1. ミニッツ

THE MINUTES OF MEETING
BETWEEN
THE JAPANESE PRELIMINARY STUDY TEAM
AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE REPUBLIC OF TUNISIA
ON
THE JAPANESE TECHNICAL COOPERATION
FOR
THE PROJECT FOR THE ESTABLISHMENT OF THE SECTORIAL VOCATIONAL TRAINING CENTER FOR THE ELECTRIC AND ELECTRONICS INDUSTRY

The Japanese Preliminary Study Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (JICA), headed by Mr. Nobuto Okumura, visited the Republic of Tunisia from November 1 to November 12, 1999 for the purpose of clarifying the outline and background of the request of the Project for the Establishment of the Sectorial Vocational Training Center for the Electric and Electronics Industry (hereinafter referred to as "the Project").

During the stay in the Republic of Tunisia, the Team visited the Project site, exchanged a view of it and had a series of meetings with the Tunisian authorities concerned, represented by Mr. Mohammed Saddem.

As a result of the discussions, the Team and the Tunisian authorities concerned agreed to report to their respective Governments the matters referred to the attached document.

Tunis, November 11, 1999

奥村伸人

Nobuto Okumura
Leader
Preliminary Study Team
Japan International Cooperation Agency
Japan

Mohammed Saddem
Director Group of Studies, Planification,
Programmation and Prospective
Ministry of Vocational
Training and Employment
Republic of TUNISIA

THE ATTACHED DOCUMENT

The discussions between the Team and Tunisian authorities concerned were held in Tunis with participants listed below;

TUNISIAN SIDE	
Ministry of Vocational Training and Employment (MFPE)	
Mohamed Saddem	Director of Study, Planification, Programmation and Prospective (MFPE)
Kamel Alimi	Deputy Director in charge of Study, Planification, Programmation and Prospective (MFPE)
Zouhaier Hamdi	Chief of Project, Tunisian Agency of Vocational Training (ATFP)
Sofia Bahri	Responsible of Projects,National Center of Training Instructors and Engineering of Training (CENAFFIF)
Sectorial Vocational Training Center (CSFP-ATFP)	
Lotfi Nabli	Director of the Sectrial Formation Center for Electronics in Sousse
National Employer's Federation of the Electronics and Electrics (FEDELEC)	
Amor Bouchiba	President
Abdelaziz Halleb	Vice President
JAPANESE SIDE	
JICA Office in Tunisia	
Keiichi Takemoto	JICA Staff
Abdelmajid Belhadj Yahia	JICA Staff
The Preliminary Study Team	
Nobuto Okumura	Leader Deputy Director, Overseas Cooperation Div., Human Resources Development Bureau, Ministry of Labour
Katsuaki Takanaka	Technical Management Vice President, Oyama Polytechnic College, Employment and Human Resources Development
Sigemi Hiramatsu	Technical Adviser in Electronics Lecturer, Training Vidision, Chiba Polytechnic Center, Employment and Human Resources Development
Mitsunori Furuta	Training Management International Cooperation. Div., Human Resources Development Guidance Dept. Employment and Human
Noriaki Murase	Cooperation Plannning Second Technical Cooperation Div., Social Development Cooperation Dept., Japan International
Keiko Namiki	Participatory Planning Planning and Marketing Div., System Science Consultants Inc.
Mariko Sekita	Interpreter

The Team met whom listed below in Tunis for the Project;

TUNISIAN SIDE	
Ministry of Vocational Training and Employment (MFPE)	
Mohamed Naceur Chraiti	Deputy Director of International Cooperation (MFPE)
Ali Yacoub	International Cooperation (MFPE)
Ministry of Foreign Affairs	
Ridha Azaiez	Deputy Director of the Pacific Asia Area
Sectorial Vocational Training Center (CSFP-ATFP)	
Hafedh Ghaddab	Director of the Sectrial Formation Center for Telecommunications in El Khadra
Hichem Mejri	Director of the Sectrial Formation Center for Electronics in Denden
Ghanmi Abdel Wahcb	Director of the Sectrial Formation Center for Electronics in Tunis-1
JAPANESE SIDE	
Embassy of Japan in Tunisia	
Masaaki Noguchi	Ambassador
Toru Sudo	Second Secretary
JICA Office in Tunisia	
Masao Tsujioka	Resident Representative
Akemitsu Mochizuki	JICA Expert (being Attached to CENAFFIF)

1. Title of the Project

The Project for the Establishment of the Sectorial Vocational Training Center for the Electric and Electronics Industry

2. Overall Goal

The overall goal is to promote the economic development in Tunisia by satisfying human resources needed by electric and electronics industry through technicians and higher technicians training.

3. Project Purpose

The purpose of the Project is to conduct technicians and higher technicians training at the Sectorial Vocational Training Center for the Electric and Electronics Industry (hereinafter referred to as "CSFPIEE")

4. Outputs

(1) Adequate curricula for four (4) courses (outline is shown in the ANNEX III) are improved continuously as follow;
- Electronics Manufacturing (BTP : Certificate for Professional Technician)
- Maintenance of Automatic Control System (BTP : Certificate for Professional Technician)
- Production Line Network Control (BTS : Certificate for Professional Higher Technician)
- Management of Manufacturing Line (BTS : Certificate for Professional Higher Technician)

(2) The competence of instructors is satisfied for the electric and electronics industry.
(3) Equipment is used for more effective activities.
(4) Administrative management system in CSFPIEE is established efficiently.

5. Outline of Technical Cooperation

The Japanese experts will be dispatched to assist the Tunisian counterpart personnel in the following areas;

(1) Curriculum development
(2) Instructor training
(3) Usage and maintenance of training equipment
(4) Pedagogy development
(5) Development of administrative management

6. Project Site

CSFPIEE will be located at a site where has been acquired by the Ministry of Professional Training and Employment with the total land area of about 6,500 square meters at *Chemin de la Minoterie-El-Omrane* of the central Tunis area.

7. Duration of the Project

The duration of the Japanese technical cooperation for the Project shall be five (5) years. The starting date of the Project will be fixed by both sides later on.

The Team and Tunisian side expect to start the project in December 2000.

8. Measures to be taken by the Japanese Government

(1) Dispatch of Long-term experts as follows;
Chief advisor
Coordinator
Training experts in the fields of Electronics and Training management

(2) Dispatch of Short-term experts
Short-term experts will be dispatched in accordance with the needs for the effective implementation of the Project.

