government of Denmark made a grant of US\$92,000 for scholarships and supported two Danish faculty members at the Institute. In addition the Royal Danish Government provided US\$21,375 for research.

8. France

The Government of France during their 1981 fiscal year, donated FF 775,815 to the Institute for scholarships, library acquisition, equipment and maintenance of the Energy Park, grants to the Regional Documentation Center and to the Continuing Education Center.

In addition, the Republic of France is supporting the secondment of six French faculty members and staff and one Asian faculty member. The Government of France is also sponsoring the doctoral studies of six AIT graduates in French universities every year.

9. Germany, Federal Republic of

The Federal Republic of Germany in its 1981 fiscal year provided the following:

- a) Six faculty and staff secondments;
- b) A grant of DM. 1,300,000 for the first phase construction of Student Village III ;
- c) A grant of DM. 1,270,000 to complete the construction of the Energy Technology Building;
- d) A grant of DM. 400,000 for the purchase of equipment for the Energy Technology Building;
- e) A grant of DM. 200,000 to cover the cost of purchasing equipment for the Solex Exhibition in 1980.

In addition, two agencies of the Federal Republic of Germany, namely the Carl Duisberg Gesellschaft e.V. (CDG) and the German Academic Exchange Service (DAAD), are sponsoring 50 and 15 scholarships respectively.



10. India

The Government of India supported the Institute in FY 1980-81 by seconding, on a short-term basis, Indian professors. The Government of India also announced its approval of a local grant of Rs. 200,000 to enable AIT to conduct more activities in India. This sum is replenishable every year up to Rs. 200,000.



11. Italy

The Republic of Italy is seconding one faculty member to the Institute. It also approved an additional faculty secondment and a grant of US\$100,000 for purchasing technical equipment from Italy.

12. Indonesia

The Government of Indonesia made another grant of US\$10,000 to the Endowment Fund of the Institute.

13. Japan

For FY 1981, the Government of Japan made the following grant to the Institute:

(a) Scholarships	US\$	195,000.-
(b) Operation Cost	US\$	60,000.-
(c) Equipment	¥	23,000,000.-
(d) Construction of Library Building	¥	260,000,000.-

In addition, the Government of Japan is presently supporting seven faculty members at the Institute. KEIDANREN, which represents Japanese industries, is presently supporting five scholarships at AIT.



14. Korea, Republic of

The Republic of Korea is providing the Institute with Endowment Funds. So far, US\$129,340 has been released by the Government of Korea for this purpose. The Korean Traders Scholarship Foundation also made a grant of US\$ 110,000 for the construction of the Student Center. The Center is due to be completed in April 1982.

15. Netherlands

The Royal Netherlands Government provided a grant of US\$253,539 for scholarships and another US\$15,000 for the purchase of textbooks and other materials for the Library. In addition, it is funding six Asian faculty members at the Institute. The Royal Netherlands Government has also pledged the secondment of a Dutch faculty member.



16. New Zealand

The Government of New Zealand provided US\$102,732 for scholarships and another US\$15,000 for support of the International Ferrocement Information Center.

17. Norway

The Royal Norwegian Government allocated a grant of US\$143,675 for scholarships for post-graduate studies at AIT.



18. Pakistan

The Government of Pakistan has made a grant in local currency of Rs. 250,000 to support the activities of the Institute in Pakistan.

19. Philippines

The Government of the Philippines continued to support the Institute with another grant of US\$30,000 for operating costs and for Endowment Funds.



20. Sri Lanka

The Government of Sri Lanka is continuing its financial support to AIT by providing local funds for use by the Institute in Sri Lanka. A grant of Rs. 500,000 was pledged by the Government in 1980 to be disbursed over four years.

21. Switzerland

The Government of Switzerland supported the scholarship program of the Institute with a grant of US\$65,296 and also seconded one Swiss faculty member.

22. Thailand

The Royal Thai Government in FY 1980-81 provided the following grant to the Institute:

(a) Scholarships	US\$	200,803.-
(b) Construction	US\$	197,044.-
(c) Operations	US\$	147,783.-
(d) Tax Reimbursements	US\$	734,341.-
Total	US\$	1,279,971.-



23. United Kingdom

The Government of the United Kingdom continues to maintain the secondment of five British faculty members at the Institute. In addition, the United Kingdom provided US\$10,000 for scholarships and US\$36,449 for research projects.

24. United States of America

The Government of the United States of America supported a number of scholarships at the Institute. In FY 1980-81, the U.S.A. made a grant of US\$478,521 for ASEAN nationals studying at AIT.

INTERNATIONAL ORGANIZATIONS

The agencies of the United Nations such as ESCAP, Mekong Committee, ILO, UNDP, WMO, UNESCO, UNICEF, UNIDO, WHO and UNCHS made a grant of US\$ 212,979 mostly for scholarships. The bulk of the grant came from UNDP.

The Commonwealth Fund for Technical Cooperation also made a grant of US\$5,200 for scholarships.

FOUNDATIONS

The AIT Foundation Inc. has channeled the financial support of the IBM-A/FE to the Institute. During this fiscal year, IBM-A/FE provided US\$257,500 in cash grants for operations and provided 50 man-months of staff secondment.

The Lee Foundation of Singapore continues to support the Institute and in FY 1980-81 contributed US\$69,430 for scholarships.

KEIDANREN which represents Japanese businesses likewise contributed US\$65,000 for scholarships. The Ford Foundation sponsored a scholarship with a grant of US\$ 18,430 and Rockefeller Foundation contributed US\$16,800.

The Agricultural Development Council provided US\$ 6,128 for a scholarship.

The International Development Research Council continues to sponsor a number of research projects at the Institute and in this fiscal year provided a total grant of US\$ 141,264.

NATIONAL GOVERNMENT AGENCIES

Several government agencies of the Royal Thai Government provided scholarships and sponsored numerous research projects at the Institute. In the fiscal year 1980-81, sixteen of these agencies provided a total grant of US\$ 440,688.

BUSINESS, PRIVATE, AND OTHERS

A total of fifteen business enterprises contributed US\$409,346 mostly in the form of scholarships, research grants, equipment, faculty or grants for continuing education activities. Shell International provided US\$84,665;



KUBOTA Ltd. of Japan contributed US\$26,000. The details of other contributions made are shown in Table 1.

