

添付資料Ⅱ 評価結果

評価項目	評価の細目	確認事項	情報源	結果
活動の進捗	活動の進捗	スケジュールと比した場合の活動の進捗(活動項目リスト)		(活動項目リストを参照のこと)
	モニタリング	モニタリングの仕組み	プロジェクト活動の記録、インタビュー(日本人専門家、C/P)	<ul style="list-style-type: none"> 本プロジェクトに関するモニタリングの仕組みは設置されている。プロジェクト進捗会議(PPM)を責任機関とするものであり、プロジェクト期間中(5年間)に計6回の開催が予定されている。 2002年9月には、イズミール及びコンヤ校において第1期の9年生が授業を開始した。学年開始と同時にモニタリング活動を開始した。
		PDMの修正	プロジェクト活動の記録、インタビュー(日本人専門家)	<ul style="list-style-type: none"> 2000年10月のR/D署名時に作成されたPDM-0は、2002年6月5日の第1回JCCにおいて活動及び指標の見直しが行われた(PDM-1)。 中間評価時において、成果8の表現につき誤解を招くおそれがあることから、表現を修正した。
		外部条件の変化	インタビュー/質問票(日本人専門家)	<ul style="list-style-type: none"> PDMに記載の外部条件と比較して、特に重要な変化は見受けられなかった。 インターネットアクセスについては、プロジェクト作成のすべての資料を公開するに十分な程度には改善されていない。
	日本人専門家とC/Pの協力	両者の関係	インタビュー/質問票(日本人専門家、C/P)	<ul style="list-style-type: none"> 日本人専門家とC/Pの間には、良好な関係と信頼が築かれている。 PPM(隔月開催)は、プロジェクト、国民教育省及びイズミール、コンヤの両校の間の協力関係を培うのに大きな役割を果たしてきた。 本邦研修において実施された日本語研修により、日本人専門家とC/Pとのコミュニケーションが円滑になった。
		主な課題への共同の取り組み	同上	<ul style="list-style-type: none"> 実験室の改修と機材の設置においては、C/Pと日本人専門家は力をあわせて取り組み、十分な成果を得ることができた。
		C/Pのオーナーシップ	同上	<ul style="list-style-type: none"> C/Pは「プロジェクト終了後は、教師の教師になる」ことに対し、強い責任感と意欲を示している。 校長は、モデル校として成功を収めることが、トルコ国における将来的な拡充にとって大変重要な意味をもつことを認識している。

	研修生からのフィードバック	研修生の態度の変化	プロジェクト活動の記録、インタビュー／質問票（日本人専門家）	<ul style="list-style-type: none"> ・本邦研修において、C/Pは自らの専門分野のみならず関連する分野についての知識を得ることが、実際の適用においては重要であることを理解するようになった。このことにより、彼らはより一層知識を向上させる意欲を高めた。 ・C/Pのなかには、日本人専門家とともに働くなかで、生徒と相互にコミュニケーションしながら行う授業法などについての知識を得た者も見受けられた。
	トルコ側のオーナーシップ	マネージメントスタッフのプロジェクト活動への参加	同上	<ul style="list-style-type: none"> ・国民教育省及びイズミール・コンヤ両校の校長は、プロジェクト活動に深く関与し、十分な支援を提供している。
		予算措置	同上	<ul style="list-style-type: none"> ・トルコ側予算により、プロジェクト活動に利用する校舎を改修しており、その額はイズミール、コンヤ両校で合計3,540億トルコリラに上っている。これは、プロジェクトに対するトルコ側の強い関心を示しているといえる。
		C/Pの配置	同上	<ul style="list-style-type: none"> ・20名のC/Pが、予定どおり配置されている。彼らは高い英語力を有し、また情報分野、機械分野に関する相当程度の技術的知識を有している。 ・C/Pは工業数学など一部基礎知識に関する補講が必要ではあるものの、プロジェクト期間中には必要な知識を習得し、当初スケジュールどおりに活動を進捗することができるかと期待できる。 ・C/Pはプロジェクト活動のみならず、様々な校務を担当しており、現状では技術移転後に復習をするための時間を十分にとれない状況である。

(活動項目リスト)

Planned Activities	Results
1-1. カリキュラムの策定 1-2. シラバスの作成 1-3. カリキュラムに対する企業の意見聴取	<ul style="list-style-type: none"> ・ 9年生及び10年生についてのカリキュラムは、すでに作成、修正されており、9年生分については国民教育省の承認を得ている。 ・ 9年生及び10年生のシラバスは、すべて作成されている。ただし、うちいくつかは科目間の調整ができておらず、更なる修正が必要である。 ・ イズミール及びコンヤ地区の産業会議所とは、数回にわたる会議を行っているが、これ以外には関連企業からカリキュラムについてのコメントを得る機会はほとんどなかった。ただし、産業会議所は中堅技術者育成に対する期待を、機会あるごとに示してきている。
2-1. 教科書(暫定版)の作成 2-2. 教科書(初版)の作成 2-3. 実習指導書の作成 2-4. 実験・実習器材の開発	<ul style="list-style-type: none"> ・ 9年生の4科目すべてについて教科書が作成されているが、工業数学1については更なる修正が必要である。 ・ 10年生分のうちいくつかは、完成までにいまだ少し時間が必要である。 ・ 9年生については、予定どおり1科目分の実習指導書が作成されている。10年生については、2科目分が完了しており、もう1科目分はプロジェクト後半機関に作成見込みである。
3. 実習用指導書の作成	<ul style="list-style-type: none"> ・ 9年生分すべてと10年生の2科目分が、ほぼ完了している。 ・ ただし、残り2科目分は作成作業が開始されておらず、他1科目は20%の進捗度である。
4. 関連科目の技術指導及び教授法の指導	<ul style="list-style-type: none"> ・ 9年生分については、ほぼ完了している。10年生分については、マイクロコンピューターについて90%終了しているのを除くと、進捗度は25~50%程度である。 ・ 10年生に関する技術は、2003年度中に完了する予定である。授業の進捗に合わせ、遅滞のないよう実施される見込みである。
5-1. 機材リストの作成 5-2. 機材の調達・設置 5-3. 機材のレベルに対する企業の意見聴取	<ul style="list-style-type: none"> ・ 必要な機材は、適切にリストアップ、購入、設置され、全体作業量の95%が完了している。 ・ 本年4月に導入された機材については、機材リストを示したのみであり、産業界からのコメントは得ていない。2001~2002年度に導入された機材については、既に関連企業に紹介している。
6. 機材の適切な使用・メンテナンスに関する技術指導	<ul style="list-style-type: none"> ・ コンピューター及びネットワークシステム分野、機材保守管理方法に関する技術移転は、おおむね順調に実施されてきており、いずれも90%程度の進捗度である。一方、機材の保管方法に関する技術についても、80%程度は移転済みである。 ・ 機材の保守管理に関するシステムが設置されている。各実験室には複数のC/Pが、担当として配置されている。同システムの有効な運営については、今後の課題である。
7-1. 成果1.~6.で開発された情報のデジタル化 7-2. webページの開設及び情報の掲載	<ul style="list-style-type: none"> ・ カリキュラム及びシラバスは、すべてデジタルデータとして作成されている。教科に関する資料のデジタル化については、当初予定の30%程度の進捗となっている。 ・ これまでのところ、プロジェクトのHPで公開されている情報・データはない。
8-1. 産業界の自動制御技術へのニーズ把握 8-2. 新規教育システム普及に関する企業向けセミナーの開催 8-3. 技術及び教授法に関する他校向けセミナーの開催	<ul style="list-style-type: none"> ・ 他学校の教員を対象としたセミナーが開催されており、参加者数目標の92%を達成するに至っている。 ・ 一方、産業界の自動制御技術に関するニーズ調査や、新しい教育システムの紹介活動はあまり実施されてきていない。

(評価5項目)

評価項目	評価の細目	確認事項	情報源	結果
効率性	投入の量、質、及びタイミング	トルコ側及び日本側	関連資料のレビュー、インタビュー／質問票(日本人専門家、C/P)	<ul style="list-style-type: none"> 日本人専門家の派遣は、タイミング及び派遣分野においておおむね適切であった。派遣期間については、2006年の第1期卒業生の職場における評価を得るまでの間、日本人専門家が滞在することが強く希望されている。 本邦研修については、そのタイミング、期間、内容などの面においておおむね適切であったと評価された。校長研修については、学校運営や教育システムの分野において、視察型ではなくトレーニング型のものが望ましいとの意見があった。 プロジェクトで導入した機材については、適切であったと判断された。トルコ語の技術書(参考図書)があれば、C/Pの能力向上に資するものと思われる。 校舎の改修は、当初予定より4か月遅れて完成したが、プロジェクト活動に影響はなかった。 機材の設置は、当初予定より1年遅れたが、プロジェクト活動は当初予定どおりの進捗をみせている。
	投入の活用度	本邦研修の成果の広がり	同上	<ul style="list-style-type: none"> 本邦研修は、技術面、特にトルコ側C/Pがより広い視野から技術をとらえるよい機会となった。また、教育システムや勤労姿勢などについて学ぶ機会ともなった。 イズミール校の校長は、本邦研修において、日本の教員がトルコの教員よりずっと少ない授業数をもっていることを知ったとのことであった。そして、日本の方式の方が教育の質の向上に資すると考え、帰国後にはこの点について国民教育省に提出した報告書の中で指摘したとのことである。国民教育省からの返答を待っている状況である。
	プロジェクト支援体制	量、質、及びタイミング	インタビュー／質問票(日本人専門家)	<ul style="list-style-type: none"> 国内委員会は、プロジェクトに対し十分な支援を行ってきている。その支援の質と量の両面において、プロジェクトの評価は高く、その進捗に大いに貢献していると判断された。

	他の協力プロジェクトとの連携	協力、または競合	インタビュー／質問票 (日本人専門家、国民教育省)	<ul style="list-style-type: none"> 内容、実施期間の面において、特に協力・連携できる(又はすべき)プロジェクトは見受けられなかった。 いくつかの大学は、プロジェクトとの接触及び支援を始めている。エーゲ大学は、毎週C/Pに対し工業数学の補講を実施している。
有効性	各種指標の達成度	各成果の指標の、現在までの達成度	プロジェクト活動報告、インタビュー／質問票 (日本人専門家)	(添付資料1を参照のこと)
	プロジェクト目標の達成度	プロジェクト目標の指標の、現在までの達成度	同上	同上
	プロジェクト目標の達成を促進した要因		インタビュー／質問票 (日本人専門家、C/P)	<ul style="list-style-type: none"> 地域の産業界には、中堅技術者に対する強いニーズが見受けられる。このことは、本プロジェクトが積極的に受け入れられていることからみとることができる。 国民教育省、両校の校長は、プロジェクトについての深い理解を有しており、活動に対して大変協力的である。 トルコ国の技術者は、概して技術習得能力が高いと言われている。
	プロジェクト目標の達成を阻害した要因	カリキュラム、コンヤ校とのコミュニケーション(インターネット)社会・文化的背景など	同上	<ul style="list-style-type: none"> これまでのところ、コンヤ校においても技術移転の適切な成果がみられている。しかし、今後C/Pに移転される技術レベルが高度化すること、またC/Pが授業数の増加により更に多忙になることを考慮すると、イズミール、コンヤの両校において技術移転の効率性を高めることにより、プロジェクト後半期間には、より少ない時間でこれまでと同等又はより高度な技術を習得できるよう、対策をとる必要がある。 中堅技術者に関する適切な雇用形態が、現在のトルコには確立されておらず、その雇用は不安定なものとなっている。
インパクト	上位目標達成の見込み		同上	<ul style="list-style-type: none"> 教員養成センター建設計画では、トルコ政府は情報電子、情報機械学科を20のアナトリア工業高校に設立する計画を示している。同計画は、2006年から開始される見込みであり、毎年7校ずつ3フェーズに分けて実施の予定である。
	対象アナトリア工業高校(イズミール及びコンヤ)に対するインパクト		インタビュー／質問票 (日本人専門家、国民教育省、C/P、校長)	<ul style="list-style-type: none"> 国民教育省、産業界、及び生徒の両親の間で、学校への関心が高まっている。 応募者数の増加と、入学試験合格点数の上昇が見受けられた。

	他のアナトリア工業高校に対するインパクト		インタビュー／質問票 (日本人専門家、国民教育省)	・夏期セミナーは、他アナトリア工業高校の教員に技術移転することを目的としているが、応募者数は定員のほぼ2倍に上っている。
	日本の援助に対する評価に与えたインパクト		インタビュー／質問票 (日本人専門家、国民教育省)	・全般的にJICAの援助は、トルコ側に好意的に評価されている。本プロジェクトも、トルコ側(国民教育省、対象校、産業界)から高い関心と期待、そして協力を得ている。国民教育省は、既に本プロジェクトの成果を普及すべく、計画を作成している。
妥当性	上位目標とトルコ国の国家開発政策との整合性	国家開発政策との整合性	国家開発政策のレビュー、プロジェクト活動の記録、インタビュー／質問票(日本人専門家、国民教育省)	・トルコ国の第7次国家開発5か年計画(1996～2000年)では、人材育成、及び産業発展と国際化が開発目標として掲げられていた。 ・第8次計画(2001～2006年)において、教育分野の目標は次のように設置されている：中等教育学齢児童の35%が一般教育、65%が職業教育を受ける。 ・このことは、本プロジェクトと国家開発政策の整合性を示しているといえる。
		産業界の需要との整合性と展望	プロジェクト実施による調査結果のレビュー、インタビュー／質問票(日本人専門家、国民教育省、C/P、校長、企業)	・産業界のプロジェクトに対する姿勢は、おおむね好意的・肯定的であると見受けられた。 ・トルコでは、「中堅技術者」という概念がまだまだ欠如しており、プロジェクトの有効性を確保するためには、「中堅技術者」の概念に対する産業界の認識を高め、卒業生の就職機会を増やすことが必要である。
	日本の援助政策との整合性	トルコ国に対するODA政策との整合性	関連資料のレビュー(外務省、JICA)	・日本国政府とトルコ国政府の間には4つの開発重点分野が合意・設定されており、そのうちの1つが経済社会開発に資する人材の育成である。これは本プロジェクトのめざすところであり、日本の対トルコODAとして妥当であることを示している。
		技術面における日本の優位性	同上、インタビュー／質問票(日本人専門家)	・日本は、自動制御技術に関する中堅技術者育成及び同分野の技術において経験と優位性を有している。
	公平性の視点から見た妥当性	ターゲットグループの妥当性	インタビュー／質問票(日本人専門家、国民教育省)	・国民教育省は、モデルとしての両校の成功に多大な関心を注いでいる。 ・新政権は、アナトリア工業高校卒業生の大学入学可能性を制限し、結果、彼らの学習意欲を低下させる原因となった決定を、取りやめることを明らかにした。 ・一方、両校の卒業生には良好な就職機会が期待できること、また無試験で職業短大に入学できる資格が付与されることなど、学生にとってよい要因も確認された。

	プロジェクト目標とトルコのニーズの間の整合性	教育政策全般との整合性	関連資料のレビュー、インタビュー／質問票(日本人専門家、国民教育省)	<ul style="list-style-type: none"> 第8次国家開発5か年計画(2001～2006年)では、職業教育に重点をおいている。 国民教育省は、プロジェクト活動の規模拡大について国家計画庁と議論を始めており、教員養成センター建設については既に予算を獲得している。このことは、トルコ側にとって本プロジェクトが妥当なものであり、またその有効性が認められていることを示しているといえる。
		職業訓練政策全般との整合性	同上	同上
		他機関との関係	同上	<ul style="list-style-type: none"> プロジェクトは、イズミール及びコンヤ地区における産業界や大学など、他機関と良好な関係を保っている。
自立発展性	組織的自立発展性	組織の確立	プロジェクト活動報告、インタビュー／質問票(日本人専門家、C/P)	<ul style="list-style-type: none"> 両校では、既に情報電子及び情報機械(イズミール)、情報電子(コンヤ)の学科を設立し、技術教員を配置している。授業は円滑に開始され、これまでのところ順調に実施されている。実験室及び機材については、既に設置され適切に活用されている。
		スタッフの配置、適切さ、定着率	同上	<ul style="list-style-type: none"> C/Pは、予定通り配置された。 C/Pの能力は、おおむね十分なレベルの者が選出されており、強い責任感と仕事に対する意欲を有している。
		学校運営能力	同上	<ul style="list-style-type: none"> 教員のシフトに関しては、より柔軟な仕組みが導入されることが望ましい。このことにより、学校運営の自立発展性と有効性が増すと考えられる。 さらに、校務の担当配分については再考が必要である。校務のなかには、本プロジェクトのC/Pに担当配分されているものもあることから、こうしたものを見直しを図ることは、本プロジェクト活動の有効性と自立発展性を高めることと期待される。
		機材・施設の保守管理システム	同上	<ul style="list-style-type: none"> 機材の保守管理システムは、複数名のC/Pを各実験室に配置し、機材リストを作成したことにより、設置されたところである。今後、円滑に同システムの運用が開始・維持されることが望まれる。
	財政的自立発展性	政府の予算措置の将来見込み	インタビュー／質問票(国民教育省)	<ul style="list-style-type: none"> 財政的自立発展性は、高いと判断された。理由は以下のとおり。1)国民教育省の強い協力姿勢、2)経済不況にもかかわらず、国民教育省が既に本プロジェクトの普及計画を作成していること。

