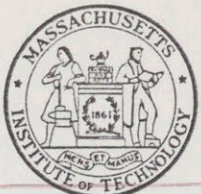


AMUT - MIT Exchange Agreement

OK

7-Ikan *To: BSN*



SCHOOL OF ENGINEERING
OFFICE OF THE DEAN

OFFICE OF THE PRESIDENT
ROOM 3-208
SEP 11 1975
REF. TO _____

CAMBRIDGE, MASSACHUSETTS 02139
ROOM 1-206

September 10, 1975

MEMORANDUM

TO: Provost Walter A. Rosenblith

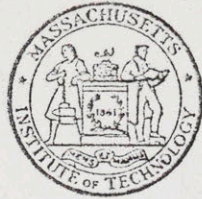
FROM: Alfred H. Keil

The cooperative program between M.I.T. and Arya-Mehr University of Technology has during the past year and a half been operating with Dr. Paul E. Brown, Assistant Director of CAES, as "anchorman" and Professor Gordon S. Brown as an interested advisor.

I have been personally involved in the program since February 1975 and have carried on the correspondence particularly with Dr. Nasr and, upon his resignation, with Dr. Zarghamee. In order to simplify the planning and operation of our program with AMUT, I intend to ask Professor Myron Tribus to be the faculty coordinator for the total MIT/AMUT program. Myron is particularly suited for this appointment as he is a member of the Steering Committee for the I.O.S.S.-Shiraz program.

AHK:map

cc: Dr. J. B. Wiesner
Dr. P. E. Gray



7 - Arya-Mehr

INDUSTRIAL LIAISON OFFICE

(617) 253-2691

CABLE MIT CAM

CAMBRIDGE, MASS 02139

TWX 710-320-0058

May 21, 1975

OFFICE OF THE PRESIDENT
ROOM 3-208
MAY 23 1975
REF. TO _____

MEMORANDUM

To: Mr. Albert Saxe

Re: Arya-Mehr University

Last month Dr. Mahmood J. Nahvi of Arya-Mehr University was at MIT and came over to my office, and the following was decided as a new modus operandi with respect to Arya-Mehr University.

1. Dr. Nahvi will be the contact for Arya-Mehr University in place of Dr. Vojdani.
2. I will be the contact at this end.
3. I gave him a copy of the Directory of Current Research, and he will be writing me regarding various publications on different projects which they would like to receive.
4. What brought this up was the fact that Dr. Vojdani came away from here under the erroneous assumption that what he had arranged was only for the Center for Materials Science and Engineering and did not cover the entire Institute. This was something Dr. Gordon Brown picked up and that is why Dr. Brown had him see me.
5. I have already sent him (about three weeks ago):

<u>Sea Mail:</u>	<u>Pages</u>	<u>Postage</u>
Two <u>Directories of Current Research</u>	482	
Faculty Research Summaries, Department of Nutrition and Food Science, April 1, 1975	118	
List of Publications, Department of Nutrition and Food Science, March 1, 1974, through February 28, 1975	55	

MEMORANDUM

Mr. Albert Saxe

May 21, 1975

Page 2

	<u>Pages</u>	<u>Postage</u>
Report, "Selective Stimulation of Chemical Reactions by Laser Excitation"	15	
The following thesis abstracts:		
Department of Physics, 1973	71	
Department of Urban Studies and Planning, 1973	43	
Center for Materials Science and Engineering, 1974	54	
Department of Mathematics, 1974	23	
Department of Mechanical Engineering, Part 1, 1974	60	
Sloan School of Management, Part 1, 1974	116	
Department of Chemistry, 1974	67	
Department of Electrical Engineering, 1973	191	
Department of Chemical Engineering, 1974	40	
Department of Nutrition and Food Science, Part 1, 1974	32	\$1.44 (for above)
<u>Air Mail:</u>		
March, April, and May "Monthly List of Publications"	<u>30</u>	<u>2.09</u>
Total pages and postage	1397	\$3.53

6. Arya-Mehr University understands that the MIT project that Dr. Paul Brown has will be billed for the costs--5 cents per page of all material sent plus postage.

MEMORANDUM

Mr. Albert Saxe

May 21, 1975

Page 3

Al, please put Dr. Mahmood J. Nahvi (Department of Electrical Engineering, Arya-Mehr University, P. O. Box 3406, Tehran, Iran) on the mailing list for the "Monthly List of Publications" (air mail) and the listings of the ILP symposia (air mail). Please keep track of the postage and the number of pages of everything you send to Dr. Nahvi, and submit these to Gretchen quarterly (July 1, October 1, January 1, and April 1) for billing to Dr. Paul Brown. Please remove Dr. Vojdani's name from the mailing list.

On July 1, include in your number of pages and postage given to Gretchen the pages and postage above and also any other material you have sent to Dr. Vojdani as well as any other material you send to Dr. Nahvi up to July 1.

Thank you.

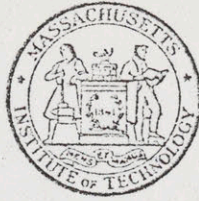
Sam

Samuel A. Goldblith

SAG:jka

cc: Ms. G. E. Kurth
Dr. P. E. Brown
Dr. G. S. Brown
Mr. D. K. Mathur
Mr. L. M. Feder

pc: Dr. J. B. Wilson ✓



INDUSTRIAL LIAISON OFFICE

(617) 253-2691

CABLE MIT CAM

CAMBRIDGE, MASS 02139

TWX 710-320-0058

May 22, 1975

Dr. M. J. Nahvi
Arya-Mehr University of Technology
Department of Electrical Engineering
P. O. Box 3406
Tehran, IRAN

Dear Dr. Nahvi:

Thank you for your letter of May 6 and enclosures which I received on May 19.

Under separate cover our Industrial Liaison Program Publications Unit will send you the "Monthly List of Publications" reports you have requested. Regarding your list of research projects (number and title) from the Directory of Current Research, our Publications Unit will send you the available bibliography sheets on these projects and will put you on the list to receive the reports and publications from these projects regularly. If you would like to receive any of the reports and publications listed on the bibliography sheets (those available have been so designated; we do not have any publications prior to 1970), just please let me know.

*al -
send
me
on the
bibliography
sheets.
JKA*

As you have stated all of the material you request will be sent you via surface mail unless you request otherwise and will be charged quarterly (costs will be at 5 cents per printed page you receive and postage) to the Arya-Mehr University of Technology-MIT account with Dr. Paul Brown's office. You will receive a copy of the bill.

You are already on the list to receive via air mail the "Monthly List of Publications," the annual Directory of Current Research, and the list of symposia. We have removed Dr. Vojdani's name from our mailing list.

*al -
note -
DCR
request
JKA*

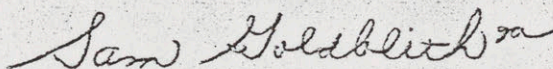
As I mentioned to you, I will be the contact for Arya-Mehr University of Technology, and thus please continue to send me all of your requests.

Dr. M. J. Nahvi
May 22, 1975
Page 2

Approximately three weeks ago I replied to your verbal request and sent you the abstracts of theses from the departments you desired as well as the other reports which you wanted, and you should be receiving these shortly.

With best regards, and please let me know if I can be of any further help. If you have any questions, please just write to me. I enjoyed meeting you when you were at MIT last month.

Sincerely yours,



Samuel A. Goldblith
Underwood-Prescott Professor
of Food Science and Director of
Industrial Liaison

SAG:jka

cc: Dr. P. E. Brown
Mr. A. Saxe
Ms. G. E. Kurth

Dr. H. S. Brown
Mr. D. K. Mather
Mr. L. M. Fisher
Dr. J. B. Wilson

ARYA - MEHR
UNIVERSITY OF TECHNOLOGY
Department of Electrical Engineering
P. O. Box 3406
Tehran , Iran



No. 57356

Date May 6, 1975

file

Professor Samuel A. Goldblith
Industrial Liaison Office
Room 39-623
Massachusetts Institute of Technology
Cambridge, Mass. 02139 USA

(3-8 same to a.s. - 5/2)

Dear Professor Goldblith

I am enclosing report requests and a list of MIT Research Projects (number and name) taken from the Directory of Current Research, whose reports and publications we would like to receive regularly.

As we discussed, for time being all requested material will go through my office, will be by surface mail unless specified and the bills should be charged to MIT-AMUT agreement account (Prof. Paul Brown's office). We would also like to receive the following material regularly by air mail : i) montly list of publication ii) annual Directory of Current Research at MIT.

Sincerely yours

M. J. Nahvi

M. J. Nahvi

Enclosure

*cc; Mr. G. E. Kurtz
Dr. P. E. Brown
Dr. H. S. Brown
Mr. D. K. Mathur
Mr. L. M. Feder
Dr. J. B. Weissner ✓
Mr. A. Saxe*

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ZIP 02139

 **Mailgram**
western union



THIS MAILGRAM WAS TRANSMITTED ELECTRONICALLY BY WESTERN UNION TO A POST OFFICE NEAR YOU FOR DELIVERY

7 Iran

For: Dean Pounds

PRESIDENTS OFFICE MIT EL
77 MASS AVE
CAMBRIDGE MA 02139

THIS MAILGRAM IS A CONFIRMATION COPY OF THE FOLLOWING MESSAGE:

INTL TDMT CAMBRIDGE MA 64 01-15 0412P EST
INT DR SEYYED HOSSEIN NASR
CHANCELLOR ARYA MEHR UNIVERSITY OF TECHNOLOGY PO BOX 3406 EISENHOWER
BLVD
TEHERAN (IRAN)
DR WILLIAM POUNDS DEAN OF THE SLOAN SCHOOL OF MANAGEMENT HAS
AGREED TO BE COORDINATOR OF MIT ACTIVITIES IN IRAN. HE PLANS
TO VISIT IRAN FEBRUARY 15 TO 25. IS THIS A CONVENIENT TIME
FOR YOU AND YOUR COLLEAGUES AT ARYA MEHR UNIVERSITY
J B WIESNER

COL 3406 15 25.
16:12 EST

MGMSNT HSB

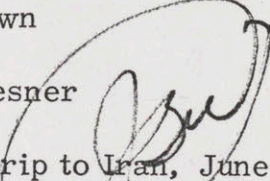


OFFICE OF THE PRESIDENT

:MEMORANDUM:

June 20, 1974

To: Academic Council
Dr. J. R. Killian
Dr. H. W. Johnson
Dr. G. S. Brown

From: Jerome B. Wiesner 

Subject: Report on my trip to Iran, June 5-11, 1974

The primary purpose of my trip was to visit Dr. Nasr and his associates at the Arya-Mehr University of Technology in Tehran for discussions regarding the agreement which had been discussed with Gordon Brown, me and others at M. I. T. during Dr. Nasr's recent trip, and to explore possible areas of research collaboration. An agreement had been forwarded to Dr. Nasr after approval here and they were prepared to discuss it with me.

The Arya-Mehr group had a number of questions about the proposed agreement and suggested a number of modifications. I talked them out of some that were inconsistent with the way M. I. T. could collaborate, and I tentatively agreed to some minor changes which did not seem to me to affect the basic nature of the proposal. I said, however, that it was not customary for me to make unilateral agreements and that the changes would have to be approved by appropriate people at M. I. T. before the document could be finally agreed to. A copy of the agreement as we agreed to it in Tehran is in the hands of Mr. Cowen for approval or alternate suggestions.

During my six days in Iran, I talked extensively with members of the administration and faculty of the A. M. U.T., inspected the existing campus in Tehran and visited the site of the new campus in Isfahan. I also talked with many ministers and deputy ministers of the government, who are responsible for industrial development, education, research, agriculture, health care and other social welfare activities. In particular, I had more than an hour's

discussion with the Shah, accompanied by Dr. Nasr. I also had a one and one-half hour talk with the Prime Minister, Mr. Hoveida, and I spent considerable time on several occasions with Dr. Abdulhossein Samii, the newly appointed Minister of Science and Higher Education.

The general mood in Iran at the moment is one of optimism, expansionism and general ebullience, based of course on the vastly increased funds available to the government for social development. It is obvious that everyone expects that the rather successful industrialization of Iran will now move considerably faster and that the accomplishment of many social dreams having to do with education, social development and the elimination of illiteracy and poverty can be vastly speeded up.

There may be very extensive opportunities for M. I. T. beyond the simple Arya-Mehr exchange program for collaboration and support, but we must bring a degree of reality to the overly optimistic mood that exists there lest we get caught up in unrealizable projects. The M. I. T. group that was in Iran on an independent visit to Mr. Ansari was somewhat discouraged by the attitudes that they encountered and they are slightly more pessimistic about their ability to help develop a technician training program than they were before they went to Iran. They intend to talk with Dr. Douglas Knight about the problems they encountered and hopefully these can be worked out.

During my talks with Dr. Samii, he expressed a desire to create some national research centers and an Iranian Science Foundation. The centers would work on basic and applied research problems that had particular relevance to Iran, while the science foundation would function very much as our N. S. F. does but would be prepared to support research programs proposed by people in other countries, as well as in Iran. I have agreed to send Dr. Samii a list of people who might serve as advisors for setting up the Iranian Science Foundation. He also asked me to suggest the names of individuals who could advise him on the national research centers he has in mind. In the discussions with Prime Minister Hoveida, Dr. Samii and Dr. Nasr, it was suggested that we consider joint research proposals involving M. I. T. and A. M. U. T. that would contribute to the development of the university itself or were of a more general importance to Iran. It occurred to me that there might be a possibility of joint efforts in astronomy, and I mentioned this to Dr. Nasr and his colleagues. They appeared interested, but we did not explore this in depth. Arya-Mehr University of Technology does not have any significant capability in astronomy. There is considerable interest in expanding their activities in communications, metallurgy, chemical engineering generally, and in the social sciences, including both economics and the issues of science and technology in a contemporary society. They

are particularly interested in the problems of management of modern technological societies and in the problems of providing medical care.

At the end of the meeting, the Shah expressed an interest in visiting M. I. T. and I questioned Dr. Nasr later about whether or not this was a serious discussion and Dr. Nasr said that he thought that the Shah was seriously interested in such a visit.

My plan for the immediate future includes having the agreement checked and returned to A. M. U. T. ; making suggestions to Dr. Samii regarding the two advisory committees with which I agreed to help; seeking out a coordinator for the A. M. U. T. program; and exploring with the academic council and department heads any research activities they would suggest for collaborative programs, either here or in Iran.

I also have been thinking about the feasibility of asking support for the Energy Laboratory.

I would appreciate reactions to these various points.

JBW/jh

cc: Mr. J. W. Lambert
Gen. J. B. Lampert
Mr. N. C. Lees
Dr. B. S. Nelson



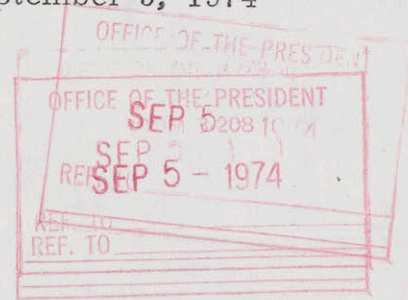
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

77 MASSACHUSETTS AVENUE ROOM E19-702
CAMBRIDGE, MASS. 02139


OFFICE OF SPONSORED PROGRAMS

TELEPHONE (617) 253-2492

September 5, 1974



To: Paul E. Brown

From: George H. Dummer 

Carol Van Aken has sent me a copy of your letter forwarding to OSP the signed copy of the agreement for collaboration between MIT and the Arya Mehr University of Technology, Iran. She will, as you requested, write Mr. Firouzabadi with respect to establishing the letter of credit and has asked me to review Dr. Zarghamee's comments concerning patents and copyrights.

As now written, the patent and copyright provisions of the MIT-AMUT agreement cover the most restrictive situation, i. e., that in which a graduate student or visiting faculty member from AMUT participates in sponsored research programs under which MIT has patent and copyright obligations to a third party. Where that is not the case the individual or AMUT could, in fact, acquire greater rights, and the contract has a general reference to that possibility. However, in view of Dr. Zarghamee's comments we may wish to spell this out in a little more detail. I'll discuss this with Al Hill and then come back to you with some specific language.

GHD:pac

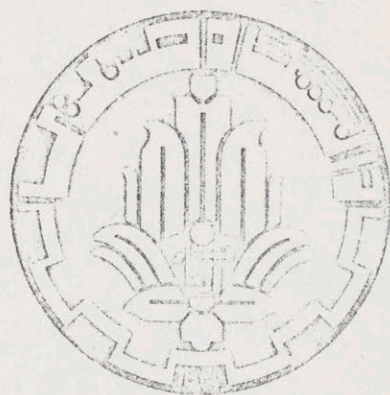
cc: ✓ J. B. Wiesner
A. G. Hill
S. H. Cowen

Functional Master Plan for the Isfahan Campus

Volume I

GORDON S. BROWN

MAR 11 1974



Ref. to _____
File _____

Report to

Arya-Mehr University of Technology

73520

OCTOBER 1972

Arthur D Little

PREFACE

Arya-Mehr University of Technology was established by decree of His Imperial Majesty the Shahanshah Arya Mehr in 1965 as a nonprofit educational organization having its own legal identity and financial independence. The Tehran campus came into being in September 1966. In the spring of 1970, 257 students from the Tehran campus constituted the first graduating class, demonstrating in a amazing way the country's commitment to the purpose of the university and the need to move immediately, yet maintain high standards of quality.

As a by-product of the White Revolution of Iran, Arya-Mehr University of Technology was established for the purpose of training specialists with broad scientific and technological capability, with a mandate to keep pace with similar educational institutions in developed countries. AMUT is to be at the forefront of the planned industrialization and economic expansion of Iran. Through the excellence of its instructional and research programs, it is to provide the country with trained manpower which has the knowledge and expertise required to fulfill the goals of Iran's social and economic development through its five-year plans.

From the beginning, recognition was given to the rapid advances of modern technology and the continued growth implicit in Iran's economic plan by the University's Chancellor through a policy which required that all educational programs were to be reviewed and evaluated annually in order that they be relevant to the needs of the country and the students.

Although it was originally the intention to transfer the Tehran campus to Isfahan, during the course of our study the decision was made to establish Arya-Mehr University of Technology as a multi-campus university. The Tehran campus will remain in its present quarters and an additional campus will be established in Isfahan.

Isfahan, Iran's second largest city with a population of approximately 450,000, is of great historical and cultural significance. Today Isfahan is also a substantial and growing industrial center. A large steel industry complex under construction nearby is expected to accelerate industrialization in the years ahead. As a major technical university, Arya-Mehr will stimulate both regional and national development of industry in the Isfahan region. It will serve as a focal point for intellectual and technological achievement and will help to foster the interplay between the academic community and local business enterprise which has become characteristic in advanced countries.

Arthur D. Little, Inc (ADL), in response to a request for proposal, proposed in January 1969 to undertake a preliminary functional planning and programming study to be used as a first approximation for the continuous development of the University at the Isfahan site, and as a basis for determining the space requirements and functional relationships between spaces for the physical master planning of the campus which is to be accomplished by the engineers and architects. During May 1971, a contract was signed with ADL to undertake the proposed study. During the time between the initial proposal and the signed contract, an engineering curriculum was developed and implemented at the Tehran campus and was based on the Carnegie credit system and a traditional departmental organization of the faculties.

At the end of the 60's, the results of a decade of experiment and innovation in higher educational practice were sufficiently identified and evaluated to form the basis of important new emerging trends and structural changes in college and university organization and governance, organization and forms of instruction, methods and techniques of teaching and transmitting information, and new forms of campus life and development. Student disturbances pointed to the necessity for higher education to become more closely integrated with the social and economic life of the country and

responsive to the citizens that it serves. The increasing complexity of the problems created by new technological developments, the quantity of information being created, and a new awareness of the environmental consequences of technology resulted in a more serious emphasis on inter-disciplinary studies and the need to re-evaluate the traditional academic disciplines.

Although the original proposal was written under the assumption that the educational philosophy and mission, organization, and educational programs were already determined and could be used immediately as the basis for the proposed functional planning, an examination of the programs developed at the Tehran campus in relationship to the new trends in higher education made it imperative that a review and evaluation of these developments in higher education as they would apply to Arya-Mehr University of Technology be made.

The University is planning educational programs and campus facilities to be constructed in Isfahan for occupancy by students in the fall of 1975. These students will receive their baccalaureate degrees in the spring of 1979. The fact that educational programs for students who will be entering job markets ten years from now were being planned made the study team and the administration of AMUT acutely aware of their responsibility to develop technical education programs and a planning approach that would be relevant to the decade of the 80's, while yet being rooted in reason and tested experience.

In the 50's and early 60's, campus planning was based on the idea of a rigid master plan. The master plan was considered to be the ideal view or desired state of what the campus should be at some assumed ideal enrollment level or point in time; it was based upon a set of assumptions which were considered to be immutable, and disregarded the fact that assumptions themselves change and that the creation of a relevant and responsive future state required planning concepts that, although structured, were open-ended. Phasing was conceived to be the additions of the carved-out pieces of the master plan, without change over time. This practice and concept has changed considerably during the past five years.

