3）星鐵太郎短期専門家の業務実施報告書

インドネシア高等教育開発計画プロジェクト

平成３年度

短期専門家年間業務実施報告書

平成　４年　３月　３日

短期専門家　　星　　鐵 太 郎

国際協力事業団

社会開発協力部

1．氏　　名：星　　鐵太郎

2．所　　属：豊橋技術科学大学　教授

3．派遣期間：〈1〉平成3年　5月　2日から　5月11日（10日間）
〈2〉平成3年　6月　4日から　6月29日（26日間）
〈3〉平成3年　8月　1日から　9月　7日（38日間）
〈4〉平成3年10月16日から11月16日（31日間）
〈5〉平成4年　1月25日から　3月　3日（39日間）

計　　5回　　144日間

4．業務内容：　当初の短期専門家業務計画に基づき、以下の専門家業務を実施した。

(1) 企画・立案業務

ＪＩＣＡチーム・チーフ・アドバイザーを補佐し、ＨＥＤＳエクゼキュティブ・ディレクターのコンサルタントとしてプロジェクトに関わる学術上の事項について問題点を挙げ、適当な達成目標を定め、それを達成するための方法を企画し立案することを主な業務とする。

(2) 支援業務

その他に、すでに実施に入っている事業、特に短期研修事業と日本研修事業についてその実施を支援する。

5．実施業務要約：　上記業務内容に基づき、実施した業務の結果は、以下の通り。

(1) 企画・立案業務の概要

①ＨＥＤＳプロジェクトの総合的な目標は、対象大学工学部における教育の質的改善をはかることにある。

②当短期専門家は11の対象大学、その他の大学及び企業を訪問視察して、対象大学工学部の抱える問題点を明らかにした。それに対し、ＪＩＣＡとしてＨＥＤＳプロジェクトにより、その目標をより効果的に達成するために行うべき計画を提案した。

③提案した計画を『アクティビティー・サポート・プログラム』と名づけ、その詳細を記した提案書を作成した。

④同提案書を対象大学工学部長会議に提出して審議に付し、各対象大学の教官を委員とするワーキング・グループを別に設けて続けて検討するとの合意を得た。

⑤また同提案書の内容につきＤＧＨＥ（インドネシア政府高等教育総局）、米国側のＵＳＡＩＤ及びＪＩＣＡの代表からなるＨＥＤＳステアリング・コミティーにおいて討議が行われた。また、日本国内のＨＥＤＳ国内委員会においても討議された。

⑥学部長会議において合意を得たワーキング・グループは工学教育開発改善委員会（ＤＩＥＥＣ）が召集し、対象大学１１校と、メダン地域を管轄するＫＯＰＥＲＴＩＳ－Ｉ（私立大学支援機関）から推薦された１７名をもって構成した。

⑦ワーキング・グループは平成３年度内に２回の会合を行い、当初の提案書による『アクティビティー・サポート・プログラム』の基本概念と方法論について、対象大学から寄せられた意見を加えて検討を行うとともに、対象各大学の教官による同計画の理解を深め、、また最終的にＨＥＤＳエクゼキュティブ・ディレクターとＪＩＣＡチーム・チーフ・アドバイザーに対して提案すべき具体的計画案を作成した。

⑧アクティビティー・サポートによる新たな計画の一つとして自主開発事業補助金（『Self-Development Project Funding』）を平成３年度に実施した。

⑨ワーキング・グループはその他の計画として、自主開発事業補助金の成果を相互に発表し、アイデアの交流と意欲向上をはかる交流事業、ならびに自主開発事業も含めて教育改善につながる専門能力を向上するために教官が自ら行う学術業務に使用すべき設備を供与する事業を検討中である。

(2) 支援業務の概要

①日本研修は当短期専門家の支援する業務の一つであり、カウンターパートに推薦された候補者の面接、選考、日本における引き受け大学と指導教官の手配ならびに日本研修実施中の現地訪問調査を行った。

②短期研修コースの企画と『イ』国内及び、日本からの講師の依頼手配を行った。平成３年度には３件の短期研修を実施し、次年度には５件を準備中である。

③もう一つの業務として、平成３年度の自主開発事業補助金の発足に関し、募集要項の作成を行った。また、次年度実施のために募集要項を改訂し、既に各対象大学への通知を終了している。

６．次年度以降の予定

当短期専門家は平成４年４月より平成６年３月まで２年間、長期専門家としてＨＥＤＳプロジェクトに派遣されることが内定している。対象大学１１校のうち５校が集中しているメダン市を拠点として業務に就く予定である。

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REP91FNL

REPUBLIC OF INDONESIA
HIGHER EDUCATION DEVELOPMENT SUPPORT (HEDS) PROJECT

REPORT OF A SHORT-TERM EXPERT OF JICA DURING THE FISCAL YEAR 1991/92

Submitted to : the Japan International Cooperation Agency (JICA)

Date : 3 March 1992

Reported by : Professor Dr. Tetsutaro Hoshi, Short-Term Expert of JICA

Periods of Assignment :

<1> 2 to 11 May, 1991

<2> 4 to 29 June, 1991

<3> 1 August to 7 September 1991

<4> 16 October to 16 November 1991

<5> 25 January to 3 March 1992

Itinerary in detail for each period is found in the Appendix 1 attached at the end of this report.

1. SUMMARY OF ACTIVITIES IN FY1991/92 OF THE REPORTER

1.1. Assignments born by the Reporter

1.1.1. Planning and advisory function

Principal assignment has been to assist the JICA Chief Advisor and to consult the HEDS Executive Director on academic matters related to the project, by identifying problems, formulating reasonable objectives to be achieved, planning methods to achieve the objectives, and proposing activities to be done for the solution.

1.1.2. Supportive function

Another assignment includes supporting the implementation of already defined programs especially the non-degree training program that consists of the Short-Term Training Courses and the Study Program in Japan.

1.2. Outline of Planning and Advisory Functions achieved.

1.2.1. The global objective of the HEDS project is to upgrade the quality of education at the Target Universities Faculty of Engineering.

1.2.2. The reporter visited all eleven Target Universities as well as industries and other universities to identify problems existing at the Target Universities Faculty of Engineering. Thereon, he proposed targets to be achieved to remove the problems, and suggested specific programs to be done by the HEDS-JICA to better achieve its objective.

1.2.3. The suggested program is called the 'Activity Support' of which detail has been described in a proposal.

1.2.4. The proposal originated by the reporter has been presented for discussion at a meeting among Deans of Engineering of Target Universities, where an agreement have been formed to continually discuss the subject in a special Working Group represented by teaching staffs of all Target Universities.

1.2.5. Also the proposal was submitted for discussion at the Technical Steering Committee of HEDS held among representatives from DGHE (Director General of Higher Education of the Government of Indonesia), USAID of the United States, and JICA. The proposal was also submitted for discussion at meetings of the Japanese In-Country Committee of HEDS.

1.2.6. The special Working Group agreed on at the Deans' Meeting was formed by the Development and Improvement Engineering Education Committee (DIEEC) consisting of total of 17 members representing all 11 Target Universities and the Kopertis-I in Medan.

1.2.7. The Working Group conducted two meetings during the FY1991/92 for the purpose of re-evaluating the concept and methods of the Activity Support suggested by the original proposal so as to reflect opinions coming from the Target Universities, widening the understanding about the Activity Support among teaching staffs of the Target Universities, and to finalize specific plans that will be recommended for consideration by the Program Director of HEDS as well as the JICA Chief Advisor.

1.2.8. As one of the new program in the Activity Support, Self-Development Project Funding has been initiated during the FY1991/92.

1.2.9. Additional programs discussed at the Working Group for the Activity Support include, Interaction programs whereby results of the funded Self-Development Projects will be mutually reported among teaching staffs for the purpose of promoting exchange of ideas and motivations, and provision of equipments for teaching staffs to use for their own studies including the Self-Development Projects to enhance their professional competence toward improvement of the education they perform.

1.3. Outline of Supportive Functions performed.

1.3.1. Non-degree training in Japan has been one of the programs the reporter has been involved in interviewing candidates for acceptance as the counterpart, finding instructors in Japanese universities for every counterpart accepted, and visiting the counterparts while they are studying in Japan.

1.3.2. Short-Term Training Courses have been another program for which the reporter took responsibility of planning and recruiting instructors from Japanese as well as Indonesian universities. Three courses have been conducted during the FY1991/92, and preparation for five courses are under way for the next Fiscal Year.

1.3.3. Initiation of the Self-Development Project Funding has been another task of the reporter, whereby the announcement 'Call for Proposals' has been drafted and refined for the first circulation. The announcement further refined toward the next Fiscal Year has already been circulated to all Target Universities.

1.4. Schedule for coming Years.

It is planned that the reporter continues his involvement in the HEDS project by accepting appointment as a Long-Term expert for next two years: namely, from April 1992 to March 1994. His principal site of activity will be based in the City of Medan, where five of the eleven Target Universities are located covered by the HEDS-JICA program.

2. PLANNING AND ADVISORY FUNCTIONS ACHIEVED.

2.1. Terms of Reference.

Principal assignment has been described in the Terms of Reference prepared for the reporter when he assumed the responsibility: see Appendix 2 attached at the end of this report.

2.2. Background.

2.2.1. HEDS (Higher Education Development Support) JICA Project whose objective being to upgrade quality of education in the Faculty of Engineering at 11 Target Universities located in Sumatera and Kalimantan islands started in April 1990, with its initial plan of providing teaching staffs with opportunities for graduate study at in-country host training institute (Institute Technology Bandung) as well as for non-degree training by short-term courses or at host universities in Japan.

2.2.2. As the initial plan of those training programs was seen implemented almost as expected, the Program Management Unit (PMU) of HEDS-JICA started to look for further possibilities of enhancing the effect of the training programs to result in the implementation of upgraded quality of education. As the task group for initiating the additional programs, the PMU has formed internally the Development and Improvement of Engineering Education Committee (DIEEC) in June 1991, who made survey of Target Universities and thereon originated a proposal of what is termed the 'Activity Support'.

2.2.3. As a member of the DIEEC, the reporter was engaged in surveying situations both at universities and industries in the country.

2.3. Procedures taken during FY 1991/92.

2.3.1. The reporter has been engaged with the project for the purpose of identifying problems in the engineering education at the Target Universities, proposing reasonable targets to be achieved by the HEDS Project, as well as suggesting possible methods for solution of the problem to the Executive Director of the HEDS

Project, Professor Dr. Margono Slamet.

2.3.2. His responsibility has been principally born as a member of the Development and Improvement of Engineering Education Committee (DIEEC). The responsibility of the DIEEC is to identify and propose to the Project Director, programs that HEDS is suggested to consider for implementation to better achieve the target of the HEDS Project, that is to upgrade the quality of education at the Faculty of Engineering of Target Universities, in addition to the initially planned programs by which teaching staffs of the target universities have been offered of a variety of training opportunities.

2.3.3. By visiting all Target Universities and two other universities, as well as 18 industries with some of the DIEEC members, the reporter has originated a proposal of what is called the 'Activity Support' in which stated are the problems and targets identified as well as possible measures to take for achieving the targets.

2.3.4. The originated proposal was presented for discussion at the Deans' Meeting held on 29 August 1991 at Cisarua, where it has been agreed among the Engineering Deans of the Target Universities that further discussions should be continued for materialization of the Activity Support by members of a special Working Group representing all Faculties of Engineering of Target Universities.
Also the proposal was submitted for discussion at the Technical Steering Committee of HEDS held on 17 October 1992 among representatives from DGHE (Director General of Higher Education of the Government of Indonesia), USAID of the United States, and JICA.

The proposal was also submitted for discussion at the Japanese In-Country Committee of HEDS in its meetings held during months of July, September, and October 1991.

2.3.5. The special Working Group that was agreed on at the Deans' Meeting was formed by the DIEEC consisting of total of 17 members representing all 11 Target Universities and the Kopertis-I in Medan, who met their 1st meeting in Cisarua 11 to 13 November 1991 and their 2nd meeting in Bukit Tinggi 4 to 6 February 1992. The list of Working Group members as well as that of DIEEC members are found in the Appendix 3a attached to the end of this report.

2.3.6. Each of the 17 members of the Working Group belongs to one of the following Task Groups and share the responsibility of planning and proposing details of the Activity Support:

A. CONCEPT TASK GROUP. This group is responsible in evaluating and revising the original Activity Support proposal suggested by the reporter by introducing opinions coming from Target Universities.

For this purpose, the group has collected a certain set of data from all Target Universities. Also the group is responsible for proposing a few criteria of evaluation by which the achievement of the HEDS project can be measured and demonstrated.

B. PROGRAM TASK GROUP. The group proposes detailed planning of new programs including the Funding Program, Training Programs, and the Interaction Program.

C. LABORATORY TASK GROUP. The group first identifies the areas of emphasis to which positive supports should be focussed, thereon propose the global design of laboratories that accommodate new equipments to be provided for use by teaching staffs for their academic study.

List of Working Group Members by the Task Group is found in the Appendix 3b attached to the end of this report.

List of emphasis areas and title of corresponding Core Laboratories as defined by the Working Group is attached in the Appendix 3c.

2.4. Result of the Planning and Advisory Functions.

The Activity Support represents the output of the reporter during the FY1991/92. It is described in detail in the text of the proposal 'Activity Support Program' which is attached to this report in the Appendix 4. The proposal is briefly summarized as found in the following:

Summary of Proposal, Activity Support Program.

A. PROBLEMS IDENTIFIED

A-1 Industry is strongly in need of more supply of Mechanical, Electrical and Chemical Engineers.

A-2 Self-Development and Hands-on Cultures are missing from Engineering Education of all Departments.

A-3 Critical Elements Missing at Engineering Departments.

- A-3-1 Digital Control in Electrical Engineering.
- A-3-2 Production Technology in Mechanical Engineering.
- A-3-3 Factory Planning and Control in Industrial Engineering and Management.
- A-3-4 Environments for Staff's Research.

B. TARGETS PROPOSED

B-1 Promote Self-Development and Hands-on Cultures in all Engineering Departments.

B-2 Establish Digital Control Education in Electrical Engineering Department.

B-3 Establish Production Technology Capability for Education at Mechanical Engineering Department.

B-4 Promote Factory Planning and Control Study in Industrial Engineering and Management.

B-5 Enhance Environment for Research at Civil and Chemical Engineering Departments.

B-6 Subordinate Support Issues

B-6-1 Provisions upon request.
B-6-2 Textbook publications.

C. PROPOSED PROGRAM

C-1 Training Programs (as already implemented)

C-1-1 S2/pre-S2 in country degree program.
C-1-2 Short-Term Training Courses, non-degree.
C-1-3 Study program in Japan, non-degree.

C-2 Funding Programs

C-2-1 Self-Development Project Funding
C-2-2 Subordinate Support Funding TRAINING
C-2-3 Textbook Publication Funding

C-3 Core Laboratories

C-3-1 Equipments LAB DESIGN
C-3-2 Library

C-4 Interaction Program ITB Counterparts
Japanese Counterparts

C-4-1 Project Seminar
C-4-2 Faculty Project Seminar
(Students involved)

3. Outline of Supportive Functions Achieved.

3.1. Study in Japan Program (non-degree) for Senior Teaching Staffs. List of Counterparts participated.

No.	Name of counterpart Department University	University in Japan Instructor	Period of Study in Japan
1	Ir. Agusarim Civil Engineering UNSYIAH	Toyohashi Univ. of Technology Dr. Tetsuzo Kaku	16 Sep.91 to 26 Mar. 92,6Months
2	Ir. Thanthawi Jauhari M.Sc. Civil Eng. UNSYIAH	Nagaoka Univ. of Technology Dr.Kyuuichi Maruyama	16 Sep.91, to 26 Dec. 91,3months
3	Ir. Bagun Mulia Electrical Engineering UDA	Tokyo Institute of Technology Dr. Yoshinori Sakai	16 Sep. 91 to 26Mar. 92 6months
4	Ir. Rasydi Fachry M.Eng. Chemical Eng. UNSRI	Tokyo Institute of Technology Dr. Koichi Asano	6 Jan.92 to 29 Apr. 92,4months
5	Ir. Amda Rusdi Muis Civil Engineering UNAND	Nagaoka Univ. of Technology Dr. Kunio Torii	16 Sep.91 to 26 Dec. 91,3months
6	Ir. Eddy Suryanto M.Eng.Sc. Electrical UNTAN	Nagaoka Univ. of Technology Dr. Isao Takahashi	16 Sep.91 to 26 Dec. 91,3months
7	Ir. Simpei Garang M.Eng. Computer USU	Toyohashi Univ. of Technology Dr. Tooru Okuyama	16 Sep.91 to 26Mar. 92,6months
8	Ir. Kamil mustafa Industrial Eng. UMA	Toyohashi Univ. of Technology Dr. Toshizumi Ota	16 Sep. 91 to 26 Mar. 92,6months
9	Ir. Siti Sujalmi M.Sc Chemical Eng. UNILA	Toyohashi Univ. of Technology Dr. Kiyoukatsu Jinno Dr. Yukio Hirata	16 Sep. 91 to 26 Dec. 91, 3 months
10	Ir. Ma'mum M.Sc Civil Engineering UNLAM	Toyohashi Univ. of Technology Dr. Makoto Kawamura	16 Sep. 91 to 26 Mar. 92, 6 months

3.2. Short-Term Training Courses (non-degree)

3.2.1. Courses implemented in FY1991/92

No.	Course Title (Department)	List of Instructor(s)	Organizing University (Place Held)	Period Held
1	Coastal Engg. (Civil Engg.)	Dr. Tomoya Shibayama, Assoc.Prof. AIT	UNILA (UNILA)	19 to 26 Aug. 1991
2	Digital Control Part1 (Electrical Engineering and all other Engineering)	Dr.Muljowidodo ITB Prof.Dr. Masazumi Kumagai Yasushi Kato Sendai Technical Col.	UMA (UMA)	19 to 27 Feb. 1992
3	Production Technology Part 1 (Mechanical Engineering)	Prof. Dr. Sri Hardjoko Wiljomartono Dr. Taufiq Rochim, ITB Prof. Dr. Toshimichi Moriwaki, Kobe Univ.	UDA (USU)	19 to 27 Feb. 1992

3.2.2. Courses arranged for FY1992/93 and thereafter.

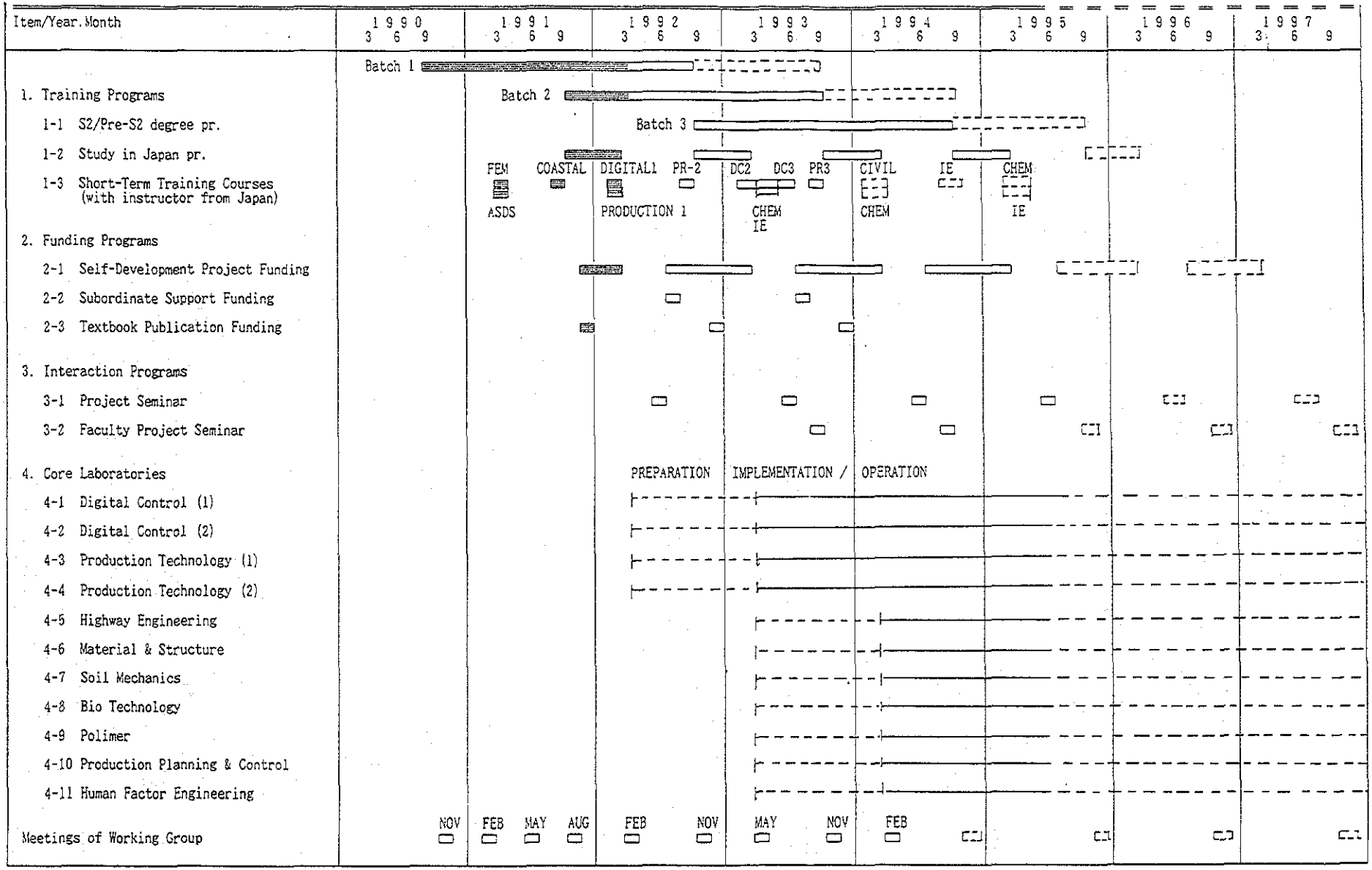
No.	Course title (Department)	List of Instructor(s)	Organizing University (Place Held)	Period Held
1	Production Technology Part 2 (Mechanical Engineering)	Dr. Taufiq Rochim, ITB Prof. Dr. Koji Takada Nagaoka Univ. of Technology	(ITB)	Aug. 1992
2	Digital Control Part 2 (Electrical and all other Engineering)	Prof. Dr. Masazumi Kumagai Prof. Dr. Yasushi Kato Dr. Akio Kanomata Sendai Tech. College		Feb. 1993
3	(Chemical Engineering)			Mar. 1993
4	(Industrial Engineering)			Mar. 1993
5	Digital Control Part 3 (Electrical and all other Engineering)	Dr. Muljowidodo ITB Prof. Dr. Masazumi Kumagai Prof. Dr. Yasushi Kato Dr. Akio Kanomata Sendai Tech. College		May 1993
6	Production Technology Part 3 (Mechanical Engineering)	Dr. Taufiq Rochim and Dr. Koman, ITB Prof. Dr. Osamu Horiuchi Toyohashi Univ. Tech.		Aug. 1993
7	(Civil Engineering)			1993

3.4. Self-Development Project Funding.

Funding under this program has been initiated for the Fiscal Year 1991/92, followed by the second cycle to be practiced in the FY 1992/93. Documents released by the PMU concerning the Self-Development Project Funding are attached in the Appendix 6.

4. DRAFT IMPLEMENTAION PLAN FOR THE ACTIVITY SUPPORT.

4. DRAFT IMPLEMENTATION PLAN FOR THE ACTIVITY SUPPORT



5. PROBLEMS AND ISSUES

5-1. Principal characteristics of the Activity Support.

Basic approach of the Activity Support is made to the teaching staffs. They are expected to enrich their experiences in teaching, research, and community service by positively using the support programs. Those experience should be reflected in their teaching so that improved quality of education will be seen by students who are the targeted recipient of education.

The Activity Support program is characterized by the synergetic combination of four elements: namely, training, funding, interaction and equipment provision. When all of those elements are systematically implemented as a combined set, effect of each element will be amplified by synergetic interaction, so that much greater achievement will be gained as compared with an imaginary case when they might be implemented individually.

5-2. Problem of Sustainability.

Whether the kind of support implemented for teaching staff by HEDS-JICA will be continued on sustainable basis after the conclusion of the HEDS project is the issue often discussed. The four elements of the Activity Support, namely training, funding, interaction and equipment provision are the items that really should be provided by the principal sponsor of the university as regular procedure accompanying the routine operation of the educational institute. Therefore, the final goal of the HEDS project should be to convince the DGHE so that it will take over the support for its teaching staff. To make such transition possible, the Activity Support program should include in itself the measurement of the effectiveness of its programs, so that the effect of the program would be explicitly publicized using the measurement.

5-3. Problem of under-utilization of common equipments.

Since the equipments provided by the Activity Support is going to be commonly used by teaching staffs belonging to different universities, possible under-utilization of the common equipments is often discussed as a concerned problem.

The Activity Support Program, however, is going to be implemented according to a coordinated planning by the members of the Working Group representing all Target Universities, careful preparations will be practiced to avoid low utilization of the equipments introduced. Not only the support of equipments, but combined with other elements of funding, training, and interaction program will interactively enrich the value of individual elements, so that the difficulties otherwise encountered by the user in sharing common use of centralized equipments will be removed in the

Activity Support. For instance, the Self-Development Project Funding which has been already started since December 1991, is designed to cover the transportation as well as on-site living cost incurred for the remote user in traveling to the location where the equipment he needs is located.

5-4. Distribution of Participants by Department.

As observed with respect to the present industrial development in Indonesia, the quantitative expansion as well as qualitative improvement of education especially in the Electrical and Mechanical Engineering is required. However, more problems are found today in education at those departments at the Faculty of Engineering of Target Universities than in the Civil Engineering Department as described in the 'Chapter A, Problems Identified' of the 'Text of Proposal, Activity Support Program' Appendix 4.

It has happened on the other hand, what HEDS Project has done so far tended to be participated by more teaching staff of Civil Engineering than others. As illustrated in Fig.7 Appendix 5, over 120 participants who are presently pursuing the S-2/Pre.S-2 degree study at ITB has been dominated by those who study Civil Engineering.