The Marden Family in Hong Kong continues to support the Institute with one scholarship annually.

OBSERVATIONS

1. During the fiscal year 1980-81, the Institute received a total of US\$12,863,315 in grants from various donors.

2. The following shows the contributions of Governments, International Organizations, Foundations, National Government Agencies, Business, Private and Others:

Governments	85.02 %
International Organizations	1.76 %
Foundations	6.14 %
National Government Agencies	3.57 %
Business, Private, and Others	3.51 %
Total	100 %

3. Table 1 is the list of donors in FY 1980-81 and the percentage of their contribution. Table 2 shows the scholarship projections for FY 1982-83. Table 3 summarizes the status of faculty and staff secondment.

4. New donors whose contributions came late in 1981 are the European Economic Community (EEC) and the Organization of Petroleum Exporting Countries (OPEC). The EEC is financing a study on "Energy Planning Supply and Demand in Developing Countries" with a grant of US\$ 100,000. The OPEC is sponsoring three Asian students in the Division of Energy Technology with a grant of US\$ 45,600. These contributions will be shown in FY 1981-82.

CURRENT LIST OF DONORS

FY 1980 - 81

GOVERNMENTS :

	%
Australia	5.22
Belgium	0.21
Canada	3.87
China, Republic of	1.23
Denmark	1.30
France	3.48
Germany, Federal Republic of	11.43
Indonesia	0.13
Italy	0.14
Japan	36.12
Korea, Republic of	0.52
Malaysia	0.02
Netherlands	2.98
New Zealand	0.95
Norway	1.16
Pakistan	0.16
Philippines	0.24
Switzerland	0.76
Thailand	10.32
United Kingdom	0.92
United States of America	3.86
Sub-total	85.02

INTERNATIONAL ORGANIZATIONS :

	%
Commonwealth Fund for Technical Corp.	0.04
ESCAP/UNDP	0.04
ESCAP/UNIDO	0.02
Mekong Committee	0.05
UNDP/Afghanistan	0.03
UNDP/Bangladesh	1.25
UNDP/ILO	0.03
WMO/UNDP	0.02
UNESCO	0.05
UNICEF	0.04
UNIDO	0.05
WHO	0.06
UNCHS	0.08
Sub-total	1.76

FOUNDATIONS :

AIT Foundation-IBM A/FE	2.61
Agricultural Development Council Inc.	0.05
Ford Foundation	0.18
International Development Research Centre, Canada	1.14
Japan Foundation	0.12
Keidanren, Japan	0.52
Korean Traders Scholarship Foundation	0.81
Lee Foundation, Singapore	0.56
Rockefeller Foundation	0.15
Sub-total	6.14

NATIONAL GOVERNMENT AGENCIES OF THAILAND :

	%
Agricultural Land Reform Office, Thailand	0.05
Board of Investment	0.08
Bank of Thailand	0.04
Department of Highways	0.03
The Electricity Generating Authority of Thailand	0.64
Harbour Department, Thailand	0.09
Mahidol University, Thailand	0.05
National Economic & Social Development Board, Thailand	1.50
National Environmental Board, Thailand	0.16
Provincial Waterworks Authority	0.11
Royal Irrigation Department	0.57
Department of Tech. & Econ. Corp.	0.14
National Energy Administration	0.05
Royal Thai Air Force	0.04
Royal Thai Navy	0.02
Sub-total	3.57

BUSINESS, INDUSTRIES, PRIVATE, & OTHERS :

	%
Asian Pacific Engg. Consultants	0.04
Caltex Oil Thailand, Ltd.	0.10
Captain Motor Co., Ltd.	0.02
China Technical Consultants, Inc.	0.19
Chinese Petroleum Corp.	0.22
Fondisa Far East Ltd.	0.05
Kubota Ltd., Japan	0.21
Lever Brothers (Thailand) Ltd.	0.18
P.T. Pupuk Sriwidjaja, Indonesia	0.10
Shell International Petroleum Co., Ltd.	0.26
Shell/Energy Technology	0.42
Siam Cement Co., Ltd.	0.06
Southeast Asia Tech. Co., Ltd.	0.04
Surcon Co., Ltd.	0.01
Taiwan Power Co.	1.19
Taiwan Cement Corp.	0.21
Petra Christian University, Indonesia	0.10
Marden Family, Hong Kong	0.10
Others	0.01
Sub-total	3.51

Total 100

**Scholarship Contributions 1980 to 1983
for AIT Internally Selected Candidates
(As of December 1981)**

Donors	Number of Scholarships		
	1980/81	1981/82	1982/83 Projections
I. GOVERNMENTS			
Australia	30	30	30
Belgium	12	5	10
Canada (HSD)	12	20	25
Denmark	8	8	8
France	—	5	7
Germany, Fed. Rep. of (DAAD)	16	16	16
Germany, Fed. Rep. of (CDG/Energy)	10	—	—
Japan	12	15	15
Netherlands	25	25	15
New Zealand	8	4	4
Norway	—	10	15
Switzerland	6	6	6
Thailand (King's)	15	15	15
Sub-total	154	159	166
II. FOUNDATIONS			
AIT Foundation—Starr Foundation	—	1	—
KEIDANREN, Japan	5	5	5
Lee Foundation, Singapore	3	3	3
OPEC Fund	—	3	—
Sub-total	8	12	8
III. INDUSTRIES			
BES Engineering Corp., R.O.C.	2	2	2
China Technical Consultant Inc., R.O.C.	2	2	2
Chinese Petroleum Corp., R.O.C.	2	2	2
Kubota, Ltd. (Japan)	2	2	2
Ret-Ser Engineering Agency, R.O.C.	4	1	1
Shell Int'l Petroleum Co.	1	1	—
Shell Int'l Pet. Co. (Energy Tech.)	4	4	4
Taiwan Cement Corp., R.O.C.	1	1	1
Taiwan Power Co., R.O.C.	3	3	2
Sub-total	21	18	16
IV. INDIVIDUALS & OTHERS			
Dorothy Marden, Hong Kong	1	—	1
George Marden, Hong Kong	—	1	—
European Economic Community	—	—	10
Sub-total	1	1	11
Total	184	190	201