During the late 60's, the application of modern research, planning and computer techniques led to a more realistic awareness of the nature of change as it affects campus development and resulted in better planning techniques. The new concept of campus planning recognizes the fact that not only do the details of the educational program change, but the basic planning assumptions also change with the development of the social and economic environment of the university. New forms of planning recognize various levels of

certainty and uncertainty and the need for a procedure of successive approximations.

Realizing that our study was to be the first approximation for the continuous ongoing planning at the Isfahan campus of Arya-Mehr University of Technology, we shifted our study procedure and emphasis in order to be more responsive to the campus planning problem as it had evolved between the writing of the proposal and the final signing of the contract.

The study was organized around four major tasks which were executed at times sequentially, at other times parallel, and were always interdependent. The first task was basically an evaluation of the existing programs and practices at the Tehran campus and of new developments in campus programs and planning at various colleges and universities in the United States. The second task was to participate with the Chancellor, the Director of Development, and the faculty in the development of a new organization of instruction which would form the basis for the educational program on the Isfahan campus. The third task was to assist in the development of an overall planning strategy which would assist the Chancellor and Director of Development in acquiring information on planning in general and on the physical master planning process specially, and could be used by them in directing the activities of the engineers and architects. During this phase we developed a computer model which could be used to determine instructional facility and other resource requirements for the three enrollment levels. This allocation model makes it possible to determine the capital and operating costs, the faculty and facility requirements for any given set of assumptions with respect to enrollment, degree programs, forms of instructional organization, methods and techniques of teaching and detailed course requirements. The fourth and final task was to develop the planning standards and assumptions for calculating the detailed space requirements and to develop diagrams of functional relationships.

During the research and evaluation tasks, the core team met with the faculty in group sessions to discuss their educational concerns and ideas about the future. The core team made presentations on innovations in teaching methods and techniques. A series of structured questionnaires were prepared for dissemination to the administration and faculty for gathering background information on existing practices at the Tehran campus and attitudes toward educational innovation. Experience from previous projects and emerging developments at colleges and universities in the United States with respect to educational innovation was updated and reviewed for their possible applicability to this study.

During that task which developed the new programs, two visits were made by Dr. Zarghamee to the United States. During these trips interviews with highly placed and selected college administrators and faculty were conducted by Dr. Zarghamee and Roger Malek, the project director. Group interaction sessions were held between the core team and administration of Arya-Mehr University of Technology. The final synthesis and significant developments for the new programs were accomplished by Dr. Zarghamee working with administration and faculty in Tehran, between his visits and while our study was progressing in the United States.

Prior to the second trip to Iran, a detailed overall planning strategy was developed by ADL for planning the new campus in Isfahan. This included the development of a suggested organization for ongoing institutional development planning, a description and definition of the components required to develop the Campus Site Description and Physical Master Plan, which are to be executed by the engineers and architects and was prepared by the study team. Alternative campus planning and construction schedules were formulated and analyzed for discussion in Iran in order to arrive at a target schedule and identify and diagram the planning and implementation activities required to meet the construction schedule. During the second trip, these materials were presented to the University administration, representatives of plan organization, and campus engineers and architects and the materials have since been used by the University administration in the ongoing progress of planning the new campus.

The final task, that of writing the planning standards and assumptions, developing the initial detailed space requirements and the suggested functional relationships between campus spaces, as well as the final debugging of the resource requirement's computer program and executing the final run based on the educational program data developed by Dr. Zarghamee, was accomplished prior to the third trip. Prior to the third trip, an estimate of space requirements by general space categories was sent to the University administration for dissemination and to the architects for their preliminary master plan studies, while the more detailed data from the resource requirement model and other calculations were being prepared. The purpose of the third trip was to review rough draft materials with the University administration and make additional requirements prior to the finalization of the final report. Rough draft materials were in sufficient detail to give additional preliminary information immediately to the engineers and architects for their continuing work in order not to impede their progress during the final stages of report preparation.

The core team of Arthur D. Little consisted of Harland Riker, Vice President of ADL in charge of the Brussels office; W.E. Claggett, Director of Urban Affairs in ADL Cambridge, Dr. Gordon S. Brown, Dugald C. Jackson Professor of Engineering at the Massachusetts Institute of Technology, a special consultant to ADL; Roger Malek, the project director; and David Hurley, who functioned as project reviewer. They were assisted in their efforts by the following ADL staff : Larry Aull, who had a significant responsibility for the programming of space and functional requirements and assisted in developing the computer program; David Hoffman and Rene Delaire, who were responsible for the actual computer programming and major processing of the detailed inputs; Kenneth Jensen, who assisted in the development of the computer program; Karen Fletcher, a most able research assistant; Burton Goldberg, and Phyllis Siedkin.

ACKNOWLEDGEMENTS

We wish to express our sincere gratitude to the many faculty and staff members in U.S. universities who gave so generously of their time and energy to the development of the Arya-Mehr University of Technology.

We would especially like to thank Dr. Warren Martin, research educator at the Center for Research and Development in Higher Education, University of California, Berkeley; Dr. Gordon Brown, Dr. Jerrold R. Zacharias, Director of the Educational Research Center, and many others at the Massachusetts Institute of Technology; Dean George Bugliarello, Dean of the College of Engineering, University of Illinois, Chicago Circle Campus, his many department heads and staff who discussed their program and facilities; Dr. Charles McCann, President, Dr. Joseph Shoben, Executive Vice President, Dr. David G. Barry, Provost, Dean Clabaugh, Vice President of Business Affairs, Dr. Robert Barringer, Director of Computer Services, and many others at the Evergreen State College for the time they made available during the final stages of construction of their new campus and implementation of their thoroughly innovative program; Dr. George Maslach, Dean of the College of Engineering, University of California, Berkeley, and the many faculty who gave of their time during our tour of the Berkeley campus; Dr. Alex McCalla,

Department Chairman, Agricultural Engineering, College of Agriculture and Environmental Sciences, University of California, Davis, who discussed his views on agricultural education, and the faculty who kindly assisted us during our tour. Needless to say, we do not hold any of these persons accountable for any of the conclusions or substance of this report.

We wish especially to recognize the special competence, vision, commitment and concern given to the development of their university and to this study by Dr. Reza Amin, Chancellor, and Dr. Mehdi Zarghamee Director of Development, as well as Dr. Seyavosh Mohanna, Dr. Farhad Riahi and Ali Lavassami and the faculty of Arya-Mehr University of Technology. Without their understanding and cooperation, it would not have been possible to make the significant progress we feel has been made in the development of the new educational program for the Isfahan campus.

II. THE EDUCATIONAL, ORGANIZATIONAL AND PLANNING PROGRAMS

A. THE EDUCATIONAL AND RESEARCH MISSION OF ARYA-MEHR UNIVERSITY OF TECHNOLOGY AT ISFAHAN

Emerging world-wide concern about definite limits to growth and increasing awareness about widespread problems of environmental pollution will be major 'facts-of-life' in the 1980's when the first students graduate at the Isfahan campus. The conflicts and problems brought about by the events of the 70's will have a major impact on the traditional philosophy and practices of scientific and technical education. National and world-wide pressures resulting from exponential increases in population, in turn demanding more productive and growing economies to sustain even existing levels of quality, building upon accelerated developments in new and existing technology, creating more dangerous and complex problems of environmental pollution, will inevitably bring about a more demanding awareness of the need for generalist views and more effective interdisciplinary approaches to social, technical and environmental problems.

The Iranian technically trained administrators and engineers of the future must not only have broad knowledge of the basic sciences and engineering skills, but they must also have considerable understanding, ability and skills in solving the humane aspects of the social and economic dimensions of the future technology.

Iran will need engineering graduates who can work in four broad functional areas:

- Engineering science pure innovators in Engineering Science (Lockheed, NASA, etc.)
- Designers - taking existing knowledge and applying something that will be built eng. designs to shell by knowledge dev. by others
- supervisors of execution, production
- interdisciplinary - management, economists, social, etc.

Some of the graduates, the engineering scientists and composers, by virtue of their unique intellectual abilities will be able to conceive and create new technologies and adapt existing technologies in ways that will uniquely serve Iran.

Other graduates will have talent and aptitudes that uniquely qualify them for making judgments and decisions in design, production and marketing, where engineering feasibility, economics, social and environmental impact, cost reliability and the like are overriding issues. These people should have a flair for innovation. They will be considered the arrangers of technology, rather than the composers. They will work at the interface between the frontier fields of technological development and its use by the consumer. They must have abilities as generalists in addition to competence as specialists in areas of their interest. Many will work as much with people as with materials and processes.

Other graduates, the custodians, will find their place among the body of people who keep Iran's industrial, environmental, utilities and other systems in operation. Their jobs will be in areas where technology does not change as rapidly. They will direct teams of technicians who will maintain the complicated systems in communications, transportation, data processing, energy, etc. They will need to know how and why things work in order to give direction to others.

Other graduates will work as the interpreters of technology. They will transfer their scientific and engineering knowledge and skills into other fields and processes. They will become government and business administrators, regional and national planners, systems specialists and they will be key actors in identifying new areas that bring together the technologist and the other professions such as medicine, planning, economics, social science, etc. They will be the translators of technological specialization and at the forefront of

communicating between technology and socio-economic systems.

The major thrust of the educational mission of Arya-Mehr University will be to carry on programs of instruction at the undergraduate, graduate, and post-graduate levels, to produce the engineering scientists, designers, supervisors and interdisciplinary technologists needed to create the goals of Iran's economic development plans.

The university will also have the responsibility to create and modify new and existing technologies through its programs of research. The research emphasis will be on applied technology. In addition, the university will provide service to the government, business and industry through the dissemination of knowledge and contract consultation by its faculty.

The educational, research and community service thrust of the university will be directed to solving problems unique to the needs of Iran, and will be knowledgeable about and participate with their scientific and technological peers throughout the world. It will both learn from and contribute to science and technology in other countries.

They will be trained to be knowledgeable about socio-economic problems in Iran and the world, and they will have an orientation toward the future. A future orientation will give them an understanding of and sensitivity to the impacts of population characteristics, growth and distribution, and technological development as they affect society and the environment. They will have the ability to conceive alternative futures as an integral part of their ability to create appropriate new technologies. They will understand the inter-relationship between a national and a world perspective.

They will understand the concepts and techniques of government, business administration, and planning through their more diversified education. Although only a few students will have an ultimate mastery of this large body of knowledge and the implied skills, all of the students, whether they become composers, arrangers, custodians or interpreters of technology, will have been trained in an educational and research environment which provides these broad views and experiences, to promote intellectual and creative stimulation for the student whether he pursues a generalist or a specialist emphasis in his training.

This new vision of the future technologist, that is the engineer who appreciates the skills of his colleagues as well as his own, and who understands the need to communicate with other social, scientific and humanistic specialists, will contribute to their knowledge and learn from their experience. He will consider them as joint partners in the planning, administration, creation and maintenance of the broad-based technology that will form the basis for the best possible life of the people of Iran.

By adopting as one of its primary educational missions the training of engineers and technically trained persons who will be relevant for the eighties, Arya-Mehr University of Technology will be able to help solve two crucial problems in engineering today. They are, how to maintain the sustained rate of technological innovation and how to expand the domain of social problems with which engineering must concern itself.

The engineer of the future we have described will be concerned with contributing to the attainment of a decent standard of living for all people in Iran, while improving their quality of life. He will be concerned with maintaining for future generations the quality of the environment.

The engineer of the past was primarily concerned with problems of resources and production, transforming natural resources through the creation of structures and machines that changed them into consumable items. The engineer of the future will also be concerned as to how he can contribute effectively to the solution of a wide spectrum of human and social needs and environmental impacts. He will concern himself with how he can create and apply technology so that it contributes to the solution of problems faced by his colleagues in education, health care, planning, etc. By maintaining an open spirit of adventure, he will teach and learn from his colleagues in government, business and industry whose training and expertise will frequently be based in the humanities and social sciences. By doing this, he will help to overcome unreasonable resistance to the contributions that technology can and will continue to make. By being aware of his responsibility to society at large, he will be better able to master this broader commitment to a balanced relationship between technology and society.

B. THE UNIVERSITY INSTRUCTIONAL PROGRAM

Many efforts have been made during the past decade to improve undergraduate education. They have gone beyond the mere introduction of new courses or the modification of social organization in the classroom. New colleges and restructured units of traditional colleges and universities have tried to set new directions for their students by providing flexible curricula, individualized programs, interdisciplinary faculty units, new career development opportunities, credit for off-campus learning experiences, innovative calendars, and they have attempted to define new roles and relationships for students, the faculty and the people in the community. These efforts coincide with and build upon the recently intensifying awareness and grave concern about social and environmental problems created by modern society and to a great extent resulting from the power of the technologies developed during the past two hundred years.

The experience gained in these new efforts towards developing more relevant systems of higher education have resulted in a considerable body of experience and knowledge about the obstacles to curricular and teaching innovation in higher education.

A number of the obstacles result from a lack of faculty incentive, poor faculty morale, a lack of faculty time availability and the resistence of faculty to change. Promotion and tenure reward systems frequently do not reward creative activity in developing new and more effective forms of teaching and curriculum reform. As the many consumers and constituencies of the university, including trustees and students, become aware of the high degree of irrelevance in much of the teaching and research done in modern colleges and universities, they begin to challenge the faculty more frequently and in more depth. Change and innovation in teaching and curriculum reform often require large amounts of faculty time and the majority of faculty are now already overcommitted or involved heavily in their own peer-oriented research activities. All human beings fall back into more secure habits, patterns and styles in their conduct of day-to-day activities and work. It takes a special and conscious effort to develop new solutions and evaluate and adapt innovation in such a way that the total educational system grows incrementally through a process of continuing change in its structure.

Innovation and change frequently run counter to established rhythms of higher education. It requires long lead times for conceptualization, development, operation and finally evaluation. Faculty tend to operate under an international as well as national labor market and their changing positions, sabbatical leaves, and research projects carried on

simultaneously with teaching make it difficult to schedule and block out the time required to effect these changes. Also, the more innovative a new curriculum or teaching project may be, because it does involve and imply structural changes in the system, the greater the effort required to overcome the problem of not sustaining the effort over a long period of time.

Frequently, the most prestigious colleges and universities, those with long histories and which comprise the leadership in higher education, as well as faculty members with similar reputations, have not in the past experimented with new methods and techniques for instruction and curriculum development. Institutions with the largest influence, budget and impact are frequently the least experimental and innovative in the organization of instruction and the use of new teaching methods and technology. They frequently spend most of their creative time in the areas of their substantive interest. This might have been adequate in the past but as modern problems continue to demand a more holistic approach in engineering practice and as a greater amount of interdisciplinary activity comes about, it will no longer be possible to take the traditional limited view. During the past five years more effort in higher education has been placed in undertaking research into the processes of teaching and learning in order that students may assimilate the large bodies of knowledge being created so that they may be up-to-date, knowledgeable, and creative as students as well as graduates.

A basic characteristic of academic life is for faculty members as a group to tend to identify first with their professional disciplinary constituencies and organizations and secondarily with their colleagues in other disciplines in the same university. This lack of professional constituencies for interdisciplinary efforts, coupled with the traditional departmental structures which enforce this tendency, have made it very difficult to reap the full benefits of effective interdisciplinary cooperation in solving problems that go beyond the scope of a single discipline.

One of the major obstacles to more significant change in the approach and methods of curriculum development and teaching has been the basic lack of knowledge concerning human learning behavior and style. The fundamental factor which probably underlies all the other factors discussed, is the lack of faculty knowledge about how and when students really learn. Incredibly few faculty in higher education are trained to teach and even fewer have studied human learning behavior in any systematic way. Besides, the state of the art of learning theory is at this time rudimentary.

The Organization of Instruction and Area of Concentration - As a result of numerous discussions between the Chancellor and the Director of Development with members of the core team, and after two visits by the Director of Development to colleges and universities in the United States who have in operation programs of significant innovation in higher education, the following organization of instruction and definition of faculty of the university.

This organization of instruction and the areas of concentration form the basis for the inputs to the resource estimating model for the determination of facility requirements.

The proposed Organization of Instruction is designed to realize two basic educational objectives --to achieve relevance in educating to meet the technological needs of the country and allow for flexibility to ensure future responsiveness of the educational system to change. The main idea in this organization of instruction is to organize the academic activities on the major technological problems of the country instead of the usual disciplines. The reality of the needs of Iranian society and the aspirations for Iran's accelerated development requires that their educational system should not be a copy of the obsolete aspects of western systems by a lag of twenty years, instead, it must be based on Iranian culture and societal characteristics and must be in accord with new world-wide developments as they affect the contemporary needs of the society. In this way students will enjoy an exciting educational experience and in coming into grip with the societal problems, be it technical, social or economic, face the reality of the country's problems and shake off the distorted views of what is happening in the country. It is hoped that this system will be successful in diminishing the student problem.

The proposed organization of the educational system during the first phase, enrollment level one, consists of six divisions as follows :

- *Division of Materials*

This Division will be responsible for instruction and research concerning the extraction, production, transportation, processing, transformation and utilization of materials. The activities of this Division include the study of the mining and mineral engineering, extracting metallurgy, deformations and mechanics of solids, physical and chemical properties of materials, mechanical design, and manufacturing and marketing of finished products. In other words, this division is concerned with the entire spectrum of technology and materials from extraction to utilization.

- *Division of Energy*

This Division is responsible for the instruction and research concerning sources of energy and the transportation, conversion, and utilization of energy in all possible forms, such as water, heat, gas, electricity, and solar or nuclear radiation. The activities of this Division include the study of sources of energy in the country, generation of a usable energy from and its transformation, transmission and distribution of all forms of energy, environmental control system, and various utilizations of energy e.g., in industrial processes). In other words, this Division is concerned with the entire spectrum of energy technology, from source to utilization.

- *Division of Information*

This Division is responsible for instruction and research concerning the generation, transmission, processing, and application of information. The activities of this Division include the study of electronics, communications, control, computer science and software engineering and statistics.

- *Division of Biotechnology*

This Division is responsible for instruction and research concerning production, development, processing, and utilization of food products as well as other agricultural products. This Division is concerned with the study of agriculture, agri-industries, food technology, food science and industrial microbiology, and nutrition.

- *Division of Technological and Societal Systems (Impact and Assessment)*

This Division is responsible for instruction and research concerning societal problems. These problems have in general three aspects: technological aspects; social aspects; and business and economics aspects. The problems which are to be studied may be essentially technological, such as traffic, essentially business and economics, such as industrial dynamics, essentially social such as the problem of housing, wages, regional development, public health, education, or any other problem in the interface of the three areas. On the other hand the Division is also responsible for developing value systems in the entire student body. This can be realized through an analytic study of national culture, philosophy, history of evolution and change, development of thoughts and philosophies, psychology, sociology, our societal characteristics, etc.

• *Division of Science*

This Division is responsible for instruction and research concerning basic sciences such as Physics, Chemistry, Mathematics, Biology, and Geology. It is also responsible to develop in all the students, through classroom and laboratory courses, a deep understanding of the fundamental concepts of basic sciences.

In each Division, education and research are conceived to be interrelated systems. Faculty and students will be concerned on the one hand with purely technical problems and on the other hand with the national problems related to the subject matter of Division. The education of students in the undergraduate level will be structured through a set of areas of concentration discussed below. The undergraduate students will not only receive a general and broad education in the principles of engineering but through the education they receive in their areas of concentration they will acquire the specialization required for their immediate employment in the Iranian industries. In the post-graduate levels the student can choose to become either a generalist through the study of major national problems or an engineer of the first kind, devoted to the development of technology for the demands of industry. The faculty in each division will not belong to an area of concentration but devote their research and teaching to the enhancement of the mandates of the Division along the lines of their interest. Facilities, designed in an interconnected fashion for each division, are also under the management of the Division and shall not be the proprietary possession of any one program. Through this organization, maximum flexibility in the program development can be achieved.

Within the framework of analysis and synthesis courses, a student may educate and train himself in any one of the following areas of concentration and be awarded a baccalaureate degree in the area of concentration.

Division of Materials: This division will offer the following areas of concentration for undergraduates:

- *Mining Engineering* : This program is concerned with the study of mining and ore dressing. The students will be exposed to the methods of mining, rock mechanics, minerology.

- *Mineral Engineering* : This program is concerned with the study of ore dressing processes, unit operations and facilities. The graduates of this program may seek employment in mining or metal extracting industries.

● *Metallurgical Engineering* : The purpose of this program is to train and educate engineers for the emerging heavy industries of the country involved in the production, processing, or deformation of metals. In addition to the courses in engineering science, the emphasis is placed upon the technology of deformation, casting, heat treatment, extraction metallurgy, as well as the design of alloys for various applications. Economic aspects play an important role in the training and education of the students.

● *Mechanical Design* : The students of this program deal with the analysis and design of machineries and parts. The graduates are badly needed by the production industries.

● *Structural Engineering* : The students of this program deal with the analysis and design metal and nonmetal structures. The emphasis is on design and the role that computers play in today's structural engineering. The students are also required to acquire the necessary knowledge of structural materials such as steel, concrete, plastics, etc.

● *Soil Engineering* : The purpose of this program is to study the science and engineering of soil as an engineering material. The graduates must have a command in analysis and design of earth structures such as earth dams, embankments, foundations, etc. The program should present a balanced mix between the courses dealing with soil properties and mechanics and those of foundation engineering.