The Working Group has proposed, to sharply remedy this partial inclination, that efforts must be made in the next recruitment, to increase the number of candidates for fields of Mechanical Engineering (ME), Electrical Engineering (EE), and Industrial Engineering and Management (IE) by:

- recruiting candidates from good senior students at each Target Universities,
- assigning priority for scholarship at each private university for candidates in ME, EE, and IE,
- assigning priority for scholarship by DGHE to candidates in ME, EE, and IE,
- and practicing measures to give positive motivation to young staff.

6. CONCLUSION AND RECOMMENDATION

The initial planning of the HEDS project as of the time it started in April 1990 was specific only in the training programs to be offered to teaching staffs, and the detail design of the follow-up supporting programs has been left for later planning.

By the leadership of the JICA Chief Advisor to HEDS, Mr. Hidetoshi Yaoi, the reporter has taken the assignment of planning and advisory function related to the additional programs HEDS should consider in view of better achieving its global target.

The Activity Support Program that represents the principal output of the reporter in his capacity, includes the initially planned training programs as the fundamental element of the overall program, but adds to those the funding, interaction, and equipment provision programs. Those four elements are recommended for HEDS-JICA project to inclusively implement in the near future, so that each element will interactively enrich the effectiveness of other elements, toward better achieving the global target of the project which is to upgrade quality of education at Target Universities Faculty of Engineering.

Appendix 1

I T I N E R A R I E S D U R I N G
A S S I G N M E N T S
F Y 1 9 9 1 / 9 2

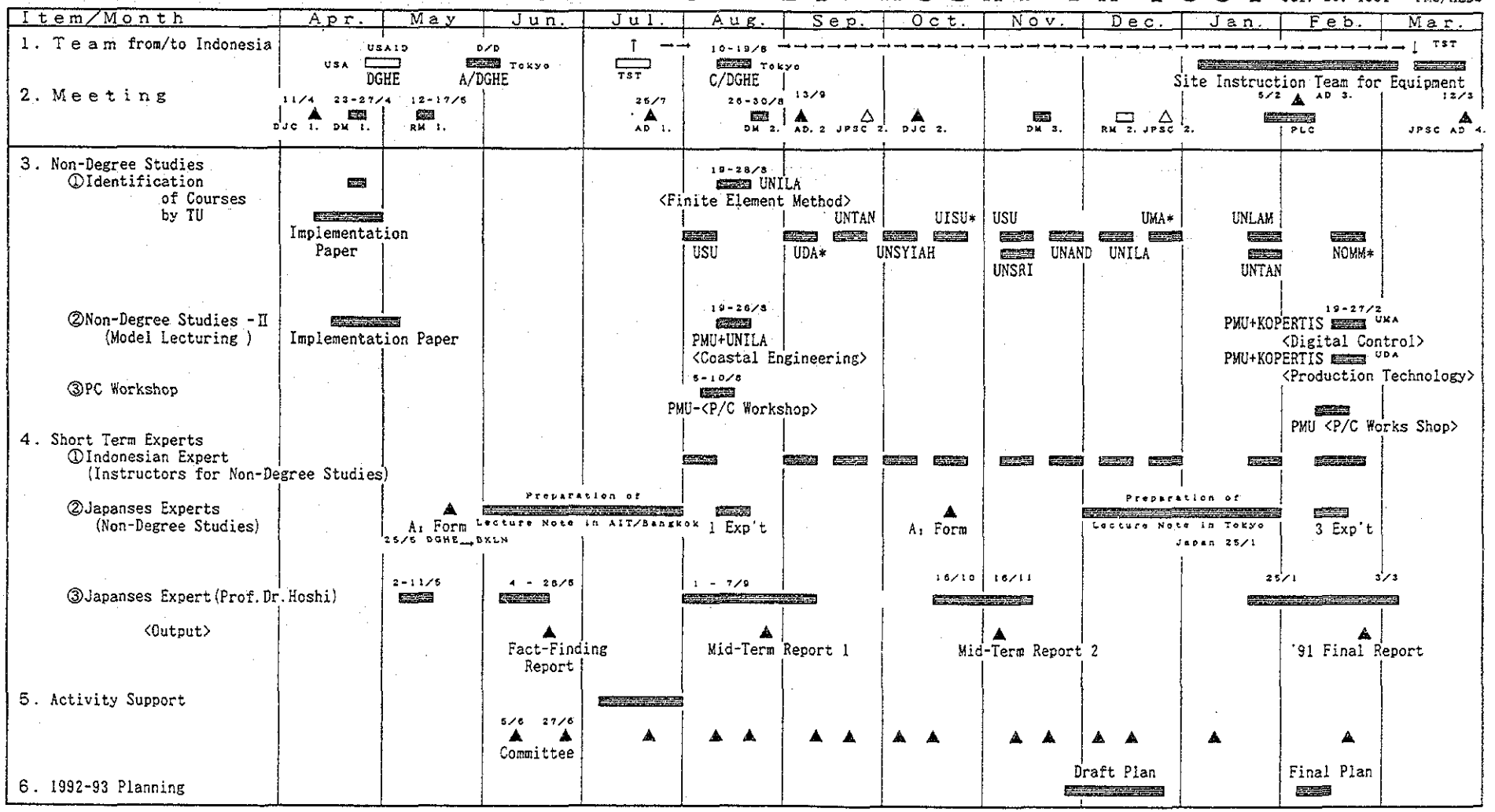
A T T A C H E D A R E S C H E D U L E S O F

P R O F . D R . T . H O S H I

F I V E T I M E S D U R I N G 1 9 9 1 / 9 2

Mar. 16. 1992
Aug. 02. 1991
Jul. 29. 1991 PMU/HEDS

Schedule for Prof. Dr. Hoshi in 1991



JPSC : Joint Project Steering Committee
PLC : Project Leader Conference in Tokyo
A/DGHE : DGHE D/D Document Approval Team for Grant Aid in Tokyo
KOPERTIS: Koordinasi Perguruan Tinggi Swasta (Private University Coordination)
DJC : DGHE-JICA Committee Equipment
TST : Technical Study Team
C/DGHE: DGHE Team for signing the Contract of the Grant Aid in Tokyo
AD : Advisory Committee in Japan
* : Private University
RM : Rector Meeting
DM : Dean Meeting

Schedule of Dr. Hoshi <from Thu 2 May～ Sat 11 May>

No.	Day	Date	Event	Dr. Hoshi	Remarks
①	Thu	2 May	Dr. Hoshi Arrives	16:30 Airport <President Hotel> 19:30 Meeting with JICA Team Members ⇨At Inakaya	
②	Fri	3 May		Meeting at PMU, 09:00 Meeting with Dr. Margono Preparation Work	PM: Dr. Margono at IPB in Bogor
③	Sat	4 May		Meeting at PMU, Preparation Work	Dr. Margono at IPB in Bogor
④	Sun	5 May		16:30 leave for Medan <Garuda Plaza Hotel>	
⑤	Mon	6 May		Interview: Candidates for Training in Japan'91 { UNSYIAH 2, NOMMENSEN 2, UMA 2, UISU 1, UNAND 2 } (人)	
⑥	Tue	7 May		Interview { USU 2, UDA 2 } (人) 19:40 leave for Jakarta	
⑦	Wed	8 May		Interview: Candidates for Training in Japan'91 { UNSRI 2, NUILA 2, UNLAM 1, UNTAN 1 } (人)	
⑧	Thu	9 May	National Holiday	Report Writing	
⑨	Fri	10 May	Dr. Hoshi leaves	Meeting with Dr. Margono at PMU 23:45 leaves for Japan	
⑩	Sat	11 May		08:00 Arrive at Japan	

Discussion on the Short-term training in August will be included in the meetings with Dr. Margono.

Schedule of Prof. Dr. Hoshi

(27 June, 1991 PMU/HEDS)

No.	Day	Date	Origin→ Destination	Time	Event	Hotel
<1>	Tue	4 June	Tokyo → Jakarta 11:00 GA873 16:10	19:30 - 21:30	Meeting with HEDS JICA Team (Place:Inakaya)	Kemang Hotel
<2>	Wed	5 June	<Jakarta> PMU	09:00 - 12:00 14:00 - 16:00	Meeting with Dr.Margono, Dr.Harsono <Establishment of Activity Support Committee>	Kemang Hotel
<3>	Thu	6 June	Jakarta → Bandung 08:40 MZ3603 09:10	08:40 - 09:10 10:00 - 12:00 14:00 - 16:00	Move to Bandung Meeting with Dr. Harsono Visit to IPTN 【J 】	Talagasari Hotel
<4>	Fri	7 June	<Bandung>	09:00 - 12:00	Visit to PINDAD (Aircraft manufacturing company) 【J 】	Talagasari Hotel
<5>	Sat	8 June	<Bandung>	09:00 - 16:00	Preparation work for site survey 【J 】	Talagasari or Kemang
<6>	Sun	9 June	Jakarta → Medan 16:30 18:40		Move to Medan Report Writing	Garuda Plaza
<7>	Mon	10 June	<Medan>	08:30 - 16:00	Visit to Nommensen	Garuda Plaza
<8>	Tue	11 June	<Medan>	08:30 - 12:00	Visit to USU Report Writing 【J 】	Garuda Plaza
<9>	Wed	12 June	<Medan>	08:30 - 12:00	Visit to USU Report Writing 【J 】	Garuda Plaza
<10>	Thu	13 June	<Medan>	09:00 - 12:30	Visit to UMA Report Writing 【J 】	Garuda Plaza
<11>	Fri	14 June	<Medan>	08:45 - 11:30	Visit to UDA Report Writing 【O 】	Hotel Danau Toba
<12>	Sat	15 June	<Medan>	08:30 - 11:45 15:00 - 16:30	Visit to UISU Visit to Nommensen 【O 】	Hotel Danau Toba

Accompaning person: 【J 】= Dr. Jachja 【 Y】= Mr. Yaoi 【 O】= Ms. Osugi

No.	Day	Date	Origin→ Destination	Time	Event	Hotel
<13>	Sun	16 June	Madan → Banda Aceh 12:00 13:00		Move to Banda Aceh Report Writing 【O 】	Sultan Hotel
<14>	Mon	17 June	<Banda Aceh>	08:30 - 12:00	Visit to UNSYIAH Report Writing 【O 】	Sultan Hotel
<15>	Tue	18 June	<Banda Aceh>	09:00 - 12:00 16:00 - 17:00	Visit to UNSYIAH Visit to UNSYIAH 【O 】	Sultan Hotel
<16>	Wed	19 June	Banda Ache→ Padang 07:30 16:10		Report Writing 【Y 】	Hotel Muara
<17>	Thu	20 June	<Padang>	08:30 - 11:45	Visit to UNAND & PT Semen Padang Report Writing 【Y 】	Hotel Muara
<18>	Fri	21 June	Padang → Palembang 17:00 18:10	09:00 - 11:30	Visit to UNAND Report Writing 【Y 】	Hotel Swarnadipa
<19>	Sat	22 June	<Palembang> Dr. Harsono (Bandung ↔Palembang)	09:00 - 11:30 14:15 - 15:35	Visit to UNSRI & PT Pupuk 【Y 】 Sriwidjaya Meeting with Dr. Harsono & Mr. Yaoi	Hotel Swarnadipa
<20>	Sun	23 June	Palenbang → Lampung 13:30 14:30		Move to Lampung Report Writing 【O 】	Indra Palace
<21>	Mon	24 June	<Lampung>	08:30 - 16:30	Visit to UNILA & PT. Cat Bumirahari Cement Roof Top Tile 【O 】	Indra Palace
<22>	Tue	25 June	<Lampung>	11:40 - 12:20 12:40 - 12:50	Visit to PT. Wijayakarta Visit to Local Industry 【O 】	Indra Palace
<23>	Wed	26 June	Lampung → JKT 10:30 Mz203 11:25	13:30 - 16:00	Report Writing Meeting with JICA Team	Kemang Hotel
<24>	Thu	27 June	<Jakarta> PMU	09:30 - 12:30 14:00 - 16:00	Meeting with Dr. Margono, Dr. Harsono Report Writing	Kemang Hotel
<25>	Fri	28 June	Jakarta → Tokyo 23:10 GA 872	09:00 - 09:40 10:15 - 10:50	JICA Indonesia Office Embassy of Japan	

Accompaning person: 【J 】= Dr. Jachja 【 Y】= Mr. Yaoi 【 O】= Ms. Osugi

03 Aug. 1991 PMU/HEDS
02 Aug. 1991
26 July. 1991

Schedule of Prof. Dr. Hoshi< from Aug. 1 to Sep. 7, 1991 >

No.	Day	Date	T i m e	E v e n t	Remarks
1	Thu	1 Aug	Tokyo →Jakarta 11:00 16:10 GA873	Move to Jakarta Meeting with HEDS-JICA Team (19:30-21:30)	"Inakaya" Kemang Hotel
2	Fri	2 Aug	10:00 - 12:00 13:00 - 16:00	Meeting with HEDS-JICA Team Analysis work on data and information	Kemang Hotel (Room No.203)
3	Sat	3 Aug	09:00 - 12:00	Analysis work on data and information Preparation for DIEEC Meeting	Kemang Hotel
4	Sun	4 Aug		Free	Kemang Hotel
5	Mon	5 Aug	09:00 - 12:00 13:00 - 16:00	DIEEC Meeting (No.4) Analysis work on data and information Preparation work for site survey	Kemang Hotel PC Workshop in Bogor starts
6	Tue	6 Aug	07:30 - 17:00	Visit Toyota-Astra Motor (5 Facutries) Mr.Miyake & Ms.Osugi 07:00 at Kemang H.	PC Workshop in Bgr
7	Wed	7 Aug	08:00 →10:40 MZ530	Jakarta → Banjarmasin Visit to UNLAM	Dr.Harsono Bdg→ Banjarmasin with Ms.Osugi PC Workshop in Bgr
8	Thu	8 Aug	08:30 ～	Visit to UNLAM Compilation of the results of survey	with Dr.Harsono & Ms.Osugi PC Workshop in Bgr
9	Fri	9 Aug	08:30 ～ 16:55 → 17:40 MZ533	Visit to UNLAM Orientation for Ir. Ma'mun of UNLAM participant for research study in universities in Japan Banjarmasin → Jakarta	with Dr.Harsono & Ms.Osugi Dr.Harsono Banjarmasin → Bdg Hotel Horizon
10	Sat	10 Aug		Report writing	Hotel Horizon Dr.Margono to JPN

No.	Day	Date	T i m e	E v e n t	Remarks
11	Sun	11 Aug		Free	Dr. Harsono at Kemang Hotel Kemang Hotel
12	Mon	12 Aug	07:50 → 09:15 MZ500	Jakarta → Pontianak Visit to UNTAN	with Dr. Harsono & Mr. Miyake
13	Tue	13 Aug	08:30 ～	Visit to UNTAN Compilation of the results of survey Orientation for Ir. Eddy Suryiant of UNTAN, participant for research study in universities in Japan	with Dr. Harsono & Mr. miyake
14	Wed	14 Aug	08:30 ～ 15:30 → 16:55 MZ507	Visit to UNTAN. Move to Jakarta Pontianak→ Jakarta Compilation of the results of survey	with Dr. Harsono & Ms. Miyake Dr. Harsono, by train to Bdg (18:55) Kemang Hotel
15	Thu	15 Aug	09:00 - 12:00 13:00 - 16:00	DIEEC Meeting (No. 5) Analysis work on the results of survey	Kemang Hotel
16	Fri	16 Aug	09:00 - 12:00 13:00 - 16:00	Analysis work on the results of survey Preparation for short term training	Kemang Hotel
17	Sat	17 Aug	19:00 - 21:30	Meeting with Dr. Shibayama	Kemang Hotel Dr. Shibayama by. TG413 (16:20)
	(Independence Day)				
18	Sun	18 Aug	10:40 → 11:35 MZ202	akakarta→ Bandar Lampung	with Dr. Shibayama & Ms. Osugi Mr. Yaoi joining
19	Mon	19 Aug	14:00～15:00	Short term training at Lampung University ('Basic Coastal Engineering' / 'Finite Element Method') Orientation for Ir. Siti Sujalmi from UNILA, participant for research study in universities in Japan	
20	Tue	20 Aug		Short term training at Lampung University ('Basic Coastal Engineering' / 'Finite Element Method')	
21	Wed	21 Aug		Short term training at Lampung University Drafting up Mid-term Report with Dr. Harsono & PMO	

No.	Day	Date	T i m e	E v e n t	Remarks
22	Thu	22 Aug		Short term training at Lampung University Drafting up Mid-term Report with Dr.Harsono & PMO	
23	Fri	23 Aug	12:05 → 18:40 MZ205/GA152 20:00 ～	Lampung → (Jakarta) → Medan Dinner Meeting with 7 Participants	B.Aceh→Medan 13:50 14:50 GA035 Padang→Medan 12:45 13:55 MZ030 Palembang → Medan 10:40 13:55 MZ030 Garuda Plaza Hotel
24	Sat	24 Aug	 08:00 ～ 10:00 10:00 ～ 12:00 14:00 ～ 17:00	Orientation forresearch study at universities in Japan 2 participants from UNSYIAH 2 participants from UNAND, UNSRI 3 participants from USU, UMA, UDA	Medan →B.Aceh 12:00 13:00 GA034 Medan → Padang 15:00 16:10 GA031 Medan → Palembang 15:00 18:10 GA031
25	Sun	25 Aug		Free	Mr.Yaoi & Ms.Osugi to B.Lampung
26	Mon	26 Aug	10:00 → 14:30 GA151 16:00 ～ 17:00 at ITB	Medan → Bandung Orientation for Ir. Anshori Djausal from UNILA, participant for research study in universities in Japan	Deans Meeting at Puncak starts Dr. Shibayama 15:00 SQ157 Leave for BKK
27	Tue	27 Aug	09:00 ～	Visit to ITB Meeting with Dr.Sri Hardjoko	Deans Meeting at Puncak
28	Wed	28 Aug	09:00 ～ by Car	Visit to ITB Meeting with Dr.Harsono Meeting with Dr.Sri Hardjoko Bundung → Puncak	 Deans Meeting at Puncak
29	Thu	29 Aug		Deans Meeting at Puncak Meeting with Dr.Harsono	Deans Meeting at Puncak ends at night
30	Fri	30 Aug	by Car	Puncak → Jakarta Report writing	

No.	Day	Date	T i m e	E v e n t	Remarks
31	Sat	31 Aug	09:00 - 12:00	Analysis work on the results of survey	
32	Sun	1 Sept		Free	
33	Mon	2 Sept	09:30 ～	Finalization of Mid-term report	
34	Tue	3 Sept	09:30 ～	Finalization of Mid-term report	
35	Wed	4 Sept	09:00 - 12:00 13:00 - 16:00	DIEEC Meeting (No.6) Analysis work on the results of survey Report writing	
36	Thu	5 Sept	09:00 - 12:00 13:00 - 16:00	Analysis work on the results of survey Report writing	
37	Fri	6 Sept	09:00 - 10:00 10:00 - 11:00 Jakarta → 23:05 GA872	Report to JICA Indonesia Office Report to Embassy of Japan	
38	Sat	7 Sept	→ Narita 08:00		

Schedule for Prof. Dr. Hoshi in October (4 Sept. 1991)

<16 Oct. ～ 16 Nov. 1991> (3 Sept. 1991) PMU/HEDS

No.	Day	Date	Origin→ Destination	Time	Event	Hotel
<1>	Wed	16 Oct.	Tokyo → Jakarta 11:00 GA873 16:10	18:45 - 21:30	Meeting with HEDS JICA Team (Place: Inakaya)	Garden Hotel
<2>	Thu	17 Oct.	<Jakarta> Jakarta → Puncak	10:00 - 11:00 11:00 - 12:00 14:00 - 15:30 15:30 - 17:00	Meeting with JICA Staff (JICA) Meeting with Mr. Otsuki (Embassy) Meeting with Dr. Margono (PMU) Meeting with JICA Team (PMU)	Puncak Hotel
<3>	Fri	18 Oct.	<Puncak>		Activity Support Working Group No. 1	Puncak Hotel
<4>	Sat	19 Oct.	<Jakarta> Puncak → Jakarta			Garden Hotel
<5>	Sun	20 Oct.	<Jakarta>		Free	Garden Hotel
<6>	Mon	21 Oct.	<Jakarta>	10:30 - 12:00 14:00 - 16:00	Screening Work of Research Proposal Report Writing at PMU	Garden Hotel
<7>	Tue	22 Oct.	Jakarta → Medan 16:30 GA152 18:40	09:00 - 12:00	Report Writing at PMU	D. Toba Hotel
<8>	Wed	23 Oct.	< Medan >	09:00 - 12:00	Steering Committee for Short Training Courses	D. Toba Hotel
<9>	Thu	24 Oct.	< Medan >	09:00 - 16:00	Visit of Target Universities	D. Toba Hotel
<10>	Fri	25 Oct.	< Medan >	09:00 - 16:00	Visit of Target Universities	D. Toba Hotel
<11>	Sat	26 Oct.	Medan → Jakarta 10:00 GA161 12:15			Garden Hotel
<12>	Sun	27 Oct.	<Jakarta>		Free	Garden Hotel

No.	Day	Date	Origin→ Destination	Time	Event	Hotel
<13>	Mon	28 Oct.	<Jakarta>	08:30 - 12:00 14:00 - 16:00	Screening Work of Research Proposal Screening Work of Research Proposal	Garden Hotel
<14>	Tue	29 Oct.	<Jakarta>	08:30 - 12:00 14:00 - 16:00	Screening Work of Reaearch Proposal Meeting of Screening	Garden Hotel
<15>	Wed	30 Oct.	<Jakarta>	09:00 - 12:00 13:00 - 16:00	DIEEC Meeting	Garden Hotel
<16>	Thu	31 Oct.	Jakarta→ Surabaya 14:30 GA352 16:55	08:00 - 12:00 14:00 - 17:00	Preparation for Site Survey Travelling to Surabaya	Surabaya
<17>	Fri	1 Nov.	<Surabaya>	09:00 - 12:00 14:00 - 16:00	Visit Surabaya Polytechnic Meeting with Japanese Experts	Surabaya
<18>	Sat	2 Nov.	Surabaya → Bromo	09:00 - 11:30	Visit Surabaya Institute of Technology	Bromo
<19>	Sun	3 Nov.	<Bromo>		Free	Bromo
<20>	Mon	4 Nov.	Bromo→ Surabaya	10:00 - 12:00 14:30 - 16:00	Visit PT.BPI Indra Plant Visit PT.Maspion	Surabaya
<21>	Tue	5 Nov.	Surabaya → Jakarta 15:00 GA345 16:25	09:00- 11:30	Visit PAL Shipyard	Garden Hotel
<22>	Wed	6 Nov.	<Jakarta>	10:00- 12:00 14:00- 17:00	DIEEC Meeting (PMU) Report Writing (PMU)	Garden Hotel
<23>	Thu	7 Nov.	<Jakarta>	10:00- 12:00 14:00- 16:00	Meeting with PMU Staff (PMU) Report Writing (PMU)	Garden Hotel
<24>	Fri	8 Nov.	<Jakarta>	08:30- 12:00 13:00- 17:00	Report Writing (PMU) Report Writing (PMU)	Garden Hotel
<25>	Sat	9 Nov.	<Jakarta>	08:30- 12:00	Report Writing (PMU)	Garden Hotel

No.	Day	Date	Origin→ Destination	Time	Event	Hotel
<26>	Sun	10 Nov.	<Jakarta>		Free	Garden Hotel
<27>	Mon	11 Nov.	<Jakarta>	10:00- 12:00 14:00- 16:00	Report Writing at PMU Report Writing at PMU	Garden Hotel
<28>	Tue	12 Nov.	Jakarta → Medan 09:05 GA151 12:15			Berastagi Hotel
<29>	Wed	13 Nov.	<Medan>	10:00- 12:00 14:00- 16:00	Activity Support Working Group No.2	Berastagi Hotel
<30>	Thu	14 Nov.	Medan → Jakarta 10:00 GA151 12:15	10:00- 12:00 14:00- 16:00	Meeting with PMU Staff (PMU)	Garden Hotel
<31>	Fri	15 Nov.	Jakarta → 23:05 GA872	10:00- 11:00 11:00- 12:00	Meeting with JICA Staff (JICA) Meeting with Mr.Otsuki (Embassy)	
<32>	Sat	16 Nov.	→ Tokyo 08:00			

Tentative Schedule for Prof. Dr. Hoshi
in Jan. to Mar.
<25 Jan. ~ 03 March 1991>

No.	Day Date	Origin→ Destination	Time	Event	Hotel
<1>	Sat 25 Jan.	Tokyo → Jakarta 11:00 GA873 16:10			Century P.
<2>	Sun 26 Jan.	Jakarta	19:00 - 21:30	Meeting with HEDS JICA Team (Place: Inakaya)	Century P.
<3>	Mon 27 Jan.	Jakarta	08:00 - 10:00 10:00 - 11:00 11:00 - 12:00 13:00 - 16:00	Meeting with Mr. Yaoi Meeting with JICA staff (JICA) Meeting with Mr.Otsuki (Embassy) Preparation for Laboratory Meeting	Century P.
<4>	Tue 28 Jan.	Jakarta	08:00 - 16:00	Preparation for Lab.Preparation and Text Book Publication Meetings	Century P.
<5>	Wed 29 Jan.	Jakarta	09:00 - 16:00	W.G. Preparation Meeting for equipment with Dr.Muljowidodo	Century P.
<6>	Thu 30 Jan.	Jakarta	09:00 - 16:00	W.G. Preparation Meeting for equipment	
<7>	Fri 31 Jan.	Jakarta	08:00 - 16:00	Writing DIEEC '91 Final Report	Century P.
<8>	Sat 1 Feb.	Jakarta	08:00 - 12:00	Report Writing	Century P.
<9>	Sun 2 Feb.	Jakarta	19:00 - 21:00	Report Writing	Century P.
<10>	Mon 3 Feb.	Jakarta	13:00 - 16:00	Report Writing	Century P.