Scholarship Contributions 1980 to 1983
for AIT Externally Nominated Candidates
(As of December 1981)

Donors	Number of Scholarships		
	1980/81	1981/82	1982/83 Projections
I. GOVERNMENTS			
China, Republic of	12	25	25
USAID/Bangladesh	- + 1D	1 + 1D*	-
USAID/ASEAN	30	47	50
USAID/Nepal	2	-	-
Sub-total	44 + 1D	73 + 1D	75
II. UN AGENCIES			
WHO/UNDP	1	-	-
WMO/UNDP	-	1	-
UNDP/Bangladesh	1 + 19D	1 + 24D	- + 30D
UNDP/ILO	1	-	-
Sub-total	3 + 19D	2 + 24D	- + 30D
III. FOUNDATIONS			
British Council	2	-	-
Carl Duisberg Gesellschaft, e.V.	30	25	50
Ford Foundation	1	-	-
IDRC (Canada)	- + 1D	- + 1D	-
Rockefeller Foundation	1	-	-
Sub-total	34 + 1D	25 + 1D	50
IV. INDUSTRIES			
Captain Motor Co., Thailand	1	-	-
Taiwan Water Supply Corp.	-	1	-
P.T. Pupuk Sriwidjaja, Indonesia	1	1	-
Sub-total	2	2	-
V. INDIVIDUALS & NATIONAL GOVERNMENT ORGANIZATIONS			
Catholic Council of Thailand for Development	1	-	-
Royal Thai Air Force	1	2	-
Royal Thai Navy	1	-	-
Hasanuddin University, Indonesia	3	1	3
Petra Christian University, Indonesia	2	-	-
Sub-total	8	3	3
Total	91 + 21D	105 + 26D	128 + 30D
Grand Total	275 + 21D	295 + 26D	329 + 30D

* Diploma

Faculty and International Staff Secondment Contributions

(As of December 1981)

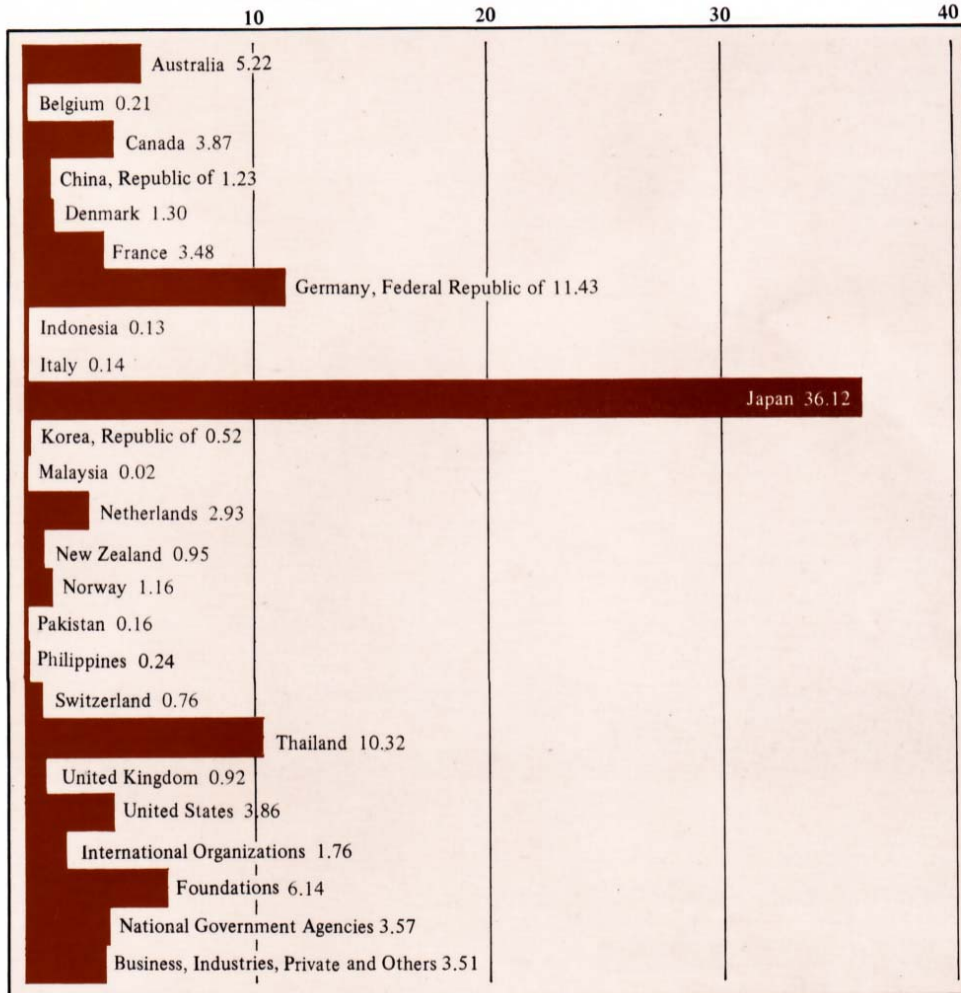
DONORS	1980/81	1981/82 Projection
GOVERNMENTS		
Australia	11	11
Austria	1	1
Belgium	2	3
Canada	2 (DH)	2 (DH)
China, Republic of	1	2
Denmark	2	2
France	6 + 1 (DH)	7 + 1 (DH)
Germany, Federal Republic of	5	7
India	2 (ST)	5 (ST)
Italy	1	1
Japan	7 + 2 (ST)	9 + 2 (ST)
Netherlands	6 (DH)	1 + 6 (DH)
Switzerland	1	1
United Kingdom	5	5
U.S.A.	—	6
NON-GOVERNMENTS		
AIT Foundation — IBM A/FE	4	4
EEC	—	2
Shell International Co.	1	1
Taiwan Power Co.	—	1
UNIDO	1	1
	48+9 (DH) + 4 (ST)	65 + 9 (DH) + 7 (ST)