● *Production Engineering* : The purpose of this program is to train engineers who can seek employment in spectrum of industries involved with the manufacturing or assembly of finished products. The program must take the students familiar with design, properties of materials, characteristics of machines and concepts like efficiency, quality, marketing, and economy of production.

Division of Energy : This division offers the following areas of concentration for undergraduates.

● *Thermomechanical Engineering* : The purpose of this program is to train engineers who can design purely thermal or thermomechanical devices. Examples of such devices may be a refrigerator, oven, turbine, combustion engines, etc. It is expected that the future development of the country shall create the need for a number of graduates of this program in the next five or six years.

● *Energy Conversion and Distribution* : This area of concentration deals with the conversion of various forms of energy and distribution and transportation of the same. The graduates of this program may seek employment with regional or national water, gas, or electricity boards.

● *Environmental Systems Design* : The purpose of this program is to train engineers who are capable to design the entire systems for temperature control, humidity control, etc. They must be trained so that they are able, with the help of an architect, a structural engineer, and possibly a soil engineer, to perform a complete design of a building.

● *Chemical Engineering* : The purpose of this program is to study the science and the technology of the transformation of the raw material by the physical and chemical processes to usable products. It is thus concerned with the production of food, chemical, and pharmaceutical products or plastics in an industrial scale. The required courses must include organic and inorganic chemistry, physical chemistry and energy courses such as heat transfer, thermodynamics, and mass transfer. The emphasis in this program is on the development of the capability of the students in the design of chemical reactors.

Division of Information : This division offers the following areas of concentration for undergraduates :

● *Communication Engineering* : This program deals with the systems for transmitting information and principles involved in their design. The students must be so that they can easily find employment in one of the country's communication industries, i.e., radio, television, or telecommunication systems. The emphasis is on communication systems, elimination of noise, and the design of control system

● *Electronic Engineering* : The purpose in this program is to train and educate engineers who can be instrumental in the development of electronic industry in Iran. The emphasis is on the physics of electronics, design and building of various electronic equipments and of circuits of industrial applications.

- *Computer Science and Applications* : The purpose of this program is to train engineers who can employ computers for processing of information. In other words they must be as software engineers.

Division of Biomaterials : This Division offers the following areas of concentration for undergraduates :

- *Wood Engineering and Forestry*

- *Agricultural Engineering* : The graduates of this program must be able to make the best use of the land and the available water for the marketing of a product. Therefore, they must be familiar with the principle of irrigation, the physical and chemical properties of soil, seed selection, sowing technique, agricultural machinery and mechanization, transportation and marketing of products, and economic factors involved in agriculture.

- *Food Engineering* : The purpose of this program is to train engineers capable of designing processes for the production and preservation of food. In addition to chemistry and industrial microbiology, the graduates of this program must be familiar with the design of production processes (in the laboratory scale), preservation technology, economic principles, and to some extent with the marketing of food products.

Division of Technological and Societal Systems : This Division offers the following areas of concentration for undergraduates :

- *Transportation Engineering* : In this program the students become familiar with principles involved in the design of transportation systems, traffic and traffic control, highway design, air and water transportation systems, etc. The graduate may find employment in consulting firms or various transportation industries.

- *Business and Industrial Administration* : The purpose of this program is to study the methods of design, improvement as well as the execution of industrial systems consisting of man, machine, and materials. The constituent courses of this program are selected from the fields of economics, business administration, and production engineering. The graduates must be able to find employment as managers or assistants to the management of the small or large industrial complexes.

- *Regional Development Engineering* : In this program the students become familiar with the principles of decision making related to the development of a region. The problems are in general in close contact with industrial development, economy, and society. The graduates may find employment in government or private institutions working on the national or regional problems. The emphasis in this program is on the assessment of the social impacts of an industrial or economic activity.

Division of Sciences : The Division of Sciences offers the following areas of concentration for undergraduate or graduate students :

- *Chemistry* : The policy of this program is, to a large extent, in the direction of the chemistry of natural products as related to Iran's chemical and pharmaceutical industries. The students must have the capability to analyze natural products and synthesize processes for the production of chemicals. It is felt this activity must be confined to post-graduate level.

- *Mathematics* : This program is oriented in the direction of applied mathematics. The mathematicians, faculty and students, must have a deep interest in mathematical research in pure or applied mathematics. The creation of a core of mathematicians in an area is highly recommended. It is further recommended that the core should orient itself, if possible, in the direction of the activities of one of the divisions of the university.

- *Physics* : The policy of this program is very similar to that of mathematics. In other words, the program is oriented towards applied physics. Furthermore, it is hoped that a properly oriented core of physicists can be formed.

- *Geology* : This program is recommended to have an orientation in a direction, say geophysics, in the post-graduate levels. Furthermore, a core of geophysicists necessarily must form.

- *Biology* : This program is very similar to that of geology. The direction of orientation may be micro-organism or similar area.

In the framework of the above educational organization, a student must pass successfully the equivalent of two years of common core curriculum, consisting of courses in the fundamentals of sciences and engineering. In addition to mathematics, physics, and chemistry, the students must also take courses in the fundamentals of material, energy, and information engineering as well as courses from the Technological

and Societal Systems Division. The first year program shall be common; however, the students may satisfy the requirements of their second year of the core curriculum at any suitable time afterwards. Approximately, the equivalent of one academic year is devoted to the required courses of their area of concentration and the last year remains for the elective courses. An advantage of this system is that the student through core courses receives a general education in engineering which is essential to his future career; furthermore, the required courses give him a specialized training which is essential in Iran for employment and by the electives he can train himself to become the kind of engineer he chooses.

The characteristics of this organization in the post-graduate level is also very interesting. Graduate students are in fact the vehicles of research in any university. The proposed structure permits the training and education of two kinds of professional. The first kind are those interested in general problems, who can play a very important role in the decision making in the country; the second kind of professionals are those who, through research, become the creators of new technology in the country. The education of each kind is performed through courses and to a larger extent through direct contact with the member of faculty.

C. UNIVERSITY ORGANIZATION AND STAFFING ESTIMATES (See Figures II - 1 to II - 5, and Table II - 1)

Based on discussions between the Chancellor, the Director of Development, and the core study team, an organizational chart for the Arya Mehr University of Technology at the 5000 FTE Student Level on the Isfahan campus was developed. From the organizational chart, a listing of administrative staff requirements for three enrollment levels was made. The organizational chart and the staff estimates were used as the basic planning assumptions for the facilities program developed in the study.

It is to be expected that this first approximation of the university organization and the staffing estimates will undergo revision as the day-to-day planning operations take place. The form of organization was made on the basis of a multi-campus operation for the university which would maintain an existing campus in Teheran and include the new campus being planned for Isfahan. The organizational functions were formed by grouping the activities required to carry on the program of the university in order to implement its goals and objectives. The organizational groupings were made using criteria based upon the similarity of activities, the coordination requirements between activities, and the control requirements involving time availability and competence.

AN AGREEMENT FOR A PROGRAM OF
COLLABORATION BETWEEN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
AND
ARYA-MEHR UNIVERSITY OF TECHNOLOGY

I. INTRODUCTION

The mandate set forth by His Imperial Majesty the Shah for the Arya-Mehr University of Technology (AMUT) is, on the one hand, to educate a group of elite engineers and scientists who will become the key instruments of the future economic and social development of Iran and, on the other hand, through research and development programs conducted on the campus by students and faculty, to accelerate the transfer of science and technology into the societal fabric of Iran to ameliorate the pressing industrial, economic, social, and human problems of a fast-paced industrializing society.

AMUT is presently operating an eight-year-old campus of about 3,000 students and 300 faculty members in Tehran -- the average age of the faculty is about thirty. The Arya-Mehr University of Technology at Isfahan is expected to start classes in September, 1976. The Isfahan campus will have an innovative program which has been developed with the assistance of Professor Gordon S. Brown of M.I.T. and is expected to have 8-10 thousand students and about eleven hundred faculty in the final stages of development.

II. PROGRAM OBJECTIVES

The principle aim of this cooperative program with the Massachusetts Institute of Technology (M.I.T.) is to enable the present and future members of the AMUT faculty, through a period of residence at M.I.T., to be introduced to the frontiers of science and technology in their fields of interest; to obtain an awareness of the spirit of M.I.T.; to understand how M.I.T. organizes and operates to innovate change; to acquire a first-hand experience with the mechanisms that have contributed to the success of the faculty, students, and administration of M.I.T. in adapting to challenges set forth by the changing world society. It is not intended that the development of AMUT will be directed by M.I.T. nor that activities at M.I.T. will be copied exactly, but rather through this program AMUT will be able to establish its own educational and research programs on a firm course compatible with the culture and problems of Iran, and through the strength derived from the experiences of AMUT faculty at M.I.T., to take long range steps with confidence.

III. THE PROGRAM IN BRIEF:

It is intended that the program of collaboration provide:

1. For the training, leading to advanced degrees, at M.I.T. of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Isfahan;
2. For selected members of the faculty of the Arya-Mehr University to spend not less than one semester as visiting faculty at M.I.T.;
3. For a limited number of administrative personnel -- librarians, admissions office staff, research administrative staff, etc., to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

AMUT will furnish funds to support M.I.T. departmental expenses and the cost of miscellaneous materials and services associated with the academic visitors (as described in the following pages); funds to establish a parent account for research related costs and stipends for graduate students from AMUT appointed as research and/or teaching assistants; funds for the expenses of the Coordinator's office.

IV. PROCEDURES

The procedures to achieve the above goals are visualized as follows:

IV-1. Graduate Students

AMUT will select and nominate to the M.I.T. Graduate School young men who are expected to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute may have the dual status of graduate student and junior staff. It is assumed that the normal procedure will be for a full-time graduate student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the student's academic program, the M.I.T. Coordinator (see page 5 of this section) will aid in seeking in an appointment for the student in a department or laboratory either as a teaching or research assistant, depending upon what seems most advantageous to the student's program. It is hoped that in order to obtain and fulfill the junior staff status the period of residence required to complete the advanced degree program will not be appreciably extended.

Whenever the appropriate teaching or research opportunity exists for graduate students to become staff assistants to further both their objectives and the objectives of AMUT, and funds under M.I.T. control are available for stipend payments, it is expected that they will be paid from such funds. However, when funds for support are not available at M.I.T., the normal stipend will be paid from the parent account funds provided by AMUT as part of this proposal. The normal policies of M. I. T. regarding overhead charges on the salaries of staff assistants will be followed.

For all graduate students from AMUT, either on a full-time academic schedule or while combining studies with a part-time staff assistant position, normal M.I.T. tuition will be remitted directly to M.I.T. by AMUT.

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievement and personal behavior will be applicable to all the graduate students in this program. Furthermore, AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applications from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

These students, as Fellows in the CAES, but not regular graduate students, can do many things. For example, they can develop an interdisciplinary program that may differ substantially from a formal degree program. They need not meet all the requirements for an M.I.T. advanced degree. They can pursue their program in a manner that depends on the length of their visit. They may attend regular graduate and undergraduate subjects and seminars. They may also attend special subjects and seminars offered by the CAES. They may engage in research and in individual studies guided by the members of the M.I.T. faculty. They will have study offices in the Center. The Fellows of the Center receive a certificate upon completion of their program. They may, during their program, apply for admission to the Graduate School using credit subjects they have satisfactorily completed toward degree requirements. If they are admitted as regular graduate students they will receive a degree upon completion of their program.

The activities of the Fellows in CAES will be determined by discussions with AMUT. The Advanced Study Program tuition will be remitted directly to M.I.T. by AMUT.

IV-2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting faculty members with the same rank as carried at AMUT.

Since these visiting faculty will participate at M.I.T. in the dual role of academic scholars and professional colleagues and since decisions on staffing plans and space allocations are made by M.I.T. during the spring term preceding the academic year, the names of those nominated to be visiting faculty, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. Coordinator not later than the end of January of the preceding term. This will make it possible for the Coordinator to ask the department to which the visitor is likely to be associated to review the nominee's objectives and accomplishments, and determine whether the department will have the resources to accommodate the dual nature of the visitor's activities and will be his host.

Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

AMUT will pay directly to each professor his salary and living expenses. The M.I.T. host department will be reimbursed for supervisory and miscellaneous support expenses from funds provided by AMUT as part of this proposal. AMUT's reimbursement to M.I.T. will be calculated at 30% of the average M.I.T. academic salary of a professor of equivalent rank, prorated for the interval of time spent at M.I.T. by the visiting professor from AMUT. Nothing in this agreement is intended to prevent individual arrangements between M.I.T. departments and AMUT faculty.

Whenever a particular visiting faculty member, on the advice of his M.I.T. faculty colleague and with the approval of the M.I.T. Coordinator, wishes to pursue specific research of his own choosing, the Coordinator will be authorized to allocate funds for such research from the parent account up to a maximum of \$5,000 a year. Typical

items of expense might be computer time, the manufacture of specific apparatus, the purchase of books specifically needed for his program, purchase of special equipment, visits to other institutions, and secretarial services. All equipment and books provided through this channel will be deemed the property of Arya-Mehr and may be taken back to Iran. Whenever the visiting professor affiliates with an on-going research program at M.I.T. and makes contributions that help M.I.T. fulfill its commitment to its sponsor and when M.I.T. project funds are available, the project will carry these expenses. In some instances, it is possible that both M.I.T. controlled and AMUT furnished funds will be used.

In addition to activities of a strictly professional character, such as study and research, the visiting professors will be encouraged to attend faculty meetings, participate in departmental conferences, perform teaching as the opportunity offers and, in general, be encouraged to do those things which will furnish insight into the M.I.T. infrastructure.

IV-3. Administrative Personnel

From time to time, the members of the administrative staff of AMUT will visit M.I.T. for a period of a few weeks up to an academic term. Likewise, it is visualized that selected administrative personnel from M.I.T. will visit AMUT. The visitors from AMUT will be given the opportunity to learn about M.I.T. policies and procedures on, for example, admissions, registration, library, student residential matters, maintenance of physical plant, computerized departmental administration, planning and allocation of academic and research funds and space, alumni relationships, and relationships with industry.

Administrators will affiliate with either an administrative office or with the Center for Advanced Engineering Study depending upon their interest, and how M.I.T. resources can help them meet their objectives.

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of a member of the M.I. T. staff to work with this visitor. M.I. T. will be reimbursed from the parent account for its costs in a manner similar to its reimbursement for sponsored research.

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It is expected in this program that certain educational or research collaborative work will be conducted. To promote this activity, it is visualized that the scholars from each institution will make visits to the other institution as circumstances dictate. AMUT will support the expense of the program definition phase of such joint projects which have a direct relevance in Iran. It is expected that the problem definition phase will be initiated through an exchange of correspondence between the institutional Coordinators. This correspondence will be expected, in broad outline, to define the proposed level and nature of activity. After it is agreed by AMUT and M.I. T. that a joint project is appropriate, the M.I. T. Coordinator is then authorized to draw from the parent account the expenses (salaries, overhead and operating costs) of the M.I. T. people related to the problem definition activity.

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V. The M.I. T. Coordinator

M.I. T. will designate a Coordinator whose responsibilities will be to take the necessary action within the resources of M.I. T.

to maximize the opportunities available to the visitors who come to M.I.T. as part of this program.

The Coordinator will introduce the visitor to the M.I.T. faculty member or members with whom he will work.

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The Coordinator will develop with the visiting faculty the guidelines of their program of activities at M.I.T. and will work with the visiting faculty to help ensure the success of their visits.

The Office of the M.I.T. Coordinator will be responsible for the financial management of this program. The M.I.T. Coordinator will have the authority to allocate funds from the parent account, within the guidelines set forth herein, for the specific research and study of the visiting faculty.

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It is expected that the activities embraced by this program will build up gradually to the level where six to eight graduate students, and three to six visiting faculty members or administrative staff will be at M.I.T. at one time. It is estimated that there will be between four and six graduate students in residence during the academic year, 1974-75, and possibly two or three faculty visitors.

Negotiations regarding this Agreement have been actively underway since the summer of 1973. It is proposed, therefore, that the effective date for the Agreement for cost reimbursement purposes be set at July 1, 1974.

Based on the above, the estimated funds needed to carry out this program up to June 30, 1975 (the first twelve months) are:

Support funds to provide for the departmental and miscellaneous materials and supporting services expense for the academic visitors -- faculty and administrators (see section IV, parts 2 and 3)

\$12,000

Parent account funds for research or other expenses (see section IV, parts 1, 2, 3, and 4)

\$ 5,000

Expenses of Coordinator's Office - part-time salary for Coordinator and secretary, miscellaneous expenses, M.I.T. overhead at 63% of salaries and wages, and employee benefits

\$ 6,000

Travel (for two persons to visit AMUT)

\$ 4,000

Total (in U.S. dollars).....\$27,000

In March, 1975, based on the experience gained during the first period of this Agreement, M.I.T. and AMUT will decide on the level of funding for the next two years. It is anticipated that during the second and third years, the activity will increase and the budget will be greater than for the initial period.

VIII. Method of Payment

Upon signing this Agreement M.I.T. requests that AMUT establish an irrevocable letter of credit in the amount of \$27,000 in favor of M.I.T. at a mutually acceptable bank in the United States. The expiration date of the letter of credit shall not be less than twelve months from the date it is established.

We also ask that AMUT instruct this bank, upon opening the letter of credit, to make an advance payment to M.I.T. in the amount of twenty percent (20%) of the letter of credit or U.S. \$5,400, and to make subsequent payments against quarterly invoices of M.I.T., as approved by AMUT up to the total amount of the letter of credit. Each year as the program proceeds a similar credit will be established, based on the estimated budget for the period.

Quarterly invoices will be submitted following the close of each period ending September 30, December 31, March 31, June 30 and will show the total charge for professional services and total charge for expenses incurred during the quarter. M.I.T. will be prepared to submit details of expenses for any invoice when requested, in a manner similar to that used with contracts for U. S. Government agencies.

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Whenever M.I.T. is obligated to pay Iranian income taxes and other direct taxes and duties imposed during this project in accordance with Iranian law and which are presently unforeseen, it will make payment on the basis that such tax payments shall be reimbursed to M.I.T. directly by AMUT upon the submission of tax receipts to AMUT as an addition to the letter of credit.

X. M.I.T.'s Commitments

The program will be under the supervision of Professor Gordon S. Brown and Dr. Paul E. Brown or other designated members of the M.I.T. staff. The cost of the program will be established in a mutually agreed upon budget which M.I.T. will not exceed without specific written authorization or modification of the budget to take into account new conditions. The total estimated cost of this program is \$27,000 for the period July 1, 1974 through June 30, 1975.

XI. Patents

Title to any invention or discovery made or conceived in the performance of research at M.I.T. will remain with M.I.T. which shall have the sole right to determine the disposition of any patents or other rights resulting therefrom provided that upon issue of any patent on any such invention or discovery, M.I.T. shall grant to AMUT an irrevocable, royalty-free, non-exclusive license for use of such invention or discovery for its own purposes. M.I.T. will require all employees engaged in the research to execute written agreements by which they bind themselves to perform as stated herein.

The provisions of this clause do not foreclose AMUT from later negotiating for greater rights in any invention or discovery than the non-exclusive, royalty-free license granted by this agreement.

XII. Use of the Name of M.I.T. or AMUT

Both parties to this agreement agree not to use the name of the other party or any member of its staff in sales promotion work or advertising, or in any other form of publicity without the written permission of that party.

XIII. Publication and Copyrights

M.I.T. will be free to publish papers dealing with results of research under this Agreement after giving a copy of the paper to AMUT. Title to and the right to determine the disposition of any copyrights, or copyrightable material, first produced or composed in the performance of this research, shall remain with M.I.T. provided that M.I.T. shall grant to AMUT an irrevocable royalty-free, nonexclusive right to reproduce, translate, and use all such copyrighted material for its own purposes.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By Stuart H. Cowen

Title Stuart H. Cowen, Vice President for
Financial Operations

Date June 19, 1974

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

By _____

Title _____

Date _____

AN AGREEMENT FOR A PROGRAM OF
COLLABORATION BETWEEN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
AND
ARYA-MEHR UNIVERSITY OF TECHNOLOGY

I. INTRODUCTION

The mandate set forth by His Imperial Majesty the Shah for the Arya-Mehr University of Technology (AMUT) is, on the one hand, to educate a group of elite engineers and scientists who will become the key instruments of the future economic and social development of Iran and, on the other hand, through research and development programs conducted on the campus by students and faculty, to accelerate the transfer of science and technology into the societal fabric of Iran to ameliorate the pressing industrial, economic, social, and human problems of a fast-paced industrializing society.

AMUT is presently operating an eight-year-old campus of about 3,000 students and 300 faculty members in Tehran -- the average age of the faculty is about thirty. The Arya-Mehr University of Technology at Isfahan is expected to start classes in September, 1976. The Isfahan campus will have an innovative program which has been developed with the assistance of Professor Gordon S. Brown of M.I.T. and is expected to have 8-10 thousand students and about eleven hundred faculty in the final stages of development.