No.	Day Date	Origin→ Destination	Time	Event	Hotel
<11>	Tue 4 Feb.	JKT→ Padang 9:15 10:55 → Bukit Tinggi	20:00 - 22:00	Start working Group No.2 for Activity Support Program	B.Tinggi View hotel
<12>	Wed 5 Feb.	Bukit Tinggi	08:00 - 22:00	Working Group No.2 Activity Support Program	B.Tinggi View hotel
<13>	Thur6 Feb.	Bukit Tinggi	08:00 - 13:00 14:00 - 16:00	Working G. No.2 Activity Support P Follow up Meeting Self-Development Project Funding (USU,UMA,UDA)	B.Tinggi View hotel
<14>	Fri 7 Feb.	Bukit Tinggi → Padang → Medan 12:45 13:55		Preparation work for Second Steering Committee of 'Digital Control' at UMA	Danau Toba
<15>	Sat 8 Feb.	Medan → Jakarta 15:45 18:00	09:00 - 12:00	Second Steering Committee for 'Digital Control' at UMA	Century P.
<16>	Sun 9 Feb.	Jakarta		Free	Century P.
<17>	Mon 10 Feb.	Jakarta	08:00 - 16:00	Preparation for Short-Term Training Courses in Medan	Century P.
<18>	Tue 11 Feb.	Jakarta	08:00 - 16:00	Preparation for DIEEC Meeting	Century P.
<19>	Wed 12 Feb.	Jakarta	08:00 - 12:00 13:00 - 16:00	DIEEC Meeting for Finalization Activity Support Program Plan Report Writing (DIEEC '91 Final)	Century P.
<20>	Thur13 Feb.	Jakarta	08:00 - 16:00	Preparation for Project Seminar	Century P.
<21>	Fri 14 Feb.	Jakarta	08:00 - 16:00 17:45(JL721)	Preparation for Branch Office in Medan Meet Dr.Kato,Kumagai at airport	Century P.
<22>	Sat 15 Feb.	Jakarta	08:00 - 12:00 16:10 (GA 873)	Report Writing Meet Dr.Sasaki of TUT at airport	Century P.
<23>	Sun 16 Feb.	Jakarta→ Bandung 16:30 17:00		Free	Preangar

No.	Day Date	Origin→ Destination	Time	Event	Hotel
<24>	Mon 17 Feb.	Bandung	09:00 - 11:00 11:00 - 12:00 13:00 - 14:00	Meeting Dr.Muljo Widodo with Dr.Kumagai & Dr.Kato (ITB) Meeting Dr.Harsono with Dr.Sasaki Meeting Prof.Dr.Sri Hardjoko with Dr.Sasaki (ITB)	Preangar
<25>	Tue 18 Feb.	Bandung → Jakarta 13:00 13:30 Jakarta → Medan 18:30 18:40			Danau Toba
<26>	Wed 19 Feb.	Medan	08:00 - 19:00	Opening Ceremony, Short-Term Training Courses, Digital Control & Production Technology	Danau Toba
<27>	Thur20 Feb.	Medan	08:00 - 16:00	Opening Ceremony, Short-Term Training Courses, Digital Control & Production Technology	Danau Toba
<28>	Fri 21 Feb.	Medan	08:00 - 16:00	Prof.Dr.Moriwaki of Kobe Univ. arrive in Medan	Danau Toba
<29>	Sat 22 Feb.	Medan → Jakarta 13:15 15:30	19:00 - 21:00	Dinner with Mr.Takahashi (JICA) and Dr.Sasaki	Century P.
<30>	Sun 23 Feb.	Jakarta		See Dr.Sasaki off at airport	Century P.
<31>	Mon 24 Feb.	Jakarta → Medan 09:05 11:15	14:00 - 16:00	Short-Term Training Digital Control and Production Technology	Danau Toba
<32>	Tue 25 Feb.	Medan	08:00 - 16:00	Short-Term Training Digital Control and Production Technology	Danau Toba
<33>	Wed 26 Feb.	Medan	08:00 - 16:00	Short-Term Training Digital Control and Production Technology	Danau Toba
<34>	Thur27 Feb.	Medan Medan → Jakarta 19:40 21:55	08:00 - 16:00 17:00 - 18:00	Short-Term Training Digital Control and Production Technology Closing Ceremony for Short-Term Training Courses	Century P.

No.	Day Date	Origin→ Destination	Time	Event	Hotel
<35>	Fri 28 Feb.	Jakarta	08:00 - 12:00	Preparation for Digital Control Part 2 to be held in August 1991	Century P.
<36>	Sat 29 Feb.	Jakarta		Preparation for Digital Control Part 2 to be held in August 1992	Century P.
<37>	Sun 1 Mar.	Jakarta		Free	Century P.
<38>	Mon 2 Mar.	Jakarta → 23:05 GA872	10:00 - 10:30 11:00 - 11:30	Meeting with JICA Staff Meeting with Mr.Otsuki	
<39>	Tue 3 Mar.	Tokyo 08:00			

22 Jan. '92

Appendix 2

TERMS OF REFERENCE
Prof Dr.Hoshi as a short-term expert for HEDS Project

HEDS/JICA PROJECT :

* The PURPOSE of the project is to enhance the development of the eleven target faculties of engineering.

* The MAIN OBJECTIVE of the project is to upgrade the quality of education at the target faculties.

THE ASSIGNMENT OF PROF.DR.HOSHI :

* The STATUS is as a longterm expert (temporarity a short-term expert during FY 1991/92) of JICA Team at PMU.

* The main TASK is to assist the JICA Chief Advisor and to consult the HEDS Executive Director on academic matters related to the project.

* The MAJOR FUNCTIONS is to have close contact and communication with all eleven target faculties of engineering and with ITB to be able :

1. to identify problems and constrains of each faculty of engineering in achieving a higher standard of education;

2. to formulate reasonable objectives to achieve at the end of the project's term;

3. to identify the needs of each faculty to be able to improve themselves;

4. to propose activities and other efforts to solve identified problems and to meet the needs, either to the respective faculty, to all faculties, or to PMU;

5. to provide academic and related information as input to PMU

6. to provide academic and related administrative advices to the faculties and to PMU.

Margono Slamet
HEDS Executive Director
January 18, 1991

Appendix 3a

Table of Working Group Members by Target Universities

University	CIVIL Eng.	ARCHI-TECTURE	CHEMICAL ENG.	MECH. ENG.	ELECT ENG.	IND. ENG.	MINING ENG.
NOMMENSEN	Ir.Fridolin Siahaan			○	○		
USU	○		Ir.Merek Sembiring	○	○	Ir.Suhaimi Simatupang	
UMA	○	○		○	Ir.Syarifuddin Siregar		
UDA	○		Ir.Maudin Sitorus		○	Ir.A.Jabbar M.Rambe,M.Sc	
UISU	○		Ir.H.Moh. Ichwan NST,M.Sc			Ir.Harmein NST,MSIE	
UNSYIAH	Ir.Dirwan PS		Ir.Yusri Sulaiman	○ PS			
UNAND	S.U PS		Ir.Afzieri				
UNSRI	○	○		○	Ir.Djamilus Zainuddin,M.Sc		
UNILA	Ir.Dermawan Kaban		Ir.Zainuddin Nawawi				
UNTAN	○				Ir.Purwanto,M.Sc		
UNLAM	Ir.H.Hanafi Usman						
Total no. of Univ.	10+PS	1+PS	3	7+PS	7	3	1
No.of Members	4	0	3	4	2	3	0

KOPERTIS-1 PIMPRO : Ir.Erwin Ma'ruf

Table of DIEEC Members

Chairman	
Prof.Dr.Margono Slamet	HEDS Program Director
Prof.Dr.Tetsutaro Hoshi	JICA Short-Term Expert
Dr.Harsono Taroepratjeka	ITB
Dr.Jajat Jachja	HEDS Program Coordinator
Mr.Hidetoshi Yaoi	HEDS JICA Chief Advisor
Ms.Chieko Osugi	HEDS JICA Coordinator

Appendix 3b

MEMBERS OF TASK GROUP

A. CONCEPT TASK GROUP

Chairman 1. Ir. Suhaimi Simatupang (USU) Ind.Eng.

Secretary 2. Ir. Harmein NST, MSIE (UISU) Ind.Eng.

3. Ir. Djamilus Zainuddin, M.Sc (UNSRI) Chem.Eng.

B. PROGRAM TASK GROUP

Chairman 1. Ir. A.Jabbar M.Rambe, M.Sc (UMA) Ind.Eng.

Secretary 2. Ir. Erwin Ma'ruf (KOPERTIS-1)

3. IR. Dirwan S.U (UNSYIAH) Civil Eng.

C. LABORATORY TASK GROUP

Chairman 1. Ir. H.Moh.Ichwan NST, M.Sc (UISU) Mech.Eng.

Secretary 2. Ir. Syarifuddin Siregar (UMA) Elect. Eng.

3. Ir. Fridolin Siahaan (NOMMENSEN) Civil Eng.

4. Ir. Merek Sembiring (USU) Chem. Eng.

5. Ir. Maudin Sitorus (UDA) Mech. Eng.

6. Ir. Yusri Sulaiman (UNSYIAH) Chem. Eng.

7. Ir. Afzieri (UNAND) Mech. Eng.

8. Ir. Zainuddin Nawawi (UNSRI) Elect. Eng.

9. Ir. Dermawan Kaban (UNILA) Civil Eng.

10. Ir. Purwanto, M.Sc (UNTAN) Elect. Eng.

11. Ir. H.Hanafi Usmant (UNLAM) Civil Eng,

Appendix 3c

C-2 Title of Core Laboratories and principal Designer assigned

Departmen	Name of Core Laboratory	Principal Designer assigned
Civil	Highway Engineering	Ir. Dermawan Kaban
	Material & Structure	Ir. Fridolin Siahaan
	Soil Mechanics	Ir. H. Hanafi Usmant
Chemical	Bit echnology	Ir. Merek Sembiring
	Polymer	Ir. Yusri Sulaiman
Ind.Eng	Production Planning & Control	Ir. Harmein NST, MSIE
	Human Factor Engineering	Ir. Suhaimi Simatupang
Mechanical	Production Technology	Ir. Moh.Ichwan NST,M.Sc Ir. Maudin Sitorus Ir. Afzieri
Electrical	Digital Control	Ir. Syarifuddin Siregar Ir. Purwanto, M.Sc

The equipment, facility, and library for each core laboratory will be specified by the principal designer listed in the above during the 3rd meeting of the working group in May 1992, except for the Production Technology and Digital Control labortories whose detail must be specified soon after the 2nd meeting if the budget request will be approved.

Appendix 4

Text of Proposal

ACTIVITY SUPPORT PROGRAM

A. PROBLEMS IDENTIFIED

By visiting eleven Target Universities and fifteen industrial companies accompanied by some DIEEC members through periods of 6 to 25 June, and 6 to 14 August 1991, short term Expert of JICA, T. Hoshi has identified a number of problems apparent in current education at Faculties of Engineering.

A-1	Industry is strongly in need of More Supply of Mechanical and Electrical Engineer

Secondary Industries Overview

Among the three major sectors of secondary industries, namely mining, construction, and manufacturing, engineering education has first focused on construction so that every Target University has established the corresponding Civil Engineering Department as seen in Table 1 Appendix 5. Fig-1, Fig-2 and Fig-3 of Appendix 5 indicate the capacity and the productivity of the education by each department. The manufacturing sector of industry has started and grown in number of companies as well as in volume of production after middle of 1960's in Indonesia. Manufacturing industries are those that produce goods in factories, and are further categorized by the kind of goods they produce, such as food processing, wood processing, rubber processing, metal processing, mechanical production, etc.

Indonesia being rich in agricultural and natural resources, those factories that process rubber, palm oil, petroleum, cement, fertilizer and so on started to grow earlier since 1960's, as shown in Tabel-2 Appendix 5, followed by the emergence of factories since 1970's where mechanical equipments are produced such as automobile, railway equipment, electrical equipment, firearm, aircraft, and industrial equipments.

Equipment Manufacturing and Engineering Education

Take an example of a sales curve of PT Toyota-Astra Motor (ATM) who started vehicle production in 1972. The production whose main portion is shared by the model KIJANG; the most popular commercial vehicle in the country, has been expanding as shown in the attached graph Fig.-4 Appendix 5. In 1991, the factory is producing more than 200 KIJANGS a day including their engines. A portion of the engines and engine components produced by ATM in Jakarta are exported to Toyota factories located in Singapura and in Japan. As of 1991, the company employs about 4,000 workers including a few hundred engineers. It might be expected in the near future that the domestic market of automobile would undergo an accelerated growth into a huge scale, should the Gross National Production of the country increase in excess of US $1,000 per capita.

Mechanical industries are those produce electrical machineries transportation machineries, industrial tools and equipments, precision machineries, defence equipments and house-hold tools and equipments. This group of industries is of particular importance to the modern society because all kinds of industries and house-holds rely supply of their tools and equipment on this particular group. How good machineries are developed and how efficiently they are produced represents a prime concern for the global well-being of an economic area.

In the earlier time, when few industry existed who made mechanical and electrical wares in the country, mechanical and electrical engineers were hired mainly by industries of other products, rubber, petroleum, natural gas, cement, fertilizer, rooftop tile and so on. Their job was to support use of equipment including repairs. Therefore, university education concentrated on understanding of the functions of equipment, how they work, and the mechanism, how they are structured for functions. This was engineering for use of equipment.

Workshops that started as the maintenance and repairing devision of those industries, howefer, are now becoming internal source where some of new equipmets are self-developed and made for use in their own factories. Also emerging are mechanical industries themselve in the country. Those changes are occurring at a relatively rapid rate and sharply increasing demands for mechanical and electrical engineers. Nor only the quantity of supply is demanded to increase, quality of education also has to be improved in order to meet requirements of the industry who has now started making machineries and not just using them.

A-2 Self-development and Hands-on Cultures are mising in Engineering Education of all Departments.

Engineering tools that consist of software and hardware have to be created by engineers own hands so as to be used in the society that the engineers are serving. Current education, however, tends to end with teaching knowledge about existing tools and only how to use them.

Take existing pieces of software for example, theoritical background always exists as the fundamental basis on which engineering tools have been developed. Some mathematical formula, or computer programs may be used as the tool, for analyzing some process or determining some design parameter. Teaching only how to use those formula or program is not sufficient as the university education. Although many of technical staff end up with this level of engineering capability, it is merely what is called catalogue Engineering, or sometimes Black Box Engineering in which they use an existing tool without knowing how it functions internally and how it is structured. University education has to provide the theoritical background as well as training to create such formula and programs themselves and to modify existing ones to make them applicable to new situations that fall outside the original functionality.

Likewise, self-development of hardware is most fundamental culture that has to be mastered by those who are to create new knowledge and new technologies.

Engineering is a profession that creates what has not been to solve problems identified in the society. The size of the society that an engineer is serving may be large or small and what one creates may be either software, hardware or the combined system of the both. Creation by own hands is the essential function expected al the time to engineers, and not simply the capability of using given tools.

Present situation seen at the target universities is far from the cultures that they sould be in. A visitor immediately notice that many equipments especially at departments of mechanical and electrical Engineering, are left inserviceable at educational sites because they are out-of-order or lacking important parts and accessories as seen in Fig-5 Appendix 5. Some equipments of good-order but are left infunction (unused).

In the Mechanical Engineering Department, a hands-on repair project represents a valuable opportunity of acquiring self-development culture, in which teaching staff and students diassemble the out-of order machinery, inspect for defect, redesign and fabricate replacements, reassemble and test the rebuilt machinery.

In the Electrical Engineering Department, if their teaching modules are self-developed rather than purchased from the suppliers, the cause of the defect will be easily known so that they can be restored without difficulty.

Development of new knowledge, or new technology always begins with self-development of primitive equipments for initial test and measurements. University education is urged to establish self-developments and hands-on culture by achieving transition from the tradition of engineering for using software and equipment to that of making and even developing them.

A-3 Critical Elements Missing at Engineering Departments

A-3-1 Digital Control in Electrical Engineering

Technology of digital circuity and computer software have kept devolping for last quarter of century at far greater rate than any other engineering technology. As the result, any piece of advanced equipment today is controlled of its function by the technology of Digital Control. Although the curricula list appropriate course titles related to Digital Control, such as Basic computer, Basic Programming, Digital System Control, Logic Circuit and Power Electronic, the technology of designing and making control wares and programs are not practiced by teaching staff, therefore not taught to students. The loss of digital control technology seems to represent most critical deficiency in the education of Electrical Engineering Departments.

A-3-2 Production Technology in Mechanical Engineering

Workshops where machineries are disassembled for repair used to have miserable and dark image, that has been reflected in reduced emphasis in university education of production technology. This, however, is totslly different in modern equipment manufacturing industries where the fabrication of mechanical item represents most highly value-added operation. Change of culture is urged in the educational institutions, so that reasonable capability of component

fabrication by machining has to be restored at each department, and some of the teaching staff practice and implement in their teaching the technology of designing and fabricating mechanical wares.

A-3-3 Factory Planning and Control in Industrial Engineering and Management

Appropriate design of the working place including the plant layout, effective technology of planning and controlling the tasks of human resources, transport and handling of materials, and the operation of tools and equipments are highly desirable for the efficiency of production as well as the welfare of workers.

The lack of knowledge of practicing optimal-conditions of operations and choosing the best alternative to achieve the most economical result is usually found in most local industries.

Many of local industries, however, especially those related to equipment manufacturing are in totally unorganized situation whereby some contribution from academic circle will be of great help.

Although, present teaching at university well covers traditional methodologies of Industrial Engineering and Management, some organized study toward advanced technology of factory planning and control with the view of objective application to local industries will be highly appreciated.

A-3-4 Environment for Staff Research

Ideally, every teaching staff should pursue one's own original research, through which one may constantly acquire new knowledge in the field of expertise. Only through this process of having all teaching staff engaged in original reseach, the contents of education offered at the departement can be upgraded autonomously that is, without relying on external support.

Reality is far from the ideal. Only very limited number of teaching staff presently struggle for doing reseach, while majority is not fortunate enough to have all conditions met to allow oneself to do reseach. Reasons include little time available, no equipment, no fund, difficulty in obtaining new information and so on. Although environments are generally adverse, teaching staff of Civil Engineering and Chemical Engineering seem to hold relatively stronger motivations toward Research.

Stronger motivations toward research in Chemical Engineering can be seen also in other institutions such as Chemical Research Institute in Bogor (Balai Penelitian Kimia Bogor), many Plantation Research Institutes (Balai-balai Penelitian Perkebunan) and Industrial Departments of Republic of Indonesia. It would be very usefull if Chemical Engineering Departments in the Target Universities have good relation to those institutions especially in research activities.

B. TARGETS PROPOSED

Based on observations as discussed in the above, a number of targets are proposed to the representatives from the Faculty of Engineering of the Target Univerties for their discussion with HEDS-JICA to jointly recognize, modify, and finally define the objectives of the Activity Support Program to be implemented for continual assistance to teaching staff in their efforts to practice higher standard of undergraduate aducation

B-1	Promotion of Sel-Development and Hands-on Cultures in Education at All Departements of Engineering

For the purpose of educating engineering students toward fundamental attitude of creating what has not been for solusion of problems found in the society, teaching staff has to be promoted to self develop what one needs for teaching, research and community service. Self-development by own hands should be the basic culture in which staff and students study.

The subjects of self-development may be either software (theory, mathematical formula, computer program, and methodology or procedure), hardware (experimental set-up, equipment, or instrumentation), or the combination of both for all departements of engineering.

B-2	Establish Digital Control Education in Electrical Engineering Department

To educate electrical engineering students with self-confidence in familiarity with digital control technology including learning of the basic digital circuit, self-developmet design and

hands-on fabrication of digital control hardware and software should be promoted to meet the needs arising from their own teaching, research and community service.

B-3 Establish Production Technology Capability for Education at Mechanical Engineering Department

As long as maintenance and repair of provided machineries used to be the main tasks, mechanical workshop have generally been miserable and dark area whereby the technology of mechanical production tended to be neglected in university education. In modern mechanical factories, however, where equipments are made for use by other industries representing highly value-added products, the production technology is found to be the key issue where creativeness of engineers are in intense demand to continually improve quality and efficiency of production.

Althought education at university does not train students for the skill of machine making, teaching staff as well as students have to be familiar through hands-on experiences with the problems pertinent to metalworking processes. Repair projects, for instance, of machine tools presently left at many universities inserviceable because of some defects, should positively be utilized by staff and students as opportunities of learning technology of designing and fabricating machineries. Machine tools at many universities could be restored in this way so that production capability would be gradually established for education at Mechanical Engineering Departments.

B-4 Promote Factory Planning and Control Study in Industrial Engineering and Management

To educate students in the respective department with training in objective application of basic methodologis, study to develop and practice advanced technology of Factory Planning and Control should be promoted, which would best contribute to the working place welfare and production efficiency of local manufacturing factories.

B-5 Enhance Environment for Research at Civil and Chemical Engineering Department

Civil Engineering and Architecture have for decades constructed infra-structure of the country through which relatively reasonable standard of education has been attained in the respective departments. Activity support in those areas will include promotion of research for the teaching staff as well as students. Specific areas of emphases may include A-seismic Structure Design (for North Sumatra), Soil Mechanics (for Kalimantan) and Coastal Engineering (for all areas).

Activity support for Chemical Engineering may have the similar inclination toward promotion of research. Establishing glass blowing shop capability may be discussed as one of the possibilities relevant to this area of study.

Areas of study at Chemical Engineering Department and at Civil Engineering and Architecture Department are shown in Tabel-3 and Tabel-4 Appendix 5 respectively.

B-6 Subordinate Support Issue

Many items are definitely in short at Target Universities for affective implementation of better standard in teaching. They include, fund for routinely maintaining and operating lab facilities, classrom facilities such as overhead projector and sound system, equipment and books for library, publication of texbooks, number and training of technical sta ff, and personal computer.

Provision should be made of some of those items based on proposals from Target Universities which would be evaluated in terms of estimated effectiveness and criticality in improving the undergraduate education.

C. PROPOSED PROGRAM

To achieve the targets proposed in the previous sections, activity support methodology will be developed, which will consist of offering TRAINING PROGRAMS on the subjects essential to individual targets, supporting teaching staff activities by FUNDING PROGRAMS, setting up and operating a number of CORE LABORATORIES distributed at Target Universities each corresponding to one of the targets, and organizing INTERACTION PROGRAMS by which results of activities may be mutually presented at academic meetings and published as permanent references.

C-1 Training Program

1. Core Laboratory Operating Training

The teaching and technical staff assigned in charge at the Target University will be trained by the counterpart, either at ITB or in Japan, who coordinates in the design and the preparation of the core laboratory.

2. Core Laboratory User Training

Existing learning opportunities being offered by HEDS/DGHE-JICA Project, that consist of S-2 and Pre S-2 study at ITB, non degree short course, and non-degree training in Japan may be designed to offer training related to the subjects covered by the core laboratory.

C-2 Funding Programs

a. Self Development Project Funding

Those teaching staff who plan activities such as self development of teaching methods, equipments, softwares, repair project, and research using the self-developed equipment and software may apply for funding by submitting proposals. The funding will cover travelling, on-site living, hiring part-timers as well as purchase of small equipments, elements, materials and tools necessary for the project to be completed.

b. Subordinate Support Funding

According to the requests made by Target Universities, funds for preparing simple class room equipments, library equipments and books, personal computers, routine maintenance and operation of laboratory equipments, etc., are to be provided, after evaluating the effectiveness and critically for improved implementation of undergraduate educations. Item can be seen in Tabel-5 Appendix 5 candidates list for subordinate supporting funding.

c. Textbook Publishing Funding

Funding will be provided for publication of textbooks, either original writing or translation, by providing funds to groups of potential authors. The possibility of text book publication can be seen in Tabel-6 Appendix 5.This table indicates scripts which are prepared and ready for printing and publication.

C-3 Core Laboratories

A core laboratory contains and operates facilities necessary for activities to be undertaken in view of realizing a defined target. It will include as a part, a library of books and periodicals relevant to the subject.
A number of core laboratories may be setup corresponding to indivual items of the targets defined. A core laboratory will be setup in one of the Target Universities. The facilities and library will be maintained and operated by the personnels of the Target University in charge,not only for their own use but for common use by teaching and technical staff of all Target Universities.

A core laboratories will be designed and prepared by coordination of the Target University in charge with a counterpart either at ITB ar at a Japanese University or both who has advanced experience in the subject. It will be established, maintained and operated by the funding from Activity Support Program.

C-4 Interaction Programs

Exchange of results attained through the Activity Support Program, new knowledge and experience, views from non-academic engineering circle will be promoted by holding technical meeting, seminars and also by publishing them. Core laboratories will be responsible for organizing those interaction programs related to the subjects in charge under funding by the Activity Support Program.

CONCLUDING REMARKS

The proposed methods of the Activity Support Program are characterized by supply of software, funding and equipment in combination to promote educational and research activities by teaching staff of the Target Universities. Software is planned to be provided in the forms of training and intraction funding in response to individual proposals submitted by teaching staff, and equipments in the form of core laboratories.

Before the methodology is designed in its detail, the program needs common recognition through discussions during its preliminary design phase, of the current problems by which engineering education is impaired and of the targets to be achieved by the program. Thereon widespread and thorough understanding among teaching staff is indispensable of the nature of the methodology in which staff themselves are highlighted as the direct recipient of the support items. without their positive participation, the program can never attain the goal of improved quality in Engineering education.

It is sincerely hoped that representatives from Target Universities, administrators as well as teaching staff, positively participate in discussions through the development phases of the program prior to its formal implementation hopefully scheduled for the year of 1993.

It is also hoped that partial implementation on trial basis will be provisionally born during the fiscal years of 1991/ 1992 and 1992/1993.