(3) Training of Counterpart personnel in Japan
Tunisian counterpart personnel involved in the Project will be trained in Japan. The number of trainees and training periods shall be determined on annually according to the discussions by the both sides.

(4) Provision of Equipment
The detail of provision of equipment will be defined during the Supplementary Study, according to the outline of four (4) courses (in the ANNEX III).

9. Measures to be taken by the Tunisian Government

(1) Counterparts
Assignments of a sufficient number of counterpart personnel being capable in English for technical transfer, and administrative personnel to ensure effective operation of the Project.

(2) Buildings and Facilities
Tunisian side will prepare necessary buildings and facilities for the implementation of the Project, and also will provide offices and other necessary facilities for the Japanese experts.

(3) Budget Allocation
Tunisian side will ensure all running expenses for the implementation of the project.

10. Joint Coordinating Committee

The joint coordinating committee will be established for the smooth and effective implementation of the Project. The joint coordinating committee will meet at least once a year and when it is necessary.

(1) Functions

The joint coordinating committee will be established with the following functions;

1) To formulate the annual work plan of the Project in accordance with a tentative schedule of implementation within the framework of a Record of Discussions (hereinafter referred to as "the R/D").
2) To review the progress made in the implementation of the Project in relation to the tentative schedule and the achievements of the annual work plan.
3) To review and exchange opinions on major issues that may arise during the implementation of the Project.

(2) Structure

1) Chairperson: Director of Group of Studies, Planification, Programmation and Prospective, Ministry of Vocational Training and Employment (MFPE)
2) Members of Tunisian side
   a. Representative of Group of Studies, Planification, Programmation and Prospective (MFPE)
   b. Representative of National Center for Training of Instructors and Training Engineering (CENAFFIF)
   c. Representative of Tunisian Agency of Vocational Training (ATFP)
   d. Director of CSFPIEE
   e. Representative of FEDELEC
   f. Other personnel concerned
3) Members of the Japanese Side
   a. Chief Advisor
   b. Coordinator
   c. Training Experts
   d. Resident Representative of JICA in Tunisia or a personnel of JICA office
   e. Other personnel concerned, to be dispatched by JICA, if necessary

   Note: Official(s) of the Japanese Embassy in Tunisia may attend the joint committee sessions as observers.

11. Administration of the project

An organization will be established for the effective and successful implementation of the Project, and a Tentative Organization Chart of the Project is shown in the ANNEX I.

(1) The Director of Group of Studies, Planification, Programmation and Prospective, Ministry of Vocational Training and Employment will retain, as the Project Director, the overall responsibility for the implementation of the Project.

(2) The Director of CSFPIEE will have, as the Project Manager, the technical and administrative responsibility for the implementation of the Project.

(3) MFPE will ensure the approval for qualification of the courses developed by the Project on the request of ATFP.

(4) CENAFFIF will provide assistance to found immaterial infrastructure (curriculum, pedagogical training etc.,) of the project.

(5) The Japanese Chief Advisor will provide necessary recommendations and advice to the Project Director and the Project Manager on any matters pertaining to the implementation of the Project.

(6) The Director of CSFPIEE will work in close consultation with the Chief Advisor regarding technical aspects of the implementation of the Project.

(7) The Japanese experts will give necessary technical guidance and advice to the Tunisian counterpart personnel on matters pertaining to the implementation of the Project.

12. Project Design Matrix (PDM)

The tentative Project Design Matrix (PDM) is established through a workshop based on the Project Cycle Management method. This tentative PDM, elaborated which starting is supposed to be in December 2000, shown in ANNEX II will be further elaborated and finalized by both sides at the Implementation Study stage.

13. Tentative Schedule

(1) Supplementary Study

For the purpose of formulating the detailed plan of the implementation of the Project, the Supplementary Study will be implemented in February 2000. This means that the details of curriculum, list of equipment, instructor's training plan and operating plan of building will be detailed. To complete these works, Tunisian side requested the period of the supplementary study and the number of its team would be enough. According to the detailed plan, Tunisian side will start the building construction process.

(2) Implementation of the Project

The tentative schedule of implementation of the Project is shown in ANNEX IV.

The discussion by the Team and Tunisian side concluded that four (4) courses would be started in the first year of the Project.

In according to this schedule, Japanese side will execute the plan such as dispatching experts, provision of equipment and counterparts training. On the other hand, Tunisian side will complete building and facilities.

(3) Implementation Study

When the Project is found viable by the Japanese Government, the Japanese Implementation Study Team will be dispatched to determine the detailed content of the technical cooperation and record it in the form of a Record of Discussion, hopefully around September 2000.