II. PROGRAM OBJECTIVES

The principle aim of this cooperative program with the Massachusetts Institute of Technology (M.I.T.) is to enable the present and future members of the AMUT faculty, through a period of residence at M.I.T., to be introduced to the frontiers of science and technology in their fields of interest; to obtain an awareness of the spirit of M.I.T.; to understand how M.I.T. organizes and operates to innovate change; to acquire a first-hand experience with the mechanisms that have contributed to the success of the faculty, students, and administration of M.I.T. in adapting to challenges set forth by the changing world society. It is not intended that the development of AMUT will be directed by M.I.T. nor that activities at M.I.T. will be copied exactly, but rather through this program AMUT will be able to establish its own educational and research programs on a firm course compatible with the culture and problems of Iran, and through the strength derived from the experiences of AMUT faculty at M.I.T., to take long range steps with confidence.

III. THE PROGRAM IN BRIEF:

It is intended that the program of collaboration provide:

1. For the training, leading to advanced degrees, at M.I.T. of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Isfahan;
2. For selected members of the faculty of the Arya-Mehr University to spend not less than one semester as visiting faculty at M.I.T.;
3. For a limited number of administrative personnel -- librarians, admissions office staff, research administrative staff, etc., to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

AMUT will furnish funds to support M.I.T. departmental expenses and the cost of miscellaneous materials and services associated with the academic visitors (as described in the following pages); funds to establish a parent account for research related costs and stipends for graduate students from AMUT appointed as research and/or teaching assistants; funds for the expenses of the Coordinator's office.

IV. PROCEDURES

The procedures to achieve the above goals are visualized as follows:

IV-1. Graduate Students

AMUT will select and nominate to the M.I.T. Graduate School young men who are expected to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute may have the dual status of graduate student and junior staff. It is assumed that the normal procedure will be for a full-time graduate student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the student's academic program, the M.I.T. Coordinator (see page 5 of this section) will aid in seeking in an appointment for the student in a department or laboratory either as a teaching or research assistant, depending upon what seems most advantageous to the student's program. It is hoped that in order to obtain and fulfill the junior staff status the period of residence required to complete the advanced degree program will not be appreciably extended.

Whenever the appropriate teaching or research opportunity exists for graduate students to become staff assistants to further both their objectives and the objectives of AMUT, and funds under M.I.T. control are available for stipend payments, it is expected that they will be paid from such funds. However, when funds for support are not available at M.I.T., the normal stipend will be paid from the parent account funds provided by AMUT as part of this proposal. The normal policies of M. I. T. regarding overhead charges on the salaries of staff assistants will be followed.

For all graduate students from AMUT, either on a full-time academic schedule or while combining studies with a part-time staff assistant position, normal M.I.T. tuition will be remitted directly to M.I.T. by AMUT.

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievement and personal behavior will be applicable to all the graduate students in this program. Furthermore, AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applications from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

These students, as Fellows in the CAES, but not regular graduate students, can do many things. For example, they can develop an interdisciplinary program that may differ substantially from a formal degree program. They need not meet all the requirements for an M.I.T. advanced degree. They can pursue their program in a manner that depends on the length of their visit. They may attend regular graduate and undergraduate subjects and seminars. They may also attend special subjects and seminars offered by the CAES. They may engage in research and in individual studies guided by the members of the M.I.T. faculty. They will have study offices in the Center. The Fellows of the Center receive a certificate upon completion of their program. They may, during their program, apply for admission to the Graduate School using credit subjects they have satisfactorily completed toward degree requirements. If they are admitted as regular graduate students they will receive a degree upon completion of their program.

The activities of the Fellows in CAES will be determined by discussions with AMUT. The Advanced Study Program tuition will be remitted directly to M.I.T. by AMUT.

IV-2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting faculty members with the same rank as carried at AMUT.

Since these visiting faculty will participate at M.I.T. in the dual role of academic scholars and professional colleagues and since decisions on staffing plans and space allocations are made by M.I.T. during the spring term preceding the academic year, the names of those nominated to be visiting faculty, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. Coordinator not later than the end of January of the preceding term. This will make it possible for the Coordinator to ask the department to which the visitor is likely to be associated to review the nominee's objectives and accomplishments, and determine whether the department will have the resources to accommodate the dual nature of the visitor's activities and will be his host.

Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

AMUT will pay directly to each professor his salary and living expenses. The M.I.T. host department will be reimbursed for supervisory and miscellaneous support expenses from funds provided by AMUT as part of this proposal. AMUT's reimbursement to M.I.T. will be calculated at 30% of the average M.I.T. academic salary of a professor of equivalent rank, prorated for the interval of time spent at M.I.T. by the visiting professor from AMUT. Nothing in this agreement is intended to prevent individual arrangements between M.I.T. departments and AMUT faculty.

Whenever a particular visiting faculty member, on the advice of his M.I.T. faculty colleague and with the approval of the M.I.T. Coordinator, wishes to pursue specific research of his own choosing, the Coordinator will be authorized to allocate funds for such research from the parent account up to a maximum of \$5,000 a year. Typical

items of expense might be computer time, the manufacture of specific apparatus, the purchase of books specifically needed for his program, purchase of special equipment, visits to other institutions, and secretarial services. All equipment and books provided through this channel will be deemed the property of Arya-Mehr and may be taken back to Iran. Whenever the visiting professor affiliates with an on-going research program at M.I.T. and makes contributions that help M.I.T. fulfill its commitment to its sponsor and when M.I.T. project funds are available, the project will carry these expenses. In some instances, it is possible that both M.I.T. controlled and AMUT furnished funds will be used.

In addition to activities of a strictly professional character, such as study and research, the visiting professors will be encouraged to attend faculty meetings, participate in departmental conferences, perform teaching as the opportunity offers and, in general, be encouraged to do those things which will furnish insight into the M.I.T. infrastructure.

IV-3. Administrative Personnel

From time to time, the members of the administrative staff of AMUT will visit M.I.T. for a period of a few weeks up to an academic term. Likewise, it is visualized that selected administrative personnel from M.I.T. will visit AMUT. The visitors from AMUT will be given the opportunity to learn about M.I.T. policies and procedures on, for example, admissions, registration, library, student residential matters, maintenance of physical plant, computerized departmental administration, planning and allocation of academic and research funds and space, alumni relationships, and relationships with industry.

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By Stuart H. Cowen

Title Stuart H. Cowen, Vice President for
Financial Operations

Date June 19, 1974

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

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Title _____

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COLLABORATION BETWEEN
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3. For a limited number of administrative personnel -- librarians, admissions office staff, research administrative staff, etc., to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

AMUT will furnish funds to support M.I.T. departmental expenses and the cost of miscellaneous materials and services associated with the academic visitors (as described in the following pages); funds to establish a parent account for research related costs and stipends for graduate students from AMUT appointed as research and/or teaching assistants; funds for the expenses of the Coordinator's office.

IV. PROCEDURES

The procedures to achieve the above goals are visualized as follows:

IV-1. Graduate Students

AMUT will select and nominate to the M.I.T. Graduate School young men who are expected to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute may have the dual status of graduate student and junior staff. It is assumed that the normal procedure will be for a full-time graduate student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the student's academic program, the M.I.T. Coordinator (see page 5 of this section) will aid in seeking in an appointment for the student in a department or laboratory either as a teaching or research assistant, depending upon what seems most advantageous to the student's program. It is hoped that in order to obtain and fulfill the junior staff status the period of residence required to complete the advanced degree program will not be appreciably extended.

Whenever the appropriate teaching or research opportunity exists for graduate students to become staff assistants to further both their objectives and the objectives of AMUT, and funds under M.I.T. control are available for stipend payments, it is expected that they will be paid from such funds. However, when funds for support are not available at M.I.T., the normal stipend will be paid from the parent account funds provided by AMUT as part of this proposal. The normal policies of M. I. T. regarding overhead charges on the salaries of staff assistants will be followed.

For all graduate students from AMUT, either on a full-time academic schedule or while combining studies with a part-time staff assistant position, normal M.I.T. tuition will be remitted directly to M.I.T. by AMUT.

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievement and personal behavior will be applicable to all the graduate students in this program. Furthermore, AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applications from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

These students, as Fellows in the CAES, but not regular graduate students, can do many things. For example, they can develop an interdisciplinary program that may differ substantially from a formal degree program. They need not meet all the requirements for an M.I.T. advanced degree. They can pursue their program in a manner that depends on the length of their visit. They may attend regular graduate and undergraduate subjects and seminars. They may also attend special subjects and seminars offered by the CAES. They may engage in research and in individual studies guided by the members of the M.I.T. faculty. They will have study offices in the Center. The Fellows of the Center receive a certificate upon completion of their program. They may, during their program, apply for admission to the Graduate School using credit subjects they have satisfactorily completed toward degree requirements. If they are admitted as regular graduate students they will receive a degree upon completion of their program.

The activities of the Fellows in CAES will be determined by discussions with AMUT. The Advanced Study Program tuition will be remitted directly to M.I.T. by AMUT.

IV-2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting faculty members with the same rank as carried at AMUT.

Since these visiting faculty will participate at M.I.T. in the dual role of academic scholars and professional colleagues and since decisions on staffing plans and space allocations are made by M.I.T. during the spring term preceding the academic year, the names of those nominated to be visiting faculty, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. Coordinator not later than the end of January of the preceding term. This will make it possible for the Coordinator to ask the department to which the visitor is likely to be associated to review the nominee's objectives and accomplishments, and determine whether the department will have the resources to accommodate the dual nature of the visitor's activities and will be his host.

Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

AMUT will pay directly to each professor his salary and living expenses. The M.I.T. host department will be reimbursed for supervisory and miscellaneous support expenses from funds provided by AMUT as part of this proposal. AMUT's reimbursement to M.I.T. will be calculated at 30% of the average M.I.T. academic salary of a professor of equivalent rank, prorated for the interval of time spent at M.I.T. by the visiting professor from AMUT. Nothing in this agreement is intended to prevent individual arrangements between M.I.T. departments and AMUT faculty.

Whenever a particular visiting faculty member, on the advice of his M.I.T. faculty colleague and with the approval of the M.I.T. Coordinator, wishes to pursue specific research of his own choosing, the Coordinator will be authorized to allocate funds for such research from the parent account up to a maximum of \$5,000 a year. Typical

items of expense might be computer time, the manufacture of specific apparatus, the purchase of books specifically needed for his program, purchase of special equipment, visits to other institutions, and secretarial services. All equipment and books provided through this channel will be deemed the property of Arya-Mehr and may be taken back to Iran. Whenever the visiting professor affiliates with an on-going research program at M.I.T. and makes contributions that help M.I.T. fulfill its commitment to its sponsor and when M.I.T. project funds are available, the project will carry these expenses. In some instances, it is possible that both M.I.T. controlled and AMUT furnished funds will be used.

In addition to activities of a strictly professional character, such as study and research, the visiting professors will be encouraged to attend faculty meetings, participate in departmental conferences, perform teaching as the opportunity offers and, in general, be encouraged to do those things which will furnish insight into the M.I.T. infrastructure.

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Administrators will affiliate with either an administrative office or with the Center for Advanced Engineering Study depending upon their interest, and how M.I.T. resources can help them meet their objectives.

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of a member of the M.I.T. staff to work with this visitor. M.I.T. will be reimbursed from the parent account for its costs in a manner similar to its reimbursement for sponsored research.

IV-4. Collaborative Work

It is expected in this program that certain educational or research collaborative work will be conducted. To promote this activity, it is visualized that the scholars from each institution will make visits to the other institution as circumstances dictate. AMUT will support the expense of the program definition phase of such joint projects which have a direct relevance in Iran. It is expected that the problem definition phase will be initiated through an exchange of correspondence between the institutional Coordinators. This correspondence will be expected, in broad outline, to define the proposed level and nature of activity. After it is agreed by AMUT and M.I.T. that a joint project is appropriate, the M.I.T. Coordinator is then authorized to draw from the parent account the expenses (salaries, overhead and operating costs) of the M.I.T. people related to the problem definition activity.

Once a joint project has been defined a separate financial agreement will be prepared. The parties of this agreement are expected to seek support outside of this proposal for the conduct of such projects.

AMUT will, from time to time, confer with M.I.T., through the M.I.T. Coordinator's Office, on matters related to the initiation of new research or teaching activities in Iran.

In addition to collaborative work that is of direct interest to AMUT and Iran, there is visualized under this agreement the conduct of collaborative work that primarily is of interest to the M.I.T. faculty. Such cooperative work will be encouraged and understandings as to how M.I.T. shall finance this work on its behalf will be arrived at after discussions between the Coordinators at M.I.T. and AMUT.

V. The M.I.T. Coordinator

M.I.T. will designate a Coordinator whose responsibilities will be to take the necessary action within the resources of M.I.T.

to maximize the opportunities available to the visitors who come to M.I.T. as part of this program.

The Coordinator will introduce the visitor to the M.I.T. faculty member or members with whom he will work.

The Coordinator's Office will render assistance so as to facilitate the entry and activity of the visitor within the M.I.T. environment. The experience of M.I.T. in previous programs with sister universities has shown that the visitors benefit greatly by being introduced to the social and cultural life of both the campus and the Boston community. Visiting scholars from foreign countries usually need assistance in the location of housing. The M.I.T. Housing Office will be called upon for this assistance. Whenever it is possible to provide dormitory space for graduate students or apartments in the M.I.T. student housing complex, the opportunity will be offered to the visitor.

The Coordinator will develop with the visiting faculty the guidelines of their program of activities at M.I.T. and will work with the visiting faculty to help ensure the success of their visits.

The Office of the M.I.T. Coordinator will be responsible for the financial management of this program. The M.I.T. Coordinator will have the authority to allocate funds from the parent account, within the guidelines set forth herein, for the specific research and study of the visiting faculty.

Whenever the best interest of the visiting faculty member or graduate student would be served by an assignment for a period at an industrial establishment to be selected in collaboration with AMUT or in the case of departments at M.I.T. that have developed cooperative course programs, at the plants of the practice school companies or a cooperative course company, the M.I.T. Coordinator may authorize the transfer of the funds necessary to support these assignments from the parent account.

The Office of the Coordinator, working with the M.I.T. Foreign Students Office, will examine and render advice on matters related to visas and requirements of the U. S. Office of Immigration and Naturalization and the U. S. Internal Revenue Service. AMUT shall be responsible for all Iranian income tax liabilities of its personnel where applicable.

M.I.T. will be reimbursed for its expenses on behalf of AMUT in maintaining the Coordinator's Office, such as salaries, direct expenses, and overhead in accordance with M.I.T. standard practices on sponsored activities. Likewise, when the Coordinator's Office in Iran is serving the interests of a program that is directly on behalf of M.I.T. (see section IV, part 4), AMUT will be reimbursed at the same rates.

VI. Duration of Agreement

This Agreement is for the period July 1, 1974 to June 30, 1979. Extensions of this Agreement beyond 1979 will be reviewed during the academic year, 1976-77, and each year thereafter.

Both parties to the Agreement recognize that services to be performed are on a best efforts basis.

The Agreement may be cancelled after mutual discussion subject to M.I.T. being reimbursed for those commitments that it has made and which cannot be cancelled. Only rarely is it to be expected that such a commitment would have been for more than one academic year.

VII. Budget Estimate

It is expected that the activities embraced by this program will build up gradually to the level where six to eight graduate students, and three to six visiting faculty members or administrative staff will be at M.I.T. at one time. It is estimated that there will be between four and six graduate students in residence during the academic year, 1974-75, and possibly two or three faculty visitors.

Negotiations regarding this Agreement have been actively underway since the summer of 1973. It is proposed, therefore, that the effective date for the Agreement for cost reimbursement purposes be set at July 1, 1974.

Based on the above, the estimated funds needed to carry out this program up to June 30, 1975 (the first twelve months) are:

Support funds to provide for the departmental and miscellaneous materials and supporting services expense for the academic visitors -- faculty and administrators (see section IV, parts 2 and 3)

\$12,000

Parent account funds for research or other expenses (see section IV, parts 1, 2, 3, and 4)

\$ 5,000

Expenses of Coordinator's Office - part-time salary for Coordinator and secretary, miscellaneous expenses, M.I.T. overhead at 63% of salaries and wages, and employee benefits

\$ 6,000

Travel (for two persons to visit AMUT)

\$ 4,000

Total (in U.S. dollars).....\$27,000

In March, 1975, based on the experience gained during the first period of this Agreement, M.I.T. and AMUT will decide on the level of funding for the next two years. It is anticipated that during the second and third years, the activity will increase and the budget will be greater than for the initial period.

VIII. Method of Payment

Upon signing this Agreement M.I.T. requests that AMUT establish an irrevocable letter of credit in the amount of \$27,000 in favor of M.I.T. at a mutually acceptable bank in the United States. The expiration date of the letter of credit shall not be less than twelve months from the date it is established.

We also ask that AMUT instruct this bank, upon opening the letter of credit, to make an advance payment to M.I.T. in the amount of twenty percent (20%) of the letter of credit or U.S. \$5,400, and to make subsequent payments against quarterly invoices of M.I.T., as approved by AMUT up to the total amount of the letter of credit. Each year as the program proceeds a similar credit will be established, based on the estimated budget for the period.

Quarterly invoices will be submitted following the close of each period ending September 30, December 31, March 31, June 30 and will show the total charge for professional services and total charge for expenses incurred during the quarter. M.I.T. will be prepared to submit details of expenses for any invoice when requested, in a manner similar to that used with contracts for U. S. Government agencies.

IX. Taxes

Whenever M.I.T. is obligated to pay Iranian income taxes and other direct taxes and duties imposed during this project in accordance with Iranian law and which are presently unforeseen, it will make payment on the basis that such tax payments shall be reimbursed to M.I.T. directly by AMUT upon the submission of tax receipts to AMUT as an addition to the letter of credit.

X. M.I.T.'s Commitments

The program will be under the supervision of Professor Gordon S. Brown and Dr. Paul E. Brown or other designated members of the M.I.T. staff. The cost of the program will be established in a mutually agreed upon budget which M.I.T. will not exceed without specific written authorization or modification of the budget to take into account new conditions. The total estimated cost of this program is \$27,000 for the period July 1, 1974 through June 30, 1975.

XI. Patents

Title to any invention or discovery made or conceived in the performance of research at M.I.T. will remain with M.I.T. which shall have the sole right to determine the disposition of any patents or other rights resulting therefrom provided that upon issue of any patent on any such invention or discovery, M.I.T. shall grant to AMUT an irrevocable, royalty-free, non-exclusive license for use of such invention or discovery for its own purposes. M.I.T. will require all employees engaged in the research to execute written agreements by which they bind themselves to perform as stated herein.

The provisions of this clause do not foreclose AMUT from later negotiating for greater rights in any invention or discovery than the non-exclusive, royalty-free license granted by this agreement.

XII. Use of the Name of M.I.T. or AMUT

Both parties to this agreement agree not to use the name of the other party or any member of its staff in sales promotion work or advertising, or in any other form of publicity without the written permission of that party.

XIII. Publication and Copyrights

M.I.T. will be free to publish papers dealing with results of research under this Agreement after giving a copy of the paper to AMUT. Title to and the right to determine the disposition of any copyrights, or copyrightable material, first produced or composed in the performance of this research, shall remain with M.I.T. provided that M.I.T. shall grant to AMUT an irrevocable royalty-free, nonexclusive right to reproduce, translate, and use all such copyrighted material for its own purposes.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By Stuart H. Cowen

Title Stuart H. Cowen, Vice President for
Financial Operations

Date June 19, 1974

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

By _____

Title _____

Date _____

AN AGREEMENT FOR A PROGRAM OF
COLLABORATION BETWEEN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
AND
ARYA-MEHR UNIVERSITY OF TECHNOLOGY

I. INTRODUCTION

The mandate set forth by His Imperial Majesty the Shah for the Arya-Mehr University of Technology (AMUT) is, on the one hand, to educate a group of elite engineers and scientists who will become the key instruments of the future economic and social development of Iran and, on the other hand, through research and development programs conducted on the campus by students and faculty, to accelerate the transfer of science and technology into the societal fabric of Iran to ameliorate the pressing industrial, economic, social, and human problems of a fast-paced industrializing society.

AMUT is presently operating an eight-year-old campus of about 3,000 students and 300 faculty members in Tehran -- the average age of the faculty is about thirty. The Arya-Mehr University of Technology at Isfahan is expected to start classes in September, 1976. The Isfahan campus will have an innovative program which has been developed with the assistance of Professor Gordon S. Brown of M.I.T. and is expected to have 8-10 thousand students and about eleven hundred faculty in the final stages of development.

II. PROGRAM OBJECTIVES

The principle aim of this cooperative program with the Massachusetts Institute of Technology (M.I.T.) is to enable the present and future members of the AMUT faculty, through a period of residence at M.I.T., to be introduced to the frontiers of science and technology in their fields of interest; to obtain an awareness of the spirit of M.I.T.; to understand how M.I.T. organizes and operates to innovate change; to acquire a first-hand experience with the mechanisms that have contributed to the success of the faculty, students, and administration of M.I.T. in adapting to challenges set forth by the changing world society. It is not intended that the development of AMUT will be directed by M.I.T. nor that activities at M.I.T. will be copied exactly, but rather through this program AMUT will be able to establish its own educational and research programs on a firm course compatible with the culture and problems of Iran, and through the strength derived from the experiences of AMUT faculty at M.I.T., to take long range steps with confidence.