Appendix 5 Tables and Figures

Table-1 Engineering Departments Implemented at Target Universities

University	CIVIL Eng.	ARCHI-TECTURE	CHEMICAL Eng.	MECH Eng.	ELECT Eng.	IND Eng.	MINING Eng.
NOMMENSEN	○			○	○		
USU	○		○	○	○	○	
UMA	○	○		○	○	○	
UDA	○			○	○		
UISU	○			○	○	○	
UNSYIAH	○	Pr	○	○			
UNAND	Pr			Pr			
UNSRI	○		○	○	○		○
UNILA	○						
UNTAN	○				○		
UNLAM	○						
Total	10+Pr	1+Pr	3	7+Pr	7	3	1

Pr: Program Study

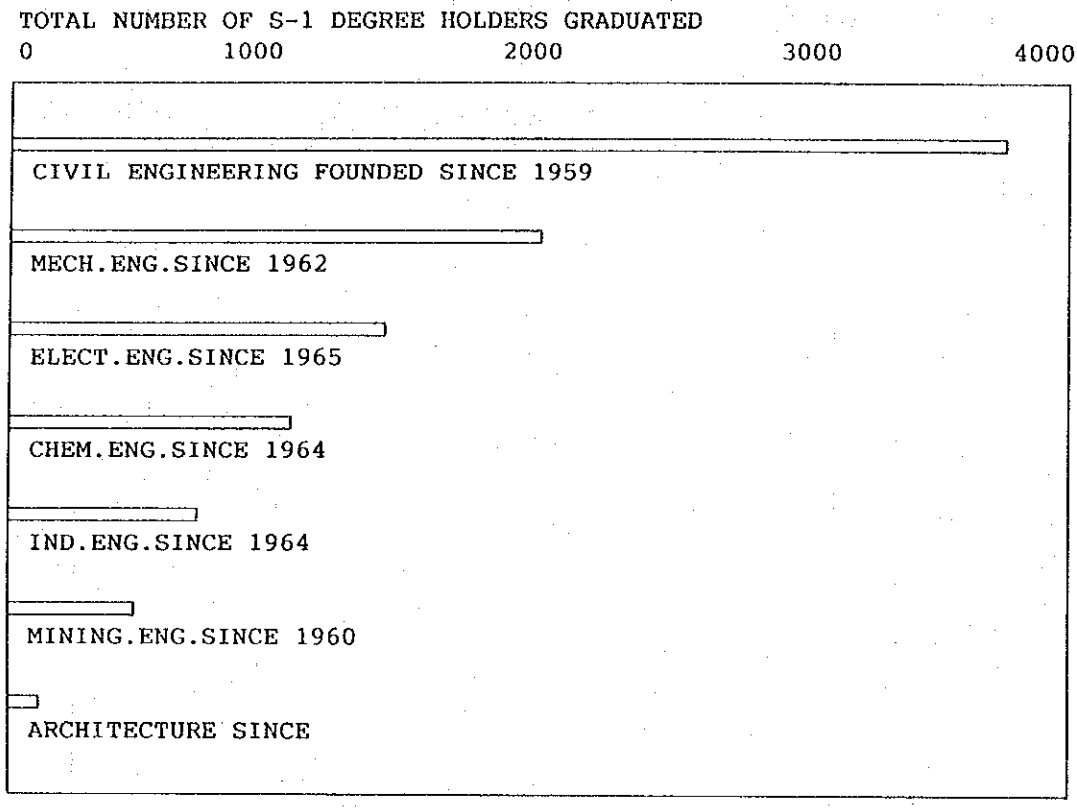


Fig.1 Distribution by department of total number of S-1 degree holders graduated from 11 Target University as of Oct. 1991

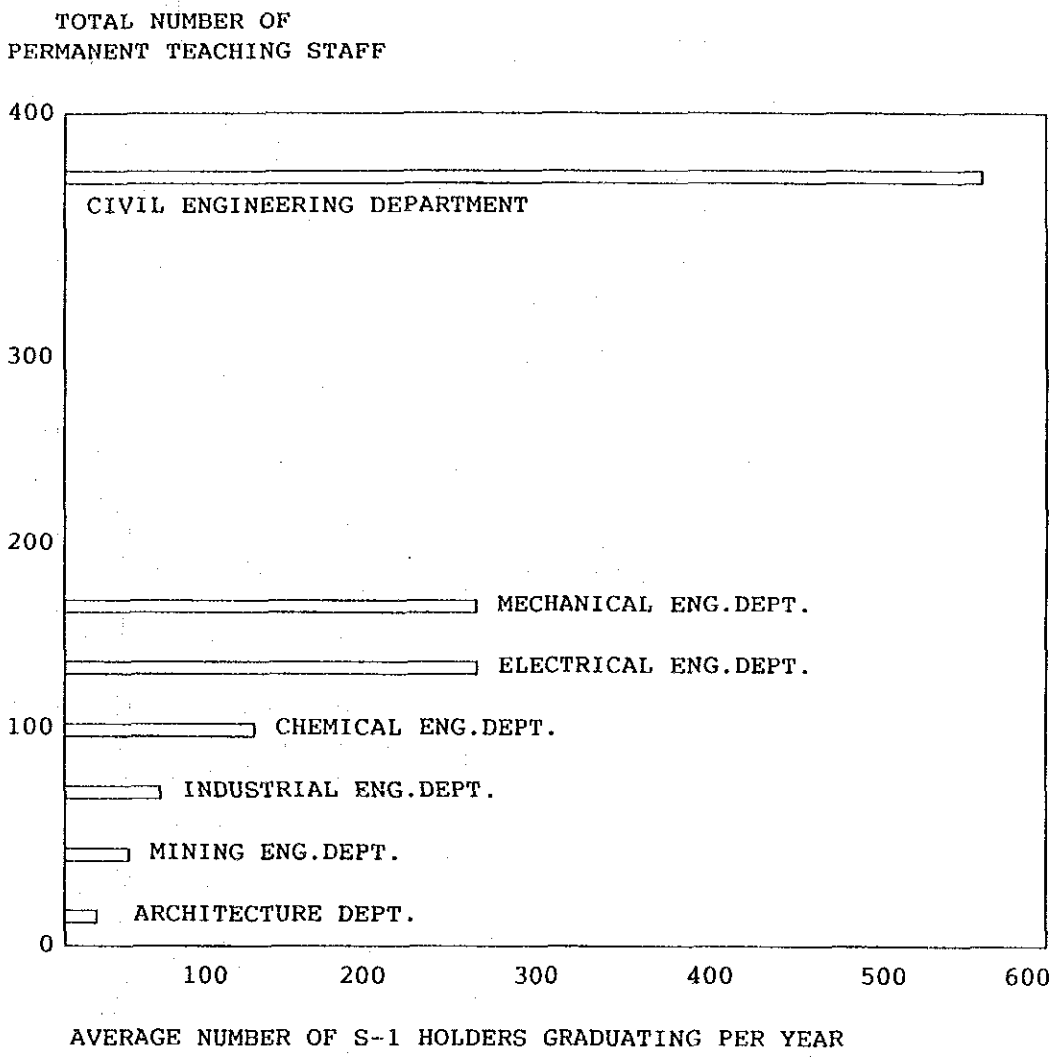


Fig.2 Distribution by department of number of permanent teaching staff and average number of S-1 degree holders graduating per year of 11 Target Universities (as of Oct.1991)

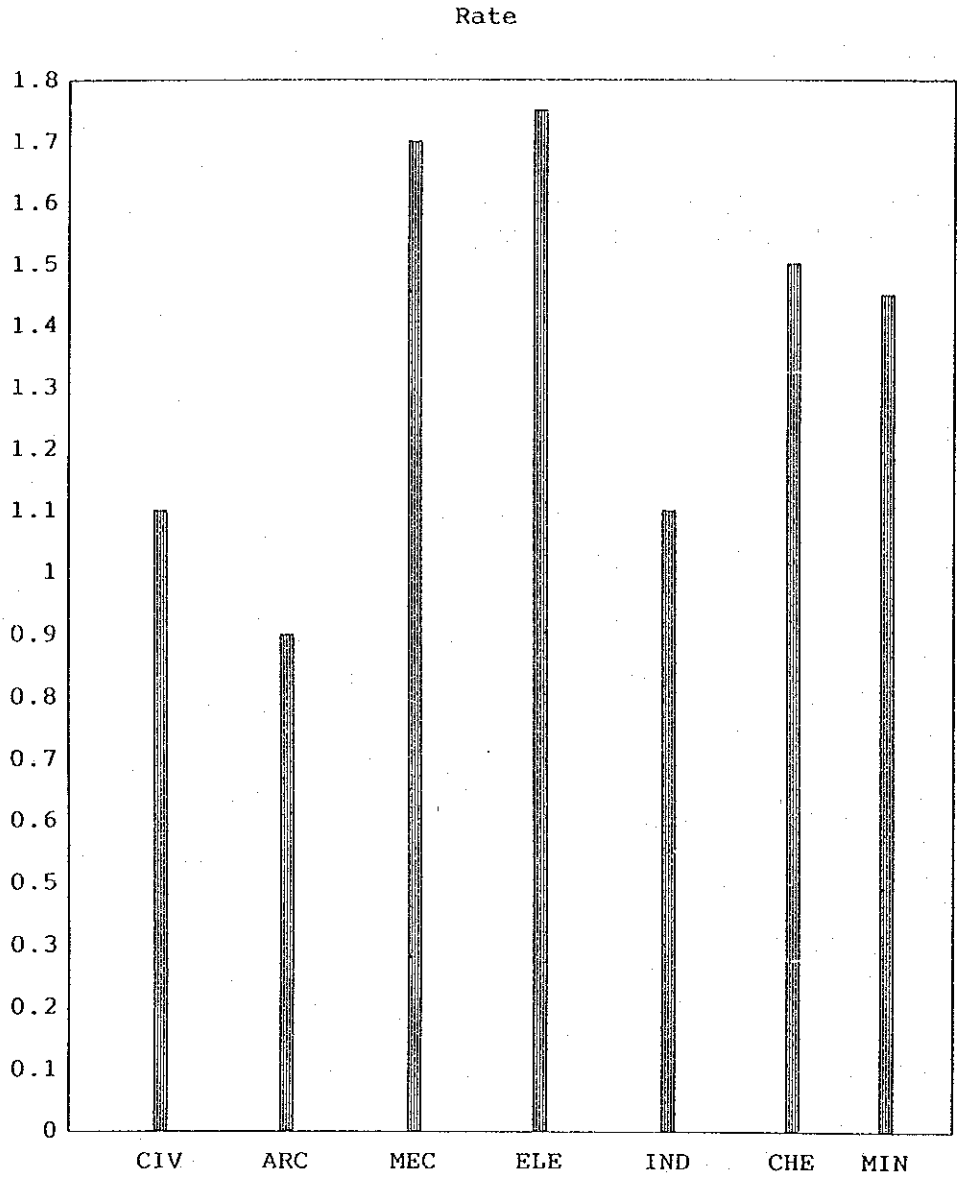


Fig. 3: Situation of ratio of average number of S-1 degree holders graduating per year to the number of permanent teaching staff at 11 target universities of HEDS-JICA program.
(As of Oct. 1991)

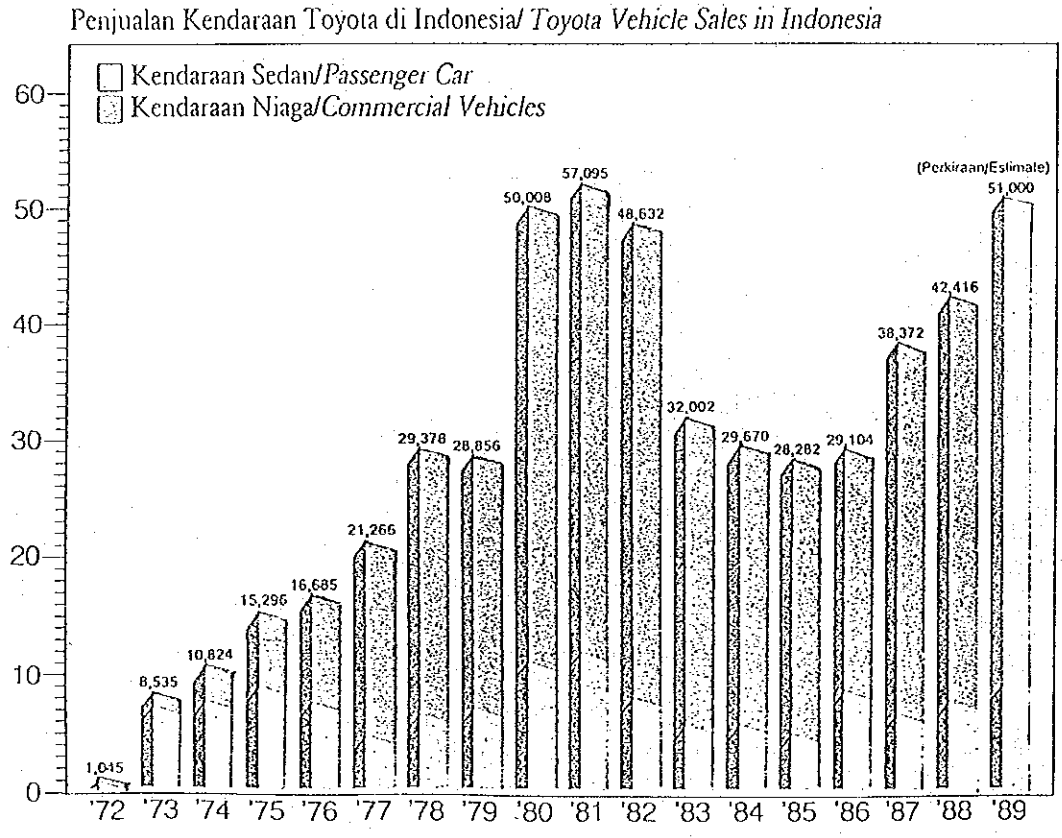
Table-2

ENTRY 10 : MAJOR LOCAL INDUSTRIES

UNIVERSITY	NO.	MAJOR KIND OF SECONDARY INDUSTRIES IN THE AREA	DEPARTEMENT x)							GRAND TOTAL
			CIVIL ENG.	ARCHITECTUR	MECH.ENG.	ELECT.ENG.	IND. ENG.	CHEM.ENG.	MINING ENG.	
UNSYIAH	1	CEMENT FACTORY	1	0	2	1	2	2	2	
	2	NAT. GAS & FERTILIZER PRODUCTION	2	1	2	2	2	2	2	
	3	CONSTRUCTION	4	4	2	3	2	1	1	
	4	PAPER PLANT	1	0	1	1	2	3	0	
USU	1	CONSTRUCTION	4	4	2	3	2	1	1	
UISU	2	PALM OIL, RUBBER, WOOD & FOOD PRODUCTION	2	0	2	2	3	2	0	
UMA	3	PULP AND PAPER PRODUCTION	1	0	1	1	2	3	0	
UDA	4	METAL (ALUMINIUM) PRODUCTION	2	0	2	2	2	2	0	
NOMMENSEN	5	VARIOUS MECHANICAL PRODUCTION	1	0	4	2	3	1	0	
UNAND	1	COAL MINING	1	0	2	1	1	1	4	
	2	CEMENT FACTORY	2	0	2	1	2	2	2	
	3	CONSTRUCTION	4	4	2	3	1	1	1	
	4	PLYWOOD AND RUBBER PRODUCTION	1	0	1	1	2	1	0	
UNSRI	1	COAL MINING	1	0	2	1	1	1	4	
	2	RUBBER PROCESSING, PLYWOOD PRODUCTION	2	0	2	1	2	1	0	
	3	FERTILIZER	2	0	2	2	2	4	0	
	4	CONSTRUCTION	4	4	2	3	2	1	1	
	5	PETROLEUM REFINERY	2	0	2	1	2	4	4	
UNILA	1	CASSAVA PRODUCTION	0	0	1	1	1	1	0	
	2	PLYWOOD PRODUCTION	1	0	1	1	1	1	0	
	3	CRUMB RUBBER (RUBBER PROCESSING)	1	0	2	1	2	1	0	
	4	SAW MILL INDUSTRY	1	0	1	1	2	1	0	
	5	CONSTRUCTION	4	4	2	3	1	1	1	
UNTAN	1	RUBBER PROCESSING	1	0	2	1	1	1	0	
	2	PLYWOOD PRODUCTION	1	0	1	1	1	1	0	
	3	CONSTRUCTION	4	4	2	3	1	1	1	
UNLAM	1	PLYWOOD PRODUCTION	1	0	1	1	1	1	0	
	2	COAL MINING	1	0	2	1	1	1	4	
	3	CONSTRUCTION	4	4	2	3	1	1	1	
TOTAL			56	29	52	48	48	44	29	306
PER CENT			18,30	9,48	16,99	15,68	15,69	14,38	9,48	100,00

x) 0 = NOT REQUIRED
1 = LESS REQUIRED
2 = REQUIRED
3 = MORE REQUIRED
4 = MOST REQUIRED

Note: Scored by Group-A



TOYOTA VEHICLE SALES IN INDONESIA

Fig.-4 Sales curve of P.T. Toyota-Astra Motor

< source : P.T. Toyota-Astra Motor >

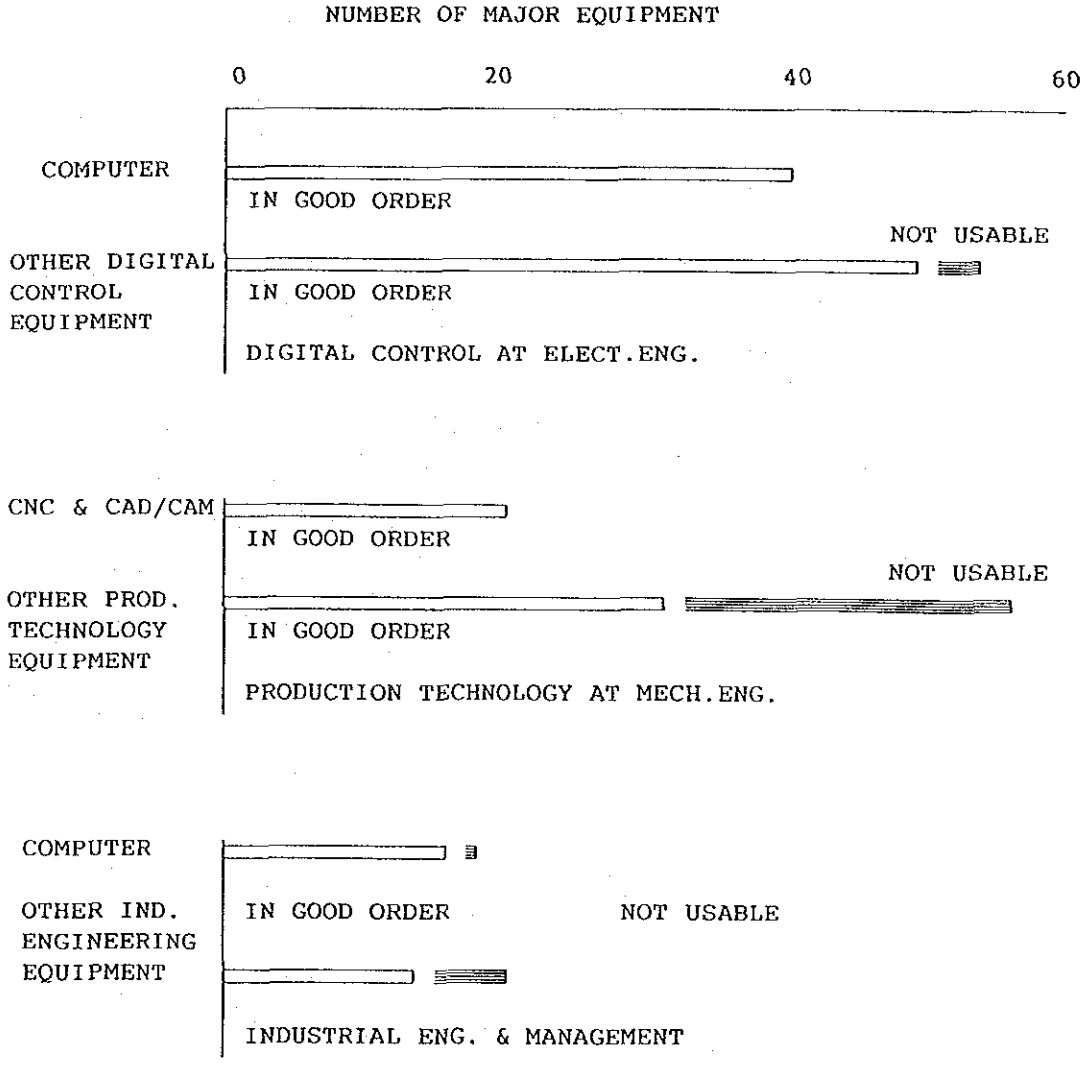


Fig. 5 Situation of major equipments (above Rp. 10 million purchase price) existing at Target Universities of HEDS-JICA program as of Oct. 1991

Table-3

ENTRY 6 : AREAS OF STUDY AT CHEMICAL ENGINEERING DEPARTMENT

NO.	INTENDED AREAS OF RESEARCH	UNSYIAH	USU	UNSRI	PER CENT	TOTAL
1	CHEMICAL PROCESS & PROCESS CONTROL	1	0	1	14,29	2
2	INDUSTRIAL WASTE TREATMENT & WATER TREATMENT	1	1	0	14,29	2
3	PROCESS EQUIPMENT DESIGN & APPLICATION	1	0	0	7,14	1
4	FOOD PROCESSING, BIOTECHNOLOGY, POLYMER	1	0	1	14,29	2
5	ENERGY ALTERNATIVE & SEPARATION PROCESS	1	0	0	7,14	1
6	EXTRACTION	0	1	0	7,14	1
7	DESTILATOIN	0	1	0	7,14	1
8	PHYSICAL ADSORBTION CHEMISTRY	0	1	0	7,14	1
9	HYDROLYSIS PROCESS	0	1	0	7,14	1
10	OPTMISATION AND CONTROL	0	0	1	7,14	1
11	COMBUSTION AND FUEL TECHNOLOGY	0	0	1	7,14	1
	T O T A L	5	5	4	100,00	14

*) YES = 1
NO = 0

Table-4

ENTRY 7 : AREAS OF STUDY AT CIVIL ENGINEERING AND ARCHITECTUR DEPARTMENT

NO.	INTENDED AREAS OF RESEARCH	U N I V E R S I T Y x)											PER CENT	TOTAL
		UNSYIAH	USU	UISU	UMA	UDA	NOMMENSEN	UNAND	UNSRI	UNILA	UNTAN	UNLAM		
1	STRUCTURE ENGINEERING	1	1	0	1	1	1	1	1	1	0	1	20,45	9
2	HYDRAULIC ENGINEERING	1	1	0	0	1	1	1	1	1	1	1	20,45	9
3	TRANSPORTATION ENGINEERING	1	1	0	0	1	1	1	1	1	1	1	20,45	9
4	SOIL ENGINEERING	1	1	0	1	1	1	1	1	0	0	1	18,18	8
5	MANAGEMENT ENGINEERING	1	0	0	0	0	0	0	0	0	0	0	2,27	1
6	MEASUREMENT PLANT	0	0	0	1	0	0	0	0	0	0	0	2,27	1
7	MATERIAL SCIENCE	0	0	0	1	0	1	0	0	0	0	0	4,55	2
8	CONSTRUCTION MANAGEMENT	0	0	0	0	0	0	1	0	0	0	1	4,55	2
9	SURVEY/MAPPING	0	0	0	0	1	0	0	1	0	0	0	4,55	2
10	ABRATION OF SHORE	0	0	0	0	0	0	0	0	0	1	0	2,27	1
	T O T A L	5	4	0	4	5	5	5	5	3	3	5	100,00	44

x) YES = 1
NO = 0

Table-5

ENTRY 8 : CANDIDATE LIST FOR SUBORDINATE SUPPORT FUNDING

NO.	NAME OF ITEM	UNIVERSITY x)											PER CENT	TOTAL
		UNSYIAH	USU	UISU	UMA	UDA	NOMMENSEN	UNAND	UNSRI	UNILA	UNTAN	UNLAM		
1	OVERHEAD PROJECTOR, COMPUTER DISPLAY, SLIDE & CAMERA	3	3	4	3	0	1	3	5	1	0	1	4,576	34
4	PC AT 386 25 MHZ, VGA, HARD DISK 40 MB,PRINTER & STABILIZER	9	20	0	8	0	1	0	5	1	0	4	6,460	48
5	VIDEO TEACHING UNIT (CAMERA, CASETTE PLAYER, MONITOR)	3	0	0	0	0	0	1	2	0	0	0	0,808	6
6	WIRELESS MICROPHONE	3	0	0	0	0	0	0	0	1	0	0	0,538	4
7	MOISTURE MICROPHONE	3	0	0	0	0	0	0	0	0	0	0	0,404	3
8	MOISTURE CONTENT TESTER	3	0	0	0	0	0	0	0	0	0	0	0,404	3
9	IDENTER FOR HARDNESS TESTING MACHINE (BHN, VHN, RHN)	1	0	0	0	0	0	0	0	0	0	0	0,135	1
10	SUN INTENSITY DEVICE	3	0	0	0	0	0	0	0	0	0	0	0,404	3
11	DIGITAL PYROMETER (FOR MEASURING SOLAR ENERGY)	3	0	0	0	0	0	0	0	0	0	0	0,404	3
12	DATA LOGGER	3	0	0	0	0	0	0	0	0	0	0	0,404	3
13	THERMOMETER STANDARD (Hg) -30 TO 200 C	12	0	0	0	0	0	0	0	0	0	0	1,615	12
14	THERMOMETER STANDARD (Hg) -20 TO 100 C	12	0	0	0	0	0	0	0	0	0	0	1,615	12
15	THERMOMETER STANDARD (Hg) - 0 TO 80 C	12	0	0	0	0	0	0	0	0	0	0	1,615	12
16	BAROMETER	3	0	0	0	0	0	0	0	0	0	0	0,404	3
17	DIGITAL TACHOMETER	3	0	0	0	0	0	0	0	0	0	0	0,404	3
18	CTV COMPLETE SET (FOR LIBRARY SECURITY)	3	0	0	0	0	0	0	0	0	0	0	0,404	3
19	VIDEO TAPE RECORDER	0	7	0	4	0	1	0	0	0	0	0	1,615	12
20	VIDEO MOVIE CAMERA	0	7	4	2	0	1	0	1	1	0	1	2,288	17
21	TV SET	0	7	0	0	0	1	0	0	0	0	0	1,077	8
22	VIDEO MOVIE EDITING AND MIXING UNIT	0	1	0	0	0	0	0	0	0	0	0	0,135	1
23	SUPERSTILL, SUPERSTILL ADVANCE AND SUPER FINE SLOW MOTION	0	1	0	0	0	0	0	0	0	0	0	0,135	1
24	VIDEOSCOPE	0	7	0	0	0	0	0	0	0	0	0	0,942	7
25	COMPUTER SOFTWARE	0	100	0	0	0	0	0	0	0	0	0	13,459	100
26	DRAFTING MACHINE, A1	0	30	0	0	0	0	0	0	0	0	0	4,038	30
27	AUDIO TAPE RECORDER, 4 TRACK	0	2	0	0	0	1	0	0	0	0	0	0,404	3
28	THEODOLITE	0	10	0	0	0	0	0	0	0	0	0	1,346	10
29	STEP UP/STEP DOWN TRANSFORMER, 110-220 V, 5 KW	0	20	0	0	0	0	0	0	0	0	0	2,692	20
30	VIDEO PLAYER SET	0	0	4	0	0	0	0	0	0	0	0	0,538	4