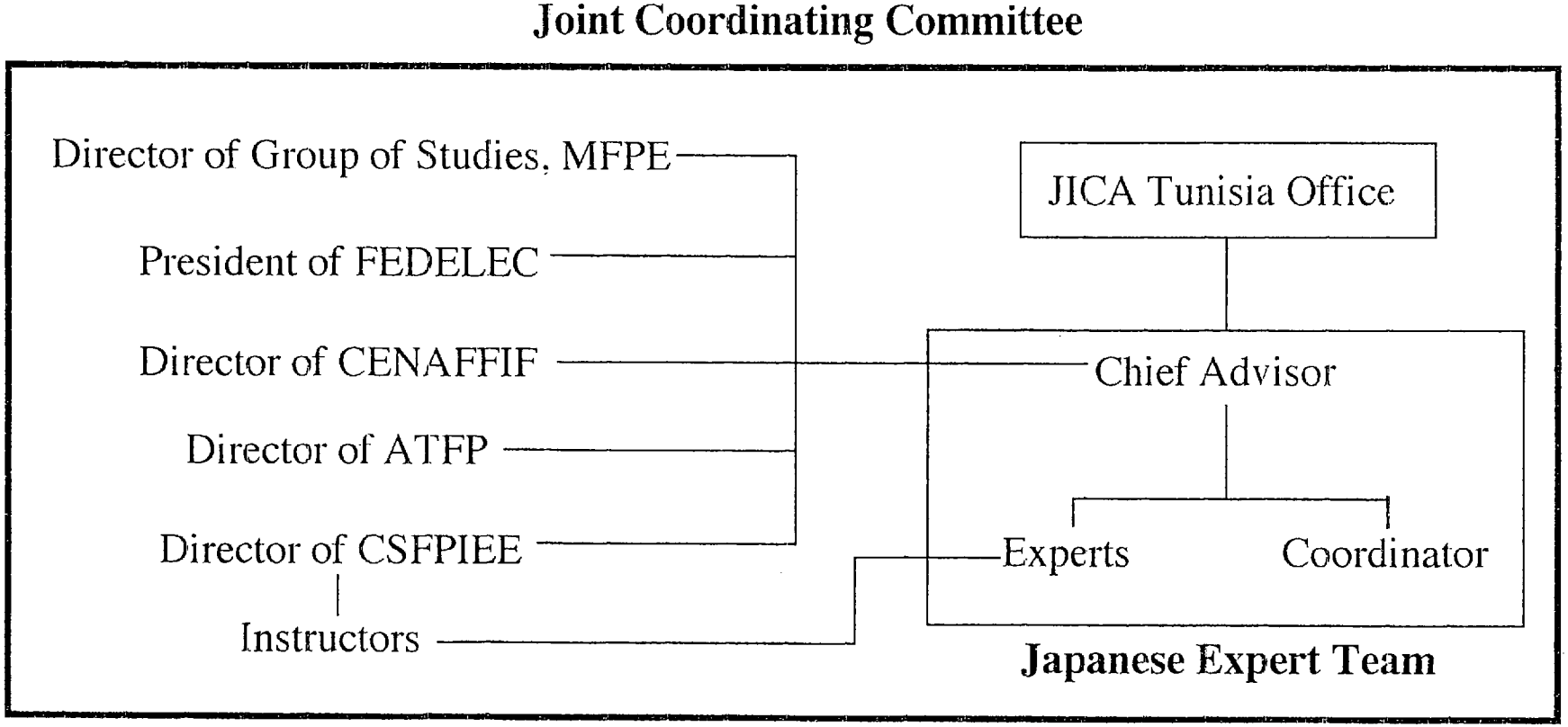
The Team and Tunisian side agreed that the Implementation Study Team would be send after the confirmation that building construction has been achieved majority of whole building frame according to the construction plan.

The conception plan (ANNEX V) submitted Tunisian side is accepted by the Team. The Team also recommend to continue the construction process.

ANNEX I	Tentative Organization Chart of the Project
ANNEX II	Tentative Project Design Matrix
ANNEX III	Outline of Four (4) Training Courses
ANNEX IV	Tentative Schedule of Implementation
ANNEX V	Conception Plan of CSFPIEE building construction (Original Copy)

TENTATIVE ORGANIZATION CHART OF THE PROJECT

Tunisian Side **Japanese Side**



Annex II Project Design Matrix of the Project for the Establishment of the Sectorial Vocational Training Center for the Electric and Electronics Industry in Tunisia

Project title : the Establishment of the Vocational Training Center for the Electric and Electronics Industry Duration : December 2000 to December 2005 (Tentative)

Project area : Tunis, the Republic of Tunisia Target Group : New candidate and workers Prepared by workshop Tunisian Side and Japanese Preliminaly Study Team on November 9, 1999

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
【Overall Goal】 Upgraded technicians fulfill employment market.	• Satisfaction level of enterprises for employment • Employment ratio of graduates from 4 courses	• Questionnaire survey for enterprises and other CSFs • Statistics of national observatory for vocational training and employment	• Human resources are employed by enterprises.
【Project Purpose】 Technician training is conducted at CSFPIEE in electronics manufacturing.	(as direction of concept) 1 No. of trainees in CSFPIEE 2 No. of graduates 3 No. of trainees dropped out in CSFPIEE 4 No. of realized days of re-training 5 No. of conventions signed with enterprises 6 No. of training days in enterprises 7 Technical level of instructors	1～6 Monthly report of CSFPIEE 1～6 Annual report of CSFPIEE 1～6 Program contract document 7 CENAFFIF evaluation	• Industrial needs for 4 courses exist.
【Output】 1 Adequate curricula for 4 courses are improved continuously. 2 The competence of instructors satisfies the Vocational Training Center for the Electric and Electronics Industry. 3 Equipment is used for more effective activities. 4 Administrative management system in CSFPIEE is established effectively.	(as direction of concept) 1 Update level of the program 2 No. of instructors 3-1 Update level of equipment 3-2 Condition of equipment 3-3 Frequency of maintenance and operation for equipment utility	1～3 Monthly report of CSFPIEE 1～3 Annual report of CSFPIEE 3-1 Equipment inventory 3-2 Operated ratio survey for provided equipment by Japan	• Trained instructors stay in CSFPIEE.
【Activities】 1-1 Adopt 4 curricula from Japanese side to Tunisian side. 1-2 Transfer Pedagogic document from experts to instructors. 1-3 Create exercise book for trainer 2-1Identify and hire instructors for 4 courses. 2-2 Develop training plan for instructors. 2-3Experts transfer technology to counterparts. 3-1Identify equipment for 4 courses. 3-2 Consumable material is prepared immediately for experiment 3-3 Equipment is maintained regularly. 4-1 Arrange organization effectively. 4-2 Inform publicity of trainees recruitment well. 4-3 Organize assistant system for job application well.	**【Input】** <u>Japanese Side</u> 1) Dispatch of experts -Long term experts -Short term experts 2) Provision of equipment 3) Tunisian counterparts training in Japan	<u>Tunisian side</u> 1) Arrangement of personnel -Counterparts, Project Manager, etc. -Organization of Joint Coordinating Committee 2) Land for buildings (at "Chemin de la Minoterie-El-Omrane") 3) Building and facilities 4) Budget for necessary running expense	**【Preconditions】** • Necessary procedures are achieved by both government.