III. THE PROGRAM IN BRIEF:

It is intended that the program of collaboration provide:

1. For the training, leading to advanced degrees, at M.I.T. of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Isfahan;
2. For selected members of the faculty of the Arya-Mehr University to spend not less than one semester as visiting faculty at M.I.T.;
3. For a limited number of administrative personnel -- librarians, admissions office staff, research administrative staff, etc., to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

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Since M.I.T. has more applications from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

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Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

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\$ 6,000

Travel (for two persons to visit AMUT)

\$ 4,000

Total (in U.S. dollars).....\$27,000

In March, 1975, based on the experience gained during the first period of this Agreement, M.I.T. and AMUT will decide on the level of funding for the next two years. It is anticipated that during the second and third years, the activity will increase and the budget will be greater than for the initial period.

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Title to any invention or discovery made or conceived in the performance of research at M.I.T. will remain with M.I.T. which shall have the sole right to determine the disposition of any patents or other rights resulting therefrom provided that upon issue of any patent on any such invention or discovery, M.I.T. shall grant to AMUT an irrevocable, royalty-free, non-exclusive license for use of such invention or discovery for its own purposes. M.I.T. will require all employees engaged in the research to execute written agreements by which they bind themselves to perform as stated herein.

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M.I.T. will be free to publish papers dealing with results of research under this Agreement after giving a copy of the paper to AMUT. Title to and the right to determine the disposition of any copyrights, or copyrightable material, first produced or composed in the performance of this research, shall remain with M.I.T. provided that M.I.T. shall grant to AMUT an irrevocable royalty-free, nonexclusive right to reproduce, translate, and use all such copyrighted material for its own purposes.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By Stuart H. Cowen

Title Stuart H. Cowen, Vice President for
Financial Operations

Date June 19, 1974

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

By _____

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AN AGREEMENT FOR A PROGRAM OF
COLLABORATION BETWEEN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
AND
ARYA-MEHR UNIVERSITY OF TECHNOLOGY

I. INTRODUCTION

The mandate set forth by His Imperial Majesty the Shah for the Arya-Mehr University of Technology (AMUT) is, on the one hand, to educate a group of elite engineers and scientists who will become the key instruments of the future economic and social development of Iran and, on the other hand, through research and development programs conducted on the campus by students and faculty, to accelerate the transfer of science and technology into the societal fabric of Iran to ameliorate the pressing industrial, economic, social, and human problems of a fast-paced industrializing society.

AMUT is presently operating an eight-year-old campus of about 3,000 students and 300 faculty members in Tehran -- the average age of the faculty is about thirty. The Arya-Mehr University of Technology at Isfahan is expected to start classes in September, 1976. The Isfahan campus will have an innovative program which has been developed with the assistance of Professor Gordon S. Brown of M.I.T. and is expected to have 8-10 thousand students and about eleven hundred faculty in the final stages of development.

II. PROGRAM OBJECTIVES

The principle aim of this cooperative program with the Massachusetts Institute of Technology (M.I.T.) is to enable the present and future members of the AMUT faculty, through a period of residence at M.I.T., to be introduced to the frontiers of science and technology in their fields of interest; to obtain an awareness of the spirit of M.I.T.; to understand how M.I.T. organizes and operates to innovate change; to acquire a first-hand experience with the mechanisms that have contributed to the success of the faculty, students, and administration of M.I.T. in adapting to challenges set forth by the changing world society. It is not intended that the development of AMUT will be directed by M.I.T. nor that activities at M.I.T. will be copied exactly, but rather through this program AMUT will be able to establish its own educational and research programs on a firm course compatible with the culture and problems of Iran, and through the strength derived from the experiences of AMUT faculty at M.I.T., to take long range steps with confidence.

III. THE PROGRAM IN BRIEF:

It is intended that the program of collaboration provide:

1. For the training, leading to advanced degrees, at M.I.T. of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Isfahan;
2. For selected members of the faculty of the Arya-Mehr University to spend not less than one semester as visiting faculty at M.I.T.;
3. For a limited number of administrative personnel -- librarians, admissions office staff, research administrative staff, etc., to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

AMUT will furnish funds to support M.I.T. departmental expenses and the cost of miscellaneous materials and services associated with the academic visitors (as described in the following pages); funds to establish a parent account for research related costs and stipends for graduate students from AMUT appointed as research and/or teaching assistants; funds for the expenses of the Coordinator's office.

IV. PROCEDURES

The procedures to achieve the above goals are visualized as follows:

IV-1. Graduate Students

AMUT will select and nominate to the M.I.T. Graduate School young men who are expected to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute may have the dual status of graduate student and junior staff. It is assumed that the normal procedure will be for a full-time graduate student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the student's academic program, the M.I.T. Coordinator (see page 5 of this section) will aid in seeking in an appointment for the student in a department or laboratory either as a teaching or research assistant, depending upon what seems most advantageous to the student's program. It is hoped that in order to obtain and fulfill the junior staff status the period of residence required to complete the advanced degree program will not be appreciably extended.

Whenever the appropriate teaching or research opportunity exists for graduate students to become staff assistants to further both their objectives and the objectives of AMUT, and funds under M.I.T. control are available for stipend payments, it is expected that they will be paid from such funds. However, when funds for support are not available at M.I.T., the normal stipend will be paid from the parent account funds provided by AMUT as part of this proposal. The normal policies of M. I. T. regarding overhead charges on the salaries of staff assistants will be followed.

For all graduate students from AMUT, either on a full-time academic schedule or while combining studies with a part-time staff assistant position, normal M.I.T. tuition will be remitted directly to M.I.T. by AMUT.

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievement and personal behavior will be applicable to all the graduate students in this program. Furthermore, AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applications from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

These students, as Fellows in the CAES, but not regular graduate students, can do many things. For example, they can develop an interdisciplinary program that may differ substantially from a formal degree program. They need not meet all the requirements for an M.I.T. advanced degree. They can pursue their program in a manner that depends on the length of their visit. They may attend regular graduate and undergraduate subjects and seminars. They may also attend special subjects and seminars offered by the CAES. They may engage in research and in individual studies guided by the members of the M.I.T. faculty. They will have study offices in the Center. The Fellows of the Center receive a certificate upon completion of their program. They may, during their program, apply for admission to the Graduate School using credit subjects they have satisfactorily completed toward degree requirements. If they are admitted as regular graduate students they will receive a degree upon completion of their program.

The activities of the Fellows in CAES will be determined by discussions with AMUT. The Advanced Study Program tuition will be remitted directly to M.I.T. by AMUT.

IV-2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting faculty members with the same rank as carried at AMUT.

Since these visiting faculty will participate at M.I.T. in the dual role of academic scholars and professional colleagues and since decisions on staffing plans and space allocations are made by M.I.T. during the spring term preceding the academic year, the names of those nominated to be visiting faculty, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. Coordinator not later than the end of January of the preceding term. This will make it possible for the Coordinator to ask the department to which the visitor is likely to be associated to review the nominee's objectives and accomplishments, and determine whether the department will have the resources to accommodate the dual nature of the visitor's activities and will be his host.

Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

AMUT will pay directly to each professor his salary and living expenses. The M.I.T. host department will be reimbursed for supervisory and miscellaneous support expenses from funds provided by AMUT as part of this proposal. AMUT's reimbursement to M.I.T. will be calculated at 30% of the average M.I.T. academic salary of a professor of equivalent rank, prorated for the interval of time spent at M.I.T. by the visiting professor from AMUT. Nothing in this agreement is intended to prevent individual arrangements between M.I.T. departments and AMUT faculty.

Whenever a particular visiting faculty member, on the advice of his M.I.T. faculty colleague and with the approval of the M.I.T. Coordinator, wishes to pursue specific research of his own choosing, the Coordinator will be authorized to allocate funds for such research from the parent account up to a maximum of \$5,000 a year. Typical

items of expense might be computer time, the manufacture of specific apparatus, the purchase of books specifically needed for his program, purchase of special equipment, visits to other institutions, and secretarial services. All equipment and books provided through this channel will be deemed the property of Arya-Mehr and may be taken back to Iran. Whenever the visiting professor affiliates with an on-going research program at M.I.T. and makes contributions that help M.I.T. fulfill its commitment to its sponsor and when M.I.T. project funds are available, the project will carry these expenses. In some instances, it is possible that both M.I.T. controlled and AMUT furnished funds will be used.

In addition to activities of a strictly professional character, such as study and research, the visiting professors will be encouraged to attend faculty meetings, participate in departmental conferences, perform teaching as the opportunity offers and, in general, be encouraged to do those things which will furnish insight into the M.I.T. infrastructure.

IV-3. Administrative Personnel

From time to time, the members of the administrative staff of AMUT will visit M.I.T. for a period of a few weeks up to an academic term. Likewise, it is visualized that selected administrative personnel from M.I.T. will visit AMUT. The visitors from AMUT will be given the opportunity to learn about M.I.T. policies and procedures on, for example, admissions, registration, library, student residential matters, maintenance of physical plant, computerized departmental administration, planning and allocation of academic and research funds and space, alumni relationships, and relationships with industry.

Administrators will affiliate with either an administrative office or with the Center for Advanced Engineering Study depending upon their interest, and how M.I.T. resources can help them meet their objectives.

M.I.T. will be reimbursed for its expenses in meeting the needs of these visitors in a manner patterned after the procedure for reimbursing M.I.T. for supervisory expenses and materials and services for visiting faculty. Wherever, after consultation with the visitor and the M.I.T. Coordinator, it becomes desirable to allocate a substantial fraction of the time

of a member of the M.I.T. staff to work with this visitor. M.I.T. will be reimbursed from the parent account for its costs in a manner similar to its reimbursement for sponsored research.

IV-4. Collaborative Work

It is expected in this program that certain educational or research collaborative work will be conducted. To promote this activity, it is visualized that the scholars from each institution will make visits to the other institution as circumstances dictate. AMUT will support the expense of the program definition phase of such joint projects which have a direct relevance in Iran. It is expected that the problem definition phase will be initiated through an exchange of correspondence between the institutional Coordinators. This correspondence will be expected, in broad outline, to define the proposed level and nature of activity. After it is agreed by AMUT and M.I.T. that a joint project is appropriate, the M.I.T. Coordinator is then authorized to draw from the parent account the expenses (salaries, overhead and operating costs) of the M.I.T. people related to the problem definition activity.

Once a joint project has been defined a separate financial agreement will be prepared. The parties of this agreement are expected to seek support outside of this proposal for the conduct of such projects.

AMUT will, from time to time, confer with M.I.T., through the M.I.T. Coordinator's Office, on matters related to the initiation of new research or teaching activities in Iran.

In addition to collaborative work that is of direct interest to AMUT and Iran, there is visualized under this agreement the conduct of collaborative work that primarily is of interest to the M.I.T. faculty. Such cooperative work will be encouraged and understandings as to how M.I.T. shall finance this work on its behalf will be arrived at after discussions between the Coordinators at M.I.T. and AMUT.

V. The M.I.T. Coordinator

M.I.T. will designate a Coordinator whose responsibilities will be to take the necessary action within the resources of M.I.T.

to maximize the opportunities available to the visitors who come to M.I.T. as part of this program.

The Coordinator will introduce the visitor to the M.I.T. faculty member or members with whom he will work.

The Coordinator's Office will render assistance so as to facilitate the entry and activity of the visitor within the M.I.T. environment. The experience of M.I.T. in previous programs with sister universities has shown that the visitors benefit greatly by being introduced to the social and cultural life of both the campus and the Boston community. Visiting scholars from foreign countries usually need assistance in the location of housing. The M.I.T. Housing Office will be called upon for this assistance. Whenever it is possible to provide dormitory space for graduate students or apartments in the M.I.T. student housing complex, the opportunity will be offered to the visitor.

The Coordinator will develop with the visiting faculty the guidelines of their program of activities at M.I.T. and will work with the visiting faculty to help ensure the success of their visits.

The Office of the M.I.T. Coordinator will be responsible for the financial management of this program. The M.I.T. Coordinator will have the authority to allocate funds from the parent account, within the guidelines set forth herein, for the specific research and study of the visiting faculty.

Whenever the best interest of the visiting faculty member or graduate student would be served by an assignment for a period at an industrial establishment to be selected in collaboration with AMUT or in the case of departments at M.I.T. that have developed cooperative course programs, at the plants of the practice school companies or a cooperative course company, the M.I.T. Coordinator may authorize the transfer of the funds necessary to support these assignments from the parent account.

The Office of the Coordinator, working with the M.I.T. Foreign Students Office, will examine and render advice on matters related to visas and requirements of the U. S. Office of Immigration and Naturalization and the U. S. Internal Revenue Service. AMUT shall be responsible for all Iranian income tax liabilities of its personnel where applicable.

M.I.T. will be reimbursed for its expenses on behalf of AMUT in maintaining the Coordinator's Office, such as salaries, direct expenses, and overhead in accordance with M.I.T. standard practices on sponsored activities. Likewise, when the Coordinator's Office in Iran is serving the interests of a program that is directly on behalf of M.I.T. (see section IV, part 4), AMUT will be reimbursed at the same rates.

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The activities of the Fellows in CAES will be determined by discussions with AMUT. The Advanced Study Program tuition will be remitted directly to M.I.T. by AMUT.

IV-2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting faculty members with the same rank as carried at AMUT.

Since these visiting faculty will participate at M.I.T. in the dual role of academic scholars and professional colleagues and since decisions on staffing plans and space allocations are made by M.I.T. during the spring term preceding the academic year, the names of those nominated to be visiting faculty, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. Coordinator not later than the end of January of the preceding term. This will make it possible for the Coordinator to ask the department to which the visitor is likely to be associated to review the nominee's objectives and accomplishments, and determine whether the department will have the resources to accommodate the dual nature of the visitor's activities and will be his host.

Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

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items of expense might be computer time, the manufacture of specific apparatus, the purchase of books specifically needed for his program, purchase of special equipment, visits to other institutions, and secretarial services. All equipment and books provided through this channel will be deemed the property of Arya-Mehr and may be taken back to Iran. Whenever the visiting professor affiliates with an on-going research program at M.I.T. and makes contributions that help M.I.T. fulfill its commitment to its sponsor and when M.I.T. project funds are available, the project will carry these expenses. In some instances, it is possible that both M.I.T. controlled and AMUT furnished funds will be used.

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M.I.T. will designate a Coordinator whose responsibilities will be to take the necessary action within the resources of M.I.T.

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Total (in U.S. dollars).....\$27,000

In March, 1975, based on the experience gained during the first period of this Agreement, M.I. T. and AMUT will decide on the level of funding for the next two years. It is anticipated that during the second and third years, the activity will increase and the budget will be greater than for the initial period.

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Upon signing this Agreement M.I. T. requests that AMUT establish an irrevocable letter of credit in the amount of \$27,000 in favor of M.I. T. at a mutually acceptable bank in the United States. The expiration date of the letter of credit shall not be less than twelve months from the date it is established.

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Whenever M.I.T. is obligated to pay Iranian income taxes and other direct taxes and duties imposed during this project in accordance with Iranian law and which are presently unforeseen, it will make payment on the basis that such tax payments shall be reimbursed to M.I.T. directly by AMUT upon the submission of tax receipts to AMUT as an addition to the letter of credit.

X. M.I.T.'s Commitments

The program will be under the supervision of Professor Gordon S. Brown and Dr. Paul E. Brown or other designated members of the M.I.T. staff. The cost of the program will be established in a mutually agreed upon budget which M.I.T. will not exceed without specific written authorization or modification of the budget to take into account new conditions. The total estimated cost of this program is \$27,000 for the period July 1, 1974 through June 30, 1975.

XI. Patents

Title to any invention or discovery made or conceived in the performance of research at M.I.T. will remain with M.I.T. which shall have the sole right to determine the disposition of any patents or other rights resulting therefrom provided that upon issue of any patent on any such invention or discovery, M.I.T. shall grant to AMUT an irrevocable, royalty-free, non-exclusive license for use of such invention or discovery for its own purposes. M.I.T. will require all employees engaged in the research to execute written agreements by which they bind themselves to perform as stated herein.

The provisions of this clause do not foreclose AMUT from later negotiating for greater rights in any invention or discovery than the non-exclusive, royalty-free license granted by this agreement.

XII. Use of the Name of M.I.T. or AMUT

Both parties to this agreement agree not to use the name of the other party or any member of its staff in sales promotion work or advertising, or in any other form of publicity without the written permission of that party.

XIII. Publication and Copyrights

M.I.T. will be free to publish papers dealing with results of research under this Agreement after giving a copy of the paper to AMUT. Title to and the right to determine the disposition of any copyrights, or copyrightable material, first produced or composed in the performance of this research, shall remain with M.I.T. provided that M.I.T. shall grant to AMUT an irrevocable royalty-free, nonexclusive right to reproduce, translate, and use all such copyrighted material for its own purposes.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By Stuart H. Cowen

Title Stuart H. Cowen, Vice President for
Financial Operations

Date June 19, 1974

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

By _____

Title _____

Date _____

AN AGREEMENT FOR A PROGRAM OF
COLLABORATION BETWEEN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
AND
ARYA-MEHR UNIVERSITY OF TECHNOLOGY

I. INTRODUCTION

The mandate set forth by His Imperial Majesty the Shah for the Arya-Mehr University of Technology (AMUT) is, on the one hand, to educate a group of elite engineers and scientists who will become the key instruments of the future economic and social development of Iran and, on the other hand, through research and development programs conducted on the campus by students and faculty, to accelerate the transfer of science and technology into the societal fabric of Iran to ameliorate the pressing industrial, economic, social, and human problems of a fast-paced industrializing society.

AMUT is presently operating an eight-year-old campus of about 3,000 students and 300 faculty members in Tehran -- the average age of the faculty is about thirty. The Arya-Mehr University of Technology at Isfahan is expected to start classes in September, 1976. The Isfahan campus will have an innovative program which has been developed with the assistance of Professor Gordon S. Brown of M.I.T. and is expected to have 8-10 thousand students and about eleven hundred faculty in the final stages of development.

II. PROGRAM OBJECTIVES

The principle aim of this cooperative program with the Massachusetts Institute of Technology (M.I.T.) is to enable the present and future members of the AMUT faculty, through a period of residence at M.I.T., to be introduced to the frontiers of science and technology in their fields of interest; to obtain an awareness of the spirit of M.I.T.; to understand how M.I.T. organizes and operates to innovate change; to acquire a first-hand experience with the mechanisms that have contributed to the success of the faculty, students, and administration of M.I.T. in adapting to challenges set forth by the changing world society. It is not intended that the development of AMUT will be directed by M.I.T. nor that activities at M.I.T. will be copied exactly, but rather through this program AMUT will be able to establish its own educational and research programs on a firm course compatible with the culture and problems of Iran, and through the strength derived from the experiences of AMUT faculty at M.I.T., to take long range steps with confidence.

III. THE PROGRAM IN BRIEF:

It is intended that the program of collaboration provide:

1. For the training, leading to advanced degrees, at M.I.T. of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Isfahan;
2. For selected members of the faculty of the Arya-Mehr University to spend not less than one semester as visiting faculty at M.I.T.;
3. For a limited number of administrative personnel -- librarians, admissions office staff, research administrative staff, etc., to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

AMUT will furnish funds to support M.I.T. departmental expenses and the cost of miscellaneous materials and services associated with the academic visitors (as described in the following pages); funds to establish a parent account for research related costs and stipends for graduate students from AMUT appointed as research and/or teaching assistants; funds for the expenses of the Coordinator's office.

IV. PROCEDURES

The procedures to achieve the above goals are visualized as follows:

IV-1. Graduate Students

AMUT will select and nominate to the M.I.T. Graduate School young men who are expected to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute may have the dual status of graduate student and junior staff. It is assumed that the normal procedure will be for a full-time graduate student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the student's academic program, the M.I.T. Coordinator (see page 5 of this section) will aid in seeking in an appointment for the student in a department or laboratory either as a teaching or research assistant, depending upon what seems most advantageous to the student's program. It is hoped that in order to obtain and fulfill the junior staff status the period of residence required to complete the advanced degree program will not be appreciably extended.

Whenever the appropriate teaching or research opportunity exists for graduate students to become staff assistants to further both their objectives and the objectives of AMUT, and funds under M.I.T. control are available for stipend payments, it is expected that they will be paid from such funds. However, when funds for support are not available at M.I.T., the normal stipend will be paid from the parent account funds provided by AMUT as part of this proposal. The normal policies of M. I. T. regarding overhead charges on the salaries of staff assistants will be followed.

For all graduate students from AMUT, either on a full-time academic schedule or while combining studies with a part-time staff assistant position, normal M.I.T. tuition will be remitted directly to M.I.T. by AMUT.

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievement and personal behavior will be applicable to all the graduate students in this program. Furthermore, AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applications from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

These students, as Fellows in the CAES, but not regular graduate students, can do many things. For example, they can develop an interdisciplinary program that may differ substantially from a formal degree program. They need not meet all the requirements for an M.I.T. advanced degree. They can pursue their program in a manner that depends on the length of their visit. They may attend regular graduate and undergraduate subjects and seminars. They may also attend special subjects and seminars offered by the CAES. They may engage in research and in individual studies guided by the members of the M.I.T. faculty. They will have study offices in the Center. The Fellows of the Center receive a certificate upon completion of their program. They may, during their program, apply for admission to the Graduate School using credit subjects they have satisfactorily completed toward degree requirements. If they are admitted as regular graduate students they will receive a degree upon completion of their program.