NO.	NAME OF ITEM	UNIVERSITY x)											PER CENT	TOTAL
		UNSYIAH	USU	UISU	UMA	UDA	NOMMENSEN	UNAND	UNSRI	UNILA	UNTAN	UNLAM		
31	SOUND TESTER COMPLETE	0	0	1	0	0	0	0	0	0	0	0	0.135	1
32	WELDING EQUIPMENT (ELECTRICAL)	0	0	1	0	0	0	0	0	0	0	0	0.135	1
33	HARDNESS TESTER EQUIPMENT (ROCWELL & BRINELL)	0	0	1	0	0	0	0	0	0	0	0	0.135	1
34	TEACHING AIDS	0	0	0	0	0	0	0	0	1	0		0.135	1
35	PATRON TURBINE & GENERATOR FOR TEACHING AIDS	0	0	2	0	0	0	0	0	0	0	0	0.269	2
36	PATRON COMBUTION ENGINE TEACHING AIDS	0	0	2	0	0	0	0	0	0	0	0	0.269	2
37	PATRON PUM & ELECTRICAL MOTOR FOR TEACHING AIDS	0	0	2	0	0	0	0	0	0	0	0	0.269	2
38	PATRON AIR CONDITION FOR TEACHING AIDS	0	0	2	0	0	0	0	0	0	0	0	0.269	2
39	PATRON BOILER FOR TEACHING AIDS	0	0	2	0	0	0	0	0	0	0	0	0.269	2
40	XEROX PHOTO COPIER	0	0	1	0	0	0	0	0	0	0	0	0.135	1
41	AIR CONDITION	0	0	5	4	0	0	0	10	2	0	0	2.826	21
42	LASER PRINTER	0	0	2	0	0	0	0	0	0	0	0	0.269	2
43	DRAWING MACHINE COMPLETE	0	0	4	0	0	0	0	0	0	0	0	0.538	4
44	BLUE PRINT MACHINE	0	0	1	0	0	0	0	0	0	0	0	0.135	1
45	BUILDING EQUIPMENT COMPLETE	0	0	1	0	0	0	0	0	0	0	0	0.135	1
46	CAMERA SET	0	0	2	4	0	1	0	1	0	0	0	1.077	8
47	SOUND SYSTEM WARELESS	0	0	0	8	0	0	0	0	0	0	1	1.211	9
48	DRAWING TABLE	0	0	0	60	0	0	0	0	1	0	0	8.210	61
49	PHOTOCOPY	0	0	0	2	0	0	1	1	0	0	1	0.673	5
50	SOIL MECHANIC	0	0	0	0	2	0	0	0	0	0	0	0.269	2
51	CONCARATE TEST	0	0	0	0	2	0	0	0	0	0	0	0.269	2
52	SURVEYING	0	0	0	0	2	0	0	0	0	0	0	0.269	2
53	ASPALT TEST	0	0	0	0	2	0	0	0	0	0	0	0.269	2
54	HYDROLIC TEST	0	0	0	0	2	0	0	0	0	0	0	0.269	2
55	PRODUCTION TECHNOLOGY	0	0	0	0	4	0	0	0	0	0	0	0.538	4
56	METALLURGY	0	0	0	0	2	0	0	0	0	0	0	0.269	2
57	MACHINE TEST	0	0	0	0	5	0	0	0	0	0	0	0.673	5
58	ELECTRIC CIRCUIT	0	0	0	0	3	0	0	0	0	0	0	0.404	3
59	BASIC ELECTRIC MACHINE	0	0	0	0	5	0	0	0	0	0	0	0.673	5
60	ELECTRIC MEASUREMENT	0	0	0	0	3	0	0	0	0	0	0	0.404	3

NO.	NAME OF ITEM	UNIVERSITY x)											PER CENT	TOTAL
		UNSYIAH	USU	UISU	UMA	UDA	NOMMENSEN	UNAND	UNSRI	UNILA	UNTAN	UNLAM		
61	BASIC ELECTRONICA	0	0	0	0	3	0	0	0	0	0	0	0.404	3
62	TRANSMISSION AND DISTRIBUTION	0	0	0	0	4	0	0	0	0	0	0	0.538	4
63	HIGH VOLTAGE	0	0	0	0	4	0	0	0	0	0	0	0.538	4
64	TYPE MACHINE (IBM)	0	0	0	0	0	1	0	2	0	0	1	0.538	4
65	BOOKS ON HIGHWAY ENGINEERING	0	0	0	0	0	1	0	0	0	0	0	0.135	1
66	DATA SHOW (COLOR)	0	0	0	0	0	1	0	0	0	0	0	0.135	1
67	COMPUTER TEACHING	0	0	0	0	0	1	0	0	0	0	0	0.135	1
68	PERAGAAN MESIN-MESIN LISTRIK	0	0	0	0	0	1	0	0	0	0	0	0.135	1
69	MACHINE PROTOTYPE (MODEL) FOR GAS TURBIN	0	0	0	0	0	1	0	0	0	0	0	0.135	1
70	MACHINE PROTOTYPE (MODEL) FOR STEAM TURBIN	0	0	0	0	0	1	0	0	0	0	0	0.135	1
71	MACHINE PROTOTYPE (MODEL) FOR TRANSMISSION+DIFFERENTIAL	0	0	0	0	0	1	0	0	0	0	0	0.135	1
72	BOOKS (COMPLETE) ON STRUCTURAL ENG.	0	0	0	0	0	1	0	0	0	0	0	0.135	1
73	BOOKS (COMPLETE) ON WATER RESOURCES ENG.	0	0	0	0	0	1	0	0	0	0	0	0.135	1
74	MACHINE PROTOTYPE (MODEL) FOR PELTON DAN FRANCIS TURBINE	0	0	0	0	0	1	0	0	0	0	0	0.135	1
75	BOOKS ON COMPUTER, TELECOMUNICATION & ELECT. POWER ENG.	0	0	0	0	0	1	0	0	0	0	0	0.135	1
76	DIGITAL OSCILOSCOPE	0	0	0	0	0	0	1	2	0	0	0	0.404	3
77	LOCAL TELEPHONE	0	0	0	0	0	0	1	0	0	0	0	0.135	1
78	TOOL BOX	0	0	0	0	0	0	5	0	0	0	0	0.673	5
79	PLOTER PRINTER	0	0	0	0	0	0	2	1	0	0	0	0.404	3
80	EQUIPMENT FOR SPEED CONTROL MOTOR (CAP. 5 KW)	0	0	0	0	0	0	1	0	0	0	0	0.135	1
81	ELECTRIC FURNACE	0	0	0	0	0	0	1	0	0	0	0	0.135	1
82	LIBRARY TABLE	0	0	0	0	0	0	60	0	0	0	0	8.075	60
83	CATALOGUE BOX	0	0	0	0	0	0	3	0	0	0	0	0.404	3
84	DIGITAL MULTI METER	0	0	0	0	0	0	5	0	0	0	0	0.673	5
85	REFRIGERATOR	0	0	0	0	0	0	2	0	0	0	0	0.269	2
86	HEATER (CAPACITY 600 W)	0	0	0	0	0	0	5	0	0	0	0	0.673	5
87	DESK TOP COMPUTER FOR LIBRARY	0	0	0	0	0	0	0	2	0	0	0	0.269	2
88	GLASS - WORKSHOP	0	0	0	0	0	0	0	1	0	0	0	0.135	1
89	METAL - WORKSHOP	0	0	0	0	0	0	0	1	0	0	0	0.135	1
90	ION EXCHANGER	0	0	0	0	0	0	0	2	0	0	0	0.269	2

NO.	NAME OF ITEM	UNIVERSITY *)											PER CENT	TOTAL
		UNSYIAH	USU	UISU	UMA	UDA	NOMMENSEN	UNAND	UNSRI	UNILA	UNTAN	UNLAM		
91	STEAM GENERATOR	0	0	0	0	0	0	0	1	0	0	0	0.135	1
92	FUNCTION GENERATOR 0,1 Hz - 13 MHz	0	0	0	0	0	0	0	2	0	0	0	0.269	2
93	MIMEOGRAPH (STENSIL)	0	0	0	0	0	0	0	0	0	0	1	0.135	1
94	BLUEPRINT MACHINE	0	0	0	0	0	0	0	0	0	0	1	0.135	1
95	PROGRAMABLE POKET CALCULATOR	0	0	0	0	0	0	0	0	0	0	4	0.538	4
96	COMPUTER AIDED LEARNING SOFTWARE FOR FLUID MECHANIC	0	0	0	0	0	0	0	0	0	0	1	0.135	1
97	PH METER (DIGITAL)	0	0	0	0	0	0	0	0	0	0	1	0.135	1
98	SALINOMETER	0	0	0	0	0	0	0	0	0	0	1	0.135	1
99	CONCENTRATE CYLINDRICAL MOLD (15 dia x 30H cm)	0	0	0	0	0	0	0	0	0	0	30	4.038	30
100	CONCENTRATE BEAM MOLD (10 cm x 10 cm x 50 cm)	0	0	0	0	0	0	0	0	0	0	5	0.673	5
101	CONCENTRATE CUBE MOLD (15 cm x 15 cm x 15 cm)	0	0	0	0	0	0	0	0	0	0	20	2.692	20
102	MORTAR MIXER (5 LT CAP)	0	0	0	0	0	0	0	0	0	0	2	0.269	2
103	COLOR CHART (ORGANIC TEST)	0	0	0	0	0	0	0	0	0	0	1	0.135	1
104	ASTM - MANUAL	0	0	0	0	0	0	0	0	0	0	1	0.135	1
105	AASHO - MANUAL	0	0	0	0	0	0	0	0	0	0	1	0.135	1
106	IRRIGATION MAKET	0	0	0	0	0	0	0	0	1	0	0	0.135	1
107	STRUCTURE MAKET	0	0	0	0	0	0	0	0	1	0	0	0.135	1
108	TRANSPORTATION MAKET OR BRIDGE MAKET	0	0	0	0	0	0	0	0	1	0	0	0.135	1
109	FIELD CBR TEST	0	0	0	0	0	0	0	0	1	0	0	0.135	1
110	STANDARD PENETRATION TEST	0	0	0	0	0	0	0	0	1	0	0	0.135	1
111	DRAWING PEN (ROTRING OR STEADLER)	0	0	0	0	0	0	0	0	1	0	0	0.135	1
112	HAMMER TEST INSTRUMENT (CONCENTRATE TEST HAMMER)	0	0	0	0	0	0	0	0	2	0	0	0.269	2
113	ELECTRIC DISTANCE MEASUREMENT (EDM)	0	0	0	0	0	0	0	0	1	0	0	0.135	1
114	PLANIMETRY	0	0	0	0	0	0	0	0	2	0	0	0.269	2
115	CUPBOARD	0	0	0	0	0	0	0	0	2	0	0	0.269	2
116	FAN	0	0	0	0	0	0	0	0	2	0	0	0.269	2
117	LECTURER	0	0	0	0	0	0	0	0	0	5	0	0.673	5
118	LABORATORY PRACTICE	0	0	0	0	0	0	0	0	0	5	0	0.673	5
	TOTAL	79	220	41	100	43	19	91	39	23	10	78	100	743

*) QUANTITY

Table-6

ENTRY 9 : TEXTBOOK PUBLICATION POSSIBILITIES

YES : 1 NO : 0

UNIVERSITY	NO.	TITLE OF TEXBOOK	NAME OF AUTHOR(S)	DEPARTEMENT *)							GRAND TOTAL
				CIVIL ENG.	ARCHITECTUR	MECH.ENG.	ELECT.ENG.	IND. ENG.	CHEM.ENG.	MINING ENG.	
UNSYIAH	1	PETUNJUK PRAKTIKUM MEKANIKA TANAH	IR.M.ALI ISMAIL,M.ENG	1	0	0	0	0	0	0	
	2	DASAR MENGGAMBAR NOMOGRAM	IR.M.ALI ISMAIL,M.ENG	1	0	0	0	0	0	0	
	3	CARA MENULIS LAPORAN MEKANIKA TANAH	IR.M.ALI ISMAIL,M.ENG	1	0	0	0	0	0	0	
	4	PELABUHAN	IR.BASRI ABAH	1	0	0	0	0	0	0	
	5	CONTOH PENYELESAIAN GERBER	IR.THAMRIN SABIL,M.Sc.	1	0	0	0	0	0	0	
	6	LAPANGAN TERBANG	IR.M.AFFAN AS	1	0	0	0	0	0	0	
USU	1	PENYELIDIKAN OPERASIONAL	DR.IR.SUKARIA SINULINGGA	0	0	0	0	1	0	0	
	2	INTEREST TABLES (NEW VERSION)	IR.SUHAIMI SIMATUPANG	0	0	0	0	1	0	0	
UISU	1	STATISTIC QUALITY CONTROL	IR. HARMEIN NASUTION, MSIE	0	0	0	0	1	0	0	
	2	ENGINEERING ECONOMY VOL. 1	IR. HASAN BASRI SIREGAR	0	0	0	0	1	0	0	
	3	PRODUCTION PLANNING AND CONTROL	IR. HASAN BASRI SIREGAR	0	0	0	0	1	0	0	
	4	INDUSRIAL SOCIOLOGY	IR. HASAN BASRI SIREGAR	0	0	0	0	1	0	0	
	5	ENGINEERING MANAGEMENT	IR. HASAN BASRI SIREGAR	0	0	0	0	1	0	0	
UNSRI	1	MODELING & SIMULATION OF CHEMICAL PROCESS & THEIR CONTROL SYSTEMS	DR.IR.S.GUNAY,M.Sc.	0	0	0	0	0	1	0	
	2	APPLIED MATHEMATICS IN CHEMICAL ENG.	IR.DJAMILUS ZAINUDDIN,M.Sc	0	0	0	0	0	1	0	
	3	MASS TRANSFER IN CHEMICAL ENG.	IR.AZHARY H.SUREST,SU	0	0	0	0	0	1	0	
	4	ROCKS MECHANICS	IR.HASMANTO,M.Sc.	0	0	0	0	0	0	1	
	5	MINE VENTILATION	DR.IR.SYAMSUL KOMAR	0	0	0	0	0	0	1	
	6	MINERAL PROCESSING	IR.MAKMUR ASYIK,M.Sc.	0	0	0	0	0	0	1	
UNILA	1	HIDROLIKA TEKNIK	IR.GIDEON G.PERANGIN-ANGIN	1	0	0	0	0	0	0	
	2	MEKANIKA TEKNIK	IR.KARTINI SUSILOWATI	1	0	0	0	0	0	0	
	3	KIMIA BAHAN	IR.C.NIKEN	1	0	0	0	0	0	0	
	4	MODEL PENGELOLAAN AIR BANJIR	IR.GIDEON G.PERANGIN-ANGIN	1	0	0	0	0	0	0	
UNLAM	1	HIDROLOGI	IR.MAHYAR DIANA	1	0	0	0	0	0	0	
	2	HIDROLIKA	IR.H.FATHURRAZIE S.	1	0	0	0	0	0	0	
	3	MEKANIKA TEKNIK	IR.H.HANAFI USMANT	1	0	0	0	0	0	0	
	4	ANALISA NUMERIK	IR.H.FATHURRAZIE S.	1	0	0	0	0	0	0	
	5	PENGANTAR BETON PRA TEGANG	IR.FACHRIR RIVANI	1	0	0	0	0	0	0	
	6	JALAN RAYA	IR.LUTHER MANGALIK	1	0	0	0	0	0	0	
TOTAL				16	0	0	0	7	3	3	29
PER CENT				55,172	0,000	0,000	0,000	24,138	10,345	10,345	100

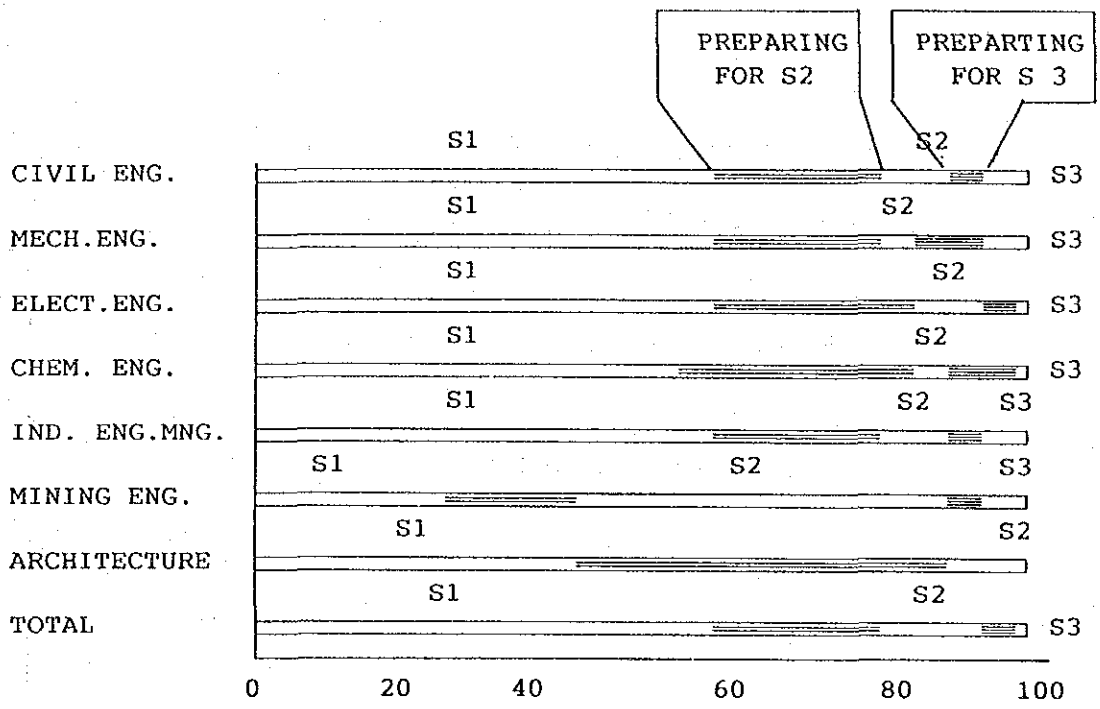
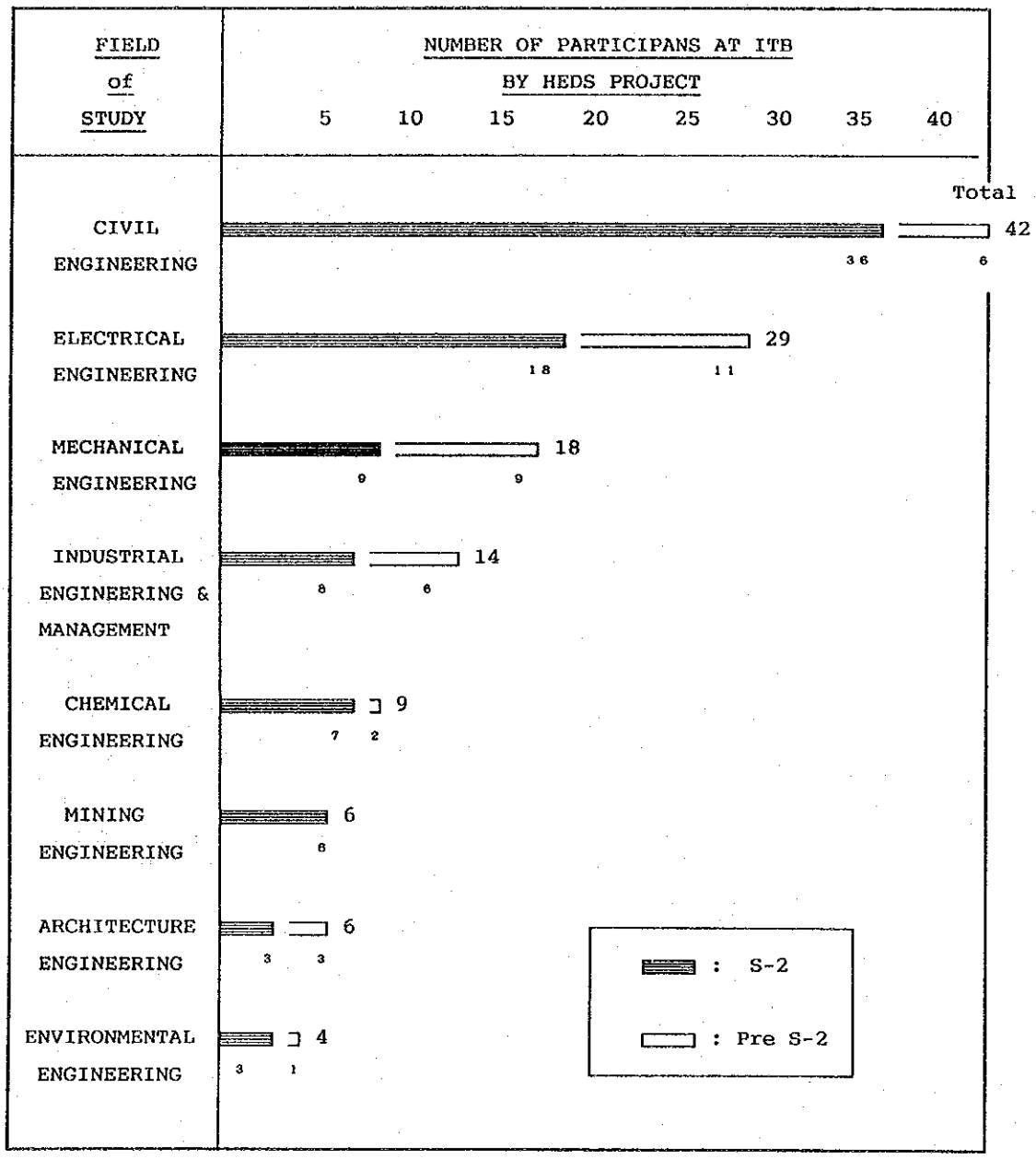


Fig. 6 Number of teaching staffs illustrated in the ratio by academic degrees held as of Oct. 1991 at the 11 Target Universities of HEDS-JICA program

Fig.-7

Distribution of S-2 / Pre S-2 Degree Program Participants by Field of Study

(As of OCT. 1991)



Appendix 6

Self-Development Project Funding

6-1 First trial funding was done covering the fourth quarter of the FY 1991/92. Call for proposal was circulated in October 1991, proposals were received and screened in November, and 26 proposals have been accepted for funding out of 34 applications. Their areas of study distributed as follows:

	Accepted	Application
Mechanical Engineering	8	12
Chemical Engineering	7	9
Civil Engineering	7	8
Teaching Development	2	2
Industrial Engineering	1	1
Electrical Engineering	1	1
Architecture	0	1
Total	26	34

Their numbers by the Target Universities are found as follow:

	Accepted	Application
1. UNSYIAH	6	10
2. USU	3	4
3. UMA	0	1
4. UNNOM	0	0
5. UDA	1	1
6. UISU	2	2
7. UNSRI	7	9
8. UNAND	5	5
9. UNILA	1	1
10. UNTAN	1	1
11. UNLAM	0	0
Total	26	34

6-2 The self-development funding is expected to continue during the FY 1992/93, toward which the procedure of calling for proposals and the progress of the funded programs were reviewed, so that the revised call for proposals has been circulated during February 1992. Applications will be received and evaluated in April, and funding will start in June 1992.

1

[PF Form-CP01]
PRCAL92
29 Feb., 1992
PMU/HEDS-JICA

Call for Proposals

Fiscal Year 1992/1993

SELF-DEVELOPMENT PROJECT FUNDING

HEDS/DGHE-JICA PROJECT

1. Outline

Succeeding the first cycle of the funding that is covering the period between December 1991 and March 1992, HEDS/DGHE-JICA hereby announces the second cycle scheduled for the period from June 1992 to February 1993.

The purpose of the Self-Development Project Funding is to offer assistance to teaching staff who intends to implement improved standard of education. HEDS/DGHE-JICA will be funding Self-Development Projects that will be planned and carried out by teaching staff of the Faculty of Engineering in the Target Universities.

2. Background

Engineering students are to be educated toward fundamental attitude of creating something new that has not existed, in order to remove problems found in the society. Self-development by own hands should be the basic culture in which staff and students study. In this sense, teaching staff has to be encouraged to self-develop what one needs for teaching, research and community service.

The subject of self-development may be either software, (theory, mathematical formula, computer program, and methodology or procedure), hardware (experimental setup, equipment, or instrumentation), or the combination of both for all departments of engineering.

3. Procedure of Application

Those teaching staff who plan activities such as self-development of teaching methods, equipments, software, repair project, and research using the self-developed equipment and software may apply for funding by submitting proposals. The funding will cover traveling (transportation and on-site living), hiring part-timers, as well as purchase of small devices, elements, materials, supplies and tools necessary for the project to be completed.

(a) Call for Proposal : This announcement will be mailed during February 1992 to all Department Chairmen of Faculty of Engineering of Target Universities, who are supposed to circulate it to all teaching staff. The announcement will be mailed to the Deans of Faculty of Engineering as well.

(b) Submission of Proposal : Proposals are to be submitted by the Dean of Engineering to whom the applying teaching staff reports to, to HEDS Project Management Unit (PMU) by mail or by other means.