*Note : DH = Direct Hire
ST = Short Term*

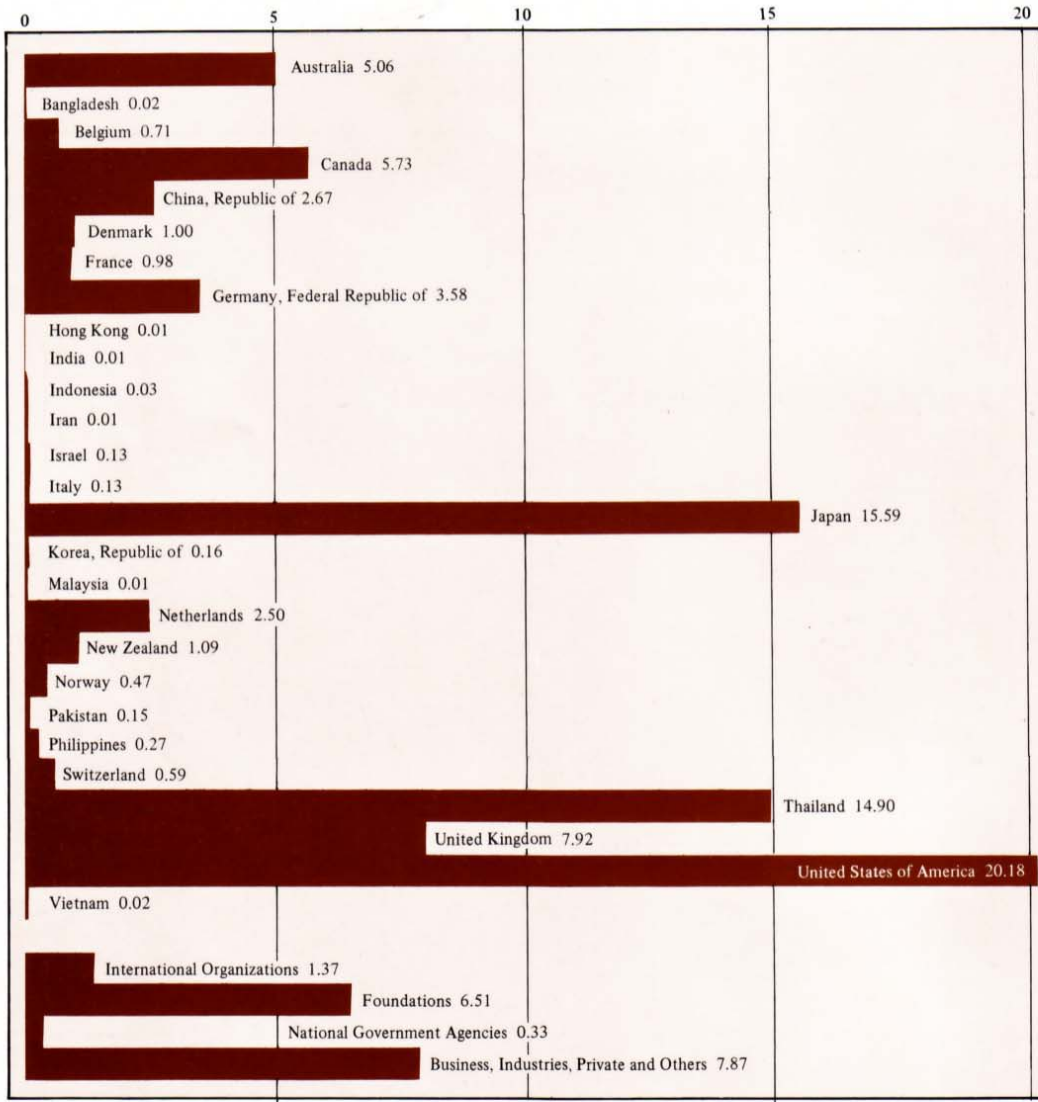


Summary Donations Received in Cash and Kind.

1980-81

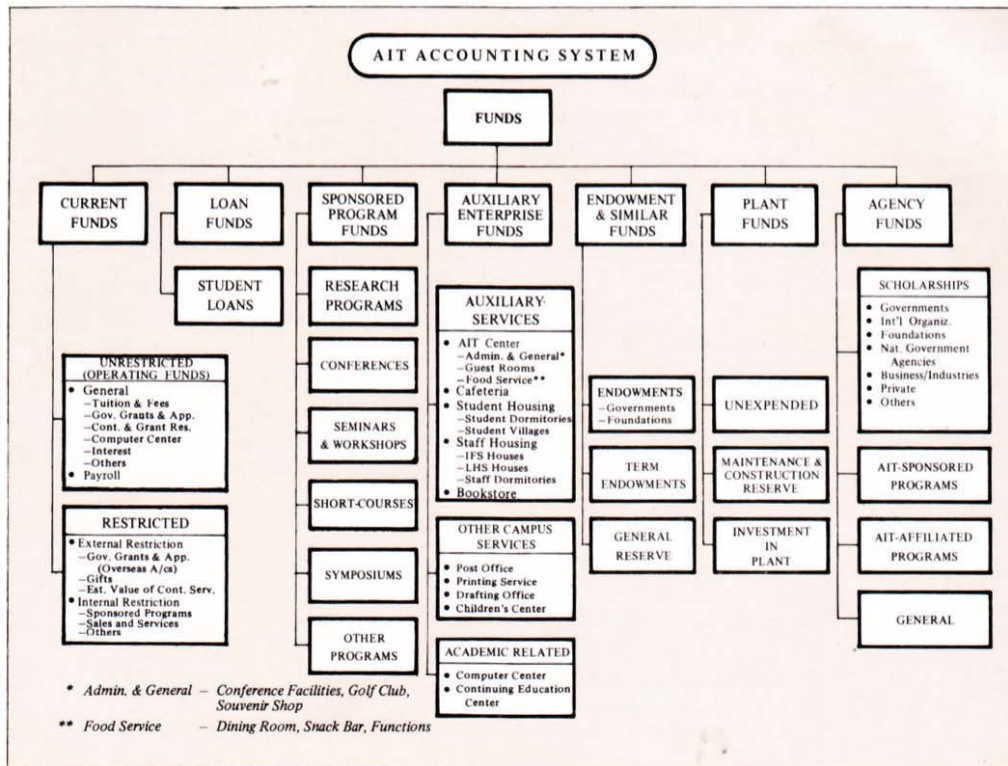


Donors to AIT FY 1959 – 60 to FY 1980 – 81



Financial Review

The Institute adopted the concept of "Fund Accounting System" principles since its inception in 1967 as an independent, international and non-profit educational institution. The purpose is to ensure observance of limitations and restrictions placed on the use of the resources available to the Institute. For accounting and reporting purposes, the resources are classified into various funds in accordance with activities or objects specified. The Institute conducts its financial year from 1 July thru 30 June. The figures shown in this Financial Review are on cash basis.