技術的自立発展性	スタッフのインセンティブ、新しい教育システムのために働くことの魅力	インタビュー／質問票 (日本人専門家、C/P)	<ul style="list-style-type: none"> ・本プロジェクトに携わること自体が、現時点ではC/Pにとっての強いインセンティブとなっていることから、プロジェクト期間中に彼らが離職する可能性は低いと考えられる。ただし、給与や授業の過重負担など待遇面において、プロジェクト終了後には不安を残す要素も見受けられた。
	C/Pの技術レベル	プロジェクト活動報告、インタビュー／質問票 (日本人専門家、C/P)	<ul style="list-style-type: none"> ・C/Pは、プロジェクト期間中に工業数学の補講等により必要な知識を身につけ、十分な技術レベルに達することが可能であると見込まれる。 ・C/Pは、後続の教員を育成することに対し強い責任感を有しており、その責任を果たすべく十分な技術レベルに達するよう知識習得に努めるであろうことが期待される
	アナトリア工業高校システム内におけるトレーナー育成の枠組み	同上	<ul style="list-style-type: none"> ・C/Pは、自分たちで空き時間を利用し、リクエストがあった場合にはお互いに自らが習得した技術を他のC/Pに教え、知識を深めていく試み（内部技術移転）を始めている ・また、イズミールとコンヤ両校のC/Pの間でも頻繁に情報・技術交換を行っている。 ・C/Pは、夏期セミナーにおいて講師を務めている。同セミナーの資料は既に作成されていることから、この枠組み（講師と資料）は今後の普及に活用することができる ・国民教育省は、全国レベルの普及計画を作成している。
	技術及び機材の保守管理、及び更新	同上	<ul style="list-style-type: none"> ・機材の保守管理システムは、設立されたばかりである。プロジェクト期間中の効率的、効果的な運用が期待できる。 ・チェックシステムについては、担当者の配置が必要である。
政治的自立発展性	政府の継続的な支援	インタビュー／質問票 (日本人専門家、国民教育省)	<ul style="list-style-type: none"> ・国民教育省は、教員養成センター設立計画を作成しており、情報電子、情報機械分野において本プロジェクトにより移転された技術を、全国レベルで普及する予定である。
	関連産業への、導入技術の適合性	プロジェクト活動報告、インタビュー／質問票 (日本人専門家、企業)	<ul style="list-style-type: none"> ・イズミール及びコンヤ地域における産業界は、本プロジェクトの目的と内容について理解を深めてきており、本プロジェクトに対して肯定的である。 ・産業界は、インターンシップとして両校の学生を受け入れたり、雇用したりすることに前向きである。

ANNEX III REVISED PDM (Ver.2)

Project Title: The Project on Establishment of Industrial Automation Technologies Departments in Anatolian Technical High Schools

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>Super Goal To fill the demand for mid-level technicians and engineers in the industrial automation technology field in the Republic of Turkey.</p>	<p>After 10 years of the project completion, the number of graduates of Industrial Automation Technologies Departments in Anatolian Technical High Schools becomes 360 or more every year.</p>	<p>Data from the Ministry of National Education</p>	
<p>Overall Goal To introduce a new educational system for industrial automation technology for other Anatolian Technical High Schools.</p>	<ol style="list-style-type: none"> 1. Degree of which schools implement the new educational system 2. After 3 to 5 years of the project completion, the number of Industrial Automation Technologies Departments in Anatolian Technical High Schools becomes more than 4. 	<ol style="list-style-type: none"> 1. Data from the Ministry of National Education 2. Data from the Ministry of National Education 	<p>Enterprises continue to require technicians trained in automation technology.</p>
<p>Project Purpose To establish a new educational system as an extension model in the Izmir and Konya Anatolian Technical High Schools in order to train mid-level technicians that will meet the requirements of industries utilizing automation technology.</p>	<ol style="list-style-type: none"> 1. Ministry of National Education announces the introduction of the new educational system. 2. The number of enterprises that hopes to employ the graduates exceeds over 40 in Izmir and 20 in Konya. 3. Number of applicants to Izmir Mazhar Zorlu and Konya Adil Karaagaç ATHSs 4. Entrance examination scores of successful applicants to both schools 	<ol style="list-style-type: none"> 1. Data from the Ministry of National Education 2. Questionnaires distributed to enterprises 3. Data from the Izmir Mazhar Zorlu and Konya Adil Karaagaç ATHSs 4. Data from the Izmir Mazhar Zorlu and Konya Adil Karaagaç ATHSs 	<ol style="list-style-type: none"> 1. The needs of enterprises for technicians trained in automation technology do not change significantly. 2. The project continues to receive the support of the Ministry of National Education. 3. Teachers that have received training do not enter private employment. 4. Continuous funding of the project is secured

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Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Outputs 1. Development of an innovative curriculum.	1-1. Curriculum is developed by October 2001 1-2. The project team prepares the syllabus of the new departments subjects by May every year. 1-3. Degree of satisfaction related industries have for the curriculum	1-1. Records of project activities 1-2. Records of project activities 1-3. Questionnaires distributed to related enterprises	The needs of enterprises for technicians trained in automation technology do not change significantly from those assessed by the needs survey.
2. Development of suitable learning materials	2-1. The project team prepares textbooks (Trial Version) by August every year. 2-2. By August, following year of above 2-1, Trial Versions are revised and First Editions are prepared by the Project. 2-3. The project team prepares practice textbooks by August every year. 2-4. The project team prepares equipment for experiment and practice by August every year.	2. Records of project activities	
3. Development of suitable teaching materials.	3. The project team prepares Teachers Manual (samples of Annual Plan, Instruction Outline, Practice Guidance and Text Guide) by August every year.	3. Records of project activities	
4. Establishment of a training system for teachers (including teaching methods) and improvement of teachers' capabilities.	4. For each subject unit, at least ten (10) hours of technology transfer (technical guidance and teaching method guidance) given to more than 2 Counterparts at the commencement of the respective subject starts	4. Records of project activities	
5. Introduction of suitable equipment to meet the requirements of industry.	5-1. Degree of satisfaction of enterprises for level of equipment supplied 5-2. Equipment is installed 3 months before the concerned subjects start	5-1. Interviews of related enterprises 5-2. Equipment maintenance records	
6. Proper operation and maintenance of the equipment mentioned above.	6. For the newly introduced equipment to Izmir Mazhar Zorlu and Konya Adil Karaagaç ATHSs, at least 2 Counterparts have learned how to use and maintain the respective equipment properly.	6. Records of project activities	
7. Outputs 1.- 6. above are disseminated to the public, other schools and industries via the Internet.	7-1. Degree to which conversion has been completed (curriculum, syllabus, learning materials, teaching materials, training system) 7-2. Percentage of electronic media deployed to the public, other schools and industries	7-1. Records of project activities 7-2. Records of survey of amount of information made available on the Internet	
8. Establishment of a system for finding the needs of industry, and dissemination of the new educational system.	8-1. Surveys of the needs of enterprises are conducted more than once per year 8-2. At least 1 extension seminar for the new educational system (directed at enterprises) is held before students are graduated. 8-3. At least 4 extension technical seminar for other schools teachers are implemented. 8-4. The number of participants to the above-mentioned seminars exceeds 300.	8-1. Questionnaires distributed to related enterprises 8-2. Records of project activities 8-3. Records of project activities 8-4. Records of project activities	

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Activities	Inputs	Important Assumptions
<p>1-1. Formulation of curriculum 1-2. Drawing up of a syllabus 1-3. Understanding the industry's attitude to the curriculum 2-1. Production of textbooks (Trial Version) 2-2. Production of textbooks (First Edition) 2-3. Production of practice textbooks 2-4. Preparation and production of appliances for experiments and practices 3. Production of teacher's manual for practice 4. Technology transfer of related subjects and its teaching methods 5-1. Drawing up of a list of equipment 5-2. Procurement and installation of equipment 5-3. Understanding the industry's attitudes to the above equipment 6. Technology transfer related to the correct usage and maintenance of equipment 7-1. Convert the above outputs to digital data which are suitable for Web page 7-2. Making of project Web page site and upload the digital data 8-1. Understanding of the automation technology needs of industry 8-2. Implementation of seminars aimed at introducing the new educational system to enterprises. 8-3. Implementation of seminars on new technology and teaching method to other school teachers</p>	<p><u>Turkish Side</u></p> <p>1. Assignment of personnel -Counterparts (C/Ps) IZMIR Information Electronics: at least 7 Information Machinery: at least 6 KONYA Information Electronics: at least 5 -Administrative personnel 2. Buildings and facilities 3. Furniture and consumable materials 4. Allocation of budget</p> <p><u>Japanese side</u></p> <p>1. Dispatch of Experts -Long-term experts Chief advisor, Information Electronics: 2 (Industrial Product Design Sub-division, Network Design for Automatic Control Sub-division), Information Machinery: 2 (Automatic Production Technology Sub-division, Factory Automation System Technology Sub-division), Coordinator -Short-term experts 2. Provision of equipment 3. Training of Turkish C/Ps in Japan</p>	<p>1. The occupational training system in Turkey does not change significantly. 2. Accessibility to the Internet improves (Establishment of infrastructure for electronic communication progresses).</p> <p style="text-align: center;">Preconditions</p> <p>1. Counterparts are appropriately assigned. 2. Financial resources are appropriately secured.</p>



プロジェクト・デザイン・マトリックス (PDM) Ver. 2

プロジェクト名：トルコ共和国自動制御技術教育改善計画

2003年10月24日現在・中間評価調査ミニッツ別添

プロジェクトの要約	指 標	指標入手手段	外部条件
スーパーゴール 自動制御技術の分野において、中堅技術者及びエンジニアの需要が満たされる	プロジェクト終了後10年目に、アナトリア工業高校自動制御学科の卒業生数が毎年360名以上になる	国民教育省資料	
上位目標 他のアナトリア工業高校において自動制御技術の新規教育システムが導入される	1. 新規教育システムを実施する学校の状況 2. プロジェクト終了後3～5年間で、アナトリア工業高校における自動制御学科の設置数が4校以上になる	1. 国民教育省資料 2. 国民教育省資料	自動制御技術分野に対する企業ニーズが変化しない
プロジェクト目標 アナトリア工業高校イズミール校及びコンヤ校に、自動制御関連産業界の需要を満たす中堅技術者を養成するための、普及モデル型新規教育システムが構築される	1. 国民教育省で新規教育システムの導入が明言される 2. 卒業生の受入れを希望する企業がイズミールで40社、コンヤで20社を超える 3. イズミール校及びコンヤ校への入学応募者数 4. 両校の入学合格点数	1. 国民教育省資料 2. 企業へのアンケート調査 3. 両校の資料 4. 両校の資料	1. 自動制御技術分野の技術者に対する企業ニーズが大きく変化しない 2. 国民教育省からプロジェクトへの支援が継続的に行われる 3. 訓練を受けた教員が民間に流出しない 4. トルコ側の運営予算が継続的に確保される

プロジェクトの要約	指 標	指標入手手段	外部条件
成 果 1. 革新的なカリキュラムが開発される	1-1. 2001年10月までにカリキュラムが開発される 1-2. プロジェクトチームが毎年5月までに新科目のシラバスを完成させる 1-3. 関連企業のカリキュラムに対する満足度	1-1. プロジェクト活動記録 1-2. プロジェクト活動記録 1-3. 関連企業へのアンケート調査	ニーズ調査時に把握した、自動制御技術分野に対する企業ニーズが大きく変化しない
2. 生徒のための適切な学習教材が開発される	2-1. プロジェクトチームが毎年8月までに教科書（暫定版）を作成する 2-2. 暫定版作成の翌年8月までに、暫定版が見直され、初版が作成される 2-3. プロジェクトチームが毎年8月までに実習指導書を作成する 2-4. プロジェクトチームが毎年8月までに実験・実習器材を開発する	2. プロジェクト活動記録	
3. 教員のための適切な教育教材が開発される	3. プロジェクトチームが毎年8月までに教師用指導書（年間指導計画例、指導指針、実習ガイド、テキストガイド）を作成する	3. プロジェクト活動記録	
4. 教員研修システム（教授法を含む）が構築され、教員の能力が向上する	4. 各科目の授業開始前に、2名以上のC/Pに各科目10時間以上の技術指導が行われる	4. プロジェクト活動記録	
5. 産業のニーズに即した先端的な機材が導入される	5-1. 導入された機材のレベルに対する企業の満足度 5-2. 関連科目の授業開始3か月前に機材が設置される	5-1. 関連企業へのインタビュー調査 5-2. 機材管理台帳	
6. 上述の機材の使用・メンテナンスが適切に行われる	6. 両校に導入された機材の適切な使用・メンテナンスに関する方法を2名以上のC/Pが習得する	6. プロジェクト活動記録	
7. 上記1～6の情報がインターネットを通じ他校・産業界に一般公開される	7-1. カリキュラム、シラバス、学習教材、教育教材、研修システムのデジタル化された比率 7-2. デジタル化されたものが他校・産業界に一般公開された比率	7-1. プロジェクト活動記録 7-2. インターネットへの掲載状況記録	
8. 産業界のニーズを調査するシステムが確立し、新しい教育システムが普及する	8-1. 企業ニーズ調査が毎年1回以上実施される 8-2. 卒業生が輩出される前に、新規教育システム普及セミナーが企業向けに毎年1回開催される 8-3. 他校向けの技術セミナーが4種類以上開催される 8-4. 上記セミナーの出席者数が300名を超える	8-1. 関連企業へのアンケート調査 8-2. プロジェクト活動記録 8-3. プロジェクト活動記録 8-4. プロジェクト活動記録	

活動	投入	外部条件
1-1. カリキュラムの策定 1-2. シラバスの作成 1-3. カリキュラムに対する企業の意見聴取 2-1. 教科書（暫定版）の作成 2-2. 教科書（初版）の作成 2-3. 実習指導書の作成 2-4. 実験・実習器材の開発 3. 実習用指導書の作成 4. 関連科目の技術指導及び教授法の指導 5-1. 機材リストの作成 5-2. 機材の調達・設置 5-3. 機材のレベルに対する企業の意見聴取 6. 機材の適切な使用・メンテナンスに関する技術指導 7-1. 成果1～6で開発された情報のデジタル化 7-2. webページの開設及び情報の掲載 8-1. 産業界の自動制御技術へのニーズ把握 8-2. 新規教育システム普及に関する企業向けセミナーの開催 8-3. 技術及び教授法に関する他校向けセミナーの開催	<トルコ側> 1. 人員配置 (1) C/P イズミール校 情報電子7名以上、情報機械7名以上 コンヤ校 情報電子7名以上 (2) 事務職員 1. 建物及び付帯施設 2. 什器及び消耗品 3. 予算措置 <日本側> 1. 専門家派遣 (1) 長期専門家6名： ・チーフアドバイザー ・情報電子2名 （製品設計技術、ネットワークデザイン設計技術） ・情報機械2名（自動生産技術、FAシステム技術） ・業務調整 (2) 短期専門家 1. 機材供与 2. C/P研修員受入れ	1. トルコの職業教育システムに大きな変更がない 2. インターネットへのアクセス状況が改善される （通信関連インフラの整備が促進される）
		前提条件 1. C/Pが適切に配置される 2. 必要な財源が適切に確保される

Overviews of Achievement (from September 2002 to August 2003)

(The Project on Establishment of Industrial Automation Technologies Departments in Anatolian Technical High Schools)

2003.8.31

Outputs	2002/Aug. (1.3 year)	2003/Aug. (2.3 year)	2004/Feb. (2.8 year)	2004/Aug. (3.3 year)	2005/Feb. (3.8 year)	2005/Aug. (4.3 year)	2006/Apr. (5.0 Year)
1. Development of an innovative curriculum							
1-1 Formulation of curriculum	100%						
1-2 Drawing up of syllabuses							
(1) [9th]Basic practice of industrial works	100%						
(2) [9th]Industrial mathematics I	100%						
(3) [9th]Basic practice of information technology	100%						
(4) [9th]Technical drawing	100%						
(5)[10th]Microcomputer Technology		100%					
(6)[10th]Electricity & electronics technology		100%					
(7)[10th]Industrial machinery		100%					
(8)[10th]Computer aided design and manufacturing		100%					
(9)[10th]Industrial mathematics II		100%					
1-3 Understanding the industry's attitude to the curriculum							
2. Development of suitable learning materials							
2-1 Production of textbook(Trial version)							
(1) [9th]Basic practice of industrial works	100%	100%					
(2) [9th]Industrial mathematics I	70%	100%					
(3) [9th]Basic practice of information technology	90%	100%					
(4) [9th]Technical drawing	100%	100%					
(5)[10th]Microcomputer Technology		100%					
(6)[10th]Electricity & electronics technology		70%					
(7)[10th]Industrial machinery		30%					
(8)[10th]Computer aided design and manufacturing		100%					
(9)[10th]Industrial mathematics II		60%					
2-2 Production of textbook(First version)							
(1) [9th]Basic practice of industrial works	-	100%					
(2) [9th]Industrial mathematics I	-	100%					
(3) [9th]Basic practice of information technology	-	100%					
(4) [9th]Technical drawing	-	100%					
(5)[10th]Microcomputer Technology		-					
(6)[10th]Electricity & electronics technology		-					
(7)[10th]Industrial machinery		-					
(8)[10th]Computer aided design and manufacturing		-					
(9)[10th]Industrial mathematics II		-					

Overviews of Achievement (from September 2002 to August 2003)

(The Project on Establishment of Industrial Automation Technologies Departments in Anatolian Technical High Schools)