Address: HEDS/DGHE-JICA Project Management Unit
DEPDIKBUD Geduing C Lt.XI JL. Sudirman
Senayan, JAKARTA SELATAN 10270
Telephone (021) 570-7866,570-7870
Fax (021) 570-7244

Proposals should reach the address in the above on or before Wednesday 15, April 1992.

4. Writing the Proposal

A proposal should be the description of a project plan and request for funding necessary to conduct the project.

A proposal must be written in English.

When a multi-year project is envisioned, the proposal should include descriptions suggested in the article (7) on page 5 of this announcement. In this case, however, the application submitted this time should be confined to its sub-set that can be completed within the period that funding covers: namely, from June 1992 to Fubruary 1993.
The application for funding should include only those budget that can be spent before end of February 1993.

A proposal may consist of following entries;

(1) TITLE

The title may be the name of the project such as "Development of Simulation Software of Wave Dynamics", but it should not be a simple and direct list of the item that should be funded. For instance, a title like "Needs Support for Attending 1992 CIRP Conference" does not appeal for what purpose it is, because the attendance to the conference represents only one of the means to

achieve the targeted global purpose. The title should read the purpose of the project, in terms of the object of the self-development project. And the request for support of conference attendance should be one item included in the total cost necessary to conduct the addressed project.

The title should be entered in the space arranged in the cover page form provided with this announcement.

(2) ORGANIZATION

List name, title, and affiliation of the project leader as well as collaborators if any in the space provided in the cover page. Name(s) of part timers to be hired for the project, should not be listed among the organization.

The project leader is the person who represents a group that applies for the funding and carries out the proposed project after the proposal is approved. The project leader is responsible for the planning, execution, and reporting the result of the project as well as the use of the fund provided. Any permanent teaching staff *of the Faculty of Engineering of the HEDS-JICA Target Universities* may apply for the funding as a project leader.
Any teaching staff cannot submit two or more proposals as the project leader.

A collaborator is a person who shares and carries out a principal part of the activity of the project. Any teaching staff and/or technical staff, permanent or part-time may be appointed as a collaborator. People from industry may be appointed as long as one may obtain permission for doing the collaborative activity as a part of the official duty by the superior of one's company.

A part-timer is a person hired by the project leader on the part-time basis for doing supportive tasks for the project. Usually, students, housewives or those who are not on permanent employment may he appropriate to be hired as a part-timer. Or a person who is on employment but does the contracted supportive job outside one's official work hour may be a part-timer.

A project leader or a collaborator of a project cannot be hired as a part-timer by any project covered by the Self-Development Project Funding.

(3) PURPOSE

Describe what academic knowledge or engineering tool, the project will try to create through the self-development.

4

(4) METHODS OF THE PROJECT

Describe by what means, either theoretical , experimental or by combination of both, and by what specific methods project will try to achieve the purpose mentioned in the preceding section. Among the methods described, each of those which incur the cost items proposed for funding in the succeeding section should be described in detail with respect to the significance of the each method proposed and the necessity and criticality of the cost incurred.

(5) REQUEST FOR FUNDING.

Funding may cover following kinds of expenditures:

<1> Traveling Expenses (if needed).

<1-1> Transportation expense.

<1-2> On-site living expense.

<1-3> Other expenses.

<2> Cost of hiring part-timer(s).

List the kind of work to be covered by the part timer, unit hourly rate, total hiring hours, and cost as in the following example:

WORK TO BE COVERED	UNIT RATE	HIRING HOURS	COST
A. Field data collection	Rp.1,200 /hr.	120hours	Rp.144,000
B. Typing	Rp.1,000 /page	150pages	Rp.150,000
		sub-total	Rp.294,000

A project leader or a collaborator may not receive honorarium from any project covered by the Self-Development Project Funding.

<3> Purchase of small devices including sub-assembled elements.

It is advisable not to include a Personal Computer in the device list.

5

<4> Purchase of materials, supplies and tools.

Itemize in detail such as:

NAME OF ITEM	QUANTITY	UNIT PRICE	COST
Steel bolt M12x45	10pc	Rp 1,200	Rp 12,000
Film ASA400 COLOR 36EX	20roll	Rp 7,000	Rp 140,000
	sub-total		Rp 152,000

Purchase of service such as repairing equipment or printing photographs may be included in this category.

<5> Others

<6> Grand total amount proposed for funding.

(6) Expected Results.

Describe what knowledge or tools are expected as the results of the project and their possible future implications in teaching practice, engineering technology and/or academic knowledge.

(7) Application of a Multi-Year Project.

Although the Self-Development Project Funding is carried out on a single year basis, application may be possible for funding on a project which is essentially a continuation of a prior project that has been funded in the immediate preceding year. Or a new project envisioned to continuously require more than one year may be applied for funding.

In either case, the application submitted should be confined to the subset of the global project that can be practically completed within this fiscal year (June 1992 to February 1993).

Following three descriptions should be included in the proposal:

(7-1) Significance as the multi-year project.

The correlation and significance of the sub-set project proposed to the global project may be described in terms of the purpose, method and expected results.

(7-2) Report of previously funded years.

If the sub-set project is essentially a continuation of prior projects that have been funded in the immediate preceding years, a copy of the Final (academic) Report should be attached to the present proposal.

(7-3) Plan for succeeding years.

Description of the total number of years from the beginning of the global project to its expected conclusion, accompanied by the brief outline of the results attained in prior years, plan of the proposed sub-set project, and the future plan for each of the years to come.

(8) Signature of Approval by the Dean of Faculty of Engineering.

Signature should be made in the space provided in the cover page, testifying that the Dean agrees with the project leader to submit the proposal to HEDS/DGHE-JICA for application to the project funding, and approves that the persons listed among the organization may save a part of their working hours for the project when the proposal will be accepted.

5. Screening, Implementation and Reporting.

5.1. Screening

Screening of the submitted proposal will be undertaken at HEDS PMU and results will be notified to Deans of Engineering by May 9, 1992.

5.2 Submission of the Inception Plan

Those applicants who will have been accepted will be expected to submit the 'Inception Plan' describing how the project will be conducted using the funds approved. The Inception Plan should be submitted through the Dean of the university to reach PMU by the May 23, 1992. The inception Plan is requested to be written in more detail than the description and explanation in the proposal. PMU will issue the 'Implementation Notice' to the project leader after the screening of the Inception Plan, and PMU will transfer some 40% portion of the total sum of the fund approved to the bank account of the Dean of Engineering. The balance will be transferred after receiving a 'Remittance Request' prepared by the project leader. The project leader and collaborators may start using the fund after the process described in the above. Payment for expenses will be made by the Dean's office at each university.

7

5.3 Reporting by the end of project period.

Progress Reports, a Project Completion Report with accompnying financial reporting and a Final Report have to be submitted during the course of conducting the funded project.

5.4 Report Publication and Interaction Program.

Publication of the Final Report will be expected to take place for a Project Seminar to be held around June 1993, after the conclusion of the project. Manuscript of the Final Report will be due April 15,1993. HEDS/DGHE-JICA will be announcing the procedures to follow to the recipients of the funding in participating the Project Seminar.

IMPORTANT DATES

End of February 1992	: Circulation of call for proposal.
April 15, 1992	: Proposal due arrive at PMU (original text and 2 copies).
May 9, 1992	: Result of screening notified to Deans.
May 23, 1992	: Inception Plan due arrive at PMU (original text and 2 copies).
June 1, 1992	: Start of the term of the project.
March 1, 1993	: End of the term of the project. Project Completion Report due arrive at PMU (original text and 2 copies).
April 15,1993	: Final report due arrive at PMU (original text and 2 copies).
June 1993	: Final report published and Project Seminar sponsored by PMU/HEDS.

Appendix 7 07 March 1992 PMU/HEDS

Schedule of Prof. Dr. Hoshi< from Apr.10 to July.10, 1992>

No.	Day	Date	T i m e	E v e n t	Remarks
1	Tue	21 Apr	Tokyo →Jakarta 11:00 16:10 GA873	Move to Jakarta	Century Park
2	Wed	22 Apr		Preparation for SDPF Screening	Century Park
3	Thu	23 Apr		Screening SDPF proposal	Century Park
4	Fri	24 Apr		Screening SDPF proposal	Century Park
5	Sat	25 Apr		Screening SDPF proposal	Century Park
6	Sun	26 Apr		Free	
7	Mon	27 Apr		Finalize Core Lab. Design	Century Park
8	Tue	28 Apr		Finalize Core Lab. Design	Century Park
9	Wed	29 Apr		Finalize Core Lab. Design	Century Park
10	Thu	30 Apr		DIEEC discusion SDPF receipt 92/93 and Core Lab. design	Century Park
11	Fri	01 May	JKT →B.Lampung	Visit UNILA for SDPF local Preparation of result	Indra Palace
12	Sat	02 May	B.Lampung →JKT	Visit UNILA for SDPF local Preparation of result	Indra Palace
13	Sun	03 May		Free	Century Park
14	Mon	04 May		Rector's Meeting	Century Park
15	Tue	05 May		Rector's Meeting	Century Park

No.	Day	Date	T i m e	E v e n t	Remarks
16	Wed	06 May		Rector's Meeting	Century Park
17	Thu	07 May		Rector's Meeting	Century Park
18	Fri	08 May		Rector's Meeting	Century Park
19	Sat	09 May		Rector's Meeting	Century Park
20	Sun	10 May		Free	Century Park
21	Mon	11 May		Prep. Working Group No.3	Century Park
22	Tue	12 May	JKT → BDG → Lembang	Start Working Group Meeting No.3	
23	Wed	13 May		Working Group Meeting (full day)	
24	Thur	14 May		Working Group (Visit Tour to ITB/IPTN)	
25	Fri	15 May	13:00 BDG →JKT	Working Group (Visit Tour)	Century Park
26	Sat	16 May		Prep. Project Seminar	Century Park
27	Sun	17 May		Free	Century Park
28	Mon	18 May		Prep.Project Seminar	Century Park
29	Tue	19 May		Prep.Project Seminar	Century Park
30	Wed	20 May	JKT → Medan	Prep.Project Seminar	Danau Toba
31	Thu	21 May		Prep.Project Seminar	Danau Toba
32	Fri	22 May		Prep.Project Seminar	Danau Toba

No.	Day	Date	T i m e	E v e n t	Remarks
33	Sat	23 May		Prep. Project Seminar	Danau Toba
34	Sun	24 May		Free	Danau Toba
35	Mon	25 May		Set-up Medan branch Office PMU	Danau Toba
36	Tue	26 May		Set-up Medan branch Office PMU	Danau Toba
37	Wed	27 May		Set-up Medan branch Office PMU	Danau Toba
38	Thu	28 May		Set-up Medan branch Office PMU	Danau Toba
39	Fri	29 May		Set-up Medan branch Office PMU	Danau Toba
40	Sat	30 May		Set-up Medan branch Office PMU	Danau Toba
41	Sun	31 May		Free	
42	Mon	01 June		Visit USU, UDA, UISU for attending local presentation of SDPF result	
43	Tue	02 June		Visit USU, UDA, UISU for attending local presentation of SDPF result	
44	Wed	03 June		Visit USU, UDA, UISU for attending local presentation of SDPF result	
45	Thu	04 June		Visit USU, UDA, UISU for attending local presentation of SDPF result	
46	Fri	05 June		Visit USU, UDA, UISU for attending local presentation of SDPF result	
47	Sat	06 June		Set-up Medan Branch office PMU	
48	Sun	07 June		Free	
49	Mon	08 June	MDN→ Padang	Visit UNAND for attending local presentation of SDPF result	

No.	Day	Date	T i m e	E v e n t	Remarks
50	Tue	09 June		Visit UNAND for attending local presentation of SDPF result	
51	Wed	10 June	Padang → Palembang	Visit UNAND for attending local presentation of SDPF result	
52	Thu	11 June		Visit UNSRI for attending local presentation of SDPF result	
53	Fri	12 June		Visit UNSRI for attending local presentation of SDPF result	
54	Sat	13 June	Palembang → Medan	Visit USU, UDA, UISU for attending local presentation of SDPF result	
55	Sun	14 June			
56	Mon	15 June		Project Seminar Prep.	
57	Tue	16 June	MDN →B.Aceh	Visit UNSYIAH for local presentation SDPF	
58	Wed	17 June		Visit UNSYIAH for local presentation SDPF	
59	Thu	18 June	B.Aceh→MDN	Visit UNSYIAH for local presentation SDPF	
60	Fri	19 June		Prep.Project Seminar	
61	Sat	20 June		Prep.Project Seminar	
62	Sun	21 June		Free	
63	Mon	22 June		Prep.Project Seminar	
64	Tue	23 June		Project Seminar	

No.	Day	Date	T i m e	E v e n t	Remarks
65	Wed	24 June		Project Seminar	
66	Thu	25 June		Project Seminar	
67	Fri	26 June		Project Seminar	
68	Sat	27 June			
69	Sun	28 June		Free	
70	Mon	29 June		Follow up SDPF Funding	
71	Tue	30 June		Follow up SDPF Funding	
72	Wed	01 July		Medan → Tokyo → Toyohashi Return to Japan for Memorial Ceremony of late K.Hoshi, father in Sapporo	
	Thu	09 July	Toyohashi → Singapora		
	Fri	10 July		i n M e d a n	

4）平成3年度第4四半期報告書

平成３年度第４四半期定期報告書

プロジェクト名：インドネシア高等教育開発計画プロジェクト

Ｒ／Ｄ協力期間：平成　2年　4月12日 ～ 平成　7年　4月11日

チーム・リーダー名：矢追　秀敏

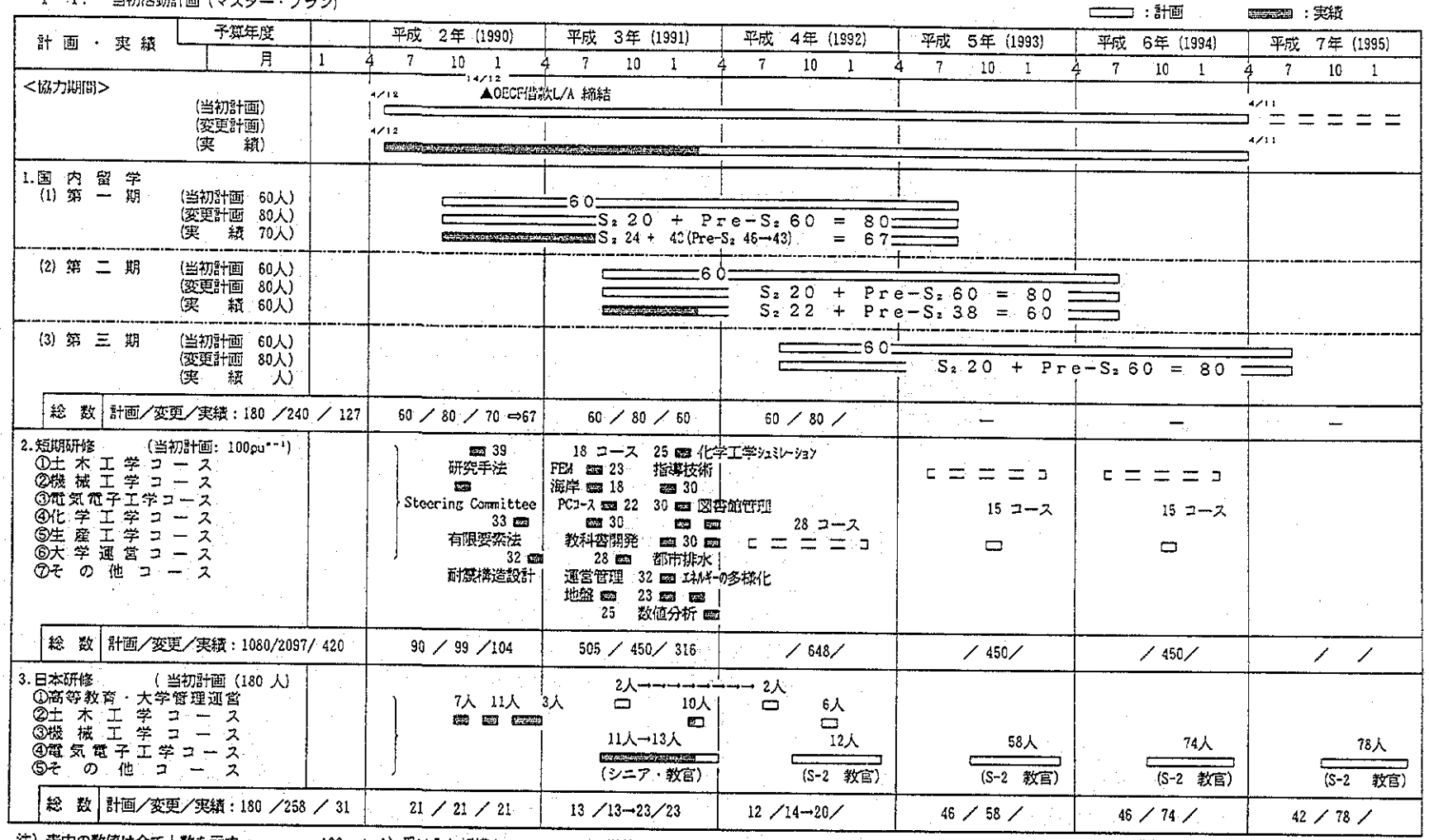
平成　4年　3月16日

Ｐｒｏｊｅｃｔ　Ｍａｎａｇｅｍｅｎｔ　Ｕｎｉｔ

インドネシア高等教育開発計画プロジェクト

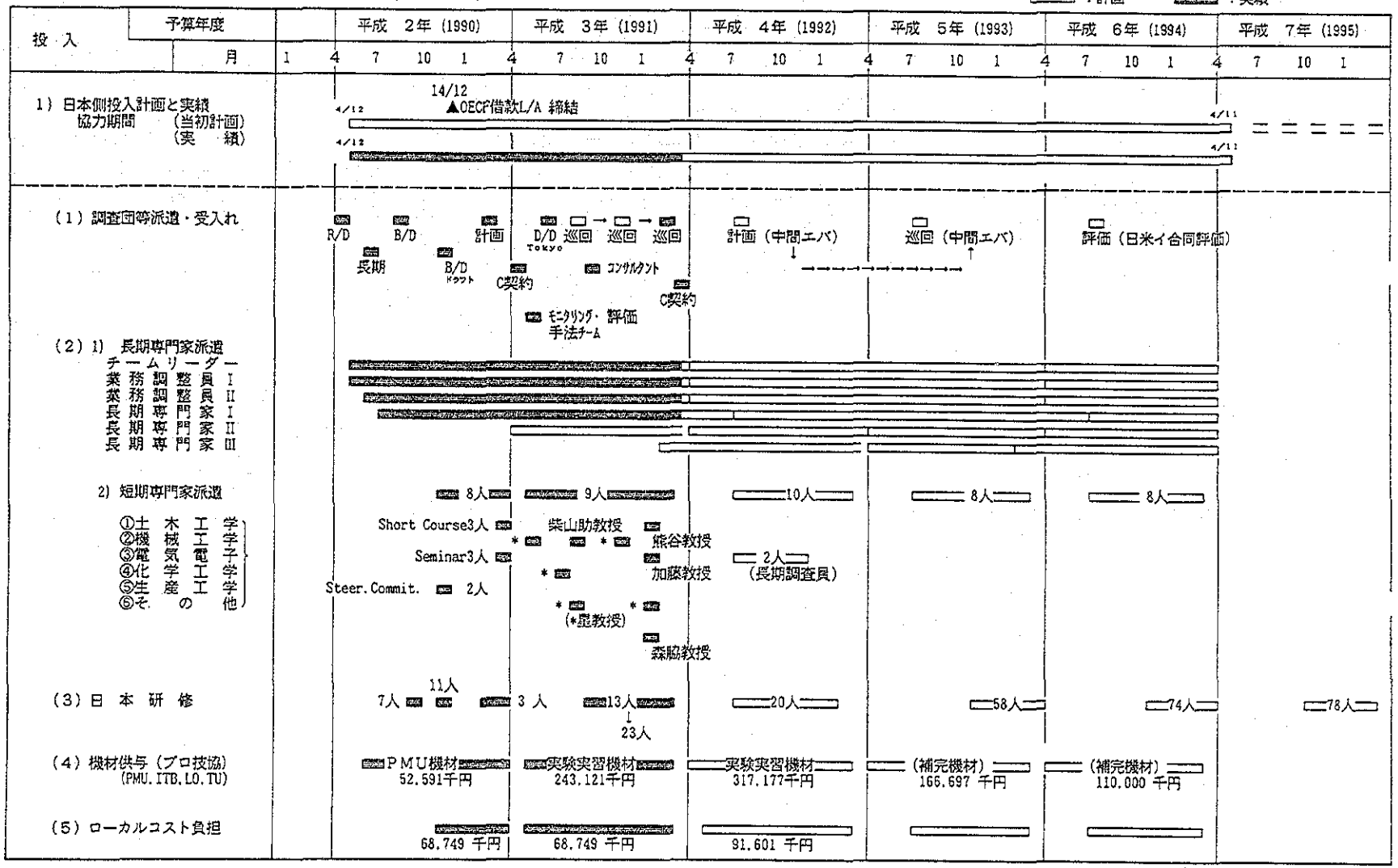
1. プロジェクト活動計画に基づく活動の現状

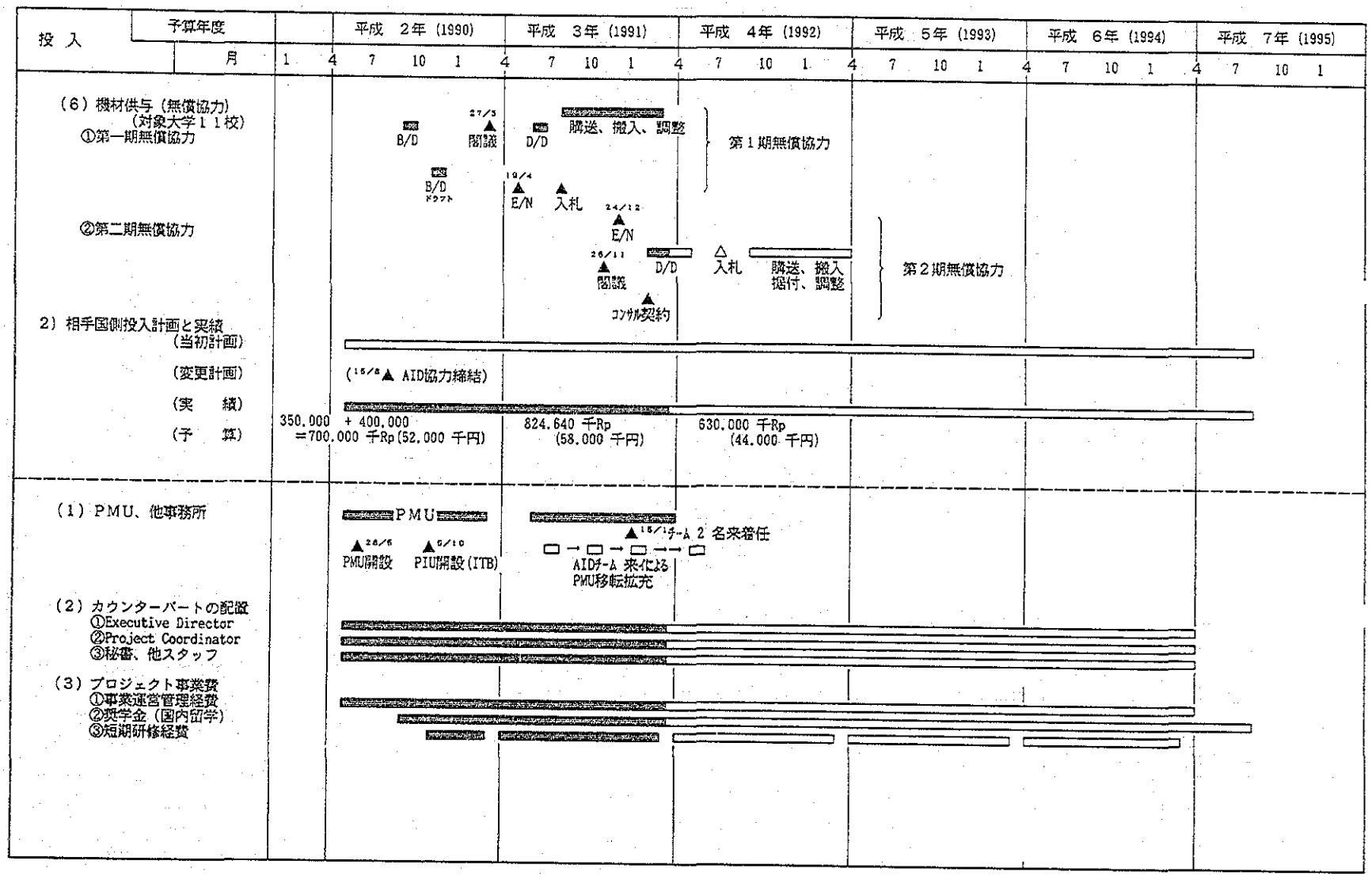
1-1. 当初活動計画（マスター・プラン）



注）表中の数値は全て人数を示す。 100pu*-1）受け入れ規模をperson·unit の単位として示してある。なお、この単位はOECFローン計画書 (Minutes of Discussion)に示されている計画規模と当初計画規模との間に錯誤による差異があるため、取りあえずの単位として使用している。 S_2：大学院修士コースへの直接入学者数を示す。 Pre-S_2：大学院修士コースへの間接入学者数を示す。