UNRESTRICTED CURRENT FUNDS

(Operating Funds)

Cash Income FY 1980/81

	FY 1980/81	
	US\$' 000	%
Tuition and Fees	2,936	77.9
Governmental Grants and Appropriations	210	5.6
Contract and Grant Research	172	4.6
Computer Center	114	3.0
Other Sources	337	8.9
TOTAL	3,769	100.0

The cash expenditures for the same period were US\$ 3,488,000. Hence, upon comparing the cash income and cash expenditures, the Institute would have an excess of income over expenditures of US\$281,000.

RESTRICTED CURRENT FUNDS

Income FY 1980/81

	FY 1980/81		
	Cash US\$'000	Kind US\$'000	%
Governmental Grants and Appropriations	561	735	45.2
Gifts	543	—	19.0
Established Value of Contributed Services	—	773	27.0
Sponsored Programs	52	—	1.8
Sales and Services	183	—	6.4
Other Sources	18	—	0.6
TOTAL	1,357	1,508	100.0

The cash balance carried forward from FY 1979/80 was US\$ 608,000, and the cash expenditures and transfers were US\$ 2,707,000, leaving a balance in the funds of US\$ 766,000.

SPONSORED PROGRAM FUNDS

Cash Revenues FY 1980/81

	FY 1980/81	
	US\$' 000	%
Research Programs	723	65.4
Conferences	24	2.2
Seminars and Short Courses	139	12.6
Other Programs	219	19.8
TOTAL	1,105	100.0

The cash balance carried forward from FY 1979/80 was US\$ 78,000 and cash disbursements and adjustments for the same period were US\$ 1,152,000. Hence, upon comparing the cash revenues and cash disbursements, the Institute would have an excess of revenues over disbursements of US\$ 31,000.

AUXILIARY ENTERPRISE FUNDS

Auxiliary & Other Campus Services

Financial Status FY 1980/81

	FY 1980/81		
	Cash US\$'000	Kind US\$'000	%
Revenues	762	20	100.0
Cost of Goods Sold	319	—	40.8
Operational Costs	424	20	56.8
Additional Assets	10	—	-1.3
Reserve	14	—	-1.8

The "Auxiliary Enterprise Reserve" was established in 1980, and there was approximately US\$ 35,000 at the end of June 1981.

The "Continuing Education Center" was started at the beginning of 1980 under the "Auxiliary Enterprise Funds—Academic Related". The total revenues as at the end of FY 1980/81 were approximately US\$ 89,000, and total disbursements were approximately US\$ 60,000. It is anticipated that in the future it eventually will take over all conferences, seminars, workshops, short-courses, and symposiums from Sponsored Program Funds.

ENDOWMENT FUND

Cash Status FY 1980/81

	Since	
	FY 1980/81 US\$'000	FY 1976/77 US\$'000
Governments :		
The Republic of China	—	500
The Republic of Indonesia	10	20
The Republic of Korea	65	65
The Republic of the Philippines	10	40
Foundations :		
Education & Public Welfare Foundation	—	25
Lee Foundation	—	50
TOTAL	85	700

The Endowment Fund was established in 1976, and has been growing steadily ever since. There was US\$ 700,000 in this fund at the end of FY 1980/81, excluding interest earnings which were utilized for operating costs.

GENERAL RESERVE

Cash Status FY 1980/81

	FY 1980/81 US\$'000	Since FY 1976/77 US\$'000
Transferred from		
Unrestricted Current Funds	287	1,301
Net Interest Received	201	363
TOTAL	488	1,664

The General Reserve was established in 1976, in order to guarantee against calamity, by transferring from the Operating Funds and occasionally from the year-end balance of the Unrestricted Current Funds. The interest incurred from its principal is accrued in the fund, however.

PLANT FUNDS

Unexpended Plant Funds

Income FY 1980/81

	FY 1980/81		
	Cash US\$'000	Kind US\$'000	%
Governmental grants and Appropriations	4,838	127	88.6
Gifts	20	2	0.4
Other Income and Transfers	615	-	-11.0
TOTAL	5,473	129	100.0

The balance carried forward from FY 1979/80 was US\$225,000, and the amount expended and transferred was US\$4,478,000, leaving a balance in the funds of US\$1,220,000.

The "Maintenance and Construction Reserve" was established in 1979, in order to provide funds for costs of maintenance and construction. At the end of FY 1980/81, there was a balance of US\$89,000 available in the fund.

PLANT FUNDS

Net Investment in Plant

Financial Status FY 1980/81

	FY 1980/81		
	Cash US\$'000	Kind US\$'000	%
Campus Development	107	19	557
Buildings	24	37	11,264
Construction in Progress	3,576	769	4,261
Equipment	766	662	4,215
Library Acquisitions	96	127	1,278
TOTAL	4,569	1,614	21,575

AGENCY FUNDS

Cash Revenues FY 1980/81

	FY 1980/81	
	US\$' 000	%
Scholarships :		
Governments	3,163	83.9
International Organizations	165	4.4
Foundations/Nat. Gov. Agencies	158	4.2
Business/Industries	233	6.2
Private	51	1.3
TOTAL	3,770	100.0
AIT-Sponsored/AIT-Affiliated Programs	110	
Staff and Faculty Grants	695	
TOTAL	4,575	

SUMMARY OF CASH RECEIVED FROM DONORS

FY 1980/81

	FY 1980/81	
	US\$' 000	%
Donors :		
Governments	8,395	81.3
International Organizations	240	2.3
Foundations	716	6.9
National Government Agencies	556	5.4
Business/Industries	410	4.0
Private	13	0.1
TOTAL	10,330	100.0