2003.8.31

Outputs	2002/Aug. (1.3 year)	2003/Aug. (2.3 year)	2004/Feb. (2.8 year)	2004/Aug. (3.3 year)	2005/Feb. (3.8 year)	2005/Aug. (4.3 year)	2006/Apr. (5.0 Year)
2-3 Production of practice textbook							
(1) [9th]Basic practice of industrial works		0%	100%				
(2)[10th]Microcomputer Technology			100%				
(3)[10th]Electricity & electronics technology			50%				
(4)[10th]Industrial machinery			0%				
2-4 Preparation and production of appliances for experiments and practice							
(1) [9th]Basic practice of industrial works		30%	100%				
(2)[10th]Microcomputer Technology			50%				
(3)[10th]Electricity & electronics technology			90%				
3. Development of suitable teaching materials							
3 Production of teachers manual							
(1) [9th]Basic practice of industrial works		10%	80%				
(2) [9th]Industrial mathematics I		80%	90%				
(3) [9th]Basic practice of information technology		20%	80%				
(4) [9th]Technical drawing		0%	50%				
(5)[10th]Microcomputer Technology			80%				
(6)[10th]Electricity & electronics technology			90%				
(7)[10th]Industrial machinery			20%				
(8)[10th]Computer aided design and manufacturing			0%				
(9)[10th]Industrial mathematics II			0%				
4. Establishment of a training system for teachers (including teaching methods) and improvement of teacher's capabilities							
4 Technology transfer of related subjects and it's teaching methods							
(1) [9th]Basic practice of industrial works		67%	100%				
(2) [9th]Industrial mathematics I		60%	100%				
(3) [9th]Basic practice of information technology		30%	100%				
(4) [9th]Technical drawing		100%	100%				
(5)[10th]Microcomputer Technology			90%				
(6)[10th]Electricity & electronics technology			25%				
(7)[10th]Industrial machinery			25%				
(8)[10th]Computer aided design and manufacturing			50%				
(9)[10th]Industrial mathematics II			38%				
5. Introduction of suitable equipment to meet the requirements of industry							
5-1 Drawing up of list of equipment		90%	95%				
5-2 Procurement and insallation of equipment		30%	95%				
5-3 Understanding the industry's attitude to the above equipment		10%	10%				
6. Technology tranfer related to the correct usage and maintenance of equipment							
(1) Computer and network system		60%	90%				
(2) Equipment managing method		80%	90%				
(3) Equipment storage method		80%	80%				

Overviews of Achievement (from September 2002 to August 2003)

(The Project on Establishment of Industrial Automation Technologies Departments in Anatolian Technical High Schools)

2003.8.31

Outputs	2002/Aug. (1.3 year)	2003/Aug. (2.3 year)	2004/Feb. (2.8 year)	2004/Aug. (3.3 year)	2005/Feb. (3.8 year)	2005/Aug. (4.3 year)	2006/Apr. (5.0 Year)
7. Outputs 1.-6. Above are disseminated to the public, other schools and industries via the Internet							
7-1 Convert the above outputs to digital data which are suitable for Web page							
(1) Curriculum	100%	100%					
(2) Syllabuses	100%	100%					
(3) Subjects materials	15%	30%					
7-2 Making of project Web page site and upload the digital data.							
8. Establishment of a new system for industrial automation technologies departments in Anatolian technical high schools that meets the needs of industry and creation of an extension system.							
8-1 Understanding of the automation technology needs of industry.							
8-2 Implementagion of seminars aimed at introducing the new education							
8-3 Implementation of seminars on new technology and teaching method to other school teachers							
(1) The number of implimented seminar	50%	100%					
(2) The number of seminar participants	35%	92%					

2003年8月末現在、進捗状況チェック事項

1. シラバス(1-2)

完成状況を%で示す

	科目名	単位数	期限	進捗状況	備考
10th.	Microcomputer Technology	9	03Aug.	100%	湯澤
	Electricity & electronics technology	4	03Aug.	100%	増田
	Industrial machinery	6	03Aug.	100%	石田
	Computer aided design and manufacturing	2	03Aug.	100%	大久保
	Industrial mathematics II	4	03Aug.	100%	増田

2. 教科書作成(2-1,2-2)

・暫定版教科書

暫定版教科書の完成した割合を示す

	科目名	単位数	期限	進捗状況	備考
10th.	Microcomputer Technology	9	03Aug.	100%	湯澤
	Electricity & electronics technology	4	03Aug.	70%	増田
	Industrial machinery	6	03Aug.	30%	石田
	Computer aided design and manufacturing	2	03Aug.	100%	大久保
	Industrial mathematics II	4	03Aug.	60%	増田

3. 実験. 実習用テキスト(2-3)

完成状況を%で示す

	科目名	単位数	期限	進捗状況	備考
10th.	Microcomputer Technology	9	03Aug.	100%	湯澤
	Electricity & electronics technology	4	03Aug.	50%	増田
	Industrial machinery	6	03Aug.	0%	石田
	Computer aided design and manufacturing	2	03Aug.	100%	大久保
	Industrial mathematics II	4	03Aug.	なし	増田

4. 実験. 実習用機器(2-4)

完成状況を%で示す

	科目名	単位数	期限	進捗状況	備考
10th.	Microcomputer Technology	9	03Aug.	50%	湯澤
	Electricity & electronics technology	4	03Aug.	90%	増田
	Industrial machinery	6	03Aug.	なし	石田
	Industrial mathematics II	4	03Aug.	なし	増田

5. 教師用指導資料(3)

完成状況を%で示す

	科目名	単位数	期限	進捗状況	備考
10th.	Microcomputer Technology	9	03Aug.	80%	湯澤
	Electricity & electronics technology	4	03Aug.	90%	増田
	Industrial machinery	6	03Aug.	20%	石田
	Computer aided design and manufacturing	2	03Aug.	0%	大久保
	Industrial mathematics II	4	03Aug.	0%	増田

6. 技術移転(4)

実績時間数は対象とするCPが、その科目について技術移転を受けた時間数

実施比率は (C)/((A)×(B))

	科目名	単位数	期限	CP1人当たり 定時間数 (A)	対象CP数 (B)	のべ実績時 間数 (C)	実施 比率	備考
10th.	Microcomputer Technology	9	03May.	90	3	242	90%	湯澤
	Electricity & electronics technology	4	03May.	40	3	30	25%	増田
	Industrial machinery	6	03May.	60	3	45	25%	石田
	Computer aided design and manufacturing	2	03May.	20	3	30	50%	大久保
	Industrial mathematics II	4	03May.	40	3	45	38%	増田

7. 機材設置(5-2)

機材設置状況により%で示す

	科目名	単位数	期限	進捗状況	備考
10th.	Microcomputer Technology	9	03May.	100%	湯澤
	Electricity & electronics technology	4	03May.	100%	増田
	Industrial machinery	6	03May.	100%	石田
	Computer aided design and manufacturing	2	03May.	100%	大久保
	Industrial mathematics II	4	03May.	100%	増田

8. 機材設置(6)

新しく供与された機材名とCPへの技術移転の進捗状況を%で示す

専門家名	主要機材名	対象CP数	進捗状況	computer	保守	管理
石田	lathe turning machine	3	100%		90%	80%
石田	milling machine	3	100%		90%	80%
増田	Internet server	2	100%	100%	90%	80%
湯澤	notebook computer	2	100%	100%	90%	80%
湯澤	small drilling machine	2	100%		90%	80%

9. ホームページ公開(7-1)

完成状況を%で示す

	科目名	単位数	期限	デジタル化			備考
				シラバス	教材	公開	
9th.	Basic practice of industrial works	8		100%	100%	0%	増田
	Mathematics for engineering I	0		100%	100%	0%	増田
	Basic practice of information technology	4		100%	100%	0%	石田
	Mechanical works and engineering I	3		100%	100%	0%	大久保
	Technical drawing	2		100%	100%	0%	湯澤
10th.	Microcomputer Technology	9		100%	100%	0%	湯澤
	Electricity & electronics technology	4		100%	70%	0%	増田
	Industrial machinery	6		100%	30%	0%	石田
	Computer aided design and manufacturing	2		100%	100%	0%	大久保
	Industrial mathematics II	4		100%	60%	0%	増田

10. セミナー参加者(8-3-2)

	セミナー名	IZM	KNY	合計
2002	Programming	28	30	58
	Pic	23	23	46
	PLC	20	20	40
2003	Programming	19	9	28
	Pic	22	23	45
	PLC	14	11	25
	Network	17	18	35
				277

92%

Achievement of Outputs (From September 2002 to August 2003)

Outputs	Indicators	Target in this term	Achievements in this term	Reasons if planned targets wouldn't be satisfied
<p>1. Development of an innovative curriculum.</p>	<p>1-1. Curriculum is developed</p> <p>1-2. The project team prepares the syllabus of the new departments subjects by May every year</p>	<p>(Completed)</p> <p>1-2. Drawing up of syllabus (10th Grade)</p> <p>(1) Microcomputer technology</p> <p>(2) Electricity & electronics technology</p> <p>(3) Industrial machinery</p> <p>(4) Computer aided design and manufacturing</p> <p>(5) Industrial mathematics II</p>	<p>1-1. Curriculum was developed on October 2001. : 100%</p> <p>1-2. All the syllabus for 10th grade subjects are drawn up.</p> <p>1-3. The team started to have a close contact with Chamber of Industry at both areas.</p>	<p>None.</p>
				<p>Necessary countermeasures</p>
	<p>1-3. Degree of which satisfaction related industries have for the curriculum</p>			<p>None.</p>
				<p>Impact (expected/unexpected)</p>
				<p>The entire visitor to the project sites responded our innovative curriculum positively.</p>

Achievement of Outputs (From September 2002 to August 2003)

Outputs	Indicators	Target in this term	Achievements in this term	Reasons if planned targets wouldn't been satisfied	
2. Development of suitable learning materials.	2-1. The project team prepares textbooks (Trial Versions) by August every year	2-1. Production of textbooks (10 th Grade, Trial Version) (1) Microcomputer technology (2) Electricity & electronics technology (3) Industrial machinery (4) Computer aided design and manufacturing (5) Industrial mathematic II	2-1. The following ratios show the number of developed chapter that is divided by total chapter number. (1) Microcomputer technology: 100% (2) Electricity & electronics technology: 70% (3) Industrial machinery: 30% (4) Computer aided design and manufacturing: 100% (5) Industrial mathematic II: 60%	2-1. It took quite long time to rearrange the contents of some textbooks on 10 th grade.	
				Necessary countermeasures	
	2-2. By August, following year of above 2-1, Trial Versions are revised and First Editions are prepared by the Project	2-2. Production of textbooks (9 th Grade, First Edition) (1) Basic practice of industrial works (2) Industrial mathematics I (3) Basic practice of information technology (4) Technical drawings	2-2. The following ratios show the number of developed chapter that is divided by total chapter number. (1) Basic practice of industrial works: 100% (2) Industrial mathematics I: 100% (3) Basic practice of information technology: 100% (4) Technical drawings: 100%	2-2. The following ratios show the number of developed chapter that is divided by total chapter number. (1) Basic practice of industrial works: 100% (2) Industrial mathematics I: 100% (3) Basic practice of information technology: 100% (4) Technical drawings: 100%	Secure the time for production of textbooks and appliances for experiments as much as possible.
	2-3. The project team prepares practice textbooks by August every year	2-3. Production of practice textbooks (9 th and 10 th Grades)	2-3. The following ratios show the number of practice items to which practice text is written divided by total practice items. (1) Basic practice of industrial works: 100% (2) Microcomputer technology: 100% (3) Electricity & electronics technology: 50% (4) Industrial machinery: 0%	2-3. The following ratios show the number of practice items to which practice text is written divided by total practice items. (1) Basic practice of industrial works: 100% (2) Microcomputer technology: 100% (3) Electricity & electronics technology: 50% (4) Industrial machinery: 0%	Impact (expected/unexpected)
2-4. The project team prepares equipment for experiment and practice by August every year	2-4. Preparation and production of appliances for experiments and practices (9 th and 10 th Grades)	2-4. The following ratios show the completed number of appliances that is divided by the total projected number. (1) Basic practice of industrial works: 100% (2) Microcomputer technology: 50% (3) Electricity & electronics technology: 90%	2-4. The following ratios show the completed number of appliances that is divided by the total projected number. (1) Basic practice of industrial works: 100% (2) Microcomputer technology: 50% (3) Electricity & electronics technology: 90%	2-1. After completion of 2002/2003 academic year, it can be say that, most of the 9 th grade subjects are smoothly accepted by the students and also their motivations are high.	

Achievement of Outputs (From September 2002 to August 2003)

Outputs	Indicators	Target in this term	Achievements in this term	Reasons if planned targets wouldn't been satisfied
3. Development of suitable teaching materials.	3. The project team prepares Teachers Manual (Samples of Annual Plan, Instruction Outline, Practice Guidance and Text Guide) by August every year.	3. Production of teacher's manual (9 th Grades) (1) Basic practice of industrial works (2) Industrial mathematics I (3) Basic practice of information technology (4) Technical drawings (10 th Grades) (1) Microcomputer technology (2) Electricity & electronics technology (3) Industrial machiner (4) Computer aided design and manufacturing (5) Industrial mathematic II	3. The ratio shows the number of written manual that is divided by total projected number.	Delay of textbook production also delays the production of teaching materials.
			(9 th Grades) (1) Basic practice of industrial works: 80% (1) Industrial mathematics I: 90% (2) Basic practice of information technology: 80% (3) Technical drawings: 50%	Necessary countermeasures
			(10 th Grades) (1) Microcomputer technology: 80% (2) Electricity & electronics technology: 90% (2) Industrial machinery: 20% (3) Computer aided design and manufacturing: 0% (4) Industrial mathematic II: 0%	Secure the time for production of guidance books for teachers as much as possible.
				Impact (expected/unexpected)

Achievement of Outputs (From September 2002 to August 2003)

Outputs	Indicators	Target in this term	Achievements in this term	Reasons if planned targets wouldn't been satisfied
4. Establishment of a training system for teachers (including teaching methods) and improvement of teachers' capabilities.	4. For each subject unit, at least ten (10) hours of technology transfer (technical guidance and teaching method guidance) given to more than 2 Counterparts at the commencement of the respective subject starts	4. Technology transfer of related subjects and it's teaching methods (9 th Grades) (1) Basic practice of industrial works (2) Industrial mathematics I (3) Basic practice of information technology (4) Technical drawings (10 th Grade) (1) Microcomputer technology (2) Electricity & electronics technology (3) Industrial machinery (4) Computer aided design and manufacturing (5) Industrial mathematic II	4. The ratios show the total hour of technology transfer that is divided by (10 hours × credit number × number of lecturer). (9 th Grades) (1) Basic practice of industrial works: 100% (2) Industrial mathematics I: 100% (3) Basic practice of information technology: 100% (4) Technical drawings: 100% (10 th Grade) (1) Microcomputer technology: 90% (2) Electricity & electronics technology: 25% (3) Industrial machinery: 25% (4) Computer aided design and manufacturing: 50% (5) Industrial mathematic II: 38%	4. Delay of textbook development influenced technology transfer.
				Necessary countermeasures
5. Introduction of suitable equipment to meet the requirements of industry.	5-1. Degree of satisfaction of enterprises for level of equipment supplied 5-2. Equipment is installed 3 months before the concerned subjects start	Mid-June	5-2. JFY2002/2003 portion has been installed at Mid-June: 100%	4. Secure the time for technology transfer even after the 2003/2004 academic year start and minimize the number of CPs who needs to receive the skills.
				Impact (expected/unexpected)
				4. In the daily training, the CPs started shows their interest to the basic technologies and try to learn them deeply as well as advanced ones. CPs recognizes the importance of teaching method. Their ways of teaching, delivering lecture are obviously changed. The Ministry has allocated some budget for construction of the In-Services Training Center (ITC), which is to be establish in Izmir. This shows how the Ministry evaluates the project activities especially relate to the PDM Outputs No.4 & 8.

Achievement of Outputs (From September 2002 to August 2003)

Outputs	Indicators	Target in this term	Achievements in this term	Reasons if planned targets wouldn't been satisfied
6. Proper operation and maintenance of the equipment mentioned above.	6. For the newly introduced equipment to Izmir Mazhar Zorlu and Konya Adil Karaagac ATHSSs, JICA Experts carry out technology transfer (related to proper usage and maintenance) for more than 2 Counterparts	6. Technology transfer related to the correct usage and maintenance of equipment (1) Computer and network system (2) Equipment managing methods (3) Equipment storage methods	6. The number of CP who acquired the related technology. (4) Computer and network system: 90% (5) Equipment managing methods: 90% (6) Equipment storage methods: 80%	7-2. Network system is just installed. There are many problems and troubles on the internet environment in Turkey.
				Necessary countermeasures
				It is necessary to renovate the network system.
7. Outputs 1.- 6. above are disseminated to the public, other schools and industries via the Internet.	7-1. Degree to which conversion has been completed (curriculum, syllabus, learning materials, teaching materials, training system) 7-2. Percentage of electronic media deployed to the public, other schools and industries	(1) Curriculum (2) Syllabuses (3) Subjects materials	7-1. Degree to which conversion has been completed (1) Curriculum: 100% (2) Syllabuses: 100%(9 th & 10 th Grade) (3) Subjects materials: 100%(9 th grade) 72%(10 th Grade) 7-2. Percentage of electronic media deployed to the public, other schools and industries: 0%	Impact (expected/unexpected)

Achievement of Outputs (From September 2002 to August 2003)

Outputs	Indicators	Target in this term	Achievements in this term	Reasons if planned targets wouldn't be satisfied
8. Establishment of a new system for industrial automation technologies departments in Anatolian technical high schools that meets the needs of industry, and creation of an extension system.	8-1. Surveys of the needs of enterprises are conducted more than once per year	(This term is off the subject)	8-1. The team started to have a close contact with chamber of industry at both areas.	None.
	8-2. At least 1 extension seminar for the new educational system (directed at enterprises) is held before students are graduated			Necessary countermeasures
	8-3. At least 4 extension technical seminars for other schools teachers are implemented and the number of participants to the seminar exceeds 300.			Contents of technical seminars should be constantly reviewed and revised to meet the participant's needs.
	8-4. The number of participants to the above-mentioned seminars exceed 300.			Impact (expected/unexpected)
		(1) PLC-1 (2) Programming-2 (3) Microcomputer (PIC)-2 (4) Network-1 (5) PLC-2	8-3. The ratio shows the number of implemented seminar that is divided by projected number; 100% (5/5 this term)	Through the technical seminars, many technical teachers from other schools cloud know the project activities and it's purpose as well as advanced technology. For this reason, Numbers of technical teachers of other schools who wish to participate in the project are dramatically increased.
			8-4. The ratio shows the actual number of participants that is divided by a projected number. (1) 96%(173/180 this term) (2) 92%(277/300 whole term)	The Ministry has allocated some budget for construction of the In-Services Training Center (ITC), which is to be establish in Izmir. (This shows how the Ministry evaluates the project activities especially relate to the PDM Outputs No.4 & 8.) Moreover, the Ministry made a draft plans which is to establish the industrial automation technologies departments in 20 technical high schools over the Turkey.