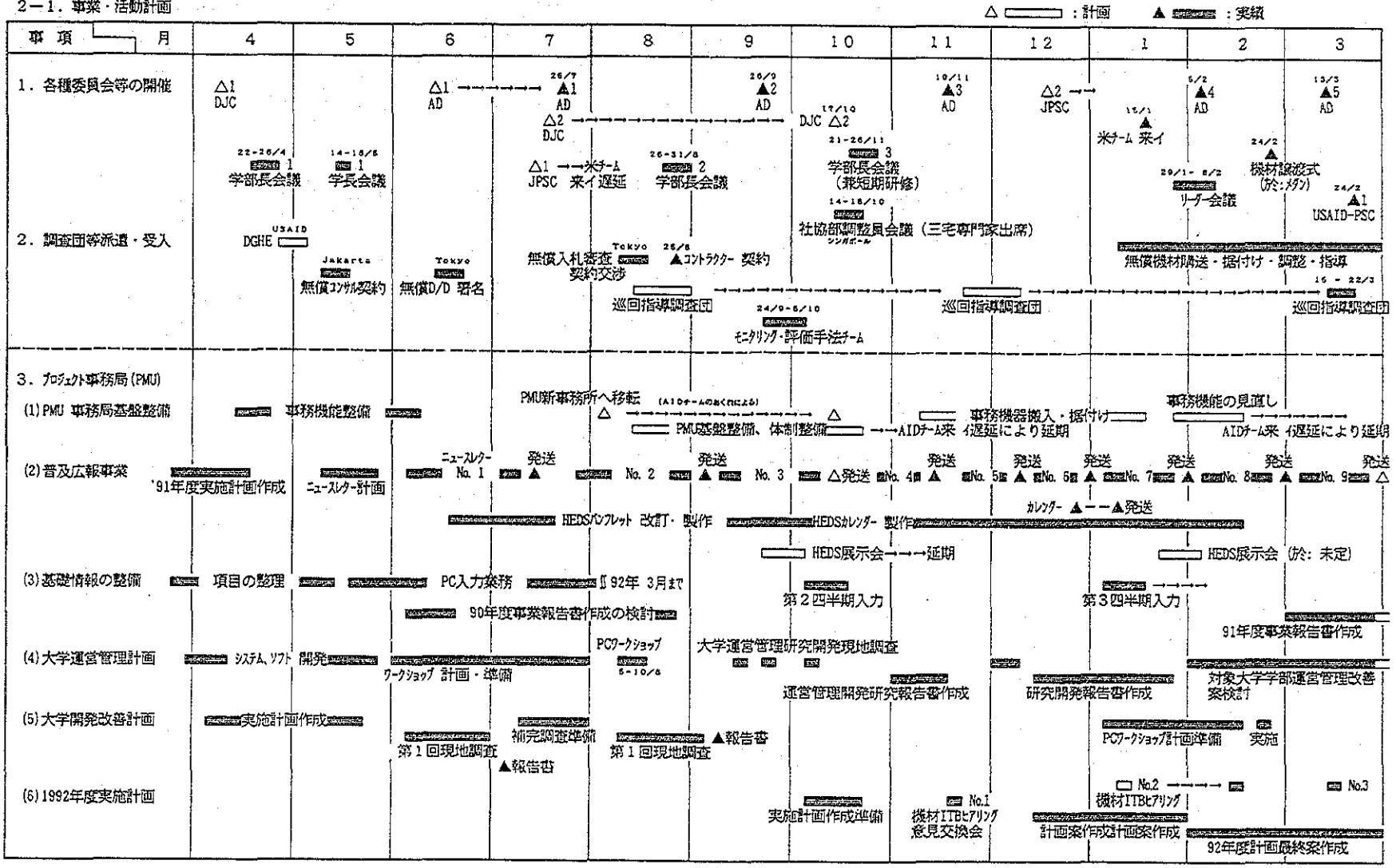
1－2．　協力実施計画 (Tentative Schedule for Implementaion)

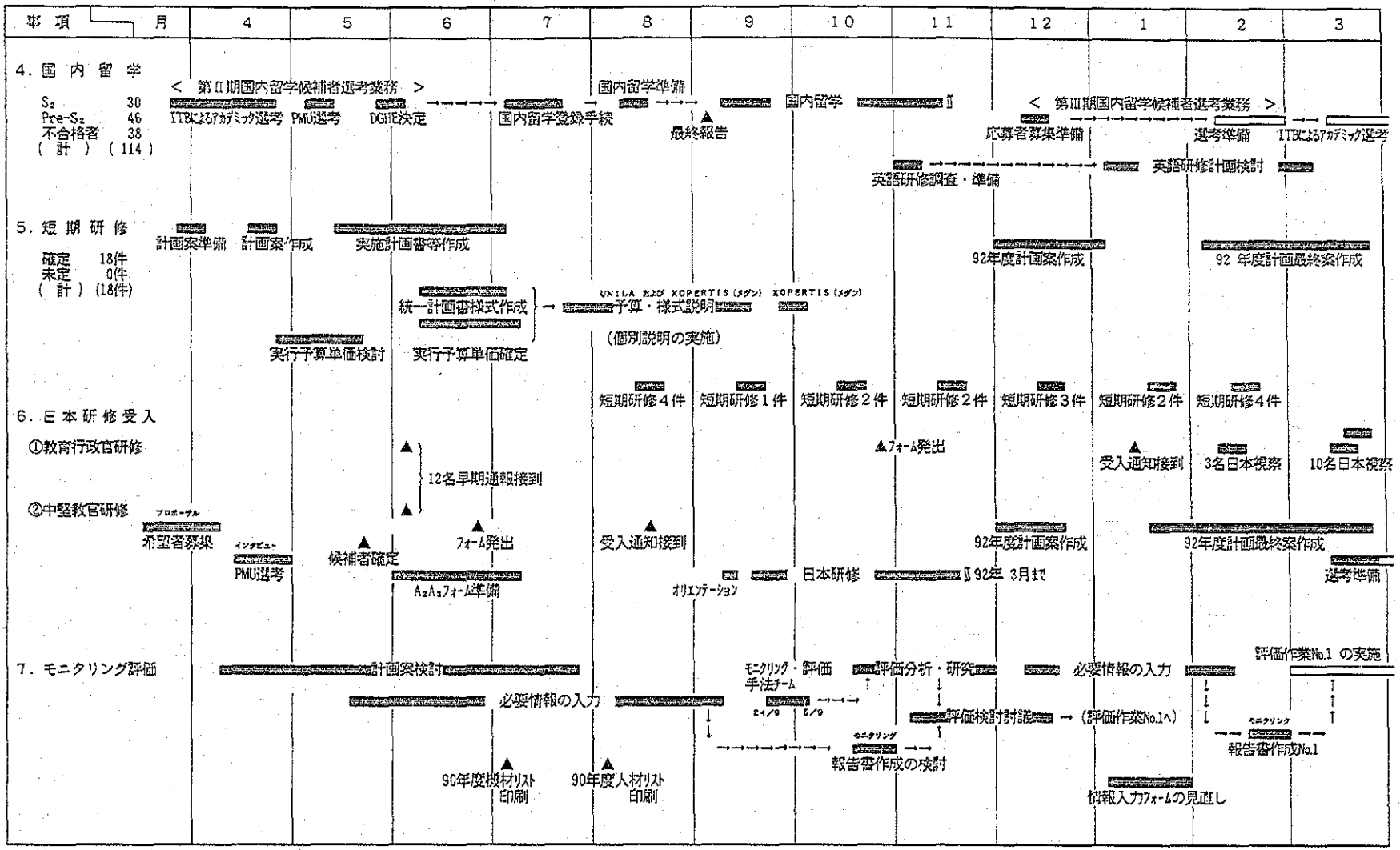



投入
予算年度
月
平成 2年 (1990)
平成 3年 (1991)
平成 4年 (1992)
平成 5年 (1993)
平成 6年 (1994)
平成 7年 (1995)
1 4 7 10 1 4 7 10 1 4 7 10 1 4 7 10 1 4 7 10 1 4 7 10 1
(6) 機材供与 (無償協力)
(対象大学11校)
①第一期無償協力
B/D
27/3 閣議
D/D
輸送、搬入、調整
第1期無償協力
②第二期無償協力
B/D ドラフト
19/4 E/N
入札
24/12 E/N
26/11 閣議
D/D
入札
輸送、搬入 据付、調整
第2期無償協力
コンサル契約
2) 相手国側投入計画と実績
(当初計画)
(変更計画)
(15/8 AID協力締結)
(実 績)
(予 算)
350,000 + 400,000
=700,000 千Rp(52,000 千円)
824,640 千Rp
(58,000 千円)
630,000 千Rp
(44,000 千円)
(1) PMU、他事務所
PMU
26/6 PMU開設
9/10 PIU開設(ITB)
15/1 チーム2名来着任
AIDチーム 来イによる
PMU移転拡充
(2) カウンターパートの配置
①Executive Director
②Project Coordinator
③秘書、他スタッフ
(3) プロジェクト事業費
①事業運営管理経費
②奨学金 (国内留学)
③短期研修経費

2．平成３年度　活動計画

2－1．事業・活動計画





SC:Steering Committee for Seminar PSC:Project Steering Committee DJC:DGHE-JICA Committee AD: 国内委員会(Advisory Committee)

項目（予算科目）	内　容	申請額	承認額	受入額	実績額	4	5	6	7	8	9	10	11	12	1	2	3
5.一般現地業務費 （短期研修・機材）	短期研修実施に係る測定機材製作に係る経費	18,946,000 ¥ 1,303,026	18,946,000 ¥ 1,303,026	《第３四半期》 18,980,000 《第４四半期》 －	12,600,000					△ 23/9	○ 23/9	●			☆ 4/1		
（ 計 ）				(18,980,000)	(12,600,000)									＊ 10/12	＊ 7/1		
6.一般現地業務費 現地研究費 （教育開発改善）	教育開発改善研究事業に係る経費	61,538,280 ¥4,626,938	61,538,280 ¥4,431,000	《第１四半期》 16,208,120 《第２四半期》 15,845,620 《第３四半期》 21,497,500 《第４四半期》 －	7,320,000 11,136,640 18,911,015	△ 12/4 ＊ 15/4	○ 16/5	●	☆ 19/7 ＊ 19/7			☆ 18/10 ＊ 18/10			☆ 4/1 ＊ 7/1		● 31/3
（ 計 ）				(53,551,245)	(37,367,655)												
7.一般現地業務費 現地研究費 （各学科現地研究）	対象大学工学部各研究室における現地研究に係る経費	110,105,000 ¥ 7,346,882	110,105,000 ¥ 7,346,882	《第３四半期》 41,811,700 《第４四半期》 －	41,791,700							△	○●		☆ 4/1		● 31/3
（ 計 ）				(41,811,700)	(41,791,700)									＊ 10/12	＊ 7/1		
8.一般現地業務費 技術普及広報費	パンフレット、リーフレット、カレンダー及びニュース・レターの作成に係る経費	113,365,250 ¥8,523,703	113,365,250 ¥8,163,000	《第１四半期》 7,615,625 《第２四半期》 8,565,625 《第３四半期》 30,975,194 《第４四半期》 －	1,000,000 7,159,494 36,055,200	△ 12/4 ＊ 15/4	○ 20/5	●	☆ 19/7 ＊ 19/7			☆ 18/10 ＊ 18/10			☆ 4/1 ＊ 7/1		● 31/3
（ 計 ）				(47,156,449)	(44,214,694)												
9.一般現地業務費 現地研究費 （大学運営管理）	大学運営管理用ソフトウエアー開発研究に係る経費 （モニタリング等に必要とされる基礎情報集積、管理等のプログラム の開発）	68,113,200 ¥5,121,293	68,113,200 ¥4,905,000	《第１四半期》 5,788,400 《第２四半期》 49,932,150 《第３四半期》 9,632,570 《第４四半期》 －	690,450 40,001,470 22,621,600	△ 12/4 ＊ 15/4	○ 20/5	●	☆ 19/7 ＊ 19/7			☆ 18/10 ＊ 18/10			☆ 4/1 ＊ 7/1		● 31/3
（ 計 ）				(65,353,125)	(63,313,520)												

注）△計画申請　　○示達、資金前途　　＊四半期資金申請　　☆四半期実施報告　　●実施　　（先方負担実績のあるときは、その旨記載）

2－2．専門家計画

2－2－1－（イ）長期専門家（派遣計画）

ooo：計画　　――：実績

分野	氏名	派遣期間	4	5	6	7	8	9	10	11	12	1	2	3	随伴家族	備考
チームリーダー	矢追　秀敏	1990.05.21 ~ 1992.05.20													長女	国際協力事業団
業務調整	三宅　正風	1990.05.30 ~ 1992.05.29						一時帰国 2/11		30/11					妻	
業務調整	大杉　千恵子	1990.05.21 ~ 1992.05.20		一時帰国	20/6	19/7									単身	
技術教育管理	古賀　雅人	1990.05.30 ~ 1992.06.29					一時帰国	21/9	21/10			病気見舞 12-15/1			単身	
教育開発改善	星　鐵太郎	1992.04.21　1994.04.20		22/5 △ PNU→DGHE		31/7 ○ SETKAB→JICA			一時帰国	22/11	21/12					
業務調整補助	未　定															

注）△：A1フォーム、プロジェクト発出　．○：A1フォーム、公式発出　．●：新規・交代専門家赴任要望時期

2－2－1－（ロ）問題点、対応措置及び要望事項等

課題と問題	対応措置	要望事項等
本年度は、プロジェクト開始後2年目にあたり、各計画が軌道に乗り本格的な業務の実施時期に入って来る年度に当たっていると云える。　本格稼働の各計画に伴い、各計画に係る業務も増大して来ている。　特に、調整員業務にその傾向が著しく、昨年の第3四半期から業務（量）のピークが続いており、何らかの対応措置を講ずる必要が生じて来ている。 昨年度からの課題である長期専門家派遣の課題と併せ、新規に過重となっている調整員業務の対応を新規の課題として提起して行きたい。　（前期報告と同じ。）	①長期専門家の派遣 本年度も日本側からの長期専門家派遣の対応困難な事情から、その補完的な措置として短期専門家派遣による対応が1991年度当初から計画され、第1四半期は2回の派遣が実施しされた。　今後の3回の派遣をいれ、計5回の派遣計画である。　（前期報告と同じ。） ②ｱｼｽﾀﾝﾄ･ｺｰﾃﾞｨﾈｰﾀｰ の派遣 新規課題としての調整員業務の業務量増大に関しては、ﾌﾟﾛｼﾞｪｸﾄ･ｻｲﾄﾞにおいて業務量の軽減を計る方策を採ると同時に日本側から上記ｱｼｽﾀﾝﾄ･ｺｰﾃﾞｨﾈｰﾀｰ の派遣を対応措置の1つとして検討して行きたい。　（前期報告と同じ。） ③現地スタッフの育成と増員 ⓐ現地スタッフの育成については、これまでの1年強の期間を通じて事務処理、経理処理等に関し指導、育成してきた結果かなりの戦力となって来ている。　今後は、事業実施方法に関し、現場における業務を中心に指導育成して行く計画である。　一スタッフとして活躍してもらう時期としては、来年度4月からを目途としている。 ⓑ現地スタッフの増員 現地スタッフの増強を積極的に強化する事を推進して行きたい。　新規ﾌﾟﾛｼﾞｪｸﾄであるが故に業務を定常化させる努力を行う一方、それに見合う人材の補強が急務な課題となって来ている。	①長期専門家の派遣 一定の時期を定め、定期的な短期専門家の派遣は、イ側から高い評価を得ている。　イ側が高く評価している点は、計5回の派遣専門家が同一専門家である事と、短期専門家が来年度の長期専門家予定者であり継続性が確保されている点である。　さらに、派遣された短期専門家　星教授の現地における活躍が目覚ましくHEDSﾌﾟﾛｼﾞｪｸﾄに対する貢献度が著しい点を特に評価している。（前期報告と同じ。）

2－2－2－（イ）短期専門家（派遣計画）

分　野	氏　名	派遣期間	4	5	6	7	8	9	10	11	12	1	2	3	希望専門家所属先機関他
1.工学教育開発改善	星　鐵太郎	91.5月 2日－ 5月11日	13/3 △ 4/4 ○	2-11/5 ●－●											豊橋技術科学大学
2.工学教育開発改善	星　鐵太郎	6月 4日－ 6月29日	13/3 △ 4/4 ○		4-20/6 ●－●										
3.工学教育開発改善	星　鐵太郎	8月 1日－ 9月 7日	13/3 △ 4/4 ○				1/8 ●－－－－	7/9 ●							
4.工学教育開発改善	星　鐵太郎	10月16日－11月16日	13/3 △ 4/4 ○						16/10 ●－－－	16/11 ●					
5.工学教育開発改善	星　鐵太郎	92.1月25日－ 3月 3日	13/3 △ 4/4 ○									25/1 ●－－－－－		3/3 ●	
6.海　岸　工　学	柴山　知也	91.8月17日－ 8月26日		24/5 △→	12/6 ○		17-26/8 ●－●								アジア工科大学（ＡＩＴ） ①コース名：基礎海岸工学 ②期間：8月17日－8月26日
7.ﾃﾞｼﾞﾀﾙ･ｺﾝﾄﾛｰﾙ－Ⅰ	熊谷　正純	92.2月14日－ 2月29日							30/10 △→	○			14/2-29/2 ●－●		仙台電波高専 ①コース名：ﾃﾞｼﾞﾀﾙ･ｺﾝﾄﾛｰﾙⅠ ②期間：2月19日－2月27日
8.ﾃﾞｼﾞﾀﾙ･ｺﾝﾄﾛｰﾙ－Ⅰ	加藤　靖	2月14日－ 2月29日							30/10 △→	○			14/2-29/2 ●－●		
9.加工技術－Ⅰ	森脇　俊道	2月20日－ 2月28日							30/10 △→	○			20/2-28/2 ●－●		神戸大学 ①コース名：加工技術－Ⅰ ②期間：2月19日－2月27日
合　計	9人	（実績１５５日間）		1人	1人		2人		1人			1人	3人		

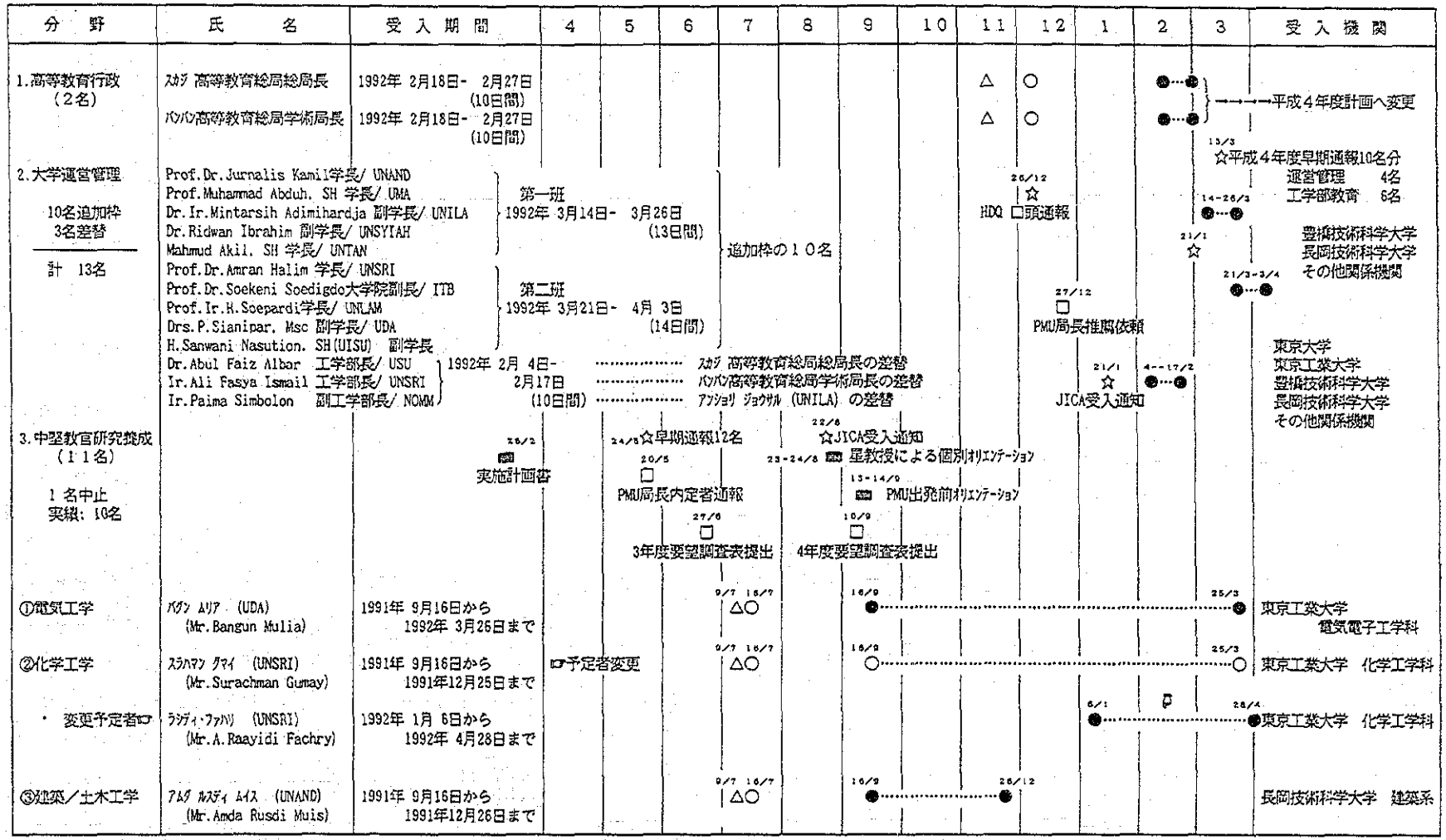
注）☆：短期専門家派遣要望調書提出　　△：Ａ１フォーム、プロジェクト発出　　○：Ａ１フォーム、公式発出　　●：専門家赴任要望時期

2－2－2－（ロ）問題点、対応措置及び要望事項等

問　題　点	対　応　措　置	要　望　事　項　等
（なし。）	（なし。）	（なし。）

2－3．研修員計画

2－3－（イ）研修員　（受入計画）



注）☆JICA事務所からの通報接受　△：A₂, A₃フォーム プロジェクト発出　○：A₂, A₃フォーA 公式発出　●：希望受入時期　＊：受入決定通知

分　野	氏　　名	受 入 期 間	4	5	6	7	8	9	10	11	12	1	2	3	受 入 機 関
④建築／土木工学	ｱﾝｼｮﾘ ｼﾞｮｳｻﾙ (UNILA) (Mr.Anshori Djausal) 中止（本人辞退）	1991年 9月 6日から 6ケ月間 変更：1991年12月頃から 3ケ月間	☞期間変更→中止 （本人辞退）			9/7 16/7 △○		16/9 ● ☞延期 →中止 30/8 ▽ PMU局長名変更申請 10/9 ▽変更承認通知(9.30-12.26) ▽ PMU局長名再変更申請			● 24/12 ▽辞退届			●	長岡技術科学大学　建築系
⑤建築／土木工学	ﾀﾝﾀｳｲ ｼﾞｬｳﾊﾘ (UNSYIAH) (Mr.Thanthawi Jauhari)	1991年 9月16日から 1992年 3月25日まで	☞期間短縮 （1991年12月26日まで）			9/7 16/7 △○ 9/7 16/7		16/9 ●（期間短縮） 16/9		26/12 ●				25/3 ○ 25/3	長岡技術科学大学　建築系
⑥電気工学	ｴﾃﾞｨ ｽﾘﾔﾝﾄ (UNTAN) (Mr.Eddy Suryanto)	1991年 9月16日から 1991年12月26日まで				△○		●						●	長岡技術科学大学　電気系
⑦情報工学	ｼﾝﾍﾟｲ ｶﾞﾗﾝｸﾞ (USU) (Mr.Simpei Garang)	1991年 9月16日から 1992年 3月25日まで				9/7 16/7 △○		16/9 ●						25/3 ●	豊橋技術科学大学 情報工学系
⑧生産管理工学	ｶﾐﾙ ﾑｽﾀﾌｧ (UMA) (Mr.Kamil Mustafa)	1991年 9月16日から 1992年 3月25日まで				9/7 16/7 △○		16/9 ●						25/3 ●	豊橋技術科学大学 知識情報工学系
⑨化学工学	ｼﾃｨ ｽｼﾞｬﾙﾐ (UNILA) (Ms.Siti Sujalmi)	1991年 9月16日から 1991年12月26日まで （当初1992年 3月25日まで）				9/7 16/7 △○		16/9 ● 22/8▽ PMU局長名再変更申請 12/9 ▽変更承認通知(9.30-12.26)		26/12 ●					豊橋技術科学大学 物質工学系
⑩土木工学	ﾏﾑﾝ (UNLAM) (Mr.Ma'mun)	1991年 9月16日から 1992年 3月25日まで				9/7 16/7 △○		16/9 ●						25/2 ●	豊橋技術科学大学 建設工学系
⑪建築／土木工学	ｱｸﾞｽｻﾘﾑ (UNSIAH) (Mr.Agussalim)	1991年 9月16日から 1992年 3月25日まで				9/7 16/7 △○		16/9 ●						26/3 ●	豊橋技術科学大学 建設工学系

注）☆JICA事務所からの通報接受　　△：A₂、A₃フォーA プロジェクト発出　　○：A₂、A₃フォーA 公式発出　　●：希望受入時期　　＊：受入決定通知

2－3－（ロ）問題点、対応措置及び要望事項等

課　題　と　問　題	対　応　措　置	要　望　事　項　等
11名の中堅教官の研修員の内、3名の変更延期等の問題が生じ日本側に多大なな対応・処理を強いる結果となり、今後に問題を残す事態が生じている。 （前期報告と同じ）	今後この様な事態が生じない様な措置を取るべく努力して行きたい。　具体的には、イ側と今後の対応につき検討を加える会議等の機会を設定し、日イ双方の理解を深めると共に、取るべき具体的対応策を検討して行きたい。 （前期報告と同じ） ガイドラインを定め、それに従い候補者の選考を実施し適格者の派遣を確定して行きたい。	日本側の諸般の事情があると思料されるも、本件プロジェクトの成り立ち、経緯を理解していただき、前向きな対応を是非お願いしたい。 （前期報告と同じ） 今期、追加枠の内報を接受したところ、プロジェクト目標の到達に資する関係者の日本研修を実施することとしたい。　高等教育の現場の要となる副学長を中心とする適格者を選定し、派遣する計画である。