Auditor's

Year

We have examined the accompanying balance sheet of the Asian Institute of Technology as at June 30, 1981 and the related statements of changes in fund balances and current funds revenues and expenditures for the year then ended. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

ASSETS

CURRENT FUNDS

Unrestricted :	
Cash at banks	171,014.34
Investments, at cost	773,286.41
Accounts receivable and accrued income	582,821.39
Due from other funds	
– Restricted current funds	16,988.21
– Loan funds	1,250.00
– Auxiliary enterprise funds	100,012.67
– Sponsored program funds	51,193.15
Restricted :	
Cash at banks	213,611.74
Investments, at cost	583,343.07
Accounts receivable	42,682.10
Due from other funds	
– Unrestricted current funds	60,000.00
Total current funds	2,596,203.08

LOAN FUNDS

Cash at bank	701.11
Accounts receivable	548.89
Total loan funds	1,250.00

ENDOWMENT FUNDS

Investments, at cost	699,574.65
Total endowment funds	699,574.65

Report

'80-81

In our opinion, the aforementioned financial statements present fairly the financial position of the Asian Institute of Technology at June 30, 1981 and the changes in fund balances and the current funds revenues and expenditures for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

PRICE WATERHOUSE & CO.
Bangkok,
December 22, 1981

LIABILITIES AND FUND BALANCES

CURRENT FUNDS

Unrestricted :	
Accounts payable and accrued expenses	210,743.13
Due to other funds	
- Restricted current funds	60,000.00
- Auxiliary enterprise funds	584.30
- Agency funds	26,530.70
Deposits	12,974.76
Fund balances (Schedule 1)	1,385,733.28
Restricted :	
Accounts payable and accrued expenses	115,047.35
Due to other funds	
- Unrestricted current funds	16,988.21
- Auxiliary enterprise funds	1,582.66
Fund balances (Schedule 1)	
- Allocated	766,018.69
Total current funds	2,596,203.08

LOAN FUNDS

Due to other funds	
- Unrestricted current funds	1,250.00
Total loan funds	1,250.00

ENDOWMENT FUNDS

Fund balances (Schedule 3)	699,574.65
Total endowment funds	699,574.65

ASSETS

GENERAL RESERVE

Cash at banks	14,811.31
Investments, at cost	1,673,463.99
Accrued income	20,529.09
Total general reserve	1,708,804.39

PLANT FUNDS

Unexpended	
Cash at banks	1,165,422.06
Investments, at cost	48,426.15
Accounts receivable	6,223.66
Maintenance and construction reserve funds	
Cash at banks	27,933.30
Investments, at cost	61,355.92
Net investment in plant, at cost	
Land development	556,493.24
Buildings	11,264,074.64
Furniture and equipment	4,215,750.63
Library acquisition	1,278,213.23
Construction in progress	4,336,163.81
Total plant funds	22,960,056.64

AUXILIARY ENTERPRISE FUNDS

Cash at banks	102,252.52
Accounts receivable	30,956.70
Prepayments and deposits	52,696.98
Inventories	113,427.08
Due from other funds	
– Unrestricted current funds	584.30
– Restricted current funds	1,582.66

Total auxiliary enterprise funds 301,500.24

SPONSORED PROGRAM FUNDS

Cash on hand and at banks	41,368.42
Accounts receivable	20,831.11
	62,199.53

Total sponsored program funds

AGENCY FUNDS

Cash at banks	130,522.03
Investments, at cost	629,243.40
Accounts receivable	2,135.32
Due from other funds	
– Unrestricted current funds	26,530.70
Total agency funds	788,431.45

LIABILITIES AND FUND BALANCES

GENERAL RESERVE

Unearned discount on commercial papers	24,486.89
Fund balances (Schedule 4)	1,684,317.50
Total general reserve	1,708,804.39

PLANT FUNDS

Unexpended	
Accounts payable and accrued expenses	75,941.01
Fund balances (Schedule 5)	
- Unallocated	37,718.96
- Allocated	1,106,411.90
Maintenance and construction reserve funds	
Fund balances (Schedule 6)	
- Unallocated	89,289.22
Net investment in plant	
Fund balances (Schedule 7)	
- Allocated	21,650,695.55
Total plant funds	22,960,056.64

AUXILIARY ENTERPRISE FUNDS

Accounts payable and accrued expenses	42,373.10
Due to other funds	
- Unrestricted current funds	100,012.67
Fund balances (Schedule 8)	
Auxiliary services	
- Unallocated	90,000.00
- Reserve	34,838.86
- Wine and spirits	1,796.89
Academic related	
Continuing Education Center - Unallocated	2,707.04
- Allocated	29,771.68
Total auxiliary enterprise funds	301,500.24

SPONSORED PROGRAM FUNDS

Accounts payable and accrued expenses	9,214.72
Due to other funds	
- Unrestricted current funds	51,193.15
Fund balances (Schedule 9)	
- Allocated	1,791.66
Total sponsored program funds	62,199.53

AGENCY FUNDS

Accounts payable and accrued expenses	61,040.92
Fund balances (Schedule 10)	
- Allocated	702,357.72
- Unallocated	25,032.81
Total agency funds	788,431.45

NOTES TO THE FINANCIAL STATEMENTS
JUNE 30, 1981

1. Summary of significant accounting policies

a) Accrual basis : The financial statements of the Asian Institute of Technology have been prepared on the accrual basis except for depreciation accounting as explained in note 1 (c) to the financial statements. The statement of current funds revenues and expenditures is a statement of financial activities of current funds related to the current reporting period. It does not purport to present the results of operations or the net income or loss for the period as would a statement of income.

b) 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 that are in accordance with activities or objects specified.

Within each fund group, fund balances that are restricted by outside sources are so indicated and are distinguished from unrestricted funds allocated to specific purposes by action of the governing board. Externally restricted funds may only be utilized in accordance with the purpose established by the source of such funds and are in contrast with unrestricted funds over which the governing board retains full control to use in achieving any of its institutional purposes.

Income derived from investments is accounted for as revenue in the unrestricted current funds, with the exception of general reserve funds and unexpended plant funds in which income is accounted for in the funds maintaining the investment.