(Output No. in the PDM and its description; 1. Development of an innovative curriculum)

Progress of Activities								Problems in this term	Target and Activities in next term	
Activities	Plan	9	12	2	4	6	8	1-2. To draw the syllabus, there were some lacks of coordination among technical subjects.	(Target) 1-2. Preparation of syllabus for 11 th grade.	
	Actual	9	12	2	4	6	8			
1-1. Formulation of curriculum		(Completed)							1-3. Because of the tight schedule of writing textbooks, the team could only hold several meeting with Chamber of Industry, Izmir and Konya, for the purpose of information exchange and project public information.	1-3. Hold some meeting with Chamber of Industry and prepare the questionnaire to understand the industry's attitude to the curriculum.
1-2. Drawing up of syllabus (10 th Grade)	P	----->								
(1) Microcomputer technology	A	----->								
(2) Electricity & electronics technology	A	----->								
(3) Industrial machinery	A	----->								
(4) Computer aided design and manufacturing	A	----->								
(5) Industrial mathematics II	A	----->								
1-3. Understanding the industry's attitude to the curriculum	P	----->								
	A	----->								
		-->		-->		----->				
Remarks									(Activities plan) 1-2. Drawing up of syllabus (11 th Grade) (1) Computer control Technology (2) Mechatronics (3) Computer network (4) Sequence control technology 1-3. Understanding the industry's attitude to the curriculum	

Progress of Activities for each Output

(Output No. in the PDM and its description; 2. Development of suitable learning materials)

Progress of Activities								Problems in this term	Target and Activities in next term
Activities	Plan	9	12	2	4	6	8		
	Actual	9	12	2	4	6	8		
2-1. Production of textbooks (10 th Grade, Trial Version)	P							2-1. Some of the 10 th grade trial version could not be completed before September.	(Target)
(1) Microcomputer technology	A							2-2. 9 th Grade, Industrial mathematics I should have been revised.	2-1. Complete 10 th grade trial version.
(2) Electricity & electronics technology	A								2-2. Start the preparation of 11 th grade trial version.
(3) Industrial machinery	A								2-3. Start the preparation of 11 th grade practice textbooks.
(4) Computer aided design and manufacturing	A								2-4. Start the preparation of 11 th grade appliances for experiments and practices.
(5) Industrial mathematic II	A								
2-2. Production of textbooks (9 th Grade, First Edition)	P							2-3. & 2-4. The preparations of the appliance for some subjects were behind the schedule because of the delay of textbook development.	(Activities plan)
(1) Basic practice of industrial works	A								2-1. Production of textbooks (11 th Grade, Trial Version)
(2) Industrial mathematics I	A								(1) Computer control Technology
(3) Basic practice of information technology	A								(2) Mechatronics
(4) Technical drawings	A								(3) Computer network
2-3. Production of practice textbooks (9 th and 10 th Grades)	P								(4) Sequence control technology
	A								2-2. Production of textbooks (10 th Grade, First Edition)
2-4. Preparation and production of appliances for experiments and practices (9 th and 10 th Grades)	P								(1) Microcomputer technology
	A								(2) Electricity & electronics technology
									(3) Industrial machinery
									(4) Computer aided design and manufacturing
									(5) Industrial mathematic II
Remarks									2-3. Production of practice textbooks (11 th Grades) Same as above 2-1.
									2-4. Preparation and production of appliances for experiments and practices (11 th Grades) Same as above 2-1.

Progress of Activities for each Output

(Output No. in the PDM and its description; 3. Development of suitable teaching materials.)

Progress of Activities								Problems in this term	Target and Activities in next term
Activities	Plan	9	12	2	4	6	8		
	Actual	9	12	2	4	6	8	3. 9 th grade subjects were mostly done but 10 th grade needs some more time to complete.	(Target) The project define the "Teacher's Manual" as below; (1) Samples of Annual Plan(年間指導計画例) (2) Instruction Outline(指導指針) (3) Practice Guidance(実習ガイド) (4) Text Guide(テキストガイド) (Activities plan) 3. Production of teacher's manual (9 th Grades) (1) Basic practice of industrial works (2) Industrial mathematics I (3) Basic practice of information technology (4) Technical drawings (10 th Grades) (1) Microcomputer technology (2) Electricity & electronics technology (3) Industrial machinery (4) Computer aided design and manufacturing (5) Industrial mathematic II (11 th Grades) (1) Computer control Technology (2) Mechatronics (3) Computer network (4) Sequence control technology
3. Production of teacher's manual (9 th Grades)	P								
(1) Basic practice of industrial works	A								
(2) Industrial mathematics I	A								
(3) Basic practice of information technology	A								
(4) Technical drawings	A								
(10 th Grades)	A								
(1) Microcomputer technology	A								
(2) Electricity & electronics technology	A								
(3) Industrial machinery	A								
(4) Computer aided design and manufacturing									
(5) Industrial mathematic II									
Remarks									

Progress of Activities for each Output

(Output No. in the PDM and its description; 4.Establishment of a training system for teachers (including teaching methods) and improvement of teachers' capabilities.)

Progress of Activities								Problems in this term	Target and Activities in next term
Activities	Plan	9	12	2	4	6	8		
	Actual	9	12	2	4	6	8		
4. Technology transfer of related subjects and it's teaching methods (9 th Grades)	P							4. The technology transfer of the some subjects was behind the schedule because of the delay of textbook development.	(Target) 4. The monitoring results of the CP's lecture should have reflected to the technology transfer, especially to the teaching methods. The 10 th grade subjects should fully master by CPs. (Activities plan) 4. Technology transfer of related subjects and it's teaching methods (10 th Grade) (1) Microcomputer technology (2) Electricity & electronics technology (3) Industrial machinery (4) Computer aided design and manufacturing (5) Industrial mathematic II (11 th Grades) (1) Computer control Technology (2) Mechatronics (3) Computer network (4) Sequence control technology
(1) Basic practice of industrial works	A								
(2) Industrial mathematics I	A								
(3) Basic practice of information technology	A								
(4) Technical drawings	A								
(10 th Grade)									
(1) Microcomputer technology	A								
(2) Electricity & electronics technology	A								
(3) Industrial machinery	A								
(4) Computer aided design and manufacturing	A								
(5) Industrial mathematic II	A								
Remarks									

Progress of Activities for each Output

(Output No. in the PDM and its description;5. Introduction of suitable equipment to meet the requirements of industry.)

Progress of Activities								Problems in this term	Target and Activities in next term
Activities	Plan	9	12	2	4	6	8	5-1. & 5-2. Most of the necessary equipment for the education were listed and procured.	(Target) 5-1. & 5-2. Procurement of some parts and up-grade the existing equipment.
	Actual	9	12	2	4	6	8		
5-1. Drawing up of list of equipment	P A	→						5-3. Because of the tight schedule of writing textbooks, the team could only hold several meeting with Chamber of Industry, Izmir and Konya, for the purpose of information exchange and project public information.	(Activities plan) 5-1. Drawing up of list of equipment 5-2. Procurement and installation of equipment 5-3. Understanding the industry's attitude to the above equipment
5-2. Procurement and installation of equipment	P A				→				
5-3. Understanding the industry's attitude to the above equipment	P A		→		→				
Remarks									

Progress of Activities for each Output

(Output No. in the PDM and its description; 6.Proper operation and maintenance of the equipment mentioned above.)

Progress of Activities								Problems in this term	Target and Activities in next term
Activities	Plan	9	12	2	4	6	8		
	Actual	9	12	2	4	6	8		
6. Technology transfer related to the correct usage and maintenance of equipment (1) Computer and network system (2) Equipment managing methods (3) Equipment storage methods	P	----->							
	A	=====>							
	A	=====>							
	A	=====>							
Remarks									

Progress of Activities for each Output

(Output No. in the PDM and its description; 7. Outputs 1.- 6. above are disseminated to the public, other schools and industries via the Internet.)

Progress of Activities								Problems in this term	Target and Activities in next term
Activities	Plan	9	12	2	4	6	8		
	Actual	9	12	2	4	6	8		
7-1. Convert the above outputs to digital data which are suitable for Web page (1) Curriculum (2) Syllabus (3) Subjects materials 7-2. Making of project Web page site and upload the digital data	P	----->							
	A	=====>							
	A	=====>							
	A	=====>							
	P	----->							
	A	=====>							
Remarks									

Progress of Activities for each Output

(Output No. in the PDM and its description; 8.Establishment of a new system for industrial automation technologies departments in Anatolian technical high schools that meets the needs of industry, and creation of an extension system.)

Progress of Activities								Problems in this term	Target and Activities in next term
Activities	Plan	9	12	2	4	6	8		
	Actual	9	12	2	4	6	8		
8-1. Understanding of the automation technology needs of industry	P A							8-1. Because of the tight schedule of writing textbooks, the team could only hold several meeting with Chamber of Industry, Izmir and Konya, for the purpose of information exchange and project public information. 8-3. The ratio of the actual number of participants were less than projected number 96%(173/180).	(Target) 8-1. Define the way of needs survey. 8-3. Contents of technical seminars should be constantly reviewed and revised to meet the participant's needs. (Activities plan) 8-1. Understanding of the automation technology needs of industry 8-3. Planning and preparation of seminars on new technology and teaching method to other school teachers (1) PLC-3 (2) Programming-3 (3) Microcomputer (PIC)-3 (4) Network-2
8-2. Implementation of seminars aimed at introducing the new educational to enterprises	P A	(This term is off the subject)							
8-3. Implementation of seminars on new technology and teaching method to other school teachers	P								
(1) PLC-1	A								
(2) Programming-2	A								
(3) Microcomputer (PIC)-2	A								
(4) Network-1	A								
(5) PLC-2	A								
Remarks									

BASELINE DATA

FOR

THE PROJECT REVIEW

October, 2003

JICA PROJECT
ON
ESTABLISHMENT OF
INDUSTRIAL AUTOMATION
TECHNOLOGIES DEPARTMENTS
IN
ANATOLIAN TECHNICAL HIGH SCHOOLS

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1. Laboratory Preparation by Turkish Government

(1) Total 17 laboratories and workshops, 9 in Project Center (Izmir) and 8 in Cooperation Site (Konya), were prepared by means of modification of the existing classrooms. Namely,

- a) Microcomputer Lab. (Izmir & Konya)
- b) Programming Lab. (Izmir & Konya)
- c) Factory Automation System Lab. (Izmir)
- d) Sequence Control Lab. (Izmir & Konya)
- e) Multimedia Lab. (Izmir & Konya)
- f) Electricity and Electronics Lab. (Izmir & Konya)
- g) Mechanical Workshop (Izmir & Konya)
- h) Drawing Room (Izmir & Konya)
- i) Computer Server Room (Izmir & Konya)

(2) All the laboratories and workshops were equipped with basic educational furniture, work tables and benches, electric wiring and power distribution board, free access floor, and air conditioners.

(3) The total amount of 354,000,000,000 Turkish Liras (TL) equals 258,394.00 USD (exchange rate for 1 USD=1.370.000 TL, on September 2001) is allocated to the both project sites. The detail breakdown is as follows.

a. Modification

Project Center (Izmir)	: 106,000,000,000 TL
Cooperation site (Konya)	: 84,000,000,000 TL
Sub Total	: 190,000,000,000 TL

b. Furnishing

Project Center (Izmir)	: 91,000,000,000 TL
Cooperation site (Konya)	: 63,000,000,000 TL
Sub Total	: 154,000,000,000 TL

c. Additional Budget; 10,000,000,000.TL (for the Project Center (Izmir))

2. Assignment of Turkish Counterparts / Review of Counterpart Training in Japan

Turkish Government is scheduled to assign total 21 Turkish technical teachers to the project as counterparts . The assignment plan is as follows.

YEAR	2001	2002	2003	2004	2005	TOTAL
IZMIR	2(6)	3(4)	3(2)	3	3	14 (12)
M	1(3)	1(2)	*2(1)	2	1	7(6)
E	1(3)	2(2)	1(1)	1	2	7(6)
KONYA	2 (3)	1(1)	1(1)	2	1	7 (5)
total	4 (9)	4(5)	4(3)	5	4	21(17)

Remarks:

- Numbers in the () show actually assigned number of counterparts.
- *A counterpart, Mehmet UYSAL, who was assigned in 2002, resigned his duty from the project in 2003.

4 counterparts are being sent to Japan by Japanese side every year for technical training.

Here below are the necessary information of the completed trainings in Japan and comments of the related counterparts.

Period of Training	Name of the Counterparts	Comments of the Counterparts
November 12, 2001- April 23, 2002	Hasan YILDIZ (Izmir) (Information Mechanics)	First, Japanese language course in Japan was very useful for me in order to communicate with JICA experts in Japanese language. Then, technical training in Japan, especially in Takasaki, Chichibu and Niiza Technical High Schools as well as trips to the technical museums were very efficient for me to improve my thinking style.
	Selim GÜLÇEN (Izmir) (Information Electronics)	During my stay in Japan, I had a chance to learn Japanese education system and Japanese culture. I also had technical training on various subjects. Generally, the training in Japan was very efficient and successful for my occupational carrier.
	Yüksel ÇINAR (Konya) (Information Electronics)	As a general impression, the training was well – programmed to meet our personal needs as well as to introduce some cultural activities. Training was very useful for learning Japanese education system. But there was a lack of communication between the technical high schools included in the training program, so that some subjects were repeated at different schools. The level of training program was kept low. It could be at a higher level.
	Osman KÖSE (Konya) (Information Electronics)	Organization for our travelling, accomodation and transportation was very smooth. And the hospitality of people related with the training as well as the common people was wonderful. Generaly, the training was effective and successful. On the other hand, we, first generation counterparts, went to Japan for training soon after assigned to the project, so that we were not enough pre-informed about the Japanese education system and training subjects. If we have a chance to go now for a longer period, it will be more efficient, I believe.

August 26, 2002 – December 20, 2002	Güliz GÜLSEVİN (İzmir) (Information Mechanics)	In technical point of view, I recognized that there are still too much things I need to learn. And in social point of view, living in Japan for a certain period was the best experience that I had in my life.	
	Mustafa GÜNEŞ (İzmir) (Information Mechanics)	The orientation and Japanese language course in OSIC Center /Osaka was very useful for the communication with the Japanese people. Also my technical training in Misato Technical High School was very efficient for improving my vocational knowledge and skills.	
	Turgay İŞBİLEN (İzmir) (Information Electronics)	It was great to learn something about Japanese culture together with the Japanese language. Vocational training in technical high school for four months was very efficient, but on the other hand I dissapointed that I was not given a chance to visit any industrial factory in Japan.	
	Melek TOTAN (Konya) (Information Electronics)	When I arrived to Gotemba High School, I met with a welcome ceremony and music teacher was playing our national anthem on piano. It was great. All the knowledge and experiments which I had in Japan during my training improved my technical level. I went to a robot contest there between high school students. It was very useful for me to see a lot of robot cars. It was a great chance for me to get a training in such a country which has a high technology with hardworking people and high quality production factories.	
July 26, 2003 – Feb. 20, 2004 (for Gürçan BILDIR)	Kahraman ÖNEY (İzmir) (Information Mechanics)	He is in Japan for his training program.	
	Gürçan ÇAYIR (İzmir) (Information Mechanics)	He is in Japan for his training program.	
	July 25, 2003 – March 28, 2004 (for the othes)	Gürçan BILDIR (İzmir) (Information Electronics)	He is in Japan for his training program.
		İbrahim APA (Konya) (Information Electronics)	He is in Japan for his training program.

3. Activities of JICA Experts

(1) Long Term Experts

Here below are the 1st and 2nd generation experts assigned to the project as long term experts.

<u>Name of Expert</u>	<u>Title</u>	<u>Duty Period</u>
1st Generation		
Yasuo SUZUKI	Project Chief Advisor	19 th April 2001 – 18 th April 2004
Jin KOKI	Project Coordinator	16 th April 2001 – 15 th April 2004
Yasuhiro ISHIDA	Expert-Inf. Mechanics	25 th April 2001 – 24 th Feb. 2004
Satoshi TOYAMA	Expert-Inf. Mechanics	25 th May 2001 – 24 th April 2003
Koshi TERAMOTO	Expert-Inf. Electronics	25 th May 2001 – 24 th April 2003
Tomizo YAMAUCHI	Expert-Inf. Electronics	25 th May 2001 – 24 th April 2003
2nd Generation		
Shuichi YUZAWA	Expert-Inf. Electronics	16 th May 2003–15 th May 2005
Yoichi MASUDA	Expert-Inf. Electronics	16 th May 2003–15 th May 2005
Tetsuya OKUBO	Expert-Inf. Mechanics	16 th May 2003–15 th May 2005

(2) Short Term Experts

Here below are the experts assigned to the project as short term experts.

<u>Name of Expert</u>	<u>Duty Site</u>	<u>Duty Period</u>
In 2001 JFY		
Takeshi OIKE (Inf. Machinery)	Ank./Izm./Kon.	10 th March–24 th March, 2002
Yoshio NAKAMICHI (Inf. Machinery)	Izmir / Konya	10 th March – 7 th April, 2002
Yoichi MASUDA (Inf. Electronics)	Izmir / Konya	10 th March – 7 th April, 2002
Fuminori OGAMI (Inf. Electronics)	Izmir / Konya	10 th March – 7 th April, 2002
In 2002 JFY		
Fuminori OGAMI (Inf. Electronics)	Konya	29 th Nov. – 27 th Dec., 2002
Takashi TSUZUKI (Inf. Machinery)	Izmir	1 st Sep. – 30 th Nov., 2003
In 2003 JFY		
Takashi TUCHIYANA (Inf. Electronics)	Konya	24 th May – 9 th Aug., 2003
Takashi TSUZUKI (Inf. Electronics)	Konya	25 th June – 19 th Sept., 2003

(3) Technology Transfer Given by Japanese Experts to the Counterparts

Aim: Technology transfer is provided by JICA Experts, with the aim of training the project counterparts and improving their knowledge and teaching skills.