2－3－（ハ）その他研修員　（受入計画）

分　野	氏　　名	受 入 期 間	4	5	6	7	8	9	10	11	12	1	2	3	受 入 機 関
1.日本語集団研修	ｴｳﾞｧﾜﾆ・ｴﾘｻ（ﾒﾀﾞﾝ・ｴﾘｱ大学） (Ms.Evawani Ellisa)	1991年10月24日から 1992年 6月29日まで					△	＊ ○	24/10 ●……					29/6 '92 ‖…●	沖縄国際センター
2.文部省国費留学	ｴｳﾞｧﾜﾆ・ｴﾘｻ（ﾒﾀﾞﾝ・ｴﾘｱ大学） (Ms.Evawani Ellisa)	（応募中、未定）	6/2 ☆ JICA 通知	30/5 ※ 大使館書記官との意見交換会		☆ 2名の推薦で手続き開始			11/10 ◇ 2名面接（ﾒﾀﾞﾝ）			5/1 ○ 大使館から第一次合格通知（両者 2名）			広島大学／大阪大学
	ﾌﾞｽﾀﾐ・ｼｬﾑ（北ｽﾏﾄﾗ大学） (Ir.Bustami Syam) （以上、推薦候補者）	（応募中、未定）	10/3 ☆ PML募集通知	選考 (17名の応募)	13/5 ☆ JICAへ推薦通報					○ P&K 通知（日本語研修）					申請書にては、室蘭工業大学を希望。　但し、豊橋技術科学大学でも可。
										5/11 ●……	(IPBにて日本語研修)			31/3 ●	
3.情報処理集団研修	ｽﾍﾝﾄﾞﾛ・ﾕｽﾌ・ｲﾘｱﾝﾄ（ﾗﾝﾎﾞﾝ 大学） (Ir.Suhendro Yusuf Irianto)	1991年11月11日から 1992年 3月30日まで					15/8 ☆ JICA 通知	△	11/10 ○ JICA 事務所		平成４年度 JICA 通知	15/1 ☆			
									31/10 ＊	11/11 ●……				30/3 ●	沖縄国際センター

注）☆JICA事務所からの通報接受　　△：A₂, A₃フォーム プロジェクト発出　　○：A₂, A₃フォーム 公式発出　　●：希望受入時期　　＊：受入決定通知

2－3－（ニ）問題点、対応措置及び要望事項等

課　題　と　問　題	対　応　措　置	要　望　事　項　等
1,000 人以上の教官を対象とする本ＨＥＤＳプロジェクトは、高等教育の質の向上を重点的に教官の質の向上に求め、それに対する最大の努力を傾注している。　それに必要な海外研修の枠の拡大、既存スキームの最大限の活用が、重要な課題となっている。（前期報告と同じ）	第一義的には、既存スキームの最大限の活用を計る事としたい。　具体的には、既存の集団研修コース、文部省国費留学、第三国個別研修等の積極的な新規開拓とその実績の確保である。（前期報告と同じ）	右活動に関し、具体的提案・要望事項を取り纏め提出するところ、JICA本部における前向きなご検討と最大限の支援をお願いしたい。（前期報告と同じ） 当初計画していた実績目標を一応達成できる状勢となり、日本関係者に対し、深甚なる感謝の意を表する次第である。

2－4．機材計画

2－4－1．供与機材

2－4－1－（イ）供与機材　（計　画）

	項　　目	金　額	3	4	5	6	7	8	9	10	11	12	1	2	3	備　考
計画	Host Training Institutes 教育用機材 Project Management Unit 等 事務局整備用機材	250，000，000円	●実施計画書作成	△A4フォーム発出	○仕様書提出	※現地調達示達				現地調達				検収調書提出	□	<主要機材の種類> (1) Host Training Institute ①土木工学等８分野の修士課程教育に必要な機材 ②視聴覚機材 ③技術参考図書 (2) PMU事務局等 ④通信連絡用機材 ⑤コンピュータ関連機材 ⑥室内環境整備機材 ⑦データー管理用機材 ⑧その他
											機材インベントリー作成					
実績	Host Training Institutes 教育用機材 Project Management Unit 等 事務局整備用機材 機材据付け状況 （専門家受入） 保険求償	25/3 ● 実施計画書作成 243，121，000円 <内訳> 1．現地調達分 243.121.000 円 (3,424,243,146 ﾙﾋﾟｱ) 2．国内調達分 0 円	24/4○	仕様書提出		18/6 △ A4フォーム 発出	22/7※現地調達示達			現地調達				検収調書提出	□	
											機材インベントリー作成					

注）☆供与機材申請書提出　△Ａ４フォーム公式発出　○決定仕様書提出　●荷受港到着　×サイト到着　□検収調書提出

2－4－1－（ロ）問題点、対応措置及び要望事項等

課　題　と　問　題	対　応　措　置	要　望　事　項　等
①　HEDS日本側投入額 20,000 千US＄の中に占める機材供与額に関し、プロ技協に係る供与額確定を無償資金協力による機材供与の動きを見極めつつ実施すべき業務の一つとなっている。（昨年度からの継続課題） ②　白紙状態から着手している機材仕様書作成に関しその作成に係る業務の省力化を推進する必要がある。（昨年度からの継続課題） ③　ＵＳＡＩＤ側プロジェクトに対する機材供与協力に関する基本的考え方を確立する必要がある。（前期報告と同じ）	①　無償供与機材の選択を見極めた上で、目途とする機材供与の全体積上げをこれまで実施した暫定積算をベースに積算し、供与額を設定する事としたい。 ②　本年度、機材仕様書作成費が認められた事から、外部勢力の導入により業務の省力化を計っている。 ③　USAID、DGHE及びJICAインドネシア事務所の三者による事務レベル協議を通じ基本的考え方を整理する。（前期報告と同じ）	

2－4－2．携行機材

2－4－2－（イ）　携行機材購送計画・実績

専門家氏名	分野	機材品目・数量 購入輸送分		輸送のみ分	金額	荷受地到着日	引き取り日	B／L　NO.	検収調書発出日	備　考
矢追　秀敏	チームリーダー					GA-873				
1991年 9月22日		FAX用紙 B4-30	20		28,000					
		ｲﾝｸ･ﾘﾎﾞﾝ･ｶｾｯﾄ	20		170,000	1991年 9月22日				
		ﾌﾟﾘﾝﾀｰ CWTP-42	1		43,000					
					小計 241,000		1991年10月28日		1991年　月　日	
				Other Charge	7,230					
				Shipping C	12,834					
				Air Freight	50,400			126-1-596396 5		
				Insu.Premium	5,811					
								保険証券No.		
					計 317,275			4591-001615		
三宅　正風	業務調整（Ｉ）	ﾗﾑ･ｶｰﾄﾞ(Ram Card) 4MB	3		171,000	GA-873				
1991年 6月 3日		ﾊｰﾄﾞ･ﾃﾞｨｽｸ･ﾕﾆｯﾄ	3		261,500					
		携帯収納袋	2		39,600	1991年 8月 5日				
		ﾗﾍﾞﾙ A4 200ｹ/ 包	2		17,600					
							1991年10月28日		1991年11月25日	
					小計 489,200			126-1-596367 3		
				Other Charge	14,676					
				Shipping C	27,754			保険証券No.		
				Air Freight	50,400			4591-001490		
				Insu.Premium	10,837					
					計 592,867					
大杉　千恵子	業務調整（II）									
古賀　雅人	技術教育管理									
星　鐵　太　郎	短　期　専　門　家	ｵｰﾊﾞｰﾍｯﾄﾞ･ﾌﾟﾛｼﾞｪｸﾀｰ	1		94,000	GA-873				
1991年 6月 3日		ｵｰﾊﾞｰﾍｯﾄﾞ･ﾌﾟﾛｼﾞｪｸﾀｰ 用ﾊﾛｹﾞﾝﾗﾝﾌﾟ	5		12,500					
		ｽﾗｲﾄﾞ･ﾌﾟﾛｼﾞｪｸﾀｰ	1		159,000	1991年 6月 5日				
		同　　ﾚﾝｽﾞ	1		11,000					
		同　　ﾊﾛｹﾞﾝﾗﾝﾌﾟ	5		9,800		1991年 7月12日		1991年 7月15日	
		ﾊﾟｰｿﾅﾙ･ｺﾝﾋﾟｭｰｸ + ﾌﾟﾘﾝﾀｰ	1		331,200					
		ﾏｳｽ	1		13,500			126-1-563619-1		
		ﾌﾟﾘﾝﾀｰ	1		67,300					
		変圧器	1		11,700					
		ｲﾝｸ･ｶｰﾄﾘｯｼﾞ	5		15,750			保険証券No.		
		ﾜｰﾄﾞﾊﾟｰﾌｪｸﾄ(ｿﾌﾄ)	1		88,200			4591-000605		
					小計 813,950					

専門家氏名	分野	機材品目・数量			金額	荷受地到着日	引き取り日	B／L NO.	検収調書発出日	備考
		購入輸送分		輸送のみ分						
					Other Charge 24.418 Shipping C 12.834 Air Freight 59.360 Insu.Premium 16.959 計 927.521					
熊谷正純 1991年12月11日	短期専門家	オシロスコープ アナログ・テスター デジタル・テスター エクステンション・ケーブル エクステンション・ケーブル 工具セット ドライバー ワイヤー・ストリッパー 半田ごて 半田 図書	8 8 16 10 10 15 15 15 32 5 6		679.200 43.200 119.840 27.000 35.500 69.000 6.750 40.200 75.200 4.000 6.880 小計 1.106.770	GA-873 1991年12月11日	1991年12月 日	126-1-626856-0 保険証書No. 4591-002277	1992年 月 日	
					Other Charge 33.203 Shipping C 16.281 Air Freight 105.930 Insu.Premium 23.502 計 1.285.686					
合計					3.123.349					

2－4－2－（ロ）問題点・対応措置及び要望事項等

課題と問題	対応措置	要望事項等
（なし。）	（なし。）	（なし。）

2－5．　ローカルコスト負担計画

2－5－（イ）　ローカルコスト負担（計画）

（交換レート：RP.1 = ¥0.072）　　（単位：ルピア）

項目（予算科目）	内　容	申請額	承認額	受入額	実績額	4	5	6	7	8	9	10	11	12	1	2	3
1.一般現地業務費（定期送金分）	円滑なプロジェクト運営に必要な通信運搬、傭人等に係る経費	12,169,001 ¥　720,000	12,169,001 ¥　720,000	《第１四半期》 4,054,038 《第２四半期》 3,923,736 《第３四半期》 4,191,222 《第４四半期》 —	2,557,979 4,152,757 2,031,900	△ 9/4	○● 20/5		☆ 19/7			☆ 16/10			☆ 4/1		● 31/3
（計）				(12,169,001)	(8,742,636)												
2.一般現地業務費（貧困国対策費）	円滑なプロジェクト運営に必要な日常業務実施係る経費	14,227,358 ¥　900,000	14,227,358 ¥　900,000	《第１四半期》 5,406,730 《第２四半期》 4,264,920 《第３四半期》 4,555,703 《第４四半期》 —	4,570,100 3,444,380 4,641,060	△ 9/4	○● 18/5		☆ 19/7			☆ 15/10			☆ 4/1		● 31/3
（計）				(14,227,358)	(12,655,540)												
3.一般現地業務費（臨時支給）	大学学部長定例会、通信運搬、傭人等プロジェクト事業実施に係る経費	169,031,000 ¥12,709,096	169,031,000 ¥12,709,096	《第１四半期》 38,951,800 《第２四半期》 42,458,590 《第３四半期》 56,158,700 《第４四半期》 —	36,112,766 40,748,031 33,853,472	△ 9/4 ＊ 15/4	○● 20/5		☆ 19/7 ＊ 19/7			☆ 15/10 ＊ 15/10			☆ 4/1 ＊ 7/1		● 31/3
（計）				(137,569,095)	(110,714,269)												
4.一般現地業務費（短期研修）	短期研修実施に係る経費	238,906,800 ¥17,187,540	238,906,800 ¥16,962,000	《第１四半期》 11,950,000 《第２四半期》 67,685,600 《第３四半期》 96,573,205 《第４四半期》 —	0 36,136,385 137,652,025	△ 12/4 ＊ 15/4	● 20/5		△ 6/7 (再申請) ☆ 19/7 ＊ 15/7		○● 13/9	☆ 15/10 ＊ 15/10		＊ 6/12	☆ 4/1 ＊ 7/1		● 31/3
（計）				(176,208,810)	(173,788,410)												

注）△計画申請　　○示達、資金前途　　＊四半期資金申請　　☆四半期実施報告　　●実施　　（先方負担実績のあるときは、その旨記載）

項目（予算科目）	内　容	申請額	承認額	受入額	実績額	4	5	6	7	8	9	10	11	12	1	2	3
10. 現地語教科書作成費	短期研修を中心とした現地語教科書の作成に係る経費。本件テキストを短期研修に使用すると共に工学部当該講義にも活用する。	110,696,000 ¥7,623,691	110,696,000 ¥7,623,691	《第３四半期》 45,402,000 《第４四半期》 －	39,281,500 －						△ 30/9	○●			☆ 4/1		● 31/3
（計）				(45,402,000)	(39,281,500)									＊ 10/12	＊ 7/1		
11. 機材供与費 機材仕様書作成費 （再申請）	バンドン工科大学等に対する機材供与に係る機材仕様書作成	33,667,800 ¥2,531,414	33,667,800 ¥2,424,000	《第１四半期》 － 《第２四半期》 1,898,000 《第３四半期》 9,718,150 《第４四半期》 －	－ 1,281,350 2,480,500	△ 12/4		△ 9/6 （再申請）	○● 10/7 ＊ 19/7			☆ 16/10 ＊ 16/10			☆ 4/1 ＊ 7/1		● 31/3
（計）				(11,616,150)	(3,761,850)												
12. 一般現地業務費 （技術交換費）	タイ、マレイシア両国における高等教育機関との技術交換実施に係る経費	18,346,000 ¥1,261,760	－	《第３四半期》 ． 《第４四半期》 －										△ 12/13	○ 8/1		
（計）				(．．．)	( )											●－● 25/2 － 4/3 ＊	
合　計		969,111,689 ¥69,855,343	950,765,689 ¥67,487,695	624,044,933 ¥44,931,235	548,231,774 ¥39,472,687												

注）△計画申請　　○示達、資金前途　　＊四半期資金申請　　☆四半期実施報告　　●実施　　（先方負担実績のあるときは、その旨記載）

2－5－（ロ）問題点、対応措置及び要望事項等

課題と問題	対応措置	要望事項等
（なし。）	（なし。）	（なし。）

12,169,001	12,169,001
14,227,358	14,227,358
169,031,000	169,031,000
238,906,800	238,906,800
18,946,000	18,946,000
61,538,280	61,538,280
110,105,000	110,105,000
113,365,250	113,365,250
68,113,200	68,113,200
110,696,000	110,696,000
33,667,800	33,667,800
18,346,000	
969,111,689	950,765,689

¥ 900,000	¥ 900,000
¥ 720,000	¥ 720,000
¥12,709,096	¥12,709,096
¥17,187,540	¥16,962,000
¥ 1,303,026	¥ 1,303,026
¥4,626,938	¥4,431,000
¥ 7,346,882	¥ 7,346,882
¥8,523,703	¥8,163,000
¥5,121,293	¥4,905,000
¥7,623,691	¥7,623,691
¥2,531,414	¥2,424,000
¥ 1,261,760	
¥69,855,343	¥67,487,695
69,855,343	67,487,695

12,169,001	8,735,636
14,227,358	13,038,790
137,569,095	110,714,269
176,208,810	175,952,030
18,980,000	12,600,000
53,551,245	37,151,955
41,811,700	41,791,700
47,156,449	44,214,694
65,353,125	63,313,520
45,402,000	39,281,500
11,616,150	3,761,850
624,044,933	550,555,944

2－6．相手国側投入計画

（1）－（イ）土地・建物・その他施設インフラ整備

：計画　　：実績

事　　項	4	5	6	7	8	9	10	11	12	1	2	3	備　考
1. PMU事務局の整備 (1) Project Management Unit事務局の拡張／移転 USAIDﾁｰﾑの来イにあわせ、PMU事務局の拡充が急務となっている。なお、USAIDﾁｰﾑの来イは、1992年 1月17日であるとﾌﾛﾘﾀﾞ州立大学関係者の言である。 （HEDSﾌﾟﾛｼﾞｪｸﾄ関係事務所の整備は、PMU 事務所の移転を除き、各大学工学部の既存の建物の中に設置済であり、新たな施設整備を必要とするインスフラ整備は、現在のところ、ない。）				当初移転計画	変更計画		変更計画		変更計画			変更計画	

(2)各事務所の設置等に関し、その概要を取り纏め、下記に記す。

① Project Management Unit (PMU)の設置等の経過

ⓐ 1990 年 5月28日　高等教育総局庁舎３階の一室に開設
ⓑ 1990 年 8月　日　高等教育総局庁舎３階の一室から教育文化省合同庁舎Ｃ棟11階の一室へ移転
ⓒ 1991 年 1月 9日　Project Management Office の名称をProject Management Unit(PMU)へ変更

② Project Implementation Unit (PIU)の設置

ⓐ 1990 年10月 5日　ﾊﾞﾝﾄﾞﾝ工科大学大学院内に設置（通称 HEDS Supporting Office ）

③ Liaison Offices (LO) の設置

ⓐ 1990 年 8月～12月　11対象大学内に各Liaison Officeを設置

（1）－（ロ）問題点、対応措置及び要望事項等

課　題　と　問　題	対　応　措　置	要　望　事　項　等
①　PMU 事務局は、暫定の一室からＣ庁舎11階の一室へ８月10日に移転したが、その面積に十分な広さがなくUSAID チームが入る余地がない。共同事務所として十分な面積を有する執務室の確保が課題となっている。（昨年度からの継続課題）	ⓐ　DGHE関係者に積極的に働きかけを行うこととしている。（ｸﾘﾄﾓ 秘書官宛のﾏﾙｼﾞﾘ事務局長名ﾚﾀｰ を発出） ⓑ　先般のUSAID 関係者との打合せ（昨年11月26日）の際にも本件が議論の一つとなっており、共同歩調をとりつつ日・米・イ共同事務所の開設に向け積極的に働きかけを行うことが確認されている。（昨年度報告と同じ。）	（ なし。） ⓒ 1991年 3月来イの計画打合調査団からも充分なスペースを有する事務所の確保を強く要請していただいている。

（2）　予算計画

予　算　科　目	予　算　額	支　出　実　績	問　題　点	対　応　措　置	備　考
開発予算 91年度　Rp.　824,640,000 92年度　Rp.2,080,000,000 （92年度 HEDSﾌﾟﾛｼﾞｪｸﾄ 全体予算額 ： 5,881,000,000 ）	概算　824,640,000 Rp		地理的に広範囲にわたり点在している大学が、計画対象となっているため、計画遂行のための旅費、交通費に要する経費が多額に上ぼる事は、理の当然であるが、イ側の予算がその実態に則していないのが実情である。このため、BAPPENASの理解を得つつ実態に則した予算確保が当面の課題となっている。	イ側予算手当ての不足している旅費、交通費については、必要最少限に絞り、かつガイドラインを設定し現地業務費により対応している。	本計画に係るイ側予算は、PMU 事務局の運営経費、教官留学に必要な経費、短期研修に必要な経費が主要な経費である。左記の予算額は、DGHE-USAIDﾌﾟﾛｼﾞｪｸﾄ分の経費も含んだ予算額である。

（3）－（イ）カウンターパート配置計画

：計画　：実績

分野／氏名	日本派遣計画・実績	配置年月日	4	5	6	7	8	9	10	11	12	1	2	3	備考
1.Project Manegement Unit															（未配置の場合は、予定を記入）
① Exec.Director Prof.Dr.Margono	1990年10月10日から 11月 1日(23 日)	1990年 4月12日													
② Program Coordinator Dr.Jajat	1990年11月 6日から 12月 4日(29 日)	1990年 6月29日													
③ Admi.Officer (兼務) Ahmad Soediarto		1990年 4月12日													
④ Sofyian A.Rahman (兼務) Secretary		1990年 4月12日													
⑤ Umi Mustaquimah Admini.Assistant		1990年 4月12日													
⑥ Dewi Masyitoh Admini.Assistant		1990年11月 6日													(JICA ローカル・コスト)
⑦ Ayi Rohmah Janitor		1991年 6月 3日													(JICA ローカル・コスト)
⑧ Kamingun Office Boy		1990年 4月12日													
⑨ Kirman ~~Driver~~ office boy		1991年 6月 日													(JICA ローカル・コスト)
⑩ Agus Sumarna Driver		1990年 4月12日													
⑪ Masdi Junaedi Driver		1991年 1月21日													
⑫ Wagino Driver (Kirman)		1990年 8月 8日													(JICA ローカル・コスト)
⑬ Kirman → Lusino <for USAID >		1991年 7月 8日													(JICA ローカル・コスト)
⑭ Program Coordinator Dr.Diah R.		1990年12月 5日													
⑮Admi.Staff Endah Listyarini		1990年12月10日													
2..Project Implementation Unit(PIU) ⑯ Staff Members		1990年 8月													
3..Liaison Offices(LO) ⑰ Staff Members		1990年 8月													

（3）－（ロ）問題点、対応措置及び要望事項等

課題と問題	対応措置	要望事項等
プロジェクトの各計画が、ほぼ全面稼働に至った現在、PMU 事務局の業務量は、その実施（処理）能力を越えつつある。 職員の増配置、職員個々の能力向上、事務処理の省力化、外部勢力の活用等によりPMU 事務局のより一層の機能化と実施能力増強が、直面している重要な課題である。 （前記報告と同じ）	これまでの課題の一つであった工学系スペシャリスト の確保については、 ITBからの協力が得られ、工学分野の教育者として著名な教授の非常勤スペシャリスト として就任が実現した。 今後とも、ナショナル・スタッフの増員と彼らの能力強化を図って行きたい。 （前記報告と同じ）	

2－7．　その他特殊事項等（無償資金協力との連携他）

1．　プロジェクト形成の時点から無償資金協力および有償資金協力も組み合わせた協力の検討が行われ、最終的には、我が国が有するこれらの協力形態を可能な限り適用・活用したプロジェクトが形成された。

【無償資金協力】

2．　無償資金協力については、1990年 4月に対象大学11校に対する機材供与の協力を実施する事が決定された。1990年 8月の基本設計調査にひきつづき、同年11月にドラフト報告書説明が実施され、成果品である報告書を1991年 3月に受領した。　本件の閣議了承については、年度最終閣議にて 6億円の承認が行われている。　また、第二期の無償協力については平成３年１１月２６日に約 8億円の閣議了承が得られている。

１９９０年１１－１２月	：	国内作業（最終機材リストの作成）
１９９０年１２－９１年３月	：	ファイナル・レポート作成
１９９１年３月末	：	ファイナル・レポート受領
１９９１年３月２７日	：	閣議（６億円の承認）
１９９１年４月１９日	：	Ｅ／Ｎ（交換公書）署名
１９９１年４月３０日～５月１０日	：	コンサルタント・チーム２名（ユニコ・インターナショナル）が来イし、コンサルタント契約を了する。
１９９１年５月	：	コンサルタント担当者１名が来イし、D/D 実施の下打合せを実施する。
１９９１年６月１６日～６月２５日	：	DGHEチーム３名が訪日し、詳細設計の審査とその承認を了する。
１９９１年７月１８日	：	入札の公示
１９９１年８月１２日	：	入　　札
１９９１年８月中旬	：	入札審査評価及び交渉順位の決定、契約交渉と契約締結（DGHEチームの派遣及び入札業務の立会いと評価等の実施）
１９９１年８月２８日	：	コントラクター契約（永井専務理事、湯川部長来イ
１９９１年８月下旬	：	機材調達の開始
１９９１年１１月２６日	：	閣議（８億６千４百万円の承認）
１９９１年１２月	：	コンサルタント促進チーム来イ（湯川、池田両氏）
１９９１年１２月２４日		第２期無償Ｅ／Ｎ（交換公書）署名

<今期の進捗>

１９９２年１月21- 28日		コンサルタント来イ（永井氏） 第２期無償コンサルタント契約交渉・締結
１９９２年１月２７日	：	コンサルタント契約締結（永井専務理事）
１９９２年１月下旬～２月下旬	：	機材詳細仕様作成、入札図書作成

<今後の計画・予定>

１９９２年２月中旬	：	第１期無償第一船　船積み
１９９２年２月下旬～３月中旬	：	第１期無据付け、機材操作指導
１９９２年３月下旬	：	第１期無完工

【有償資金協力】

3．　有償資金協力については、本件は人材養成計画プロジェクト(Professional Human Resource development Project) の一つのプログラムとして計画され協力の申請が行われた。　人材養成計画プロジェクトは、３省庁にまたがる５つのプログラムから構成されている。

なお、ＨＥＤＳ計画における有償資金協力のカバーする分野は、教官の国内留学に係る経費と教官の短期研修に係る経費が借款の対象となっている。

有償資金協力業務の進捗は、順調に推移しており、1990年 4月OECFミッションが 来「イ」し、案件審査調査を実施した後、1990年12月14日Ｌ／Ａが締結された。

１９８９年１１月－１９９０年２月	：	案件促進調査
１９９０年　４月	：	融資前審査調査
１９９０年　８月	：	奨学金支給金額増額に関する説明の開始 （対 BAPPENAS 説明）
１９９０年１２月１４日	：	Ｌ／Ａの締結（ＩＰ－３６７）
１９９１年　３月　７日	：	第一回融資申請 大蔵省予算総局長－ＯＥＣＦ 全体申請金額　：　１０億円
１９９１年１０月	：	国内留学教官に対する奨学金及び短期研修経費資金の初回貸し付け実行が実現する。
１９９１年１０月１０日		第一回奨学等の支給実行を４月に遡り実施

国内留学教官に対する奨学金の支給については、長期に亙るＢＡＰＰＥＮＡＳとの協議を終え、第二期の国内留学教官の受け入れを機にＯＥＣＦローンによる初回貸し付け実行が実現した。　これで是迄の懸案事項の一つが解決した訳であるが、今後は比較的に問題なく推移すると思惟される。　　増額された奨学金の月学内訳は、以下の通り。

①生　活　費	250,000（本人）
②書　籍　費	50,000（本人）
③研　究　費	75,000（大学）
④教　育　費	175,000（大学）
（　計　）	（550,000）