The activities of the Fellows in CAES will be determined by discussions with AMUT. The Advanced Study Program tuition will be remitted directly to M.I.T. by AMUT.

IV-2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting faculty members with the same rank as carried at AMUT.

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The program will be under the supervision of Professor Gordon S. Brown and Dr. Paul E. Brown or other designated members of the M.I.T. staff. The cost of the program will be established in a mutually agreed upon budget which M.I.T. will not exceed without specific written authorization or modification of the budget to take into account new conditions. The total estimated cost of this program is \$27,000 for the period July 1, 1974 through June 30, 1975.

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Title to any invention or discovery made or conceived in the performance of research at M.I.T. will remain with M.I.T. which shall have the sole right to determine the disposition of any patents or other rights resulting therefrom provided that upon issue of any patent on any such invention or discovery, M.I.T. shall grant to AMUT an irrevocable, royalty-free, non-exclusive license for use of such invention or discovery for its own purposes. M.I.T. will require all employees engaged in the research to execute written agreements by which they bind themselves to perform as stated herein.

The provisions of this clause do not foreclose AMUT from later negotiating for greater rights in any invention or discovery than the non-exclusive, royalty-free license granted by this agreement.

XII. Use of the Name of M.I.T. or AMUT

Both parties to this agreement agree not to use the name of the other party or any member of its staff in sales promotion work or advertising, or in any other form of publicity without the written permission of that party.

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M.I.T. will be free to publish papers dealing with results of research under this Agreement after giving a copy of the paper to AMUT. Title to and the right to determine the disposition of any copyrights, or copyrightable material, first produced or composed in the performance of this research, shall remain with M.I.T. provided that M.I.T. shall grant to AMUT an irrevocable royalty-free, nonexclusive right to reproduce, translate, and use all such copyrighted material for its own purposes.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By Stuart H. Cowen

Title Stuart H. Cowen, Vice President for
Financial Operations

Date June 19, 1974

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

By _____

Title _____

Date _____

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

21 June 1974

19

Memo to Jarmilla

Room

Ext.

For your files.

Thanks.

Maureen

from

Room

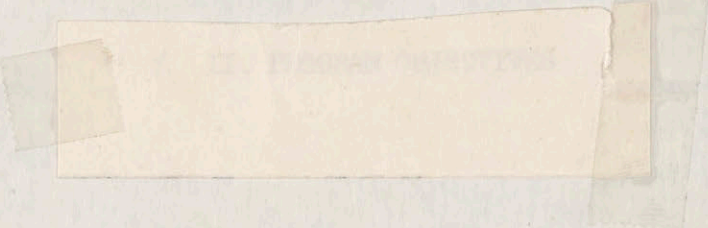
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AN AGREEMENT FOR A PROGRAM OF
COLLABORATION BETWEEN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
AND
ARYA-MEHR UNIVERSITY OF TECHNOLOGY

1. INTRODUCTION

The mandate set forth by His Imperial Majesty the Shah for the Arya-Mehr University of Technology (AMUT) is, on the one hand, to educate a group of elite engineers and scientists who will become the key instruments of the future economic and social development of Iran and, on the other hand, through research and development programs conducted on the campus by students and faculty, to accelerate the transfer of science and technology into the societal fabric of Iran to ameliorate the pressing industrial, economic, social, and human problems of a fast-paced industrializing society.

AMUT is presently operating an eight-year-old campus of about 3,000 students and 300 faculty members in Tehran -- the average age of the faculty is about thirty. The Arya-Mehr University of Technology at Isfahan is expected to start classes in September, 1976. The Isfahan campus will have an innovative program which has been developed with the assistance of professor Gordon S. Brown of M.I.T. and is expected to have 8-10 thousand students and about eleven hundred faculty in the final stages of development.



II. PROGRAM OBJECTIVES

The principle aim of this cooperative program with the Massachusetts Institute of Technology (M.I.T.) is to enable the present and future members of the AMUT faculty, through a period of residence at M.I.T., to be introduced to the frontiers of science and technology in their fields of interest; to obtain an awareness of the spirit of M.I.T; to understand how M.I.T. organizes and operates to innovate change; to acquire a first-hand experience with the mechanisms that have contributed to the success of the faculty, students, and administration of M.I.T. in adapting to challenges set forth by the changing world society. It is not intended that the development of AMUT will be directed by M.I.T. nor that activities at M.I.T. will be copied exactly, but rather through this program AMUT will be able to establish its own educational and research programs on a firm course compatible with the culture and problems of Iran, and through the strength derived from the experiences of AMUT faculty at M.I.T., to take long range steps with confidence.

III. THE PROGRAM IN BRIEF :

It is intended that the program of collaboration provide:

1. For the training, leading to advanced degrees, at M.I.T. of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Isfahan ;
2. For selected members of the faculty of the Arya-Mehr University to spend not less than one semester as visiting faculty at M.I.T.;
3. For a limited number of administrative personnel -- librarians, admissions office staff, research administrative staff, etc., to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

AMUT will furnish funds to support M.I.T. departmental expenses and the cost of miscellaneous materials and services associated with the academic visitors (as described in the following pages); funds to establish a parent account for research related costs and stipends for graduate students from AMUT appointed as research and/or teaching assistants;

funds for the expenses of the Coordinator's office.

IV . PROCEDURES

The procedures to achieve the above goals are visualized as follows :

IV-1. Graduate Students

AMUT will select and nominate to the M.I.T. Graduate School young men who are expected to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute may have the dual status of graduate student and junior staff. It is assumed that the normal procedure will be for a student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the student's academic program, the M.I.T. Coordinator (See part 5 of this Section) will aid in seeking an appointment for the student in a department or laboratory either as a teaching or research assistant, depending upon what seems most advantageous to the student's program. It is hoped that in order to obtain and fulfill the junior staff status the period of residence required to complete the advanced degree program will not be appreciably extended.

Whenever the appropriate teaching or research opportunity exists for graduate students to become staff assistants to further both their objectives and the objectives of AMUT, and funds under M.I.T. control are available for stipend payments, it is expected that they will be paid from such funds. However, when funds for support are not available at M.I.T., the normal stipend will be paid from the parent account funds provided by AMUT as part of this proposal. The normal policies of M.I.T. regarding overhead charges on the salaries of staff assistants will be followed.

For all graduate students from AMUT, either on a full-time academic schedule or while combining studies with a part-time staff assistant position, normal M.I.T. tuition will be remitted directly to M.I.T. by AMUT.

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievement and personal behavior will be applicable to all the graduate students in this program. Furthermore, AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applications from qualified students that it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

These students, as Fellows in the CAES, but not regular graduate students, can do many things. For example, they can develop an interdisciplinary program that may differ substantially from a formal degree program. They need not meet all the requirements for an M.I.T. advanced degree. They can pursue their program in a manner that depends on the length of their visit. They may attend regular graduate and undergraduate subjects and seminars. They may also attend special subjects and seminars offered by the CAES. They may engage in research and in individual studies guided by the members of the M.I.T. faculty. They will have study offices in the

Center. The Fellows of the Center receive a certificate upon completion of their program. They may, during their program, apply for admission to the Graduate School using credit subjects they have satisfactorily completed toward degree requirements. If they are admitted as regular graduate students they will receive a degree upon completion of their program,

The activities of the Fellows in CAES will be determined by discussions with AMUT. The Advanced Study Program tuition will be remitted directly to M.I.T. by AMUT.

IV-2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting faculty members with the same rank as carried at AMUT.

Since these visiting faculty will participate at M.I.T. in the dual role of academic scholars and professional colleagues and since decisions on staffing plans and space allocations are made by M.I.T. during the spring term preceding the academic year, the names of those nominated to be visiting faculty, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. Coordinator not later than the end of January of the preceding term. This will make it possible for the Coordinator to ask the department to which the visitor is likely to be associated to review the nominee's objectives and accomplishments, and determine whether the department will have the resources to accommodate the dual nature of the visitor's activities and will be his host.

Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

AMUT will pay directly to each professor his salary and living expenses. The M.I.T. host department will be reimbursed for supervisory and miscellaneous support expenses from funds provided by AMUT as part of this proposal. AMUT's

reimbursement to M.I.T. will be calculated at 30% of the average M.I.T. academic salary of a professor of equivalent rank, prorated for the interval of time spent at M.I.T. by the visiting professor from AMUT. Nothing in this agreement is intended to prevent individual arrangements between M.I.T. departments and AMUT faculty.

Whenever a particular visiting faculty member, on the advice of his M.I.T. faculty colleague and with the approval of the M.I.T. Coordinator, wishes to pursue specific research of his own choosing, the Coordinator will be authorized to allocate funds for such research from the parent account up to a maximum of \$ 5,000 a year. Typical items of expense might be computer time, the manufacture of specific apparatus, the purchase of books specifically needed for his program, purchase of special equipment, visits to other institutions, and secretarial services. All equipment and books provided through this channel will be deemed the property of Arya-Mehr and may be taken back to Iran. Whenever the visiting professor affiliates with an on-going research program at M.I.T. and makes contributions that help M.I.T. fulfill its commitment to its sponsor and when M.I.T. project funds are available, the project will carry these expenses. In some instances, it is possible that both M.I.T. controlled and AMUT furnished funds will be used.

In addition to activities of a strictly professional character, such as study and research, the visiting professors will be encouraged to attend faculty meetings, participate in departmental conferences, perform teaching as the opportunity offers and, in general, be encouraged to do those things which will furnish insight into the M.I.T. infrastructure.

IV-3. Administrative Personnel

From time to time, the members of the administrative staff of AMUT will visit M.I.T. for a period of a few weeks up to an academic term. Likewise, it is visualized that selected administrative personnel from M.I.T. will visit AMUT. The visitors from AMUT will be given the opportunity to learn about M.I.T. Policies and procedures on, for example, admissions, registration, library, student residential matters, maintenance of physical plant, computerized departmental administration, planning and allocation of academic and research funds and space, alumni relationships, and relationships with industry.

Administrators will affiliate with either an administrative office or with the Center for Advanced Engineering Study depending upon their interests, and how M.I.T. resources can help them meet their objectives.

M.I.T. will be reimbursed for its expenses in meeting the needs of these visitors in a manner patterned after the procedure for reimbursing M.I.T. for supervisory expenses and materials and services for visiting faculty. Wherever, after consultation with the visitor and the M.I.T. Coordinator, it becomes desirable to allocate a substantial fraction of the time of a member of the M.I.T. staff to work with this visitor, M.I.T. will be reimbursed from the parent account for its costs in a manner similar to its reimbursement for sponsored research .

IV-4. Collaborative Work

It is expected in this program that certain educational or research collaborative work will be conducted. To promote this activity, it is visualized that the scholars from each institution will make visits to the other institution as circumstances dictate. AMUT will support the expense of the

Problem definition phase of such joint projects which have a direct relevance in Iran. It is expected that the problem definition phase will be initiated through an exchange of correspondence between the institutional Coordinators. This correspondence will be expected, in broad outline, to define the proposed level and nature of activity. After it is agreed by AMUT and M.I.T. that a joint project is appropriate, the M.I.T. Coordinator is then authorized to draw from the parent account the expenses (salaries, overhead and operating costs) of the M.I.T. people related to the problem definition activity.

Once a joint project has been defined a separate financial agreement will be prepared. The parties of this agreement are expected to seek support outside of this proposal for the conduct of such projects.

AMUT will, from time to time, confer with M.I.T., through the M.I.T. Coordinator's Office, on matters related to the initiation of new research or teaching activities in Iran.

In addition to collaborative work that is of direct interest to AMUT and Iran, there is visualized under this agreement the conduct of collaborative work that primarily is of interest to the M.I.T. faculty. Such cooperative work will be encouraged and understandings as to how M.I.T. shall finance this work on its behalf will be arrived at after discussions between the Coordinators at M.I.T. and AMUT.

V. The M.I.T. Coordinator

M.I.T. will designate a Coordinator whose responsibilities will be to take the necessary action within the resources of M.I.T. to maximize the opportunities available to the visitors who come to M.I.T. as part of this program.

The Coordinator will introduce the visitor ^{to the} M.I.T. faculty member or members with whom he will work.

The Coordinator's Office will render assistance so as to facilitate the entry and activity of the visitor within the M.I.T. environment. The experience of M.I.T. in previous programs with sister universities has shown that the visitors benefit greatly by being introduced to the social and cultural life of both the campus and the Boston community. Visiting scholars from foreign countries usually need assistance in the location of housing. The M.I.T. Housing Office will be called upon for this assistance. Whenever it is possible to provide dormitory space for graduate students or apartments in the M.I.T. student housing complex, the opportunity will be offered to the visitor.

The Coordinator will develop with the visiting faculty the guidelines of their program of activities at M.I.T. and will work with the visiting faculty to help ensure the success of their visits.

The Office of the M.I.T. Coordinator will be responsible for the financial management of this program. The M.I.T. Coordinator will have the authority to allocate funds from the parent account, within the guidelines set forth herein, for the specific research and study of the visiting faculty.

Whenever the best interest of the visiting faculty member or graduate student would be served by an assignment for a period at an industrial establishment to be selected in collaboration with AMUT or in the case of departments at M.I.T. that have developed cooperative course programs, at the plants of the practice school companies or a cooperative course company, the M.I.T. Coordinator may authorize the transfer of the funds necessary to support these assignments from the parent account.

The Office of the Coordinator, working with the M.I.T. Foreign students Office, will examine and render advice on matters related to visas and requirements of the U.S. Office of Immigration and Naturalization and the U.S. Internal Revenue Service. AMUT shall be responsible for all Iranian income tax liabilities of its personnel where applicable.

M.I.T. will be reimbursed for its expenses on behalf of AMUT in maintaining the Coordinator's Office, such as salaries, direct expenses, and overhead in accordance with M.I.T. standard practices on sponsored activities. Likewise, when the Coordinator's Office in Iran is serving the interests of a program that is directly on behalf of M.I.T. (see section IV, part 4), AMUT will be reimbursed at the same rates.

VI. Duration of Agreement

This Agreement is for the period July 1, 1974 to June 30, 1979. Extensions of this Agreement beyond 1979 will be reviewed during the academic year, 1976-77, and each year thereafter.

Both Parties to the Agreement recognize that services to be performed are on a best efforts basis.

The Agreement may be cancelled after mutual discussion subject to M.I.T. being reimbursed for those commitments that it has made and which cannot be cancelled. Only rarely is it to be expected that such a commitment would have been for more than one academic year.

VII. Budget Estimate

It is expected that the activities embraced by this program will build up gradually to the level where six to eight graduate students, and three to six visiting faculty members or administrative staff will be at M.I.T. at one time. It is estimated that there will be between four and six graduate students in residence during the academic year, 1974-75, and possibly two or three faculty visitors.

Negotiations regarding this Agreement have been actively underway since the summer of 1973. It is proposed therefore, that the effective date for the Agreement for cost reimbursement purposes be set at July 1, 1974.

Based on the above, the estimated funds needed to carry out this program up to March ^{June 30, 1975} 20, 1975 (the first ^{twelve} ~~eighteen~~ months) are :

Support funds to provide for the departmental and miscellaneous materials and supporting services expense for the academic visitors-- faculty and administrators (See Section IV, parts 2 and 3)	\$ 12,000
Parent account funds for research or other expenses (See Section IV, parts 1,2,3, and 4)	\$ 5,000
Expenses of Coordinator's Office--part-time Salary for Coordinator and secretary, miscellaneous expenses, M.I.T. overhead at 63% of salaries and wages, and employee benefits	\$ 6,000
Travel (for two persons to visit AMUT)	<u>\$ 4,000</u>
TOTAL (in U.S. dollars)	\$ 27,000

In March, 1975, based on the experience gained during the first period of this Agreement, M.I.T. and AMUT will decide on the level of funding for the next two years. It is anticipated that during the second and third years, the activity will increase and the budget will be greater than for the initial period.

VIII. Method of Payment

Upon signing this Agreement M.I.T. requests that AMUT establish an irrevocable letter of credit in the amount of \$27,000 in favor of M.I.T. at a mutually acceptable bank in the United States. The expiration date of the letter of credit shall not be less than twelve months from the date it is established.

We also ask that AMUT instruct this bank, upon opening the letter of credit, to make an advance payment to M.I.T. in the amount of twenty percent (20%) of the letter of credit or U.S. \$5400 and to make subsequent payments against quarterly invoices of M.I.T., as approved by AMUT up to the total amount of the letter of credit. Each year as the program proceeds a similar credit will be established, based on the estimated budget for the period.

Quarterly invoices will be submitted following the close of each period ending September 30, December 31, March 31, June 30 and will show the total charge for professional services and total charge for expenses incurred during the quarter. M.I.T. will be prepared to submit details of expenses for any invoice when requested, in a manner similar to that used with contracts for U.S. Government agencies.

*or other designated members
of the M.I.T. staff.*

X. M.I.T.'s Commitments

The program will be under the supervision of Professor Gordon S. Brown and Dr. Paul E. Brown. The cost of the program will be established in a mutually agreed upon budget which M.I.T. will not exceed without specific written authorization or modification of the budget to take into account new conditions. The total estimated cost of this program is \$27,000 for period July 1, 1974 through June 30, 1975 .

IX. Taxes

Whenever M.I.T. is obligated to pay Iranian income taxes and other direct taxes and duties imposed during this project in accordance with Iranian law and which are presently unforeseen, it will make payment on the basis that such tax payments shall be reimbursed to M.I.T. directly by AMUT upon the submission of tax receipts to AMUT as an addition to the letter of credit.

XI. Patents

Title to any invention or discovery made or conceived in the performance of research at M.I.T. , will remain with M.I.T. which shall have the sole right to determine the disposition of any patents or other rights resulting therefrom provided that upon issue of any patent on any such invention or discovery, M.I.T. shall grant to AMUT an irrevocable, royalty-free, non-exclusive license for use of such invention or discovery for its own purposes. M.I.T. will require all employees engaged in the research to execute written agreements by which they bind themselves to perform as stated herein.

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By _____

Title _____

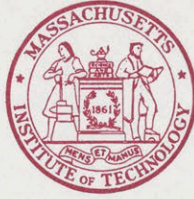
Date _____

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

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OFFICE OF THE PRESIDENT

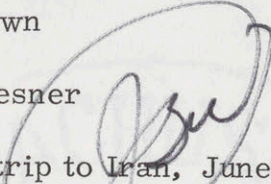
:MEMORANDUM:

June 20, 1974

To: Academic Council
Dr. J. R. Killian
Dr. H. W. Johnson
Dr. G. S. Brown

From: Jerome B. Wiesner

Subject: Report on my trip to Iran, June 5-11, 1974



The primary purpose of my trip was to visit Dr. Nasr and his associates at the Arya-Mehr University of Technology in Tehran for discussions regarding the agreement which had been discussed with Gordon Brown, me and others at M. I. T. during Dr. Nasr's recent trip, and to explore possible areas of research collaboration. An agreement had been forwarded to Dr. Nasr after approval here and they were prepared to discuss it with me.

The Arya-Mehr group had a number of questions about the proposed agreement and suggested a number of modifications. I talked them out of some that were inconsistent with the way M. I. T. could collaborate, and I tentatively agreed to some minor changes which did not seem to me to affect the basic nature of the proposal. I said, however, that it was not customary for me to make unilateral agreements and that the changes would have to be approved by appropriate people at M. I. T. before the document could be finally agreed to. A copy of the agreement as we agreed to it in Tehran is in the hands of Mr. Cowen for approval or alternate suggestions.

During my six days in Iran, I talked extensively with members of the administration and faculty of the A. M. U. T., inspected the existing campus in Tehran and visited the site of the new campus in Isfahan. I also talked with many ministers and deputy ministers of the government, who are responsible for industrial development, education, research, agriculture, health care and other social welfare activities. In particular, I had more than an hour's

discussion with the Shah, accompanied by Dr. Nasr. I also had a one and one-half hour talk with the Prime Minister, Mr. Hoveida, and I spent considerable time on several occasions with Dr. Abdulhossein Samii, the newly appointed Minister of Science and Higher Education.

The general mood in Iran at the moment is one of optimism, expansionism and general ebullience, based of course on the vastly increased funds available to the government for social development. It is obvious that everyone expects that the rather successful industrialization of Iran will now move considerably faster and that the accomplishment of many social dreams having to do with education, social development and the elimination of illiteracy and poverty can be vastly speeded up.

There may be very extensive opportunities for M. I. T. beyond the simple Arya-Mehr exchange program for collaboration and support, but we must bring a degree of reality to the overly optimistic mood that exists there lest we get caught up in unrealizable projects. The M. I. T. group that was in Iran on an independent visit to Mr. Ansari was somewhat discouraged by the attitudes that they encountered and they are slightly more pessimistic about their ability to help develop a technician training program than they were before they went to Iran. They intend to talk with Dr. Douglas Knight about the problems they encountered and hopefully these can be worked out.