Below tables show ; - Technology Transfer Plan on the Base of Textbook Subjects,
- Technology transfer to the Turkish counterparts.

Technology Transfer Plan on the Base of Textbook Subjects (İZMİR)

	9th grade	10th grade	11th grade	12th grade	Total
Hasan YILDIZ	5 Basic Practice of Industrial works Industrial Mathematics I Basic practice for information tech. Industrial Mechanics I Technical drawing	3 Microcomputer Technology Electricity & electronic engineering Computer aided design and manufacturing	1 Sequence control technology	2 Project study CNC Working	11
Gözü GÜLSEVİN	2 Industrial Mathematics I Basic practice for information tech.	5 Industrial Mathematics II Industrial Mechanics II Microcomputer Technology Electricity & electronic engineering Computer aided design and manufacturing	1 Sequence control technology	3 Project study Industrial Management FA Cell Control	11
Mustafa GÖNEŞ	5 Basic Practice of Industrial works Industrial Mathematics I Basic practice for information tech. Industrial Mechanics I Technical drawing	1 Microcomputer Technology	1 Computer control technology	3 Project study Industrial Management FA System Technology	10
Kahraman ONEY	3 Basic Practice of Industrial works Industrial Mechanics I Technical drawing	1 Industrial Mathematics II	2 Computer Network Sequence control technology	3 Project study Feedback Control FA System Technology	9
Görcan ÇAYIR	2 Basic Practice of Industrial works Industrial Mechanics I	3 Industrial Mathematics II Industrial Mechanics II Computer aided design and manufacturing	2 Computer control technology Computer Network	3 Project study Feedback Control Automation Production Technology Project study	10
(Mehmet ARIKAN)	3 Industrial Mathematics I Basic practice for information tech. Industrial Mechanics I	3 Industrial Mathematics II Industrial Mechanics II Microcomputer Technology	2 Computer control technology Computer Network	3 Project study Industrial English FA Robot Tehnology Project study Advanced robotics technology	11
M7 (Talat -----)	2 Basic practice for information tech. Industrial Mechanics I	4 Industrial Mathematics II Industrial Mechanics II Microcomputer Technology Computer aided design and manufacturing	0	4 Project study Industrial English FA Cell Control FA System Technology	10
M6 (JAPAN)	2 Basic practice for information tech. Industrial Mechanics I	4 Industrial Mathematics II Industrial Mechanics II Microcomputer Technology Computer aided design and manufacturing	0	4 Project study Industrial Management CNC Working Automation Production Technology	10
Selim GÜLÇEN	5 Basic Practice of Industrial works Industrial Mathematics I Basic practice for information tech. Industrial Mechanics I Technical drawing	3 Industrial Mathematics II Industrial Mechanics II Computer aided design and manufacturing	2 Computer Network Computer control technology	3 Project study Sequence control technology Network Server and Security	13
Turgay İSBİLEN	4 Basic Practice of Industrial works Industrial Mathematics I Industrial Mechanics I Technical drawing	4 Industrial Mathematics II Industrial Mechanics II Electricity & electronic engineering Computer aided design and manufacturing	2 Mechatronics Computer control technology	3 Project study Industrial English Industrial Products design Project study	13
O.Egemen DOĞER	1 Basic practice for information tech.	4 Industrial Mechanics II Microcomputer Technology Electricity & electronic engineering Computer aided design and manufacturing	0	0	5
Görcan BİLDİR	4 Basic Practice of Industrial works Industrial Mathematics I Basic practice for information tech. Industrial Mechanics I	3 Industrial Mechanics II Microcomputer Technology Electricity & electronic engineering	3 Computer Network Mechatronics Computer control technology	3 Project study Programming Logic Device Web System Technology	13
Sedat ELBİR	5 Basic Practice of Industrial works Industrial Mathematics I Basic practice for information tech. Industrial Mechanics I Technical drawing	3 Industrial Mathematics II Microcomputer Technology Computer aided design and manufacturing	0	4 Project study Industrial Management Sequence control technology Network System	12
E6 (Mustafa -----)	1 Industrial Mathematics I	4 Industrial Mathematics II Microcomputer Technology Electricity & electronic engineering Computer aided design and manufacturing	0	5 Project study Industrial Management Industrial Products design Feedback Control Network Server and Security	10
E7 (Bülent -----)	3 Basic practice for information tech. Industrial Mechanics I Technical drawing	3 Industrial Mathematics II Microcomputer Technology Computer aided design and manufacturing	0	4 Project study Industrial English Programming Logic Device Network System	10
E8 (JAPAN)	3 Basic practice of Information Tech. Industrial Mechanics I Technical drawing	2 Industrial Mathematics II Microcomputer Technology	0	4 Project study Feedback Control Digital Signal Processing Web System Technology	9

Technology Transfer Plan on the Base of Textbook Subjects (KONYA)

	9th grade	10th grade	11th grade	12th grade	Total
Yüksel ÇINAR	3 Basic Practice of Industrial works Industrial Mathematics I Industrial Mechanics I	1 Microcomputer Technology	2 Computer Network Computer control technology	3 Project study Sequence control technology Web System Technology	9
Osman KÖSE	3 Basic Practice of Industrial works Basic practice for information tech. Industrial Mechanics I	2 Industrial Mathematics II Industrial Mechanics II	2 Computer Network Computer control technology	3 Project study Sequence control technology Digital Signal Processing	10
Melek TOTAN	3 Industrial Mathematics I Basic practice for information tech. Technical drawing	2 Microcomputer Technology Computer aided design and manufacturing	1 Mechatronics	3 Project study Industrial Products design Network System	9
İbrahim APA	3 Industrial Mathematics I Basic practice for information tech. Technical drawing	3 Industrial Mathematics II Microcomputer Technology Electricity & electronic engineering	3 Mechatronics Computer Network Computer control technology	3 Project study Programming Logic Device Network Server and Security	12
Murat AKDOĞAN	1 Basic practice for information tech.	4 Industrial Mathematics II Microcomputer Technology Electricity & electronic engineering Computer aided design and manufacturing	0	5 Project study Industrial management Feedback Control Industrial products design Network Server and Security	10
E6	3 Industrial Mathematics I Basic practice for information tech. Industrial Mechanics I	4 Industrial Mechanics II Microcomputer Technology Electricity & electronic engineering Computer aided design and manufacturing	0	5 Project study Industrial management Industrial English Programming Logic Device Network System	12
E7	2 Industrial Mathematics I Industrial Mechanics I	3 Industrial Mechanics II Electricity & electronic engineering Computer aided design and manufacturing	0	5 Project study Feedback Control Industrial English Digital Signal Processing Web System Technology	10

**Technology Transferred Subjects to the Turkish Counterparts
by JICA Experts**

Name of the CP	2001	2002	2003	2004	2005
Selim GÜLÇEN	- Programming	- Basic Practice of Industrial Works - Network - Industrial Machinery - Programming - Industrial Mathematics I - How to use pocket computer - Microcomputer - PLC	- Programming - Basic Practice of Industrial Works - Unix - Industrial Mathematics II - Network - Microcomputer - PLC. FA - Web Server		
Hasan YILDIZ	- Programming	- Programming Seminar - Basic Practice of Industrial Works - Network - Industrial Machinery - Programming - Industrial Mathematics I - How to use pocket computer - Microcomputer - PLC	- Programming - Basic Practice of Industrial Works - Industrial Mathematics II - PLC - Basic Information Technology - PLC. FA		
Turgay İŞBİLEN	- Programming - Microcomputer	- Microsoft Word - Basic Practice of Industrial Works - Network - Microcomputer	- Programming - Unix - Basic Practice of Industrial Works - Network - Industrial Mathematics II - Microcomputer - Electricity & Electronics Engineering		
Mustafa GÜNEŞ	- Programming - Microcomputer	- Microsoft Word - Basic Practice of Industrial Works - Network - Microcomputer - PLC	- Programming - Unix - Basic Practice of Industrial Works - Network - Industrial Mathematics II - Electricity & Electronics Engineering - Microcomputer - PLC - PLC. FA		
Güliz GÜLSEVİN	- Programming - Microcomputer	- Microsoft Word - Basic Practice of Industrial Works - Programming Seminar - Network - Microcomputer - PLC	- Programming - Basic Practice of Industrial Works - Industrial Mathematics II - PLC - Basic Information Technology - PLC. FA		
Egemen DÖĞER	- Programming - Microcomputer	- Microsoft Word - Basic Practice of Industrial Works - How to use pocket computer - Microcomputer - Network	- Unix - Microcomputer		
Gürcan BILDIR		- Programming	- Programming - Basic Practice of Industrial Works - Network - Electricity & Electronics Engineering		
Kahraman ÖNEY		- Programming - PLC	- Programming - Basic Practice of Industrial Works - Unix - Network - Microcomputer - PLC		

Sedat ELBİR		<ul style="list-style-type: none"> - Programming - PLC 	<ul style="list-style-type: none"> - Programming - Basic Practice of Industrial Works - Network - PLC. FA - Hard disc partition setting 		
Mehmet UYSAL		<ul style="list-style-type: none"> - Programming - PLC 	<ul style="list-style-type: none"> - Programming - Basic Practice of Industrial Works - PLC 		
Gürcan ÇAYIR			<ul style="list-style-type: none"> - Programming 		
Osman KÖSE	<ul style="list-style-type: none"> - Programming 	<ul style="list-style-type: none"> - Programming - Basic Practice of Industrial Works - Network - Industrial Machinery - Microcomputer - PLC 	<ul style="list-style-type: none"> - Programming - Unix - Network - How to use pocket computer - Electricity & Electronics Engineering - Microcomputer - PLC - Basic Information Technology 		
Yüksel ÇINAR	<ul style="list-style-type: none"> - Programming 	<ul style="list-style-type: none"> - Programming - Basic Practice of Industrial Works - Network - Industrial Machinery - Industrial Mathematics I - Microcomputer 	<ul style="list-style-type: none"> - Programming - Unix - Network - How to use pocket computer - Electricity & Electronics Engineering - Microcomputer - PLC - Basic Information Technology - Industrial Mathematics II 		
Melek TOTAN	<ul style="list-style-type: none"> - Programming 	<ul style="list-style-type: none"> - Programming - Basic Practice of Industrial Works - Microcomputer 	<ul style="list-style-type: none"> - Programming - Unix - Network - How to use pocket computer - Electricity & Electronics Engineering - Microcomputer - Basic Information Technology - Industrial Mathematics II 		
İbrahim APA		<ul style="list-style-type: none"> - Microcomputer - Network 	<ul style="list-style-type: none"> - Programming - Unix - Network - Microcomputer - Basic Information Technology 		
Murat AKDOĞAN			<ul style="list-style-type: none"> - Programming - Network - Industrial Mathematics II 		

4. Textbook Development Records

Total 27 textbooks will be developed during the 5 year–project period. 4 textbooks of the 1st edition for 9th grade were completed in 2001 and 5 textbooks of the 1st edition for 10th grade were completed in 2002 by the JICA experts and translated into Turkish language by the Turkish counterparts as shown on the following table.

All of the developed textbooks as the 1st edition are to be more refined later on.

Development process of a textbook is as follows;

- A textbook in English language is being developed by a JICA expert,
- Then, an assigned counterpart translates it into Turkish language chapter by chapter.

Year	Subject	JICA Expert	Turkish Counterpart
2001	Industrial Mathematics I	Tomizo YAMAUCHI	Hasan YILDIZ Yüksel ÇINAR
	Basic Practice of Information Technologies	Satoshi TOYAMA	Osman KÖSE
	Basic Practice of Industrial Works	Yasuhiro ISHIDA	Turgay İŞBİLEN Selim GÜLÇEN
	Industrial Mechanics I	Yasuhiro ISHIDA	Hasan YILDIZ Mustafa GÜNEŞ
2002	Industrial Mathematics II	Tomizo YAMAUCHI	Yüksel ÇINAR
	Industrial Mechanics II	Yasuhiro ISHIDA	Mustafa GÜNEŞ
	Electricity & Electronics Engineering	Tomizo YAMAUCHI	Osman KÖSE
	CAD & CAM	Satoshi TOYAMA	Güliz GÜLSEVİN Melek TOTAN
	Microcomputer Technology	Koshi TERAMOTO	Turgay İŞBİLEN Mustafa GÜNEŞ

The remained textbooks for 11th and 12th grades will be developed as follows.

Year	Subject	JICA Expert	Turkish Counterpart
2003	Computer Control Technology	Yasuhiro ISHIDA	
	Computer Network	Yoichi MASUDA	
	Mechatronics	Shuichi YUZAWA	
	Sequence Control Technology	Tetsuya OKUBO	
2004	Industrial Management	Tetsuya OKUBO	
	Feedback Control	Shuichi YUZAWA	
	Technical English	Tetsuya OKUBO	
	Industrial Product Design	Shuichi YUZAWA	
	Programming Logic Device	Shuichi YUZAWA	
	Digital Signal Processing		
	Network Server and Security	Yoichi MASUDA	
	Network System		
	Web System Technology	Yoichi MASUDA	
	FA Robot Technoogy	Not definite.	
	CNC Working	Not definite.	
	FA Cell Control	Tetsuya OKUBO	
FA System Technology	Tetsuya OKUBO		
Automatic Production Tech.	Not definite.		

5. Educational Facility

a. Total amount of equipment provided by JICA.

Here below is the breakdown of the total amount of equipment provided by JICA.

Academic Year	Procurement from Japan (US\$)	Procurement from Local Market (US\$)	Exchange Rate
2001 / 2002	386,220.00	504,926.00	\$1 = ¥120.40
2002 / 2003	1,613,885.47	198,177.00	\$1 = ¥120.12
2003 / 2004	-	8,379.00	\$1 = ¥119.10
Total	2,000,105.47	711,482.00	
GRAND TOTAL	2,711,158.47 (US\$)		

b. Distribution of each laboratory as total amount of equipment in Izmir and Konya.

c. Equipment lists of each laboratory prepared by Turkish side.

6. Assignment Situation of Konya Site on Expert Activity and Operational Budget

6.1 Activity of JICA Experts to Konya Project Site (Person . Month Bases)

2001	January	-
	February	-
	March	-
	April	-
	May	-
	June	20
	July	20
	August	29
	September	22
	October	14
	November	9
	December	9
TOTAL	123/7 months	
	18 P.M	

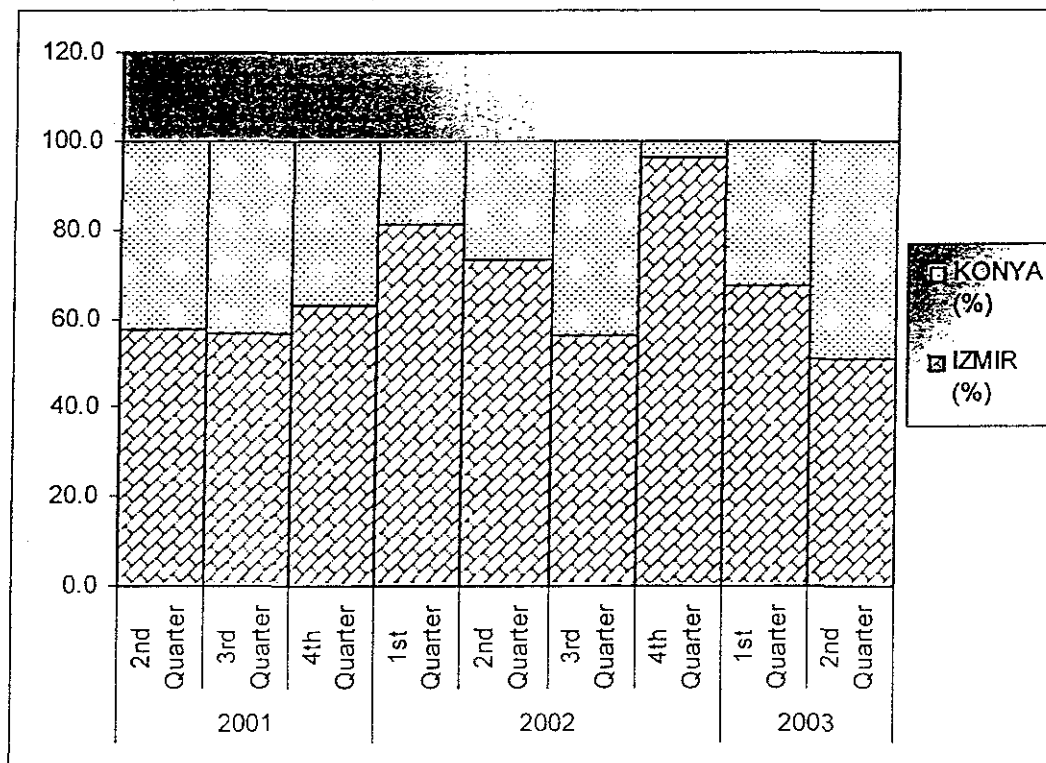
2002	January	24
	February	14
	March	23
	April	4
	May	0
	June	25
	July	0
	August	5
	September	18
	October	19
	November	2
	December	27
TOTAL	161 / 1 year	
	13 P.M	

2003	January	6
	February	4
	March	7
	April	6
	May	13
	June	30
	July	16
	August	18
	September	21
	October	
	November	
	December	
TOTAL	121 / 9 months	
	13 P.M	

6.2 Assigned Operational Budget to Konya Project Site

Comparison table and graph of the annual project operation budget percentage, expended for the Izmir site and Konya site are shown as follows.