BTP　　Course : Electronics manufacturing

① Qualification of entrance	Complete the high school 2 years course and pass a promotion examination for 3rd years of high school.
② Acquire of final goal	① To operate a basic usage of personal computer. ② To make and assemble the electronics semi-equipment like a electronics card according to the specification, and to make the manufacturing procedure list. ③ To understand the basic activities of electronics circuits and to measure the characteristic of the circuits. ④ To understand the basic activities of microprocessor control ⑤ To make the printed circuit board by using CAD system. ⑥ To participate in the achievement of prototypes and testing. ⑦ To understand the different kind of wirlings of a electronics product line. ⑧ To be able to use surface mounting machines. ⑨ To apply quality control of product line.
③－1 Pried of training	2 years
③－2 Main subjects	Physical education, Technical English, Management of enterprise Health; Hygiene and security on work place Electric theory, Electrostatic electromagnetic theory Electronics theory, Analogue electronics circuits Digital electronics circuits, Sensor elements. Sensor components Electric and electronics measurement method, Drawing Automatic control theory(Machine technology) Basic usage of personal computer, Basic measurement practice Basic measurement practice, Basic hand work and Assembling of electronics equipment, Drawing of circuit diagram, Making practice of electronics Mini project work Project work Internship training Factory training
③－3 Main equipments	Oscilloscope Oscillator DC power supply Multimeter Electronics circuit training kit Microcomputer training kit Personal computer equipment Etching machine
③－4 Qualification of instructor	Qualified of DTS of electronics. Engineer who graduated electronics, electric engineer course

BTP　　Course : Maintenance of automatic control

① Qualification of entrance	Complete the high school 2 years course and pass a promotion examination for 3rd years of high school.
② Acquire of final goal	① To operate a basic usage of personal computer. ② To make and assemble the sequential equipment according to the specification, and to make the manufacturing procedure list. ③ To understand the characteristic of sensors. ④ To make the program of programmable logic controller "PLC". ⑤ To handle the pneumatic and hydraulic machine. ⑥ To understand the mechanism of automatic control machine. ⑦ To maintain the automatic control machine. ⑧ To make the plan of working and to have ability of production management. ⑨ To make the preventive maintenance of the machines.
③－1 Pried of training	2 years
③－2 Main subjects	Physical education, Technical English, Management of enterprise Health; Hygiene and security on work place Electric theory , Electrostatic electromagnetic theory Electronics theory, Analogue electronics circuits Digital electronics circuits, Sensor elements. Sensor components Electric and electronics measurement method, Drawing Automatic control theory(Machine technology) Basic usage of personal computer, Basic measurement practice Basic hand work, Drawing of circuit diagram, Drawing machine diagram Basic circuits assembly practice, Digital electronics circuit practice Machining work, Sequence control practice, Spot welding work Maintance practice of any kind of machine Pneumatics and hydraulic control practice Assembling practice of electro-mechanic machine model Operation and maintenance of electro-mechanic machine model Electric motors (AC,DC,STEPPING) Mini project work Project work Internship training Factory training
③－3 Main equipments	Programmable logic controller (PLC) Personal computer equipment Sequence control equipment training kit Mechanics and electronics control training kit Pneumatics and hydraulic training kit Drilling machine Spot welding machine, Vending machine Variable kind of motor, ball screw
③－4 Qualification of instructor	Qualified of DTS of electronics. Engineer who graduated electronics, electric engineer course

BTS　　Course : Production line net work control

① Qualification of entrance	Qualified of Baccalaureat (Scientific) or Qualified of BTP electronics course
② Acquire of final goal	① To operate a basic usage of personal computer. ② To make the program of programmable logic controller (PLC) ③ To wire bettween computer and PLCs. ④ To underatand the charactaristic of PLC control machine. ⑤ To use the "manufacturing procedure" program. ⑥ To control the PLC by pearsonal computer link. ⑦ To wire the computer network link cable. ⑧ To maintan the computer network link. ⑨ To maintan the program of PLC link. ⑩ To make the plan of manufacuturing for electric and electronics indurstry. ⑪ To have ability of production management. ⑫ To be able to modify programings.
③－1 Period of training	2. 5 years
③－2 Main subjects	Physical education, Technical English, Management of enterprise Health; Hygiene and security on work place Electric theory , Electrostatic electromagnetic theory Electronics theory, Analogue electronics circuits Digital electronics circuits, Sensor elements, Sensor components Electric and electronics measurement method, Drawing Automatic control theory(Machine technology) Basic usage of personal computer, Basic measurement practice Basic measurement practice, Basic hand work and Assembling of electronics equipment, Drawing of circuit diagram, Making practice of electronics Digital electronics circuit practice, PC,PLC program Wire setting and connecting work, Network processors(server) Mini project work Project work Internship training Factory training
③－3 Main equipments	Programmable logic controller (PLC) Sequence control training kit Personal computer equipment PLC link equipment Line monitoring system model
③－4 Qualification of instructor	Engineer who graduated electronics, electric engineer course or industrial data process course.

BTS　　Course : Management of manufacturing line

① Qualification of entrance	Qualified of Baccalaureat (Scientific) or Qualified of BTP electronics course
② Acquire of final goal	① To operate a basic usage of personal computer. ② To make and assemble the electronics equipment according to the specification, and to make the working order list. ③ To understand the basic activities of electronics circuits and to measure the characteristic of the circuits. ④ To make the printed circuit board by using CAD system. ⑤ To understand the basic knowledge of control. ⑥ To make the program of surface mounting machine. ⑦ To maintain surface mounting machine. ⑧ To participate in the achievement of electronics card prototypes and testing. ⑨ To make the plan of manufacturing, material and procedure. ⑩ To have ability of quality control in the field of electronics card assembling line which include surface mounting machine.
③－1 Pried of training	2. 5 years
③－2 Main subjects	Physical education, Technical English, Management of enterprise Health; Hygiene and security on work place Electric theory , Electrostatic electromagnetic theory Electronics theory, Analogue electronics circuits Digital electronics circuits, Sensor elements, Sensor components Electric and electronics measurement method, Drawing Automatic control theory(Machine technology), Management production general Management production method of manufacturing Quality control method Basic usage of personal computer, Basic measurement practice Basic measurement practice, Basic hand work and Assembling of electronics equipment. Drawing of circuit diagram, Making practice of electronics Electronics circuit application practice, Sequence control practice Pneumatic control practice Programming practice of any kind of machine on manufacturing line Mini project work Project work Internship training Factory training
③－3 Main equipments	Programmable logic controller (PLC) Sequence control training kit Personal computer equipment Pneumatics training kit
③－4 Qualification of instructor	Engineer who graduated electronics, electric engineer course or industrial of manegement course.