During my talks with Dr. Samii, he expressed a desire to create some national research centers and an Iranian Science Foundation. The centers would work on basic and applied research problems that had particular relevance to Iran, while the science foundation would function very much as our N. S. F. does but would be prepared to support research programs proposed by people in other countries, as well as in Iran. I have agreed to send Dr. Samii a list of people who might serve as advisors for setting up the Iranian Science Foundation. He also asked me to suggest the names of individuals who could advise him on the national research centers he has in mind. In the discussions with Prime Minister Hoveida, Dr. Samii and Dr. Nasr, it was suggested that we consider joint research proposals involving M. I. T. and A. M. U. T. that would contribute to the development of the university itself or were of a more general importance to Iran. It occurred to me that there might be a possibility of joint efforts in astronomy, and I mentioned this to Dr. Nasr and his colleagues. They appeared interested, but we did not explore this in depth. Arya-Mehr University of Technology does not have any significant capability in astronomy. There is considerable interest in expanding their activities in communications, metallurgy, chemical engineering generally, and in the social sciences, including both economics and the issues of science and technology in a contemporary society. They

are particularly interested in the problems of management of modern technological societies and in the problems of providing medical care.

At the end of the meeting, the Shah expressed an interest in visiting M. I. T. and I questioned Dr. Nasr later about whether or not this was a serious discussion and Dr. Nasr said that he thought that the Shah was seriously interested in such a visit.

My plan for the immediate future includes having the agreement checked and returned to A. M. U. T. ; making suggestions to Dr. Samii regarding the two advisory committees with which I agreed to help; seeking out a coordinator for the A. M. U. T. program; and exploring with the academic council and department heads any research activities they would suggest for collaborative programs, either here or in Iran.

I also have been thinking about the feasibility of asking support for the Energy Laboratory.

I would appreciate reactions to these various points.

JBW/jh

cc: Mr. J. W. Lambert
Gen. J. B. Lampert
Mr. N. C. Lees
Dr. B. S. Nelson



F. Dean

Massachusetts Institute of Technology
Center for Advanced Engineering Study
Cambridge, Massachusetts, 02139

Room 9-221

August 27, 1974

Memorandum to: Ms. Carol Van Aken

From: Paul E. Brown

Dr. Mehdi Zarghamee, Vice-Chancellor of the Arya Mehr University of Technology, Iran, visited me yesterday. He left the enclosed signed copy of the Agreement for collaboration between MIT and AMUT.

AMUT is pleased with the wording of the Agreement except in the area of patents (page 12) and copyrights (page 13). Dr. Zarghamee feels that AMUT should have greater rights when the research work is paid for with AMUT funds. If we reword these paragraphs in order to balance the statements that appear to AMUT to be in favor of MIT, maybe we could include statements that are more favorable to AMUT for work that is funded by AMUT or that is done at AMUT. Maybe we should also specifically mention possible limitations on our ability to grant licenses and rights that may be imposed by other sponsors. I would appreciate your suggestions.

In order to establish the letter of credit stipulated on Page 10, please write to Mr. Ahmad H. Firouzabadi, Vice-Chancellor for Financial Affairs (he signed the Agreement for AMUT) telling him where and how to establish the letter of credit. Please send me and Dr. Zarghamee a copy of the letter.

Paul
Paul E. Brown
Assistant Director

PEB:eb

cc: Dr. J. B. Wiesner ✓

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1. For the training, leading to advanced degrees, at M.I.T. of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Isfahan;
2. For selected members of the faculty of the Arya-Mehr University to spend not less than one semester as visiting faculty at M.I.T.;
3. For a limited number of administrative personnel -- librarians, admissions office staff, research administrative staff, etc., to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

AMUT will furnish funds to support M.I.T. departmental expenses and the cost of miscellaneous materials and services associated with the academic visitors (as described in the following pages); funds to establish a parent account for research related costs and stipends for graduate students from AMUT appointed as research and/or teaching assistants; funds for the expenses of the Coordinator's office.

IV. PROCEDURES

The procedures to achieve the above goals are visualized as follows:

IV-1. Graduate Students

AMUT will select and nominate to the M.I.T. Graduate School young men who are expected to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute may have the dual status of graduate student and junior staff. It is assumed that the normal procedure will be for a full-time graduate student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the student's academic program, the M.I.T. Coordinator (see page 5 of this section) will aid in seeking in an appointment for the student in a department or laboratory either as a teaching or research assistant, depending upon what seems most advantageous to the student's program. It is hoped that in order to obtain and fulfill the junior staff status the period of residence required to complete the advanced degree program will not be appreciably extended.

Whenever the appropriate teaching or research opportunity exists for graduate students to become staff assistants to further both their objectives and the objectives of AMUT, and funds under M.I.T. control are available for stipend payments, it is expected that they will be paid from such funds. However, when funds for support are not available at M.I.T., the normal stipend will be paid from the parent account funds provided by AMUT as part of this proposal. The normal policies of M. I. T. regarding overhead charges on the salaries of staff assistants will be followed.

For all graduate students from AMUT, either on a full-time academic schedule or while combining studies with a part-time staff assistant position, normal M.I.T. tuition will be remitted directly to M.I.T. by AMUT.

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievement and personal behavior will be applicable to all the graduate students in this program. Furthermore, AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applications from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

These students, as Fellows in the CAES, but not regular graduate students, can do many things. For example, they can develop an interdisciplinary program that may differ substantially from a formal degree program. They need not meet all the requirements for an M.I.T. advanced degree. They can pursue their program in a manner that depends on the length of their visit. They may attend regular graduate and undergraduate subjects and seminars. They may also attend special subjects and seminars offered by the CAES. They may engage in research and in individual studies guided by the members of the M.I.T. faculty. They will have study offices in the Center. The Fellows of the Center receive a certificate upon completion of their program. They may, during their program, apply for admission to the Graduate School using credit subjects they have satisfactorily completed toward degree requirements. If they are admitted as regular graduate students they will receive a degree upon completion of their program.

The activities of the Fellows in CAES will be determined by discussions with AMUT. The Advanced Study Program tuition will be remitted directly to M.I.T. by AMUT.

IV-2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting faculty members with the same rank as carried at AMUT.

Since these visiting faculty will participate at M.I.T. in the dual role of academic scholars and professional colleagues and since decisions on staffing plans and space allocations are made by M.I.T. during the spring term preceding the academic year, the names of those nominated to be visiting faculty, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. Coordinator not later than the end of January of the preceding term. This will make it possible for the Coordinator to ask the department to which the visitor is likely to be associated to review the nominee's objectives and accomplishments, and determine whether the department will have the resources to accommodate the dual nature of the visitor's activities and will be his host.

Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

AMUT will pay directly to each professor his salary and living expenses. The M.I.T. host department will be reimbursed for supervisory and miscellaneous support expenses from funds provided by AMUT as part of this proposal. AMUT's reimbursement to M.I.T. will be calculated at 30% of the average M.I.T. academic salary of a professor of equivalent rank, prorated for the interval of time spent at M.I.T. by the visiting professor from AMUT. Nothing in this agreement is intended to prevent individual arrangements between M.I.T. departments and AMUT faculty.

Whenever a particular visiting faculty member, on the advice of his M.I.T. faculty colleague and with the approval of the M.I.T. Coordinator, wishes to pursue specific research of his own choosing, the Coordinator will be authorized to allocate funds for such research from the parent account up to a maximum of \$5,000 a year. Typical

items of expense might be computer time, the manufacture of specific apparatus, the purchase of books specifically needed for his program, purchase of special equipment, visits to other institutions, and secretarial services. All equipment and books provided through this channel will be deemed the property of Arya-Mehr and may be taken back to Iran. Whenever the visiting professor affiliates with an on-going research program at M.I.T. and makes contributions that help M.I.T. fulfill its commitment to its sponsor and when M.I.T. project funds are available, the project will carry these expenses. In some instances, it is possible that both M.I.T. controlled and AMUT furnished funds will be used.

In addition to activities of a strictly professional character, such as study and research, the visiting professors will be encouraged to attend faculty meetings, participate in departmental conferences, perform teaching as the opportunity offers and, in general, be encouraged to do those things which will furnish insight into the M.I.T. infrastructure.

IV-3. Administrative Personnel

From time to time, the members of the administrative staff of AMUT will visit M.I.T. for a period of a few weeks up to an academic term. Likewise, it is visualized that selected administrative personnel from M.I.T. will visit AMUT. The visitors from AMUT will be given the opportunity to learn about M.I.T. policies and procedures on, for example, admissions, registration, library, student residential matters, maintenance of physical plant, computerized departmental administration, planning and allocation of academic and research funds and space, alumni relationships, and relationships with industry.

Administrators will affiliate with either an administrative office or with the Center for Advanced Engineering Study depending upon their interest, and how M.I.T. resources can help them meet their objectives.

M.I.T. will be reimbursed for its expenses in meeting the needs of these visitors in a manner patterned after the procedure for reimbursing M.I.T. for supervisory expenses and materials and services for visiting faculty. Wherever, after consultation with the visitor and the M.I.T. Coordinator, it becomes desirable to allocate a substantial fraction of the time

of a member of the M.I.T. staff to work with this visitor. M.I.T. will be reimbursed from the parent account for its costs in a manner similar to its reimbursement for sponsored research.

IV-4. Collaborative Work

It is expected in this program that certain educational or research collaborative work will be conducted. To promote this activity, it is visualized that the scholars from each institution will make visits to the other institution as circumstances dictate. AMUT will support the expense of the program definition phase of such joint projects which have a direct relevance in Iran. It is expected that the problem definition phase will be initiated through an exchange of correspondence between the institutional Coordinators. This correspondence will be expected, in broad outline, to define the proposed level and nature of activity. After it is agreed by AMUT and M.I.T. that a joint project is appropriate, the M.I.T. Coordinator is then authorized to draw from the parent account the expenses (salaries, overhead and operating costs) of the M.I.T. people related to the problem definition activity.

Once a joint project has been defined a separate financial agreement will be prepared. The parties of this agreement are expected to seek support outside of this proposal for the conduct of such projects.

AMUT will, from time to time, confer with M.I.T., through the M.I.T. Coordinator's Office, on matters related to the initiation of new research or teaching activities in Iran.

In addition to collaborative work that is of direct interest to AMUT and Iran, there is visualized under this agreement the conduct of collaborative work that primarily is of interest to the M.I.T. faculty. Such cooperative work will be encouraged and understandings as to how M.I.T. shall finance this work on its behalf will be arrived at after discussions between the Coordinators at M.I.T. and AMUT.

V. The M.I.T. Coordinator

M.I.T. will designate a Coordinator whose responsibilities will be to take the necessary action within the resources of M.I.T.

to maximize the opportunities available to the visitors who come to M.I.T. as part of this program.

The Coordinator will introduce the visitor to the M.I.T. faculty member or members with whom he will work.

The Coordinator's Office will render assistance so as to facilitate the entry and activity of the visitor within the M.I.T. environment. The experience of M.I.T. in previous programs with sister universities has shown that the visitors benefit greatly by being introduced to the social and cultural life of both the campus and the Boston community. Visiting scholars from foreign countries usually need assistance in the location of housing. The M.I.T. Housing Office will be called upon for this assistance. Whenever it is possible to provide dormitory space for graduate students or apartments in the M.I.T. student housing complex, the opportunity will be offered to the visitor.

The Coordinator will develop with the visiting faculty the guidelines of their program of activities at M.I.T. and will work with the visiting faculty to help ensure the success of their visits.

The Office of the M.I.T. Coordinator will be responsible for the financial management of this program. The M.I.T. Coordinator will have the authority to allocate funds from the parent account, within the guidelines set forth herein, for the specific research and study of the visiting faculty.

Whenever the best interest of the visiting faculty member or graduate student would be served by an assignment for a period at an industrial establishment to be selected in collaboration with AMUT or in the case of departments at M.I.T. that have developed cooperative course programs, at the plants of the practice school companies or a cooperative course company, the M.I.T. Coordinator may authorize the transfer of the funds necessary to support these assignments from the parent account.

The Office of the Coordinator, working with the M.I.T. Foreign Students Office, will examine and render advice on matters related to visas and requirements of the U. S. Office of Immigration and Naturalization and the U. S. Internal Revenue Service. AMUT shall be responsible for all Iranian income tax liabilities of its personnel where applicable.

M.I.T. will be reimbursed for its expenses on behalf of AMUT in maintaining the Coordinator's Office, such as salaries, direct expenses, and overhead in accordance with M.I.T. standard practices on sponsored activities. Likewise, when the Coordinator's Office in Iran is serving the interests of a program that is directly on behalf of M.I.T. (see section IV, part 4), AMUT will be reimbursed at the same rates.

VI. Duration of Agreement

This Agreement is for the period July 1, 1974 to June 30, 1979. Extensions of this Agreement beyond 1979 will be reviewed during the academic year, 1976-77, and each year thereafter.

Both parties to the Agreement recognize that services to be performed are on a best efforts basis.

The Agreement may be cancelled after mutual discussion subject to M.I.T. being reimbursed for those commitments that it has made and which cannot be cancelled. Only rarely is it to be expected that such a commitment would have been for more than one academic year.

VII. Budget Estimate

It is expected that the activities embraced by this program will build up gradually to the level where six to eight graduate students, and three to six visiting faculty members or administrative staff will be at M.I.T. at one time. It is estimated that there will be between four and six graduate students in residence during the academic year, 1974-75, and possibly two or three faculty visitors.

Negotiations regarding this Agreement have been actively underway since the summer of 1973. It is proposed, therefore, that the effective date for the Agreement for cost reimbursement purposes be set at July 1, 1974.

Based on the above, the estimated funds needed to carry out this program up to June 30, 1975 (the first twelve months) are:

Support funds to provide for the departmental and miscellaneous materials and supporting services expense for the academic visitors -- faculty and administrators (see section IV, parts 2 and 3)

\$12,000

Parent account funds for research or other expenses (see section IV, parts 1, 2, 3, and 4)

\$ 5,000

Expenses of Coordinator's Office - part-time salary for Coordinator and secretary, miscellaneous expenses, M.I.T. overhead at 63% of salaries and wages, and employee benefits

\$ 6,000

Travel (for two persons to visit AMUT)

\$ 4,000

Total (in U.S. dollars).....\$27,000

In March, 1975, based on the experience gained during the first period of this Agreement, M.I.T. and AMUT will decide on the level of funding for the next two years. It is anticipated that during the second and third years, the activity will increase and the budget will be greater than for the initial period.

VIII. Method of Payment

Upon signing this Agreement M.I.T. requests that AMUT establish an irrevocable letter of credit in the amount of \$27,000 in favor of M.I.T. at a mutually acceptable bank in the United States. The expiration date of the letter of credit shall not be less than twelve months from the date it is established.

We also ask that AMUT instruct this bank, upon opening the letter of credit, to make an advance payment to M.I.T. in the amount of twenty percent (20%) of the letter of credit or U.S. \$5,400, and to make subsequent payments against quarterly invoices of M.I.T., as approved by AMUT up to the total amount of the letter of credit. Each year as the program proceeds a similar credit will be established, based on the estimated budget for the period.

Quarterly invoices will be submitted following the close of each period ending September 30, December 31, March 31, June 30 and will show the total charge for professional services and total charge for expenses incurred during the quarter. M.I.T. will be prepared to submit details of expenses for any invoice when requested, in a manner similar to that used with contracts for U. S. Government agencies.

IX. Taxes

Whenever M.I.T. is obligated to pay Iranian income taxes and other direct taxes and duties imposed during this project in accordance with Iranian law and which are presently unforeseen, it will make payment on the basis that such tax payments shall be reimbursed to M.I.T. directly by AMUT upon the submission of tax receipts to AMUT as an addition to the letter of credit.

X. M.I.T.'s Commitments

The program will be under the supervision of Professor Gordon S. Brown and Dr. Paul E. Brown or other designated members of the M.I.T. staff. The cost of the program will be established in a mutually agreed upon budget which M.I.T. will not exceed without specific written authorization or modification of the budget to take into account new conditions. The total estimated cost of this program is \$27,000 for the period July 1, 1974 through June 30, 1975.

XI. Patents

Title to any invention or discovery made or conceived in the performance of research at M.I.T. will remain with M.I.T. which shall have the sole right to determine the disposition of any patents or other rights resulting therefrom provided that upon issue of any patent on any such invention or discovery, M.I.T. shall grant to AMUT an irrevocable, royalty-free, non-exclusive license for use of such invention or discovery for its own purposes. M.I.T. will require all employees engaged in the research to execute written agreements by which they bind themselves to perform as stated herein.

The provisions of this clause do not foreclose AMUT from later negotiating for greater rights in any invention or discovery than the non-exclusive, royalty-free license granted by this agreement.

XII. Use of the Name of M.I.T. or AMUT

Both parties to this agreement agree not to use the name of the other party or any member of its staff in sales promotion work or advertising, or in any other form of publicity without the written permission of that party.

XIII. Publication and Copyrights

M.I.T. will be free to publish papers dealing with results of research under this Agreement after giving a copy of the paper to AMUT. Title to and the right to determine the disposition of any copyrights, or copyrightable material, first produced or composed in the performance of this research, shall remain with M.I.T. provided that M.I.T. shall grant to AMUT an irrevocable royalty-free, nonexclusive right to reproduce, translate, and use all such copyrighted material for its own purposes.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By

Stuart H. CowenTitle Stuart H. Cowen, Vice President for
Financial OperationsDate June 19, 1974

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

By

A. H. FirouzabadiTitle Ahmad H. Firouzabadi, Vice Chancellor for
Financial AffairsDate July 21, 1974

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JRAN

13 May 1974 19

Memo to Dr. Jerome B. Wiesner Room Ext.

Dear Jerry,

For your information, enclosed is the final version of the Agreement between A.M.U.T. and M.I.T. This is the version that was sent by the Office of Sponsored Programs with Stu Cowen's signature to Dr. Nasr for his formal approval.

NAME OF THE ROOM ROOM 3-208 MAY 14 1974 REF. TO

Sincerely yours,

Gordon S. Brown April 1. 74 To Iran

MRH from Enclosure: 1 Room Ext.

MAR 22 1974

AN AGREEMENT FOR A PROGRAM OF
COLLABORATION BETWEEN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
AND
ARYA-MEHR UNIVERSITY OF TECHNOLOGY

I. INTRODUCTION

The mandate set forth by His Imperial Majesty the Shah for the Arya-Mehr University of Technology (AMUT) is, on the one hand, to educate a group of elite engineers and scientists who will become the key instruments of the future economic and social development of Iran and, on the other hand, through research and development programs conducted on the campus by students and faculty, to accelerate the transfer of science and technology into the societal fabric of Iran to ameliorate the pressing industrial, economic, social, and human problems of a fast-paced industrializing society.

³ The AMUT is presently operating a ^P seven-year-old campus of about 2,700 students and 300 faculty members in Tehran -- the average age of the faculty is about thirty. The greater Arya-Mehr University of Technology at Esfahan is expected to start classes in September, 1976. The Esfahan campus will have an innovative program which has been developed with the assistance of Professor Grodon S. Brown of M.I.T. and is expected to have ~~ten~~ ten thousand students and about eleven hundred faculty in the final stages of development.

II. PROGRAM OBJECTIVES

The principle aim of this cooperative program with the Massachusetts Institute of Technology (M.I.T.) is to enable the present and future members of the AMUT faculty, through a period of residence at M.I.T., to be introduced to the frontiers of science and technology in their fields of interest; to obtain an awareness of the spirit of M.I.T.; to understand how M.I.T. organizes and operates to innovate change; to acquire a first-hand experience with the mechanisms that have contributed to the success of the faculty, students, and administration of M.I.T. in adapting to challenges set forth by the changing world society. It is not intended that the development of AMUT will be directed by M.I.T. nor that activities at M.I.T. will be copied exactly, but rather through this program AMUT will be able to establish its own educational and research programs on a firm course compatible with the culture and problems of Iran, and through the strength derived from the experiences of AMUT faculty at M.I.T., to take long range steps with confidence.

III. THE PROGRAM IN BRIEF

It is intended that the program of collaboration provide:

1. For the training, leading to advanced degrees ^{at MIT,} of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Esfahan:
2. For selected members of the faculty of the Arya-Mehr University to spend not less than a semester as visiting faculty at M.I.T.;
3. For a limited number of the administrative personnel -- librarians, admissions office staff, research administrative staff, -- to spend a period of residence at M.I.T.;
4. For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administrators to Iran, and vice versa, and by collaborative research projects of mutual interest that are particularly relevant to the problems of Iran.

The cooperative program will be administered by a Coordinator at M.I.T. His duties and obligations are described on the following pages.

The AMUT will furnish funds to support M.I.T. departmental expenses and the cost of miscellaneous materials and services associated with the academic visitors; funds to establish a parent account for research related costs and stipends for graduate students from AMUT appointed as research and/or teaching assistants; funds for the expenses of the Coordinator's office.

IV. PROCEDURES

The procedures to achieve the above goals are visualized as follows:

IV-1. Graduate Students

The AMUT will select and nominate to the M.I.T. Graduate School young men whom they wish to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute will have the dual status of graduate student and junior staff. It is assumed that the normal procedure will be for a student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the student's academic program, the M.I.T. Coordinator

may
The asst and guidance of the program coordinator will be available to AMUT students.