Year	Quarter	IZMIR (%)	KONYA (%)
2001	2nd Quarter	57.5	42.5
	3rd Quarter	56.5	43.5
	4th Quarter	62.9	37.1
2002	1st Quarter	81.1	10.9
	2nd Quarter	73.0	27.0
	3rd Quarter	56.3	43.7
	4th Quarter	96.3	3.7
2003	1st Quarter	67.5	32.5
	2nd Quarter	51.0	49.0



7 - SYLLABUS

Syllabus of 9th grade Subjects

Subject	Credits	Main Objective	Teaching Methods	Contents	Subject concept	Ratio of lecture and practice
Basic practice of Industrial works		<ol style="list-style-type: none"> To know about Direct Current Circuit and its calculation. To know about very basic of Alternative Current. To know about basics of logic circuit (basic gates, Boolean algebra and Flip Flop) 	<ol style="list-style-type: none"> The lecture should be given in classroom. And the practices are in laboratories. Practices are given after studying each sub-subject. 	<ol style="list-style-type: none"> Fundamentals of Direct Current Circuit Alternative Current and DC power supply Fundamentals of digital Circuit T-FF and Counter circuits 	<p>This gives the basic knowledge and experience needed for 10th grade subjects like 'Microcomputer Technology' and 'Electricity & Electronic engineering.'</p> <p>Also problem-solving attitude are trained through practice.</p>	<p>Lecture 40%</p> <p>Practice 60%</p>
Basic practice of Information technology		<ol style="list-style-type: none"> To educate the ability of acquiring, technology of processing and analyzing the digital information using computer. To educate the ability to make presentation-using computer. 	<ol style="list-style-type: none"> Practice should be given in laboratory. Each student should have a computer in the practice. All the computer must be connected by network and one server is needed. The facility for internet access should be prepared. 	<ol style="list-style-type: none"> SPREAD SHEET <ol style="list-style-type: none"> Basic operation of spreadsheet Applied operation of spreadsheet THE INTERNET <ol style="list-style-type: none"> Practical use of The Internet Creating web site 	<p>Students can have interest about I.T. field through this subject. They will be able to use computer as a tool. And those skills are indispensable in almost every subject, which follows.</p> <p>Operation of WINDOWS and word processing are already studied in the preparatory class.)</p>	<p>Practice 100%</p>
Industrial Mathematics I		<ol style="list-style-type: none"> Students can acquire the basic ability and the attitude of processing specific industrial phenomena mathematically and practically. The following ability will be raised up; Intuition of understanding the specific industrial phenomena adequately. Attitude of solving problems willingly. 	<ol style="list-style-type: none"> Lecture should be given in classroom. It is encouraged for students to think by themselves, and to do things more practically using their hands as much as possible for many activities. Pocket computer should be prepared and used in the class. 	<ol style="list-style-type: none"> Computer numbering systems <ol style="list-style-type: none"> 1-1 Binary notation 1-2 Calculation of binary notation 1-3 Units used with personal computer Basis of mathematical handling for industrial phenomena <ol style="list-style-type: none"> 2-1 Units and Density 2-2 Exponents and Radicals 2-3 Ratio and proportion 2-4 Linear equations 	<p>Computer numbering system gives the basis for every subjects of information technology.</p> <p>Other contents compensate the lacking relationship between mathematics and physics.</p> <p>Further study will be made in 'Industrial Mathematics II'.</p>	<p>Lecture 100%</p>

				<p>3. Industrial phenomena and formula</p> <p>3-1 Areas of plane figures</p> <p>3-2 Volumes of common solids</p> <p>3-3 Irregular areas and volumes</p> <p>3-4 Means values of waveforms</p> <p>3-5 Trigonometry</p>		
Mechanics and Mechanical Works I		<p>1. To study about materials, which are used in industry.</p> <p>2. To study about the kinematics related to mechanics.</p> <p>3. To study about the strength of materials.</p>	<p>1. Lecture should be given in classroom.</p> <p>2. Some practices are made in mechanical workshop.</p>	<p>1. Materials</p> <p>2. Force, kinematics and power and basics of kinematics and</p> <p>3. Strength of materials</p>	<p>These knowledge are the basis for mechanical works and design which will be given in "Mechanics and Mechanical works II".</p>	<p>Lecture 90%</p> <p>Practice 10%.</p> <p>The practices of mechanical works are given in 'Mechanics and Mechanical works II'.</p>
Technical Drawing	2	<p>1. To study the basic knowledge and skills of technical drawing about mechanical and electronics.</p>	<p>1. Drafter should be used for practice.</p> <p>2. Repetitive practice using drawing rules and symbols of Turkey will be made.</p>	<p>1. Basic knowledge</p> <p>2. Norm for writing</p> <p>3. Basic knowledge of geometrical drawing</p> <p>4. Draw out appearance</p> <p>5. Calibrating</p> <p>6. Electronic circuits</p> <p>7. Rectification circuits</p> <p>8. Micro-operating circuits</p> <p>9. Drawing of Electric circuits in norm skills</p>	<p>This deals with the drawing of mechanics and electronics.</p> <p>This also gives the basis for the subjects of 'Computer aided design and manufacturing' in 10th grade.</p>	<p>Lecture 30%</p> <p>Practice 70%.</p>

Syllabus of 10th Grade Subjects

Subject	Credits	Main Objective	Teaching Method	Contents	Subject Concept	Ratio of Lecture and Practice
Industrial Mathematics	5	<ol style="list-style-type: none"> Students can acquire the basic ability and attitude processing specific industrial phenomena mathematically and practically. Following ability will be raised up; <ul style="list-style-type: none"> - Intuition and intention of understanding the specific industrial phenomena adequately - Attitude of solving problems willingly 	<ol style="list-style-type: none"> Lecture should be given in classroom. It is encouraged for students to think by themselves and to do things more practically using their hands as much as possible for many activities. Pocket computer should be prepared and used in class. 	<ol style="list-style-type: none"> Factorization Quadratic equations and inequality Exponential and logarithmic functions Trigonometric waveforms Complex numbers Cartesian and polar co-ordinates Vectors Differentiation method and application Integration method and application Statistical processing Simple differential equation 	This subject gives the mathematical processing ability about how to process industrial phenomena in the mathematical principle and practically.	Lecture 100%
Mechanics and Mechanical Works	4	<ol style="list-style-type: none"> To know mechanical works and the usage of mechanical tools. To know various elements used in mechanical design. To know how mechanical design should be made. 	<ol style="list-style-type: none"> Lecture should be given in classroom, the practice in laboratories. Practices are given after related lectures. 	<ol style="list-style-type: none"> Mechanical working <ol style="list-style-type: none"> Machine tools Other working Mechanical design <ol style="list-style-type: none"> Mechanical elements How to design 	This subject gives the basic knowledge about how mechanical parts are designed and made. Those are important when they design robot parts and some parts for factory automation.	Lecture 40% Practice 60%
Microcomputer Technology	9	<ol style="list-style-type: none"> To learn architecture of microcomputer and its input / output interfaces. To learn how to make a small computer system, which consists of hardware and software of PIC computer. 	<ol style="list-style-type: none"> Lecture should be given in microcomputer laboratory. Practices are given after related lectures. 	<ol style="list-style-type: none"> Architecture of microcomputer Basic of PIC microcomputer Making of PIC microcomputer board PIC assembly language DC and stepping motor control D/A, A/D converter Small robot control 	This subject gives the basic knowledge of microcomputer and robot technology. The students will be able to understand embedded system.	Lecture 30% Practice 70%
Industrial Electricity & Electronics	5	<ol style="list-style-type: none"> To learn about single and three phase alternating current To learn about practical knowledge factory electricity. To learn about basic electronics circuits. 	<ol style="list-style-type: none"> Lecture should be given in classroom, practices in laboratories. Practices shall be given after related lectures. 	<ol style="list-style-type: none"> Alternative current circuit. <ol style="list-style-type: none"> Single phase alternating current Three phase alternating current Electric motor Distorted alternating current Transient phenomena and pulse Electric equipment Electronic circuit, diode, transistor, OP amps 	This subject gives the basic knowledge of electric circuit, electronics circuit and electric equipment.	Lecture 70% Practice 30%
Computer Aided Design and Manufacturing (CAD / CAM)	2	To educate of operating not only CAD (Computer Aided Design) but also CAM (Computer Aided Manufacturing) system using educational numerical control machine or automatic electrical circuit cutting machine.	Every lesson shall be held in the computer room with the aim of having each student involved in practical operation actively.	<ol style="list-style-type: none"> Operation of 2-dimensional CAD Basic operation of 3-dimensional CAD Development from CAD to CAM Actual cutting. 	The knowledge of CAD/CAM are playing important role and main factor for both department, same as word processing is the basic for the office workers.	Practice 100%

8 - PROJECT CHRONOLOGY

Year	Month	Mission, Experts and Counterparts	Equipment, Important Events, etc.
<u>1997</u>		<ul style="list-style-type: none"> Official request of "Project Type Technical Cooperation Program" by Republic of Turkey to Japan. 	
<u>1999</u>	February	<ul style="list-style-type: none"> Preliminary Study by JICA (1999.Feb.21 ~ 1999.Mar.8) 	
<u>2000</u>	January April July September October	<ul style="list-style-type: none"> Preliminary Study by JICA (2000.Jan.22 ~ 2000.Feb.2) Preliminary Study by JICA (2000.Apr.2 ~ 2000.Apr.16) Preliminary Study by JICA (2000.July.16 ~ 2000.Aug.24) Preliminary Study by JICA (2000.Sept.2 ~ 2000.Sept.13) Implementation Study by JICA (2000.Oct.8 ~ 2000.Oct.13) (Headed by Mr. Michio YAMADA, Director of the Vocational Education Division, Elementary and Secondary Education Bureau, Ministry of Education, Science, Sports and Culture, Japan) 	<ul style="list-style-type: none"> The Record of Discussions and series of Minutes of Meetings are officially signed by two governments.
<u>2001</u>	January March April	<ul style="list-style-type: none"> 2 governmental executive officials were invited to Japan by JFY2000/2001 CP Training Program scheme (2001.1.30 ~ 2001.2.6) Mr. Naim DURMAZ, Director General, Technical & Vocational Education Directorate, Ministry of National Education. Mr. Erol BELCE, Head of Department, Technical & Vocational Education Directorate, Ministry of National Education. Equipment Procurement Study by JICA (2001.Mar.7 ~ 2001.Mar.27) Arrival of 2 JICA Long Term Expert Mr. Yasuo SUZUKI, Chief Advisor (2001.Apr.19 ~ 2003.Apr.18) Mr. Jin KOKI, Project Coordinator (2001.Apr.16 ~ 2003.Apr.15) 	<ul style="list-style-type: none"> Inauguration of the Project (2001.Apr.16 ~ 2006.Apr.15)

<p>2001</p>	<p>May</p> <p>July</p> <p>August</p> <p>September</p>	<ul style="list-style-type: none"> • Project Office opened at Izmir Mazhar Zorlu ATHS (April 24) • Arrival of 4 JICA Long Term Expert Mr. Satoshi TOYAMA, Factory Automation System Technology (2001.May.25 ~ 2003.May.24) Mr. Yasuhiro ISHIDA, Automatic Production Technology (2001.May.25 ~ 2003.May.24) Mr. Tomizo YAMAUCHI, Network Design for Automatic Control (2001.May.25 ~ 2003.May.24) Mr. Koshi TERAMOTO, Industrial Product Design (2001.May.25 ~ 2003.May.24) • Visitation, Izmir Mazhar Zorlu ATHS, by Mr. Akira MOTOYAMA, Deputy Chief of Mission, Consulate General of Japan • Assignment of 9 Counterparts (Academic Year (AY) 2001/2002) Mr. Hasan YILDIZ, Izmir Mazhar Zorlu ATHS Mr. Selim GÜLÇEN, Izmir Mazhar Zorlu ATHS Mr. Turgay İŞBİLEN, Izmir Mazhar Zorlu ATHS Ms. Güliz GÜLSEVİN, Izmir Mazhar Zorlu ATHS Mr. Mustafa GÜNEŞ, Izmir Mazhar Zorlu ATHS Mr. Egemen DOĞER, Izmir Mazhar Zorlu ATHS Mr. Osman KÖSE, Konya Adil Karaagaç ATHS Mr. Yüksel ÇINAR, Konya Adil Karaagaç ATHS Ms. Melek TOTAN, Konya Adil Karaagaç ATHS • JICA Health Consultation Mission (Middle East Team) held Health Consultation and Lecture for the Experts and their family members. 	<ul style="list-style-type: none"> • Arrival of Technical Equipment for JICA Long Term Expert (C.I.F. IZMIR ¥10,754,538.-) • Commencement of reconstruction work of the both school buildings. • 1st Project Progress Meeting at Ankara • Opening of First Semester, AY2001/2002 Number of Prep. Studentı Izmir: 60 (Includes 5 females), Konya: 30
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2001		<ul style="list-style-type: none">• Because of New York World Trade Center attack by terrorist, dispatch of Equipment Procurement Team by JICA has been canceled and its duty has turned into backward support from Japan by using e-mail and Facsimile. <p>October</p> <p>November</p> <ul style="list-style-type: none">• 4 Counterparts left to Japan for JFY2001/2002 CP Training Program (2001.Nov.12 ~ 2002.Apr.23) <p>Mr. Hasan YILDIZ, Izmir Mazhar Zorlu ATHL</p> <p>Mr. Selim GÜLÇEN, Izmir Mazhar Zorlu ATHS</p> <p>Mr. Osman KÖSE, Konya Adil Karaagaç ATHS</p> <p>Mr. Yüksel ÇINAR, Konya Adil Karaagaç ATHS</p> <p>December</p>	<ul style="list-style-type: none">• 2nd Project Progress Meeting at Izmir. <ul style="list-style-type: none">• Completion of reconstruction work of the both school buildings.• Visitation to Aegean Region Chamber of Commerce & Industry (Implementation of the Project publicity activities and hold a skull session)• Conclusion of a contract for JFY2001/2002 Provision of Equipment (Local Purchase) Lot-1: Sumitomo Corporation (USD245, 350.-) Lot-2: Mitsui Dis Ticaret Limited Sirketi (USD259, 576.-)• Conclusion of a contract for JFY2001/2002 Provision of Equipment (Japanese Purchase) Kanto Bussan Corporation (¥45,780,000.-)
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<p>2002</p>	<p>January February March April May June</p>	<ul style="list-style-type: none"> • Visitation, Izmir Mazhar Zorlu ATHS, 00 H. E. Mr. Akio WADA, Consul General, Consulate General of Japan. • Arrival of 4 JICA Short Term Expert (JFY2001/2002) <ul style="list-style-type: none"> Mr. Takeshi OIKE*, Information Machinery(2002.Mar.10~2002.Mar.24) Mr. Yoshio NAKAMICHI, Information Machinery (2002.Mar.10~2002.Apr.7) Mr. Yoichi MASUDA, Information Electronics(2002.Mar.10~2002.Apr.7) Mr. Fuminori OGAMI, Information Electronics (2002.Mar.10~2002.Apr.7) *Mr. Takeshi OIKE held seminars at Ankara, Izmir, and Konya on "Japanese Educational System and Activities of Technical High Schools in Japan". • The 4 Counterpart who attended JFY2001/2002 CP Training Program in Japan returned to Turkey. • Project Consultation Team by JICA (2002.June.2~2002.June.8) (Headed by Mr. Yoshio SATO, Senior Curriculum Specialist, Elementary and Secondary Education Bureau, Ministry of Education, Culture, Sports, Science and Technology, Japan) 	<ul style="list-style-type: none"> • 3rd Project Progress Meeting at Konya. • Delivery and Installation of JFY2001/2002 Provision of Equipment (Local Purchase) Lot-2: Mitsui Dis Ticaret Limited Sirketi (USD259,576.-) portion • Closing of First Semester, AY2001/2002 • Opening of Second Semester, 2001/2002 • Delivery and Installation of JFY2001/2002 Provision of Equipment (Local Purchase) Lot-1: Sumitomo Corporation (USD245,350.-) portion • Arrival of Technical Equipment for JICA Short Term Expert (C.I.F. IZMIR ¥1,201,263.-) • 4th Project Progress Meeting at Ankara • Arrival and Installation of JFY2001/2002 Provision of Equipment (Japanese Purchase) (C.I.F. IZMIR ¥46,500,811.-) • 1st Joint Coordination Committee at Izmir. • 2 Technical Seminars, funded by JICA, were held at Izmir and Konya <ul style="list-style-type: none"> "Computer Programming" (Number of Participant: 58, Total Cost: 5,168,406,000TL) "PIC Microcomputer" (Number of Participant: 46, Total Cost: 5,657,706,000TL) • Closing of Second Semester, AY2001/2002.
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2002	August	<ul style="list-style-type: none"> • 4 Counterparts left to Japan for JFY2002/2003 CP Training Program (2002.August ~ 2002.Dec.20) Mr. Turgay İŞBİLEN, Izmir Mazhar Zorlu ATHS Ms. GÜLİZ GÜLSEVİN, Izmir Mazhar Zorlu ATHS Mr. Mustafa GÜNEŞ, Izmir Mazhar Zorlu ATHS Ms. Melek TOTAN, Konya Adil Karaagaç ATHS • Assignment of 5 Counterparts (AY2002/2003) Mr. Kahraman ÖNEY, Izmir Mazhar Zorlu ATHS Mr. Mehmet UYSAL, Izmir Mazhar Zorlu ATHS (June 2003, resigned) Mr. Gürcan BILDIR, Izmir Mazhar Zorlu ATHS Mr. Sedat ELBİR, Izmir Mazhar Zorlu ATHS Mr. İbrahim APA, Konya Adil Karaagaç ATHS 	<ul style="list-style-type: none"> • Visitation to Konya Region Chamber of Commerce & Industry /Implementation of the Project publicity activities and hold a skull session)
	September	<ul style="list-style-type: none"> • Both School Directors left to Japan for observation trip (2002.9.28 ~ 2002.10.17) Mr. Satı ÇALIŞKAN, School Director, Izmir Mazhar Zorlu ATHS Mr. Muzaffer APAN, School Director, Konya Adil Karaagaç ATHS 	<ul style="list-style-type: none"> • Opening of First Semester, AY2002/2003 Number of Prep. Student: Izmir; 50 (Includes 4 females) Konya; 30 Number of 9th Grade Student: Izmir; 54 (Includes 2 females), Konya: 29 • Academic ability test of Mathematics for 9th grade students.
	October	<ul style="list-style-type: none"> • Arrival of JICA Short Term Expert (JFY2002/2003) (Technical Equipment; C.I.F. IZMİR ¥844,177.-) Mr. Takashi TSUZUKI, Information Machinery (2002.10.1 ~ 2002.11.30) 	<ul style="list-style-type: none"> • Inauguration Ceremony of Konya Adil Karaagaç ATHS. • 5th Project Progress Meeting at Konya.
	November	<ul style="list-style-type: none"> • Arrival of JICA Short Term Expert (JFY2002/2003) (Technical Equipment; C.I.F. IZMİR ¥430,600.-) Mr. Fuminori OGAMI, Information Electronics (2002.11.29 ~ 2002.12.27). 	<ul style="list-style-type: none"> • Visitation to National Education Directory of Konya Region (Pay a courtesy call to the Director and gave a brief information on the project activities and its goals) • Visitation to Konya Region Chamber of Commerce & Industry (Implementation of the Project publicity activities and skull session).