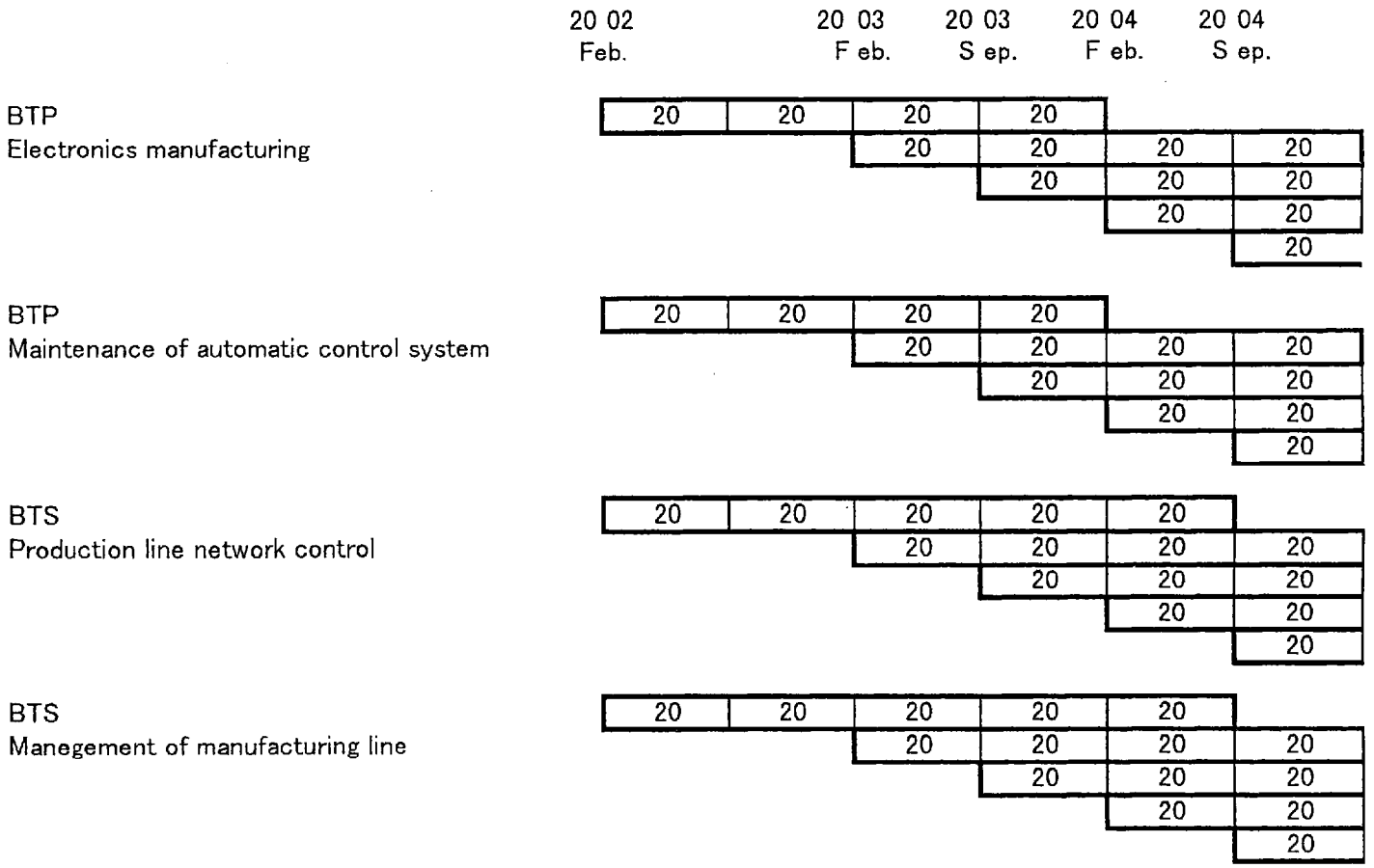
TENTATIVE SCHEDULE OF IMPLEMENTATION

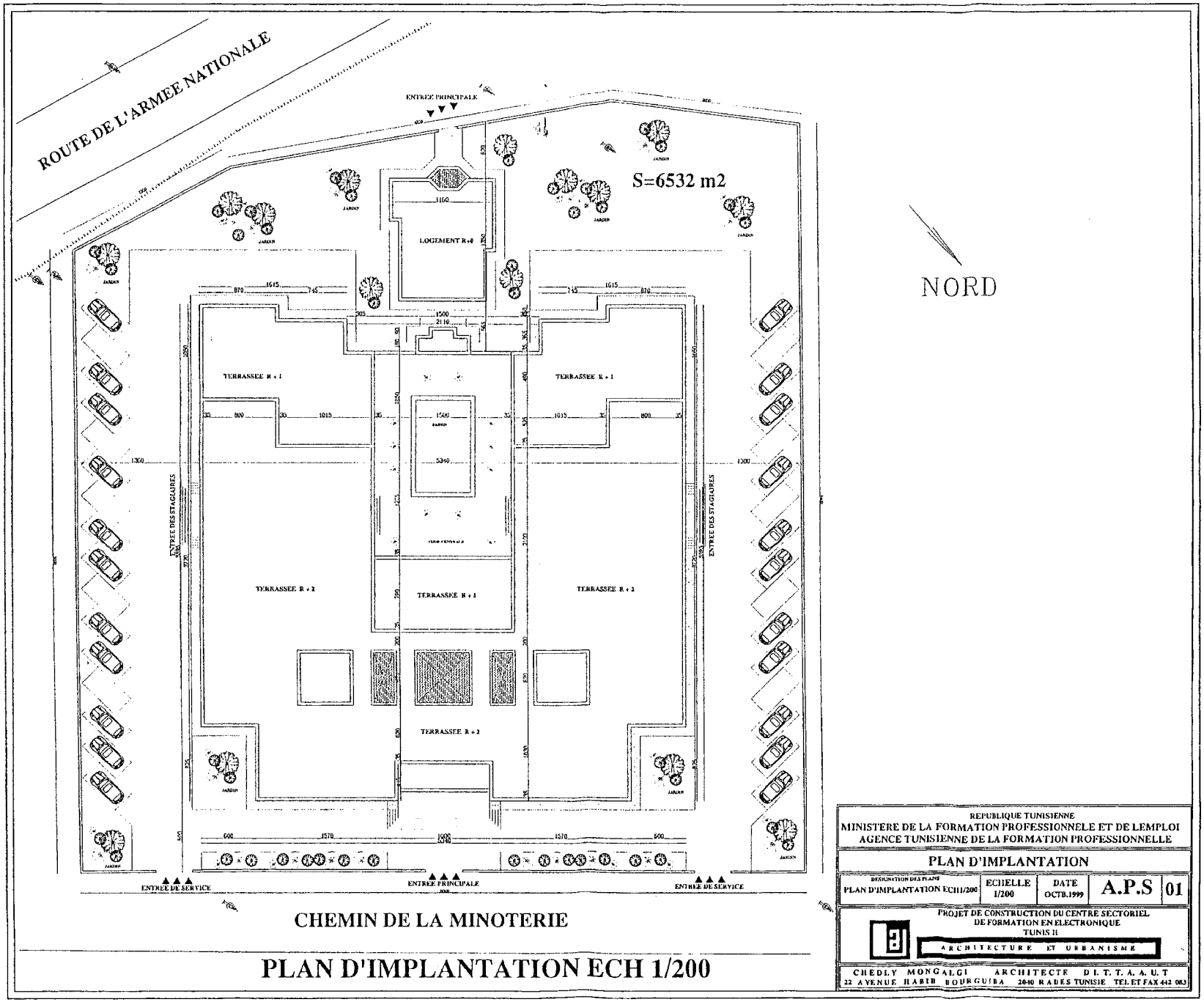
PROJECT TITLE
THE PROJECT FOR THE ESTABLISHMENT OF THE SECTORIAL VOCATIONAL CENTER FOR THE ELECTRIC AND ELECTRONICS INDUSTRY