(See Part 5 of this Section) will aid in seeking an appointment for the student in a department or laboratory either as a teaching or research assistant, depending upon what seems most advantageous to the student's program. It is hoped that in order to obtain and fulfill the junior staff status the period of residence required to complete the advanced degree program will not be appreciably extended.

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For all graduate students from AMUT, either on a full-time academic schedule or while combining studies with a part-time staff assistant position, normal M.I.T. tuition will be remitted directly to M.I.T. by AMUT.

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievement and personal behavior will be applicable to all the graduate students in this program. Furthermore, the AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applications from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. Under this program they will affiliate with the Center for Advanced Engineering Study (CAES) as Fellows in the Advanced Study Program. They may eventually become degree candidates at M.I.T. For the Advanced Study Program, however, their applications will be evaluated by the Office of the Coordinator and the CAES, rather than by the Graduate School Admissions Office.

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Since these visiting faculty will participate at M.I.T. in the dual role of academic scholars and professional colleagues and since decisions on staffing plans and space allocations are made by M.I.T. during the spring term preceding the academic year, the names of those nominated to be visiting faculty, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. Coordinator *not later than the end of the previous term.* This will make it possible for the Coordinator to ask the department to which the visitor is likely to be associated to review the nominee's objectives and accomplishments, and determine whether the department will have the resources to accommodate the dual nature of the visitor's activities and will be his host.

Generally, it is expected that the visiting faculty member will be attached to a department. In other instances, for example, when his interests span several departments, he may be attached to a Research Center or to the CAES. In any case, the intention is that he have an office and become involved in professional work related to his interests as well as in the organization and policy making activities around him.

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arrangement between M.I.T. Dept and the faculty members of AMUT.

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Whenever the best interest of the visiting faculty member or a graduate student would be served by an assignment for a period at an industrial establishment to be selected in collaboration with AMUT or, in the case of departments at M.I.T. that have developed cooperative course programs, at the plants of the Practice School companies or a cooperative course company, the M.I.T. Coordinator may authorize the transfer from the parent account of the funds necessary to support these assignments.

The Office of the Coordinator, working with the M.I.T. Foreign Students Office, will examine and render advice on matters related to visas and requirements of the U.S. Office of Immigration and Naturalization and the U.S. Internal Revenue Service. AMUT shall be responsible for all Iranian income tax liabilities of its personnel where applicable.

M.I.T. will be reimbursed for its expenses on behalf of AMUT in maintaining the Coordinator's Office, such as salaries, direct expenses, and overhead in accordance with M.I.T. standard practices on sponsored activities. Likewise, when the Coordinator's Office in Iran is serving the interests of a program that is directly on behalf of M.I.T. (See Section IV, Part 4), AMUT will be reimbursed *not the same rates.*

VI. Duration of Agreement

This Agreement is for the period January 1, 1974 to June 30, 1979. Extensions of this Agreement beyond 1979 will be reviewed during the academic year, 1976-77, and each year thereafter.

Both parties to the Agreement recognize that services to be performed are on a best efforts basis.

The Agreement may be cancelled after mutual discussion subject to M.I.T. being reimbursed for those commitments that it has made and which cannot be cancelled. Only rarely is it to be expected that such a commitment would have been for more than one academic year.

VII. Budget Estimate

It is expected that the activities embraced by this program will build up gradually to the level where six to eight graduate students, and three to six visiting faculty members or administrative staff will be at M.I.T. at one time. It is estimated that there will be between four and six graduate students in residence during the academic year, 1974-75, and possibly two or three faculty visitors.

Negotiations regarding this Agreement have been actively underway since the summer of 1973. It is proposed, therefore, that the effective date for the Agreement for cost reimbursement purposes be set as January 1, 1974.

Based on the above, the estimated funds needed to carry out this program up to June 30, 1975 (the first eighteen months) are:

Support funds to provide for the departmental and miscellaneous materials and supporting services expense for the academic visitors -- faculty and administrators (See Section IV, Parts 2 and 3)	\$12,000
Parent account funds for research or other expenses (See Section IV, Parts 1, 2, 3, and 4)	5,000
Expenses of Coordinator's Office -- part-time salary for Coordinator and secretary, miscellaneous expenses, M.I.T. overhead at 63% of salaries and wages, and employee benefits	9,000
Travel (for two persons to visit AMUT)	<u>4,000</u>
TOTAL (in U.S. dollars).....	\$30,000

In March, 1975, based on the experience gained during the first period of this Agreement, M.I.T. and AMUT will decide on the level of funding for the next two years. It is anticipated that during the second and third years, the activity will increase and the budget will be greater than for the initial period.

VIII. Method of Payment

Upon signing this Agreement M.I.T. requests that AMUT establish an irrevocable letter of credit in the amount of \$30,000 in favor of M.I.T. at a mutually acceptable bank in the United States. The expiration date of the letter of credit shall not be less than eighteen months from the date it is established.

We also ask that AMUT instruct this bank, upon opening the letter of credit, to make an advance payment to M.I.T. in the amount of twenty percent (20%) of the letter of credit or U.S. \$6,000, and to make subsequent payments against quarterly invoices of M.I.T., as approved by AMUT up to the total amount of the letter of credit. Each year as the program proceeds a similar credit will be established, based on the estimated budget for the period.

Quarterly invoices will be submitted following the close of each period ending September 30, December 31, March 31 and June 30, and will show the total charge for professional services and the total charge for expenses incurred during the quarter. M.I.T. will be prepared to submit details of expenses for any invoice when requested, in a manner similar to that used with contracts for U.S. Government agencies.

IX. Taxes

Whenever M.I.T. is obligated to pay Iranian income taxes and other direct taxes and duties imposed during this project in accordance with Iranian law and which are presently unforeseen, it will make payment on the basis that such tax payments shall be reimbursed to M.I.T. directly by AMUT upon the submission of tax receipts to AMUT as an addition to the letter of credit.

X. M.I.T.'s Commitments

The program will be under the supervision of Professor Gordon S. Brown and Dr. Paul E. Brown. The cost of the program will be established in a mutually agreed upon budget which M.I.T. will not exceed without specific written authorization or modification of the budget to take into account new conditions. The total estimated cost of this program is \$30,000 for the period January 1, 1974 through June 30, 1975.

XI. Patents

Title to any invention or discovery made or conceived in the performance of research will remain with M.I.T. which shall have the sole right to determine the disposition of any patents or other rights resulting therefrom, provided that upon issue of any patent on any such invention or discovery, M.I.T. shall grant to AMUT an irrevocable, royalty-free, non-exclusive license for use of such invention or discovery for its own purposes. M.I.T. will require all employees engaged in the research to execute written agreements by which they bind themselves to perform as stated herein.

The provisions of this clause do not foreclose AMUT from later negotiating for greater rights in any invention or discovery than the non-exclusive, royalty-free license granted by this agreement.

XII. Use of the Name of M.I.T.

AMUT agrees not to use the name of M.I.T. or any member of its staff in sales promotion work or advertising, or in any other form of publicity without the written permission of the Director of the Office of Sponsored Programs.

XIII. Publication and Copyrights

M.I.T. will be free to publish papers dealing with results of research under this Agreement, after giving a copy of the paper to AMUT. Title to and the right to determine the disposition of any copyrights, or copyrightable material, first produced or composed in the performance of this research, shall remain with M.I.T. provided that M.I.T. shall grant to AMUT an irrevocable royalty-free, non-exclusive right to reproduce, translate, and use all such copyrighted material for its own purposes.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By Stuart H. Cowen

Title Stuart H. Cowen
Vice President for Financial Operations

Date MAR 29 1974

ARYA-MEHR UNIVERSITY OF TECHNOLOGY

By _____

Title _____

Date _____

NIGHT LETTER

May 8, 1974

Mr. Seyyed Hossein Nasr
Chancellor
Arya-Mehr University of Technology
P.O. Box 3406
Eisenhower Blvd.
Tehran, Iran

I have made the following travel and hotel reservations:

To Iran - Wednesday, June 5 from London. Leave London
at 11:15 a.m. on BOAC #800 arriving in Tehran at 9:10 p.m.

Depart from Tehran - Tuesday, June 11. Leave Tehran at
6:45 a.m. Iran Air #721 through Frankfurt.

Hotel - Intercontinental in Tehran. Reservation requested
but not confirmed yet for nights June 5 through June 10.

Mrs. Wiesner not able to come.

Jerome B. Wiesner
President, M.I.T.

Jxc MRS WIESNER
Prof G. BROWN

**DRAFT OF A PROPOSAL
FOR A PROGRAM OF COLLABORATION
between
arya mehr university of technology
and
massachusetts institute of technology**



پیش نویس قرارداد همکاری

بین

دانشگاه صنعتی آریامهر و انستیتو تکنولوژی ماساچوست

DRAFT OF PROPOSAL, PAGE 2

DRAFT OF A PROPOSAL

FOR A PROGRAM OF
COLLABORATION BETWEEN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
AND
ARYA-MEHR UNIVERSITY OF TECHNOLOGY

I. INTRODUCTION

The mandate set forth by His Imperial Majesty the Shah for the Arya-Mehr University of Technology - AMUT - is, on the one hand, to educate a group of elite engineers and scientists who would become the key instruments of the future economic and social development of Iran, and on the other hand, through research and development programs conducted on the campus by students and faculty to accelerate the transfer of science and technology into the societal fabric of Iran to ameliorate the pressing industrial, economic, social, and human problems of our fast-paced industrializing society.

The AMUT is presently operating a seven-year-old campus of about 2,700 students and 300 faculty members--average age about thirty-- in Tehran. The greater Arya-Mehr University of Technology at Esfahan is expected to start classes in September 1976. The Esfahan campus will have an innovative program, which has been developed with the assistance of Professor

DRAFT OF A PROPOSAL
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DRAFT OF PROPOSAL, PAGE 2

Gordon S. Brown of M.I.T. and is expected to have ten thousand students and about eleven hundred faculty in the final stages of development.

It is requested that the program of collaboration

II. PROGRAM OBJECTIVES

The principle aim of this cooperative program with the Massachusetts Institute of Technology (M.I.T.), is to enable the present and future members of the AMUT faculty, through a period of residence at M.I.T., to be introduced to the frontiers of science and technology in their fields of interest, to get an awareness of the spirit of M.I.T., to understand how it organizes and operates to innovate change, and to acquire a firsthand experience with the mechanisms that have contributed to the success of the faculty, students, and administration of M.I.T. in adapting to challenges set forth by the changing world society. It is not intended that the development of AMUT will be directed by M.I.T. nor that activities at M.I.T. will be copied exactly, but rather through this program it is hoped that AMUT will be able to establish its own educational and research programs on a firm course compatible with the culture and problems of Iran, and through the strength derived from the experiences of AMUT faculty at

est that are particularly relevant to the

M.I.T., to take long range steps with confidence.

IV. PROCEDURES

III. THE PROGRAM IN BRIEF

It is requested that the program of collaboration

provide :

1. Graduate Students

- 1- For the training, leading to advanced degrees, of a selected number of outstanding students who are expected to be employed as members of the faculty of the Arya-Mehr University at Esfahan ;
- 2- For the faculty of the Arya-Mehr University to spend not less than a semester as visiting professors at M.I.T.
- 3- For a limited number of the administration personnel--librarians, admissions office staff, research administration staff--to spend a period of residence at the Institute;
- 4- For the faculty and staff of M.I.T. to develop working professional ties with the faculty of AMUT through visits by M.I.T. faculty and administration to Iran, and vice-versa, and by collaborative research projects of mutual interest that are particularly relevant to the

Problems of Iran.

IV. PROCEDURES

The procedures to achieve the above goals are visualized as follows :

1. Graduate Students

The AMUT will select and nominate to the M.I.T. Graduate School young men who^m they wish to obtain an advanced degree (master or doctorate) and who at some time during their tenure at the Institute will have the dual status of graduate student and junior staff. It is assumed that the normal procedure would be for a student who is admitted with only a bachelor's degree to be a full-time graduate student for the first year. At some time during the program the M.I.T. Coordinator would seek an appointment in a department or laboratory either as a teaching or research assistant depending upon the student's program. It is hoped that in order to obtain the junior staff status the period of residence required to complete the advanced degree program would not be appreciably extended.

The M.I.T tuition normally paid by staff assistants who are also graduate students will be remitted direct to M.I.T. by AMUT.

Whenever the appropriate teaching or research opportunity exists for a Graduate Student to meet his objectives and the objectives of AMUT, but funds for their support are not available by M.I.T., the normal M.I.T. stipend may be paid by M.I.T. from a parent account provided by AMUT. The normal policies of M.I.T. regarding overhead charges on the salaries of staff assistants will be followed .

It is expected that the normal M.I.T. rules and regulations pertaining to student's achievements and personal behavior will be applicable to all the graduate students in this program. Furthermore, the AMUT will have the right to recall any participant in this program for whatever reason deemed necessary solely by AMUT.

Since M.I.T. has more applicants from qualified students than it can accept for admission as degree candidates, other young men from AMUT may come to M.I.T. as special students. They will affiliate with the M.I.T. Center for Advanced Engineering Study. They may eventually become degree candidates, and in order to optimize their program, their application will be evaluated by the office of the coordinator and the Center for Advanced Engineering Study, rather than by the Graduate School Admissions Office.

These students, as fellows in the Center for Advanced Engineering Study but not regular graduate students, can do many things. For example, they can develop an interdisciplinary program that may differ substantially from a formal degree program, they need not meet all the requirements for an M.I.T. advanced degree, they can pursue their program in a manner that depends on the length of the visit. They may attend regular graduate and undergraduate subjects and seminars. They may also attend special subjects and seminars offered by the Center for Advanced Engineering Study. They may engage in research and in individual studies guided by the members of the M.I.T. faculty. They will have study offices within the Center. The fellows of the Advanced Engineering Study receive a certificate upon completion of their program. They may, during their program, apply for admission to the Graduate School and use some of their work in the Center for academic credit. If they are admitted as regular graduate students they will receive a degree upon completion of their program.

2. Faculty

AMUT will nominate faculty for appointments at M.I.T. as visiting professors, ^{with} the same rank he carries at AMUT.

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AMUT will nominate faculty for appointments at M.I.T. as visiting professors, at the same rank as carries at AMUT.

These visiting professors will participate at M.I.T. in the dual role of academic scholar and professional colleague.

In some instances the visiting professor will be attached to a department. In other instances, for example when his interests span several departments, he may be attached to a Research Center or to the Center for Advanced Engineering Study. In either case the intention is that he have an office and become involved in professional work related to his interests, or in the organization and policy making activities.

In order to optimize the total activities of the visitor, each professor's curriculum vitae and statement of interests will be studied by the M.I.T. coordinator, to insure that M.I.T. has the resources needed for the dual nature of the professor's activities.

AMUT will pay direct to the professor the salary and related living expenses. M.I.T. will be reimbursed from a fund established at M.I.T. by AMUT for its supervisory expenses, and for the use of its facilities, described generally as office space, light, heat, miscellaneous office supplies, use of library, etc., at the rate of approximately 30 percent

of the average M.I.T. academic salary of a professor of equivalent rank prorated for the interval of time spent at M.I.T.

Whenever a particular professor, on the advice of his M.I.T. faculty colleague and with the approval of the M.I.T. coordinator, wishes to pursue specific research, of his own choosing, the coordinator will be authorized to allocate funds for such research from the parent account up to a maximum of \$5,000 ^{a year}. Typical items of expense might be computer time, the manufacture of specific apparatus, the purchase of books specifically needed for his program, purchase of special equipment (which will be deemed the property of Arya-Mehr and can be taken back to Iran), visits to other institutions, and secretarial services. Whenever the visiting professor affiliates with an on going research program at M.I.T. and makes contributions that help M.I.T. fulfill its commitment to its sponsor and when M.I.T. project funds are available, the project will carry these expenses.

In addition to activities of a strictly professional character, such as study and research, the visiting professors would be encouraged to attend faculty meetings, participate in departmental conferences, perform teaching as the opportunity offers, and in general be encouraged to do those things which

of the average M.I.T. academic salary of a professor of approximately \$10,000 per year. The interval of time spent at M.I.T. will be approximately 10% of the total time spent at M.I.T.

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In addition to activities of a strictly professional character, such as study and research, the visiting professors would be encouraged to attend faculty meetings, participate in departmental conferences, perform teaching as the opportunity offers, and in general be encouraged to do those things which

will give them an insight as to how the M.I.T. infrastructure operates.

Since decisions on departmental budgets and staffing plans are made by M.I.T. during the spring term preceding the next academic year, the names of those to be appointed visiting professor, a record of their professional accomplishments, and an outline of their areas of interest should be known by the M.I.T. coordinator during the spring in order that he can make the necessary plans for their programs. Whenever visitors cannot arrive by September, it is urged that arrival be deferred until January to mesh with the opening of the second term.

3. Administrative Personnel

From time to time, the members of the administrative staff of AMUT will visit M.I.T. for a period of a few weeks up to an academic term. Likewise, it is visualized that selected administrative personnel from M.I.T. will visit AMUT. The visitors from AMUT will be given the opportunity to learn about M.I.T. policies and procedures on, for example, admissions, registration, library, student residential matters, maintenance of physical plant, computerized departmental

administration, planning and allocation of academic and research funds and space, alumni relationships, and relationships with industry.

Administrators will affiliate with either an administrative office or with the Center for Advanced Engineering Study (for instance, when their interests span a number of administrative areas.).

M.I.T. will be reimbursed for its expenses in meeting the needs of these visitors in a manner patterned after the procedure for reimbursing M.I.T. for the use of facilities by visiting professors. Wherever, after consultation with the visitor and the M.I.T. coordinator, it becomes desirable to allocate a substantial fraction of the time of a member of the M.I.T. staff to work with this visitor, M.I.T. will be reimbursed from the parent account for its costs in a manner similar to its reimbursement for sponsored research.

4. Collaborative Work

It is expected in this program that certain educational or research collaborative work will be conducted. To promote this activity, it is visualized that the scholars

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It is expected in this program that certain educa-
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from each institution will make visits to the other institu-
tion as circumstances dictate. AMUT will support the expenses
of the problem definition phase of such projects which have a
direct relevance in Iran. It is expected that the problem
definition phase will be initiated through an exchange of cor-
respondence between the institutional coordinators. This cor-
respondence will be expected, in broad outline, to define the
ensuing level and nature of activity. After it is agreed by
AMUT and M.I.T. that a program is important, the M.I.T. coor-
dinator is then authorized to draw from the parent account the
expenses of the M.I.T. people related to the problem definition
activity.

Once a joint project has been defined a separate
financial agreement will be made. The parties of this agree-
ment may seek outside support for the conduct of such projects.

AMUT will, from time to time, confer with M.I.T.
through the M.I.T. coordinator's office on matters related
to the initiation of new research or teaching activities in
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5. The M.I.T. Coordinator

M.I.T. will designate a faculty coordinator whose responsibilities will be to take the necessary action within the resources of M.I.T. to maximize the accomplishments of the visitors who come to M.I.T. as part of this program.

The coordinator will introduce the visitor to the M.I.T. faculty member or members with whom he will work.

The coordinator's office is expected to render assistance so as to facilitate the entry and activity of the visitor within the M.I.T. environment. The experience of M.I.T. in previous programs with sister universities has shown that the visitors benefit greatly by being introduced to the social and cultural life of both the campus and the Boston Community. Visiting scholars from foreign countries usually need assistance in the location of housing. The M.I.T. Housing Office will be called upon for this assistance. Whenever it is possible to provide dormitory space for graduate students or apartments in the M.I.T. married student housing complex, the opportunity will be offered to the visitor.

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The office of the M.I.T. coordinator shall be responsible for the financial management of this program. The M.I.T. coordinator will have the authority to allocate funds from the parent account within the guidelines set forth herein, for the specific research and study of the visiting professors.

Whenever the best interests of the visiting professor or a graduate student would be served by an assignment for a period at an industrial establishment to be selected in collaboration with AMUT, or in the case of departments at M.I.T. that have developed cooperative course programs, at the plants of the practice school companies or a cooperative course company, the M.I.T. faculty coordinator may authorize the transfer from the parent account of the funds necessary for these assignments.

The office of the coordinator will examine and render advise on matters related to visas and requirements of the U.S. Office of Immigration and Naturalization and the U.S. Internal Revenue Service. AMUT shall be responsible for all Iranian income tax liabilities of its personnel where applicable.

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M.I.T. will be reimbursed for its expenses in maintaining the coordinator's office such as salaries, direct expenses, plus overhead in accordance with M.I.T. standard practices on sponsored activities.

6. Duration of Agreement

This agreement is for a period of five years and extensions of this agreement ~~will~~^{will} be reviewed at the beginning of the third year and each year thereafter.

Both parties to the agreement recognize that services to be performed are on a best efforts basis.

The agreement may be cancelled after mutual discussion subject to M.I.T. being reimbursed for those commitments that it has made and which cannot be cancelled. Only rarely is it to be expected that such a commitment would have been for more than one academic year .

Revised 23 November 1973

Mehdi Zarghamee

Gordon S. Brown

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It is understood that the coordinator will be

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Revised 23 November 1973

Herb S. Zuckerman

Gordon S. Brown