2003	December	<ul style="list-style-type: none"> The 4 Counterparts who attended JFY2002/2003 CP Training Program in Japan returned to Turkey. 	
	January	<ul style="list-style-type: none"> 2 governmental executive officials were invited to Japan by JFY2002/2003 CP Training Program scheme (2003.1.19 – 2003.2.4). Mr. Mehmet TEMEL, Deputy Under Secretary, Ministry of National Education Mr. Yücel YÜKSEL, Head of Department, Technical & Vocational Education Directorate, Ministry of National Education. 	<ul style="list-style-type: none"> Conclusion of a contract for JFY2002/2003 Provision of Equipment (Japanese Purchase – 1) Kanto Bussan Corporation (¥96,600,000.-)
	February		<ul style="list-style-type: none"> Conclusion of a contract for JFY2002/2003 Provision of Equipment (Japanese Purchase – 2) Kanto Bussan Corporation (¥93,712,500.-) 1 Technical Seminar, funded by JICA, were held at Izmir and Konya. “PLC” (Number of Participant: 40 , Total Cost: 5,938,704,000TL)
	March		<ul style="list-style-type: none"> 6th Project Progress Meeting at Izmir. Implementation of the Project publicity activities and hold a skull session for Izmir Region Chamber of Commerce & Industry. Conclusion of a contract for JFY2002/2003 Provision of Equipment (Local Purchase) Lot – 1: Sumitomo Corporation (USD106, 823.-) Lot – 2: Sumitomo Corporation (USD91, 354.-)
	April	<ul style="list-style-type: none"> 6 JICA Long Term Experts received an award from Ministry of National Education of Turkey (Mr. Y. SUZUKI, Mr. S. TOYAMA, Mr. Y. ISHIDA, Mr. T. YAMAUCHI, Mr. K. TERAMOTO, Mr. J. KOKI). 	<ul style="list-style-type: none"> Arrival of JFY202/2003 Provision of Equipment (Japanese purchase, 4 Personal Computer for CP Training, C.I.F. IZMIR ¥1,304,381.-) Arrival of Technical Equipment JFY2002/2003 JICA Short Term Expert Mr. Yoshio SATO (C.I.F. IZMIR ¥84,110.-) * Because of Iraq war, dispatch of Mr. Y. SATO has been postponed.

	<p>May</p>	<ul style="list-style-type: none"> • Arrival of 3 JICA Long Term Experts (Technical Equipment C.I.F.IZMIR ¥1,597,039.-) <ul style="list-style-type: none"> Mr. Tetsuya OKUBO (Factory Automation System Technology) (2003.5.16 ~ 2005.5.15) Mr. Yoichi MASUDA (Network Design for Automatic Control) (2003.5.16 ~ 2005.5.15) Mr. Shuichi YUZAWA (Industrial Product Design) (2003.5.16 ~ 2005.5.15) • Departure of 2 JICA Long Term Experts <ul style="list-style-type: none"> Mr. Tomizo YAMAUCHI, Network Design for Automatic Control (2001. May 25 ~ 2003. May 24) Mr. Koshi TERAMOTO, Industrial Product Design (2001. May 25 ~ 2003. May 24) • Arrival of JICA Short Term Expert (JFY2003/2004) (Technical Equipment C.I.F.IZMIR ¥503,997.-) <ul style="list-style-type: none"> Mr. Takashi TSUCHIYA, Information Machinery (2003.5.24 ~ 2003.8.9) 	<ul style="list-style-type: none"> • Delivery and Installation of JFY2002/2003 Provision of Equipment (Local Purchase) Lot - 1 (USD106, 823.-) & Lot - 2 (USD91, 354.-) : Sumitomo Corporation (Total USD198, 177.-) • Arrival and Installation of JFY2002/2003 Provision of Equipment (Japanese purchase, C.I.F.IZMIR ¥192,555,542.-)
	<p>June</p>	<ul style="list-style-type: none"> • A counterpart resigned his duty in project. Mr. Mehmet UYSAL, Izmir Mazhar Zorlu ATHS • Assignment of a counterpart Mr. Gürcan ÇAYIR, Izmir Mazhar Zorlu ATHS • Assignment of a counterpart Mr. Murat AKDOĞAN, Konya Adil Karaagaç ATHS • Departure of 1 JICA Long Term Expert Mr. Satoshi TOYAMA, Factory Automation System Technology 	<ul style="list-style-type: none"> • 7th Project Progress Meeting at Konya.

		<p>(2001.5.25 – 2003.6.24)</p> <ul style="list-style-type: none">• Arrival of JICA Short Term Expert (JFY2003/2004) Mr. Takashi TSUZUKI, Information Machinery (2003.6.25 – 2003.9.17) Short Term Expert to Konya on the Racing Car Robot Technology.• Mr. TSUCHIYA, activity period in Konya school, as a short term expert to Konya on the Computer Network System (June 2, 2003, Aug.9, 2003)• 4 Counterparts left to Japan for JFY2003/2004 CP Training Program Kahraman ÖNEY, Izmir Mazhar Zorlu ATHS (July26, 2003 – 20 Feb, 2003) Gürçan ÇAYIR, Izmir Mazhar Zorlu ATHS (July26, 2003 – 20 Feb, 2003) Mr. Gürçan BILDIR, Izmir Mazhar Zorlu ATHS (July26, 2003 – Feb.20, 2004) Mr. İbrahim APA, Konya Adil Karaagaç ATHS (July26, 2003 – 20 Feb, 2003)	
July			<ul style="list-style-type: none">• 4 Technical Seminars, funded by JICA were held at Izmir and Konya. "PLC" (Number of Participants, 25, Total Cost; 8,800,240,000 TL) "Programming" (Number of Participants, 28, Total Cost; 5,889,240,000 TL) "Network" (Number of Participants, 35, Total Cost; 10,899,440,000 TL) "PIC – II" (Number of Participants, 45, Total Cost; 9,013,440,000 TL)
August			
September		<ul style="list-style-type: none">• Assignment of a counterpart (Academic year 2003/2004) Mr. Mehmet ARIKAN, Izmir Mazhar Zorlu ATHS	
October		<ul style="list-style-type: none">• Assignment of 3 counterparts (Academic year 2003/2004) Mr. Mehmet NAZMAN, Izmir Mazhar Zorlu ATHS Mr. Bülent VARDAR, Izmir Mazhar Zorlu ATHS Mr. Talat GÜLER, Izmir Mazhar Zorlu ATHS	

9. Situation of the IXth Grade Students.

(1) Number of 9th Grade Students in 2002 / 2003 Academic Year.

IZMIR	Information Electronics	25 male + 2 female	Total 27 students
	Information Mechanics	21 male + 2 female	Total 23 students
			TOTAL : 50 students
KONYA	Information Electronics	29 male	TOTAL : 29 students

(2) Total Number of Department Students in Izmir and Konya as of 2003 / 2004 Academic Year.

	Sub - Departments	2001/2002	2002/2003	2003/2004
1 st Generation Department Students	Izmir Inf. Mechanics	30 (prep.)	23 (9th grade)	23 (10th grade)
	Izmir Inf. Electronics	30 (prep.)	27 (9th grade)	26 (10th grade)
	Konya Inf. Electronics	30 (prep.)	29 (9th grade)	29 (10th grade)
2 nd Generation Department Students	Izmir Inf. Mechanics	-	25 (prep.)	22 (9th grade)
	Izmir Inf. Electronics	-	30 (prep.)	27 (9th grade)
	Konya Inf. Electronics	-	30 (prep.)	30 (9th grade)
3 rd Generation Department Students	Izmir Inf. Mechanics	-	-	30 (prep.)
	Izmir Inf. Electronics	-	-	30 (prep.)
	Konya Inf. Electronics	-	-	30 (prep.)

(3) Success Rates of the 9th Grade Students in 2002 / 2003 Academic Year.

Subjects	IZMIR		KONYA
	Information Electronics	Information Mechanics	Information Electronics
Basic Practice of Industrial Works	67%	66%	89,66%
Industrial Mathematics	81%	79%	100%
Basic Practice of Information Technologies	98%	98%	93,10
Mechanics and Mechanical Works	81%	78%	93,10
Technical Drawing	100%	100%	86,21

(4) Students' Comments

Here below are the common opinions and comments from the 9th grade students of the both sub - departments for the technical subjects.

- Lecture delivery by our teachers was very effective and successful.
- This year was very effective for us. We realized that we were taught very important things which would affect our future life.
- The subjects for 3 hours a day continuously were little boring for us. But on the other hand, practices in the laboratories were much more interesting and enjoyable.
- Flowing of the lectures was always cut by the questions arised from our friends and it took to much time for the teachers to answer all these questions during the lecture. That's why, it was difficult to complete the last chapters of the subject up to end of the semester.
- Since the subject "Basic Practice of Information Technology" is very important and difficult for us, well computer usage is necessary for us.
- 9th grade mathematics was almost same with the subject given in preperation grade. Only "Number Systems" was the chapter we learnt for the first time. But it was good to repeat the other chapters, since these knowledge will be the basis of engineering mathematics.
- The subject "Mechanics and Mechanical Works" is unnecessary for the Information Electronics Department.
- The subject "Technical Drawing" is unnecessary for the Information Electronics department, since we are learning symbols and making enough drawing in the subject of "Basic Practice of Industrial Works".

10. Technical Seminars

Here below are the necessary details on the given technical seminars in 2001, 2002 and 2003.

Date	Subject	Lecturer		Supervisor	No. of Participants	
		İzmir	Konya		İzmir	Konya
June 2002	Computer Programming	Hasan YILDIZ Güliz GÜLSEVİN	Yüksel ÇINAR	Y. ISHIDA	28	30
	PIC Microcomputer	Selim GÜLÇEN Egemen DÖĞER Mustafa GÜNEŞ	Osman KÖSE	K. TERAMOTO	26	20
Feb. 2003	PLC	Kahraman ÖNEY Hasan YILDIZ Mehmet UYSAL Mustafa GÜNEŞ Güliz GÜLSEVİN	Osman KÖSE Yüksel ÇINAR Melek TOTAN İbrahim APA	S. TOYAMA	20	20
July-August 2003	Computer Programming	Gürcan BILDIR Kahraman ÖNEY	Yüksel ÇINAR	Y. ISHIDA	19	9
	PIC	Turgay İŞBİLEN Mustafa GÜNEŞ	Melek TOTAN	S. YUZAWA	22	23
	Network Technology	Selim GÜLÇEN Egemen DÖĞER	Yüksel ÇINAR Osman KÖSE	Y. MASUDA	17	18
	PLC	Hasan YILDIZ Güliz GÜLSEVİN	Osman KÖSE	T. OKUBO	14	11

11. Others

a. Announcement to the Public

In order to introduce our project activities to the public, we are having interviews with the local and national newspapers and TV channels. Some samples from different newspaper articles concerning our project can be found on attachments.

b. Collaboration with the Industry

We are keeping in close contact with the industry side through the Chamber of Industry of IZMİR and KONYA. Most of the industrial groups are much interested in our syllabus configuration.

c. Collaboration with the University

We are in contact with the universities, such as Middle East University, Ege University, Higher Technology Institute and Selçuk University, in order to obtain technology exchange and support the counterparts on basic technology enhancement.

d. Collaboration with the Ministry

We are having regular meetings with the Ministry as the "Project Progress Meeting" on every few months.

JAPONLARLA İSBİRLİĞİ

Robot bile üretilecek

Borçova Mazhar Zorlu Anadolu Teknik ve Plastik Endüstri Meslek Lisesi, Japonya'ya teknik işbirliği yaptı. Proje gereği, okula 4 Japon öğretmeni atandı. Japonya Hükümeti'nin vereceği 4 milyon dolar krediyle okulda robot yapılıyor. 11'DE



Okul Müdürü Satı Çalışkan, Japon öğretmenlerle birlikte, Japonya'daki okullarda üretilen robotları gösterdi.

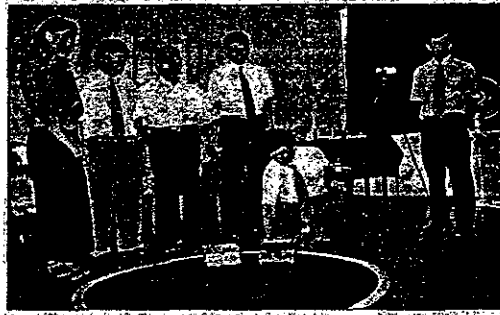
Name of Newspaper: Yeni Asır

Date: August 2002

Title: Even Robot will be produced.

Summary:

Mazhar Zorlu Anatolian Technical and Plastic Vocational High School cooperated with the Japanese Government. In accordance with the project, 4 Japanese teachers were assigned to the school. Education on making robot will start in this school with the financial assistance of around 4 million Dollars.



Okulda düzenlenen toplantıda Sonyi Firması'nın üç yıl önce çıkardığı 2 bin dolar değerindeki sevimli robot köpek AIBO küçük bir gösteri yaptı.

Mazhar Zorlu'da robotlu eğitim

Japonların açacağı 4 milyon dolar tutarındaki Endüstriyel Otomasyon Teknolojileri bölümüne 60 öğrenci alınacak.

EMİNE KANTARCI Haber Merkezi

Mazhar Zorlu Anadolu Teknik ve Endüstri Meslek Lisesi bünyesinde Türkiye'de ilk kez Endüstriyel Otomasyon Teknolojileri Bölümü açılacak. Japon Uluslararası İşbirliği Teşkilatı (JICA) ile yürütülecek proje kapsamında bu yıl 60 öğrenci alınacak.

JICA proje için 4 milyon dolar kaynak ayırdı. Türk ve Japon hükümetleri arasında yapılan teknik işbirliği anlaşması gereğince 30 kişilik bir sınıf açılacak.

Uluslararası teknoloji kullanabilen

yabancı dil bilgisine sahip teknik ara eleman yetiştirilecek bölümde bir yıl İngilizce hazırlık olmak üzere toplam 5 yıl eğitim verilecek.

Sevimli robot tanıtıldı

Anadolu Lisesi'nde okulu tercih eden öğrenciler arasında bölüme öğrenci alınacak. Teknik donanımı Japonlar sağlanacak.

Öğrencilerin kayıtları 20-24 Ağustos tarihleri arasında tercih, kontenjan ve puan sıralamasına göre yapılacak. 5 yıl boyunca okulda 6 Japon uzman görev yapacak ve uygulama çalışmalarına katılacak.

Name of Newspaper: Yeni Asır

Date: August 2002

Title: Education with robots in Mazhar Zorlu School

Summary:

For the first time, Industrial Automation Technologies Department will be opened in Mazhar Zorlu Anatolian Technical High School in Turkey. This year, 60 students will be accepted to the school in the concept of JICA project.

JICA spared a budget of around 4 million dollars for this project. The education period will be total 5 years including 1 year preparation grade in the department which will produce students who will be able to use international technology with high English language ability.

Robot yapan okul

İşadamı Mazhar Zorlu'nun yaptırdığı endüstri meslek lisesi, teknolojiye parmak ısırtıyor. Japon öğretmenlerin de ders verdiği okulda öğrenciler robot köpek bile üretebiliyor



Japonlar destekliyor

Bornova'da İzmirli İşadamı Mazhar Zorlu'nun yaptırıp başlattığı Anadolu Teknik ve Plastik Endüstri Meslek Lisesi, gerçekte girdiğinden bu yana 5 yılda teknolojiye hayran bırakan adımlar attı. Türk-Japon hükümetleri işbirliği ile açılan Endüstriyel Otomasyon Teknikleri Bölümü'nde geçen yıl elektronik eğitimine geçildi.

İşçinin yerini alacak

Altı Japon ve 10 Türk uzman öğretmenin eğitim verdiği bölüme, imalat sanayinde işçinin yerini alabilecek robotların elektronik devrelerinin üretimine başlandı. Okul Müdürü Satı Çalışkan, "Öğrencilerimizin her biri ders programına göre üç yıl içinde robot imal edecek seviyeye gelecek. Gürur duyuyoruz" diye konuştu.

■ Mustafa OĞUZ/DHA

Japon öğretmenleri öğrencileri teknolojiye yönlendiriyor. İmalat meslek lisesi öğrenciler robot köpekler yapıyor. İşadamı Mazhar Zorlu'nun yaptırdığı okulda öğrenciler robot köpek bile üretebiliyor.

Name of the Newspaper: Posta
Date: January 17, 2003
Title: The school making robot
Summary of the article:

Last year, education on electronics was started in "Industrial Automation Technologies Department" of Mazhar Zorlu Anatolian Technical and Plastic Vocational High School, which was established and then donated to the Turkish Government by Mr. Mazhar ZORLU, a famous industry man of İzmir.