PHASE	IMPREMENTATION					POST PROJECT	
YEAR	1	2	3	4	5	1	2
Ⅰ. PROJECT DURATION							
Ⅱ. INPUTS BY TUNISIAN SIDE							
1. ASSIGNMENT OF COUNTERPART PERSONNEL							
2. ASSIGNMENT OF ADMINISTRATIVE PERSONNEL							
3. BUDGET							
4. BUILDING FACILITYIES CONSTRUCTION							
Ⅲ. INPUTS BY JAPANESE SIDE							
1. LONG－TERM EXPERTS							
2. SHORT－TERM EXPERTS							
3. PROVISION OF EQUIPMENTS							
4. TRAINING OF TUNISIAN COUNTERPART PERSONNEL IN JAPAN							
Ⅳ. TRAINING							
1. BTP							
2. BTS							
3. UPGRADING							

ANNEX Ⅳ-2

Tentative Schedule of Inplementation





PLAN D'IMPLANTATION ECH 1/200

REPUBLIQUE TUNISIENNE
MINISTERE DE LA FORMATION PROFESSIONNELLE ET DE L'EMPLOI
AGENCE TUNISIENNE DE LA FORMATION PROFESSIONNELLE

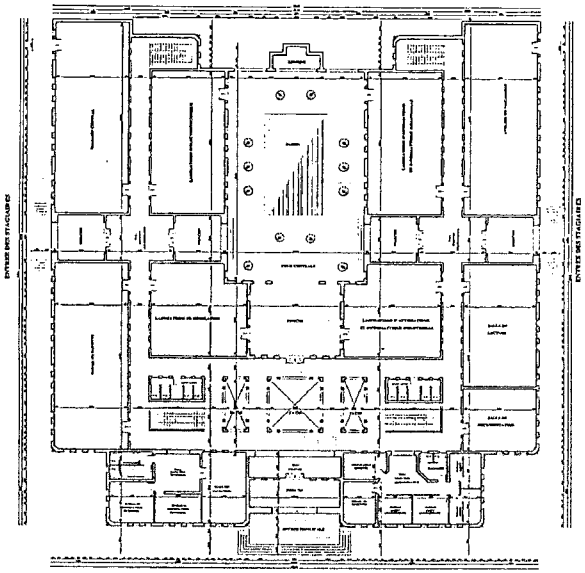
PLAN D'IMPLANTATION

DESIGNATION DES PLANS	ECHELLE	DATE		
PLAN D'IMPLANTATION ECH1/200	1/200	OCTB.1999	A.P.S	01

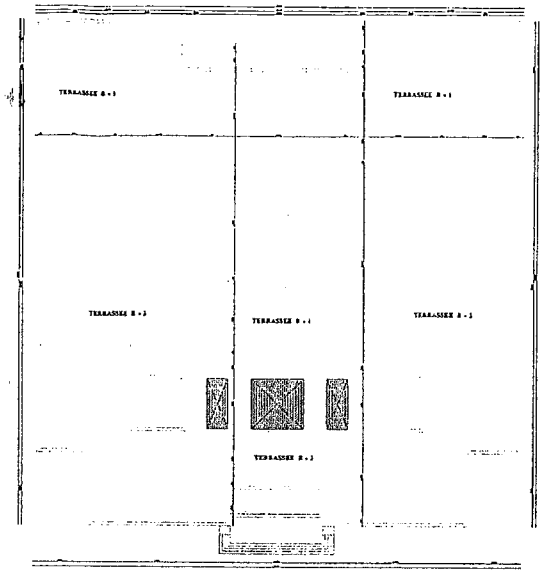
PROJET DE CONSTRUCTION DU CENTRE SECTORIEL DE FORMATION EN ELECTRONIQUE TUNIS II

ARCHITECTURE ET URBANISME

CHEDLY MONGALGI ARCHITECTE D.I.T.T.A.A.U.T
22 AVENUE HABIB BOURGUIBA 2040 RADES TUNISIE TEL ET FAX 442 083



PLAN REZ DE CHAUSSEE ECH 1/200



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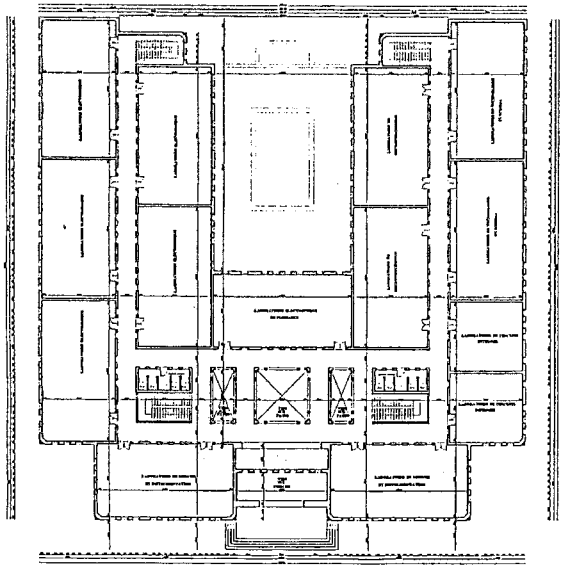