All other unrestricted revenue is accounted for in unrestricted current funds. Restricted gifts, grants appropriations and other restricted resources are accounted for in the appropriate restricted funds.

c) Foreign currency translation : The books and accounts of the Institute are maintained in U.S. dollars. At the balance sheet date assets and liabilities denominated in other currencies are translated into U.S. dollars at approximate exchange rates ruling on that date. Revenue and expenditures are translated at approximate rates in effect during the year. Exchange gains and losses are included in income in the year.

d) Physical plant and equipment are stated at cost at date of acquisition or fair value at date of donation in the case of gifts. Depreciation on physical plant and equipment is not recorded.

2. Commitments

At June 30, 1981 the Institute had outstanding commitments of U.S.\$866,638.27 in respect of contracts for construction in progress at that date but not completed. These contracts are being financed by Government grants and appropriations.



Alumni Relations

REPORT OF THE AIT ALUMNI ASSOCIATION

A summary of activities and events of interest which took place during the past year is presented.

ALUMNI RECORD

As of the Thirty-Third Graduation on 21 August 1981, the number of AIT Graduates totalled 2,302 from 29 countries.

A. GRADUATES AND DISTRIBUTION BY COUNTRY

Country	Graduates	
	Number	Percentage
Afghanistan	15	0.65
Bangladesh	216	9.38
Brunei	3	0.13
Burma	4	0.17
Canada	1	0.04
China, Republic of	331	14.38
Ghana	1	0.04
Hong Kong	50	2.17
India	140	6.08
Indonesia	81	3.52
Iran	7	0.30
Japan	8	0.35
Khmer Republic	3	0.13
Korea, Republic of	24	1.04
Laos	1	0.04
Macao	5	0.22
Malaysia	105	4.56
Nepal	28	1.22
Pakistan	179	7.78
Papua New Guinea	2	0.09
Philippines	243	10.56
Singapore	16	0.70
Sri Lanka	138	6.00
Tanzania	1	0.04
Thailand	653	28.37
Turkey	6	0.26
United Kingdom	2	0.09
United States of America	3	0.13
Vietnam	36	1.56
TOTAL	2,302	100 %

Major Countries Represented	Percentage
Thailand	28.4
China, Republic of	14.4
Philippines	10.6
Bangladesh	9.4
Pakistan	7.8
India	6.1
Sri Lanka	6.0
Malaysia	4.6
TOTAL	87.3 %

B. DISTRIBUTION BY DEGREE RECEIVED

Degree Received	Number	Percentage
Diploma	110	4.8
Master of Engineering	1,843	80.1
Master of Science	295	12.8
Doctor of Engineering	52	2.2
Doctor of Technical Science	2	0.1
TOTAL	2,302	100 %



THE MEETING OF THE GOVERNING BOARD

The Tenth Meeting of the Governing Board of AITAA was held at the Board Room of AIT on 24 and 25 April 1981 and at the Meeting Room of the Vajiralongkorn Dam Office, Royal Thai Irrigation Department, on 26 April 1981. The meeting was attended by official representatives of the Executive Committee and the following AITAA chapters: Bangladesh, Hong Kong, Korea, Malaysia, Republic of China and Thailand. There were also observers from the Philippines, Japan and Nepal.

The major results of the meeting were as follows:

1. Progress reports of the AITAA chapter activities in the past year.
2. The Alumni Scholarship challenge of the AIT Foundation, Inc. of U.S.A. has met with initial success from the R.O.C. Chapter who have raised one scholarship from the Taiwan Water Supply Corporation. All chapters agreed to help AIT seek potential sources of scholarships from industry, semi-government organizations and private sources. The funds, perhaps of a small amount, could be used for specific purposes at the Institute, such as journals for the Library and laboratory equipments.
3. The Chapters will, from time to time, write articles about AIT and its activities in newspapers or journals in their own countries to help promote the name of AIT.
4. The alumni chapter participation in arranging interviews of candidates for admission was discussed at length. It was agreed that all chapters are willing to assist AIT in the dissemination of information to prospective students. However, AIT alumni who are not faculty members of AIT should not take part directly in interviewing candidates for admission to AIT.
5. There was a nomination for the positions of President and Executive Secretary of AITAA. The candidates for President of AITAA were:
 1. Mr Prida Thimakorn WR-1962 Thailand
 2. Prof. Pisdhi Karasudhi ST-1964 Thailand
 3. Dr Kim Sang-Kyu GT-1970 Korea

The candidates for Executive Secretary of AITAA were:

1. Dr Kanchit Malaivongs ST-68 & 77 Thailand
2. Dr Ashim Das Gupta ST-73 & 76 India
3. Dr Mario T. Tabucanon IE-74 & 77 Philippines

ELECTION OF THE PRESIDENT AND EXECUTIVE SECRETARY OF AITAA

After the Governing Board meeting the candidates were invited to accept the nomination. Dr Kim sent an apology and later Mr Prida withdrew his name. Prof. Pisdhi Karasudhi automatically became the new President of AITAA.

As for the Executive Secretary, Dr Gupta withdrew his name. Ballots were sent to all alumni and after the due date the returned ballots were counted.

Dr Kanchit was elected as the new Executive Secretary.

ALUMNI OFFICERS

The Executive Committee of AITAA serving during the 1981 year were as follows:

Prof. Pisdhi Karasudhi	President
Dr Kanchit Malaivongs	Executive Secretary
Dr Y.C. Loo	Finance Secretary
Mr Jugal K. Agarwalla	Business Secretary
Dr Mario T. Tabucanon	Press Secretary
Mr Surendra Man Shrestha	Auditing Secretary

ALUMNI GOVERNING BOARD MEETING AND RATTANAKOSIN BICENTENNIAL 1982

Although AITAA-Indonesia has proposed to host the Eleventh Governing Board Meeting in Bandung in 1982, the new Executive Committee thought that the meeting should be organized in Bangkok to celebrate the Rattanakosin Bicentennial. AITAA-Thailand also proposed to organize a Panel Discussion on the Topic of Flooding and Land Subsidence in the Bangkok Area on this occasion. Hence, the Eleventh Governing Board Meeting is planned to take place on the campus from 16 to 18 April 1982. In addition to hosting the Panel Discussion, AITAA-Thailand agreed to donate a lotus petal skirt for AIT's fountain. This lotus petal skirt was designed and constructed by the Division of Structural Engineering & Construction.