6 Japanese experts and 10 Turkish technical teachers are working together in the department. The electronic circuits of the robots which can take the place of the workman at the manufacturing industry were started to be made in this department. Mr. Satı ÇALIŞKAN, school director, said, "According to our educational program, our students will reach to the level of making robot within the education period. We are honoured of this situation".

Teknik eğitime EBSO desteği

Merkezi ve teknik eğitime verdiği destekle tanınan Ege Bölgesi Sanayi Odası, bu yöndeki çalışmalarını bu vesileyle EBSO Teknik Eğitim ve Mesleki Eğitim Kurulunun İzmir Bölgesi Mazhar Zorlu Anadolu Teknik ve Mesleki Lisesinde gerçekleştirdi. Toplantıda okuldaki mevcut ve gelecekteki durumu ayrı ayrı tartışıldı ve bu doğrultuda yapılacak çalışmalar konusunda fikir birliğine varıldı. Örneğin okuldaki mevcut yapıların yenileriyle değiştirilmesini amaçlayan bir karar çıktı.

EBSO Teknik Eğitim ve Mesleki Eğitim Kurulunun üyeleri, kendileri de EBSO'nun Anadolu Teknik ve Mesleki Lisesinde bulunan bir komisyon üyesi Mazhar Zorlu ile görüşüp, okulun mevcut durumunu ve gelecekteki ihtiyaçlarını tartıştı. Bu toplantıda, okuldaki mevcut yapıların yenileriyle değiştirilmesini amaçlayan bir karar çıktı. Ayrıca, okuldaki mevcut yapıların yenileriyle değiştirilmesini amaçlayan bir karar çıktı.

Sarıya ve kırmızıya eleman
Mazhar Zorlu, bu okuldaki sarıya ve kırmızıya eleman yetiştirilmesini belirtti. Zorlu, "Okulda hem sarıya, kırmızıya ve okuldaki işbirliklerini açılması için çalışıyoruz. Çünkü sarıya eleman yetiştirilmesi, kırmızıya eleman yetiştirilmesini gerektirir. Burada ayrıca öğretmenlerin eğitimi de önemli bir konudur."

Okulda hem sarıya ve kırmızıya eleman yetiştirilmesini gerektirir. Çünkü sarıya eleman yetiştirilmesi, kırmızıya eleman yetiştirilmesini gerektirir. Burada ayrıca öğretmenlerin eğitimi de önemli bir konudur.

Mazhar Zorlu, planda okuldaki faaliyetlerin ve çalışmaların gerçekleştirilmesini istedi. Okulda hem sarıya ve kırmızıya eleman yetiştirilmesini gerektirir. Çünkü sarıya eleman yetiştirilmesi, kırmızıya eleman yetiştirilmesini gerektirir. Burada ayrıca öğretmenlerin eğitimi de önemli bir konudur.

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Okuldan önceki toplantıda Mazhar Zorlu (ortada) öğretmenlerle görüşüyor. Yanında EBSO Teknik Eğitim Kurulunun üyeleri de var.

Robot yarışması düzenlenecek

EBSO Teknik Eğitim ve Mesleki Eğitim Kurulunun üyeleri, okuldaki çalışmaların hızlandırılması için kararlar aldı. Okulda hem sarıya ve kırmızıya eleman yetiştirilmesini gerektirir. Çünkü sarıya eleman yetiştirilmesi, kırmızıya eleman yetiştirilmesini gerektirir. Burada ayrıca öğretmenlerin eğitimi de önemli bir konudur.

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Kurumün üyesi Mazhar Zorlu, İzmir Bölgesi Sanayi Odası Teknik ve Mesleki Eğitim Kurulunun üyeleriyle görüşüyor.

Okulda hem sarıya ve kırmızıya eleman yetiştirilmesini gerektirir. Çünkü sarıya eleman yetiştirilmesi, kırmızıya eleman yetiştirilmesini gerektirir. Burada ayrıca öğretmenlerin eğitimi de önemli bir konudur.

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Name of the Magazine: EBSO News (EBSO: Aegean Region Chamber of Industry)

Date: February 2003

Title: Support from EBSO to the Technical Education

Summary of the article:

EBSO, known with its support to the technical and vocational education, held one of the regular meetings of "EBSO/Technical & Vocational Education Committee" in Mazhar Zorlu Anatolian Technical High School. In that meeting, it was agreed to organize a robot contest with the aim of introducing the new department of this school.

The committee members had an observation tour at the laboratories and workshops of new department and Plastic Processing Department. They also watched a robot show made by a Japanese expert.

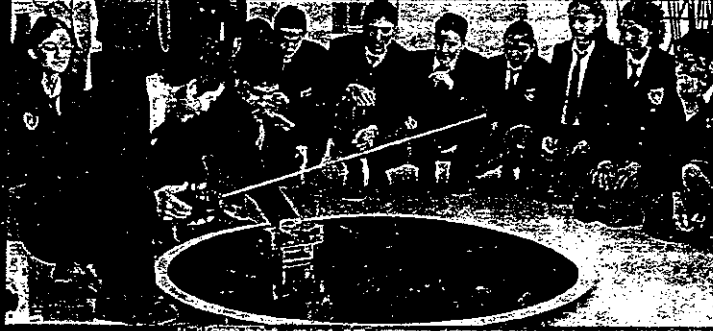
Qualified Human Resources to the Industry

Mr. Mazhar ZORLU, host of the meeting, expressed that this school will produce qualified human resource to the industry and said, "We would like all the technical & vocational high schools to open this department, since the future of the industry depends on the electronics. We have to leave traditional industry in order to develop rapidly. We also plan to establish a Teachers Training Center here in this school". Mr. ZORLU also added that the Chamber of Industry should support the opening of vocational high schools in our region on various sectors.

A robot contest will be organized

Mr. Enver OLGUNSOY, the president of the "Technical and Vocational Education Committee", said, "We, as the Chamber of Industry, will give the necessary support to introduce the studies and activities of this project department to the industry and public". He also stated that a robot contest will be organized in order to introduce Mazhar Zorlu ATHS and all the conditions of the contest will be announced to the public on later dates.

EN ZENGİN OKUL



İzmir Mazhar Zorlu Anadolu Teknik ve Plastik Endüstri Meslek Lisesi, 4 milyon dolarlık bütçesi ile Türkiye'nin en zengin okulu oldu

İzmir Mazhar Zorlu Anadolu Teknik ve Plastik Endüstri Meslek Lisesi, 4 milyon dolarlık bütçesi ile Türkiye'nin en zengin okulu oldu



Mazhar Zorlu



FOTOĞRAFLAR: DENİZHAN GÜZEL

TEKNOLOJİ birikiminin okul çağından itibaren kazandırılması amacıyla Türkiye ile Japonya arasında gerçekleştirilen "Endüstriyel Otomasyon Teknolojileri Projesi" kapsamında, pilot okul seçilen İzmir Mazhar Zorlu Anadolu Teknik ve Plastik Endüstri Meslek Lisesi, 4 milyon dolarlık bütçesi ile Türkiye'nin en zengin okulu oldu. İşbirliği ile Türkiye'nin yakın gelecekte dünyanın ileri ülkeleri ile rekabet edebilecek düzeye ulaşacağı, okulda fabrika üretim ve otomasyon sistemleri, robotik, dijital elektronik, mikrobilgisayar, programlama, network teknolojisi, ölçme-kontrol, bilgisayar destekli tasarım ve üretim teknolojisi, multimedya ve teknik İngilizce konularında yeterlik kazandırılacağı belirtildi. Milli Eğitim Bakanlığı ile Japon Uluslararası İşbirliği Teşkilatı (JICA) arasında imzalanan protokole göre, Endüstriyel Otomas-

yon Teknolojileri Bölümü'nün "Elektronik" ve "Makina" adı altında iki uzmanlık alanından oluştuğu, Türkiye'de görev yapan Yasuo Suzuki (JICA Proje Baş Danışmanı), Jin Koki (Koordinatör), Koshi Teramoto, Yasuhiro Ishida, Satoshi Toyama ve Tomizo Yamauchi isimli Japon uzmanların, Türk Teknik Öğretmenler ile birlikte sürekli çalışmaları, yeni buluş arayışları içinde oldukları kaydedildi. Okul Müdürü Satı Çalışkan, kendilerini şanslı ve sorumlu hissettiklerini ifade ederken, Türkiye ile Japonya arasında "Teknoloji Transferi"nin yapıldığını söyleyerek, "Bu yatırım 4 milyon dolarlık bir yatırımdır. 5 yıl içinde 4 milyon dolarlık fiziki alt yapıyı hazırlanması, donanım temini sağlanacaktır. En önemli hedefimiz öğrencilerimizin aldığı teknik bilgi birikimini sanayiye taşıyacak olmalarıdır" dedi.

SONERHAN ÖNAL

Name of the Newspaper: Star

Date: March 12, 2003

Title: The Richest School

Summary of the Article:

Izmir Mazhar Zorlu Anatolian Technical and Plastic Industry Vocational High School became the richest school of Turkey with its budget of 4 million Dollars.

In the concept of a cooperation project of "Establishment of Industrial Automation Technologies Departments" between Turkey and Japan with an aim of giving technological knowledge starting from the high school, Mazhar Zorlu Anatolian Technical High School became the richest school in Turkey with its budget of 4 million USD. It was expressed that Turkey will be carried to the competitiveness level in the world with the support of Japan. With the education given in this school, necessary abilities on factory production and automation systems, robotics, digital electronics, microcomputer, programming, network technology, measuring-controlling, CAD&CAM, multimedia and technical English will be given to the students. In accordance with the agreement signed between Ministry of National Education and Japan International Cooperation Agency (JICA), the department contains two sub-departments, named "Information Electronics" and "Information Mechanics" and 6 Japanese experts, whose names are Yasuo SUZUKI (Chief Advisor), Jin KOKI (Coordinator), Koshi TERAMOTO (Expert), Yasuhiro ISHIDA (Expert), Satoshi TOYAMA (Expert) and Tomizo YAMAUCHI (Expert) were dispatched to Turkey to work together with the Turkish technical teachers. Satı ÇALIŞKAN, school director, stated that they feel themselves very lucky and said "The budget of this project is around 4 million USD. Within a period of 5 years, all the necessary background of the department including equipment and technical facilities will be completed. Our most important target is that the graduated students will carry their technological knowledge to the industry".

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Japonya'dan gelen 5 uzmanın eğitim verdiği lise, robot teknolojilerine ilk adımı attı.

İlk 'Robot Lisesi'

Mazhar Zorlu Anadolu Teknik ve Plastik Endüstri Lisesinde bulunan Endüstriyel Otomasyon Bölümü, Türk robot teknolojisinin ilk adımı atıyor. Türkiye ile Japonya hükümetleri arasında imzalanan JICA anlaşması ile okulda iki yıldan bu yana eğitim veren 5 Japon öğretmen, Türk öğretmen ve öğrencileri eğitiyor. İzmir'de türlü sanayiçi Mazhar Zorlu'nun girişimiyle

Şirvan Okulu Müdürü Bayram, Şerafettin Bayram, Türkiye'de ilk defa yeni teknolojiyi üretilemeye kullanabilen öğrenciler yetiştirilmesine dikkat çekti. Bayram, sanayicileri okuldan çeşitli taleplerde bulunduğunu belirterek, "Örneğin Arçelik, bir arkadaşınız aracılığıyla robotunu üretmemizi istedi ancak şu an için böyle şeylere vakit ayıramıyoruz" dedi.

Name of Newspaper: Akşam (National Newspaper)

Date: March 25, 2003

Title: First High School on Robot Technology

Summary of the article:

The Industrial Automation Technologies Department in Mazhar Zorlu Anatolian Technical High School started to give education on robot technologies. In accordance with the agreement signed between Turkish and Japanese Governments, 5 Japanese experts are giving technical training to the Turkish teachers and students. Mr. Şerafettin BAYRAM, main school director of the school which was established by Mr. Mazhar ZORLU, expressed that this school will grow students who will be able to produce and use high technology. He also added that there are big demands of the industry side from the school and said, "for example Arçelik Company requested us to produce their robot, but we can not spare time for this kinds of works for the time being".

Türk malı robot çok yakında



100 öğrencinin öğrenim götüğü okulda geliştirilen Robotlar, 25 Ağustos'ta İzmir Enternasyonal Fuarı'nda sergilenecek.

Mazhar Zorlu Anadolu Teknik Lisesi'nde Japonlardan ders alan 100 öğrenci, mezun olduğunda Türk malı robot üretecek

İZMİRDE sanayici Mazhar Zorlu'nun yatırımla kurulan Mazhar Zorlu Anadolu Teknik ve Plastik Endüstri Lisesi'nde bulunan "Endüstriyel Otomasyon Bölümü" artık robot teknolojisinin ilk adımlarını atıyor. Türkiye ile Japonya hükümetleri arasında imzalanan JICA anlaşması ile okulda iki yıldan bu yana eğitim veren 5 Japon öğretmeni, Türk öğretmen ve öğrencileri eğitiyor.

MÜDÜR Bayraktar Şerafettin Bayram, Türkiye'de ilk defa bir teknoloji üreten öğrenciler yetiştirileceğini belirtirken, "Robotlar elektronik, makine, hidrolik gibi konularda eğitim veriyoruz. Buradan mezun olan bir öğrencinin robot yapabilme durumuna gelmesini hedefliyoruz" dedi. Birçok firmadan teklif geldiğini söyleyen Bayram "Arçelik robotunu üretmemizi istedi" diye konuştu. ■ İZMİR AA

Name of the newspaper: Milliyet

Date: March 25, 2003

Title: Turkish made Robot is coming soon

Summary of the article:

Around 100 students, those who will be graduated from Mazhar Zorlu Anatolian Technical High School, will produce robots made in Turkey.

The Industrial Automation Technologies Department in Mazhar Zorlu Anatolian Technical High School started to give education on robot technologies. In accordance with the agreement signed between Turkish and Japanese governments, 5 Japanese experts are giving technical training to the Turkish teachers and students. Mr. Şerafettin BAYRAM, main school director of the school which was established by Mr. Mazhar ZORLU, expressed that this school will educate students who will be able to produce and use high technology. He also added that there are big demands of the industry side from the school and said, "for example Arçelik Company requested us to produce their robot, but we can not spare time for this kinds of works for the time being".

Japon robot teknolojisini meslek lisesi öğrencileri ülkemize taşıyor

Öğretmen
Dedebey Anadol

İzmir'de endüstri meslek lisesi öğrencileri aral robot yapmaya başladılar. Bununla birlikte Türkiye'de Teknoloji ve Plastik Endüstri Meslek Lisesi, Erişimciyi Olanmasın Teknolojileri Bölümü öğrencileri Japon uzmanlarla da robot üretiminin inceliklerini öğreniyor.

Okullarda görev yapan 6 Japon ve 10 Türk öğretmen, öğrencilerle birlikte Japon'daki robot teknolojisini Türkiye'ye taşımak için çok çalışıyor. 2 yıl önce Türkiye'de bulunan Japon uzmanları, 3 yıl önce Türkiye'de bulunan teknoloji transferi yapacak. Okullarda eğitim gören öğrencilerle birlikte çalışarak, bu Japon'daki olduğu gibi Türkiye'de robot üretiminin inceliklerini, okul öğretmenleri ile öğrencileri arasında devam ettiriyor.

Teknoloji transferi için İzmir'de yapılan Japon öğretmenleri, Türk öğretmenlerin çok zeki olduğunu söylüyor.



Bu sınıflarda daha çok robotlarla ilgili temel dersleri öğrenen öğrenciler, bir sonraki yıl robotların işi daha ileri taşıyor. Öğrencilerin hedefi, Japon'da olduğu gibi Türkiye'de de robot yapmalarını öğretmek ve dersleri okutarak öğrenmelerini sağlamak. Bu amaçla daha çok robotlarla ilgili temel dersleri öğrenen öğrenciler, bir sonraki yıl robotlarla daha ileri çalışacak. Eğitimci Erişimci bu konuda başta robot üretimi. Çoğu robotlarla ilgili parçaları çok pahalı. Tek bir sensörün fiyatı bile 150 milyon liraya ulaşabiliyor. Japonya'da olduğu gibi Türkiye'de de robot yapmanın maliyeti yüksek. Özellikle maliyetli parçaların Japon'da olduğu için Türkiye'de de maliyetler yüksek. Özellikle maliyetli parçaların Japon'da olduğu için Türkiye'de de maliyetler yüksek. Özellikle maliyetli parçaların Japon'da olduğu için Türkiye'de de maliyetler yüksek.

Name of the Newspaper: Zaman

Date: April 6, 2003

Title: Vocational High School students are carrying the Japanese robot technology to our country.

Summary of the article:

Mazhar Zorlu Anatolian Technical and Plastic Vocational High School students in Izmir started to make robot. They are learning how to make robot from Japanese experts.

6 Japanese experts and 10 Turkish teachers are working together very hard with the students in order to transfer Japanese robot technology to Turkey. The biggest dream of the students of this department is to organize robot contests in Turkey.

The studies are being carried based on the agreement signed between JICA (Japan International Cooperation Agency) and Turkish Government. 6 Japanese experts came to Turkey in April 2001 and started their studies. Selected Turkish teachers were first sent to Ankara for 4.5 months to get an English language course, and then they started to work together with the Japanese experts in JICA project. Department textbooks are being written by Japanese experts in English, and then translated into Turkish language by Turkish teachers. Turkish teachers are also getting technology transfer from the experts. In certain periods, short term Japanese experts are being dispatched to Turkey to support project activities on needed points.

The students are getting education mainly on engineering mathematics, computer, electronics, mechanics, hydraulic, etc. The students are enrolled to the school according to their point on common "Student Election and Settlement Examination" all over Turkey.

Mr. Egemen DÖGER, a technical teacher of the project, said "in order to make a robot, it is needed to have the necessary technical knowledge. Beside this, thinking, desining and application abilities are very important. We are trying to give these abilities to our students together with the technological knowledge. Anybody who wants to get more information can visit our web page <http://www.mazharzorlu.k.12.tr>".