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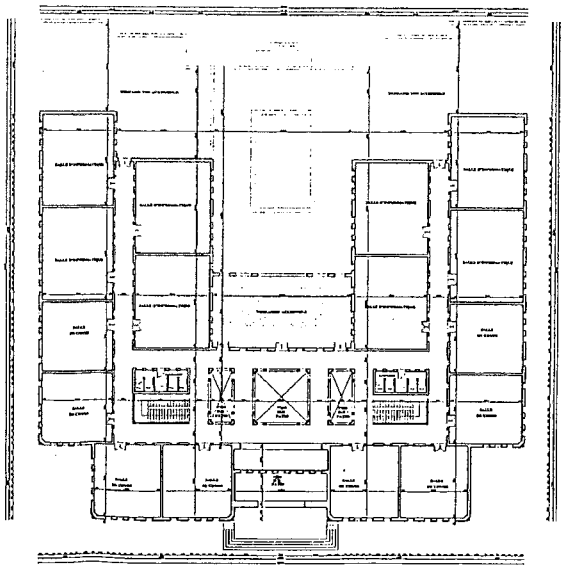


PLAN DEUXIEME ETAGE ECH 1/200

RÉPUBLIQUE TUNISIENNE
MINISTERE DE LA FORMATION PROFESSIONNELLE ET DE L'EMPLOI
AGENCE TUNISIENNE DE LA FORMATION PROFESSIONNELLE

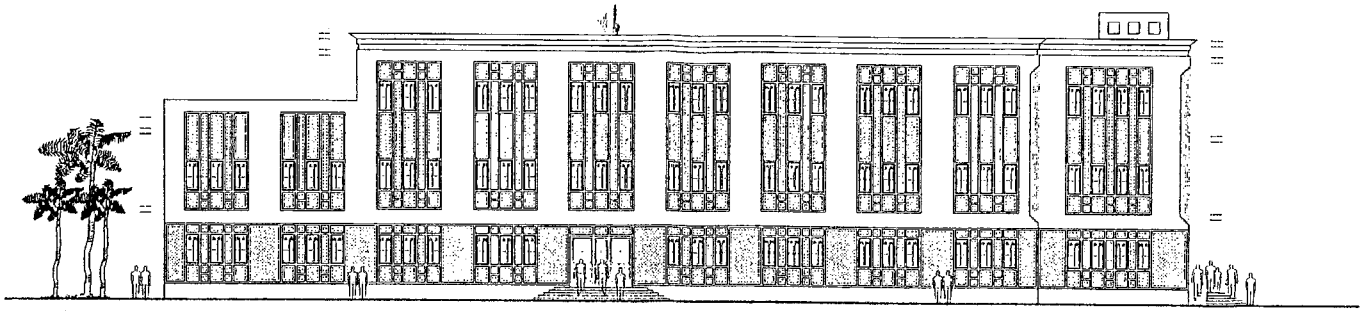
BATIMENT PRINCIPAL

	ECHELLE 1/200	DATE OCTB.1999	A.P.S	02

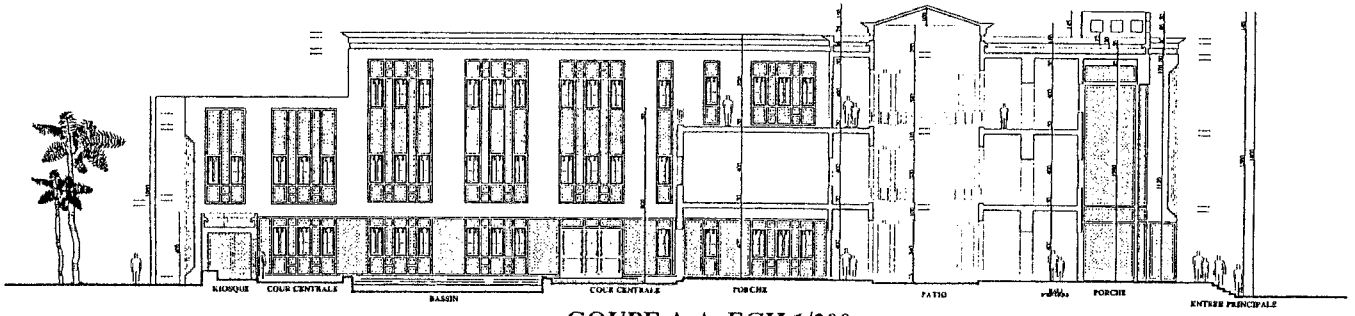
PROJET DE CONSTRUCTION DU CENTRE SECTORIEL DE FORMATION EN ELECTRONIQUE TUNIS II

ARCHITECTURE ET URBANISME

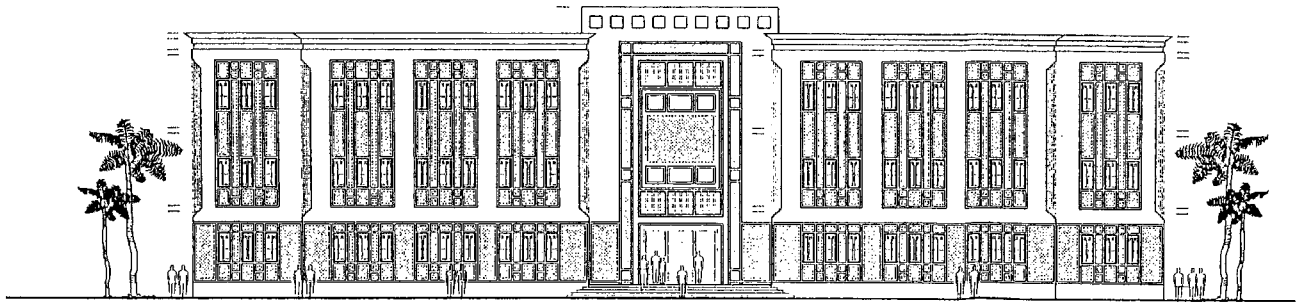
CHEULY MONGALGI ARCHITECTE D.L.T.T.A.A.U.T.
21 AVENUE HABIB BOURGUIBA 2040 RADES TUNISIE TEL ET FAX 441 083



FACADE LATERALE GAUCHE ECH 1/200



COUPE A-A ECH 1/200



FACADE PRINCIPALE ECH 1/200

REPUBLIQUE TUNISIENNE
MINISTERE DE LA FORMATION PROFESSIONNELE ET DE LEMPLOI
AGENCE TUNISIENNE DE LA FORMATION PROFESSIONNELLE

