

Islamic Revolution Leader Ayatollah Sayyed Ali Khamenei

Domestic products quality and enhancement of productivity depend upon vocational training promotion.



Iran Technical and Vocational Training Organization

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# In the name of God,

the Merciful,

the Compassionate



Technical and vocational training organization training organization

Technical and vocational In the Third Meeting of the Monitoring and Advisory Committee

Islamic republic of Iran Ministry 0

f labor and social affairs

f labor and social affairs

Islamic republic of Iran Ministry 0

#### The Islamic Republic of Iran was selected as the leader of

Virtual Training and Simulation working group





# PROJECT

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#### The skill training Electronic System: The development of an interactive LMS (Learning Management System) www.eskill.ir



### www.eskill.ir



## www.eskill.ir





- The development of online courses: the preparation, establishment and categorization of the contents of 14 disciplines in the area of technical and vocational training in Persian.
- Providing the applicants with self-guided services, namely self-training and self-assessment.

### Courses

Elementary KAB (knowledge about business)

Advanced KAB

Microsoft project 1( second-grade MSP operator)

Microsoft project 2( first-grade MSP operator)

Industrial accounting 2

Aquarium fish nourishment

Digital photography

#### PLC 1

PLC 2

Protel Software Training

Personal computers assembling and upgrading

Spss 1

Spss2

Vb.Net Programming

# Ready to be offered to Persian Language applicants

- Elementary KAB
- Advanced KAB
- Microsoft project 1 (second-grade MSP operator)
- Microsoft project 2 (first-grade MSP operator)
- Certificated by ITC (Instructor Training Center)





Promoting the system to a multilingual system: translating the standards and contents of the courses into English, French, and Arabic



The contents of more courses are being prepared and established which we hope to be accomplished within one year.

Bees fostering, herbs prescribing, cold-water fish nourishment, mushroom fostering, Shielded metal arc, vehicle electrical repairing, automotive service and maintenance, ...

#### ITC

Instructor Training Center & Technical and vacational researches

#### **Technical and vacational researches**

- Established in 1974, with the cooperation of International Labor Organization (ILO) and United Nation Development Plan (UNDP).
- Fully equipped and exploited after the victory of Islamic Republic of Iran and by all-efforts of Iranian specialists
- Directed under the supervision of TVTOs president and has a significant role in enhancing and developing human resources.
- Enjoying the specialist human resources and having vast software and hardware facilities, ITC is now the biggest and unique center in the fields of expertise training in the country and in the Middle East region.





Technical and vocational training organization

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In year 2012, ITC with the cooperation of JAICA, has held two training courses in the field of technical and vocational management for 25 Afghan managers

≻As well as a course in the field of instructor training and instructing techniques and methods for 15 Afghan instructors

ITC has planned for training 20 managers on the subject of technical and vocational advanced management until year 2013.

➤As well as Training 100 instructors in several specialized disciplines such as electronics, until year 2014

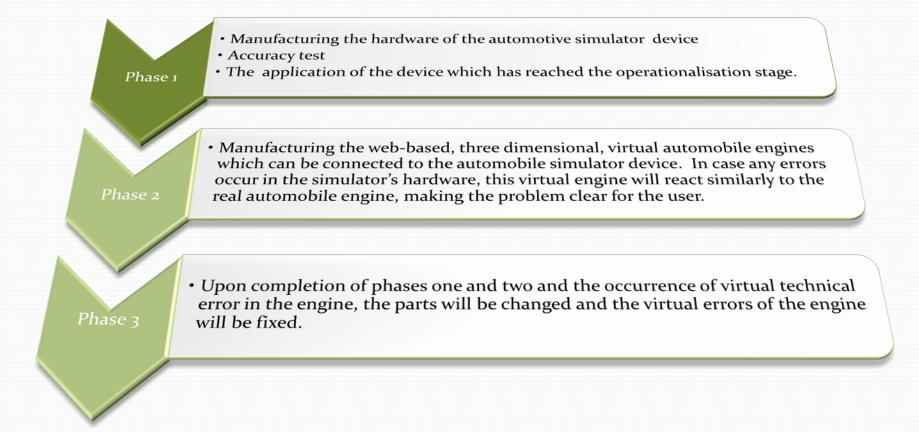
#### **The Automotive Training Simulator**

Invention

Automotive training simulator is a multipurpose device which can perform the role of different parts of the automobile and eliminate all the problems mentioned in the training of fault detection of injector automobiles.

- The training simulator can be used in order to solve the problem related to the provision of various automobiles for each of the training centers, because this device is able to simulate different automobiles for diagnostic device.
- The desired fault from the chosen ECU can be created using the adjustments built in the device. This will lead to a change in the parameters of the diagnostic device, so that the effect of the fault on the parameters will be obvious.
- The device, through changing each of the parameters that occur due to a fault, can change the other dependent parameters and so diagnosis via changing related parameters will be understood by the trainees.
- Creating errors on real automobiles is impossible, but by using the simulator, we can create each of the desired errors with the required code.
- The training simulator provides every imaginable case which cannot be created on a real.
- The simulator can play the part of different kinds of sensors in the section of malfunction of sensors. Therefore, it can create the malfunction of sensors in different states of disconnection, short-circuit and other situations. So without having a lot of defective censors, we can create the different states of malfunction for the automobile and teach them to the trainees.

# This project is designed and implemented in three phases:



# Virtual Welding Simulator

- This simulator simulates Electrical Arch Welding. In this method, trainee can learn with higher safety, speed and quality than the traditional methods.
- The trainee grabs a real electrode holder in his hand and welds two virtual parts on a screen or Head-Mounted Display. The electrode Location and orientation are determined by Tracker and real welding is replaced by simulated welding.
- In this simulation, factors like temperature and its distribution method, electrode movement speed, voltage, amperage, input heat, arch length, electrode Location and orientation have a crucial effect on the appearance, efficiency, ease of operation and quality of welding. The user can review the welding process and improve his score by removing previous faults which are observable on computer.
- Graphic pictures of this system are updated immediately according to the outputs of heat transfer equations.
- In this method, costs of consuming materials like electrode, power, gas and welding metal are decreased by 40 percent and training time reduces by 50 percent.

### Thanks for your patience and kind attention