ABBREVIATIONS

CIDA	Canadian International Development Agency
DAAD	German Academic Exchange Services
EEC	European Economic Community
ENDA	Environment & Developing Action in the Third World, Dakar, Senegal, Africa
ESCAP	Economic and Social Commission for Asia and the Pacific
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
IBM A/FE	IBM World Trade Americas/Far East Corporation
IDRC	International Development Research Centre, Canada
ILO	International Labour Organization
KEIDANREN	Federation of Economic Organization of Japan
KUL	University of Leuven, Belgium (Katholieke Universiteit Leuven)
NESDB	National Economic and Social Development Board, Thailand
NRECA	National Rural Electric Cooperative Association of the United States of America
ODA	Overseas Development Administration, U.K.
PGCHS	Post Graduate Center for Human Settlements
RID	Royal Irrigation Department, Thailand
UNCHS	United Nations Center for Human Settlements
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
WHO	World Health Organization
WMO	World Meteorological Organization

Objectives of the Asian Institute of Technology

"The Asian Institute of Technology, as an international institution of higher learning, will engage in instruction and research in engineering, the sciences and closely related fields to serve the region. Its program will reflect the changing needs of the region and will provide:

- Educational opportunities at the master's and doctorate levels.
- Through post-graduate diploma courses and short-term workshops or seminars, give opportunities for practicing engineers in the region to keep abreast of technological developments and their application to the needs of the region.
- Stimuli for the development of research by the establishment of a major research center within AIT.
- A focus for the development of engineering education to meet the unique needs of the region.
- Mechanisms for the introduction into the region of the latest developments in technology and for the development of their application to its needs.
- A center for the development of equipment for research and instructional laboratories.
- An outstanding library to serve the needs of both AIT and the region.
- A major computing center, designed and operated to serve AIT and other institutions in the region.
- A regional focal point and catalyst for the development of professional activities, including conferences and seminars, and a center for the publication of technical information for the region."

For those who want to know more about AIT. Individuals who wish their name added to the mailing list for the Institute's quarterly Review, or information brochures, or who desire information on other aspects of the Institute's activities should contact:

Public Relations Officer
Asian Institute of Technology
P.O. Box 2754, Bangkok 10501, Thailand

Telephone: 5168311, 5168321, 5168331

For potential program sponsors. Organizations or institutions interested in sponsoring a program should contact the:

Vice President for Development
Asian Institute of Technology
P.O. Box 2754, Bangkok 10501, Thailand

For AIT publications. A list of AIT publications and other information is available from:

Director
Library & Regional Documentation Center
Asian Institute of Technology
P.O. Box 2754, Bangkok 10501, Thailand



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AIT Annual Report 1981

Prepared by The Public Relations Office
April 1982

David L. Terry Editor

Jirawan Boonsriroj Asst. Editor

Apichart Ngarmnyom Artist

The Asian Institute of Technology is an autonomous, international post-graduate technological institute in Bangkok, Thailand providing advanced education in engineering, applied science and allied fields through :

- Academic Programs leading to the degrees of Master of Science and Engineering, Doctor of Technical Science and Engineering, and Diplomas.
- Research Activities by faculty and students directed towards the solution of technological problems to improve the quality of life in Asia.
- Continuing Education comprising conferences, seminars, and short in-service training courses.

Originally established in 1959, the Institute was chartered in 1967 as an independent, international and non-profit making educational institution. The Institute's scenic 400-acre campus is located 42 kms north of Bangkok, in Pathumthani Province.

At the Institute, students from many Asian countries pursue practical academic studies: seeking, defining and testing alternative solutions to urgent problems found in the region.

From its inception, the Institute has stressed the problem-oriented nature of its academic programs in order that appropriate solutions may be found for Asian problems.

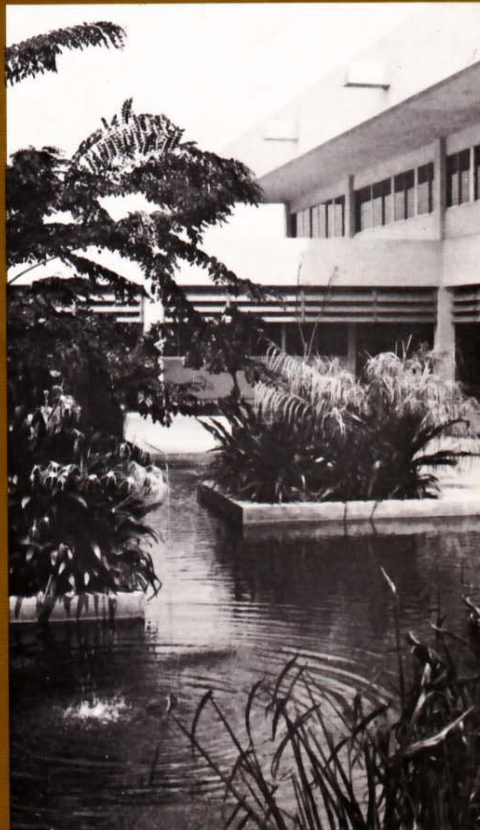
The Institute's degree and diploma programs offer a wide range of courses in nine Academic Divisions:

- Agricultural & Food Engineering
- Computer Applications
- Energy Technology
- Environmental Engineering
- Geotechnical & Transportation Engineering
- Human Settlements Development
- Industrial Engineering & Management
- Structural Engineering & Construction
- Water Resources Engineering

Support services are provided through the Office of Academic Services, the English Language Center, the Regional Computer Center, the Mathematics and Statistics Committee, and the Continuing Education Center.

The Institute's community in September 1981 included a student enrollment of 570 and teaching, administrative, and supporting staff. The faculty-student ratio is 1:8. All students live on campus, where, through study and extracurricular activities, they become more aware of a common Asian identity, despite differences of nationality and culture. Student enrollment is expected to reach 650 by 1985.

AIT IN BRIEF



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