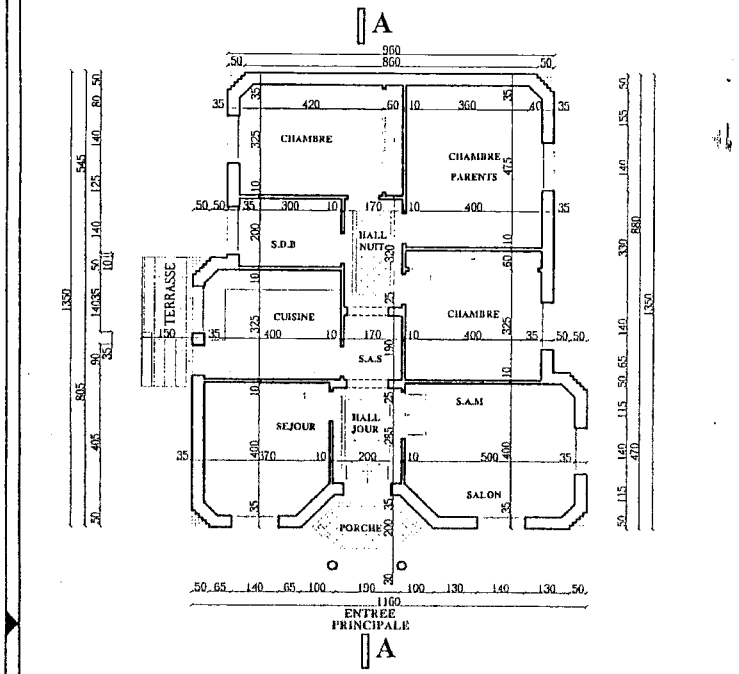
BATIMENT PRINCIPAL

DESIGNATION DES PLANS	ECHELLE	DATE		
FACADE PRINCIPALE ECH 1/200 FACADE LATERALE GAUCHE ECH 1/200 COUPE A-A ECH 1/200	1/200	OCTB.1999	A.P.S	03

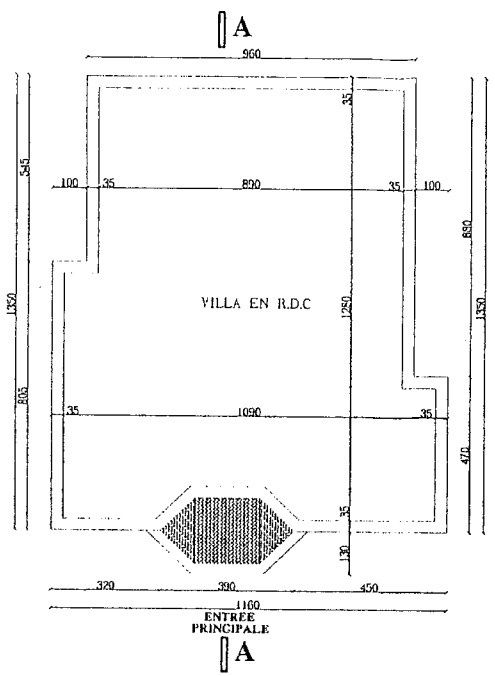
PROJET DE CONSTRUCTION DU CENTRE SECTORIEL
DE FORMATION EN ELECTRONIQUE
TUNIS II

ARCHITECTURE ET URBANISME

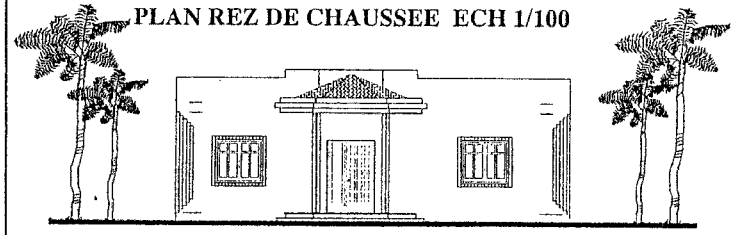
CHEDLY MONGALGI ARCHITECTE D.I.T.T.A.A.U.T
22 AVENUE HABIB BOURGUIBA 2040 RADES TUNISIE TEL ET FAX 442 083



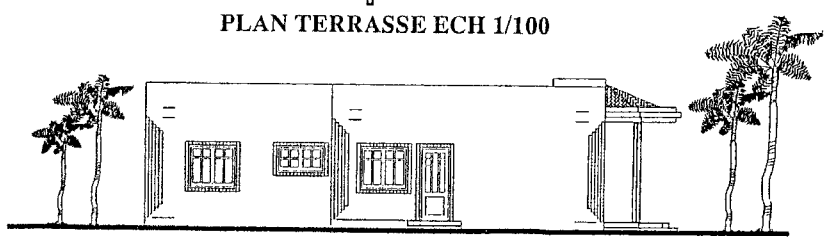
PLAN REZ DE CHAUSSEE ECH 1/100



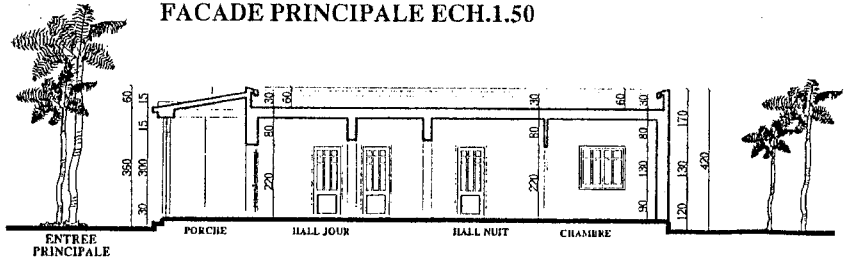
PLAN TERRASSE ECH 1/100



FACADE PRINCIPALE ECH.1.50



FACADE LATERALE DROITE ECH 1/100



COUPE A - A ECH 1/100

REPUBLIQUE TUNISIENNE
MINISTERE DE LA FORMATION PROFESSIONNELE ET DE LEMPLOI
AGENCE TUNISIENNE DE LA FORMATION PROFESSIONNELLE

LOGEMENT DE FONCTION

DESIGNATION DES PLANS		ECHELLE	DATE		
PLAN REZ DE CHAUSSEE	PLAN ETAGE	1/100	OCTB.1999	A.P.S	04
PLAN TERRASSE	FACADE PRINCIPALE				
FACADE LATERALE	COUPE A-A				

PROJET DE CONSTRUCTION DU CENTRE SECTORIEL
DE FORMATION EN ELECTRONIQUE
TUNIS II

ARCHITECTURE ET URBANISME

CHEDLY MONGALGI ARCHITECTE D.I.T.T.A.A.U.T
22 AVENUE HABIB BOURGUIBA 2040 RADES TUNISIE TEL ET FAX 442 083