UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA

Conference on Automation and Related Computer Applications;
Workshop on Industrial Automation and Robotics
20-25 April 1991
Baghdad

AIDE-MEMOIRE

I. BACKGROUND

Industrial automation has been instrumental in achieving higher levels of flexibility and integration and hence higher levels of productivity and lower costs in industrial processes.

Modern industrial automation systems are based mainly on computer control, ccommunications and information processing. Nowadays, industrial computer applications encompass product and process design, manufacturing process control, production control and scheduling, testing and quality control, inventory management, marketing and industrial office management, to name but a few. Advances in the manipulation and handling capabilities of robots have complemented advances in information and knowledge processing and communications to enhance the motoring and handling capabilities of industrial automation systems.

The advanced economies have been profoundly affected by the rapid development and diffusion of industrial automation, which has affected the structure, composition and competitiveness of industries in these countries.

Industries in the Arab countries are expected to be put at a disadvantage by the changes in international markets prompted by the widespread use of industrial automation systems in the developed economies. Problems of high relative costs, limited variety and low quality will be accentuated if Arab industries fail to take advantage of the new industrial automation systems. By increasing productivity, reducing costs, improving quality and reducing skill requirements and managerial overheads, industrial automation may help to rehabilitate Arab industries and give them a more competitive posture.

A degree of automation has already been introduced in some processing industries with encouraging results.[1/] The growing pool of human expertise in computer technology and production techniques may be utilized to assist the technological upgrading of Arab industries towards automated systems. This project is aimed at increasing the pool of know-how and expertise in this technology and deciding how to introduce it most effectively into the region. It continues previous ESCWA/UNIDO efforts to promote advanced technologies for industrial development in the region.

II. OBJECTIVES

The conference and workshop have the following objectives:

1. To enhance the transfer and diffusion of the relevant technologies and processes in the region.

2. To contribute to the rehabilitation and modernization of existing industries in the region through automation in order to decrease production costs, reduce manufacturing lead time and improve product quality, and thus improve competitiveness.

1/ Economic and Social Commission for Western Asia, "Some aspects of technological progress in the refining industry in the ESCWA region with special reference to Iraq's refining industry", E/ESCWA/DPD/89/WP.4.

3. To clarify and intensify the role industrial automation may play in achieving sustainable industrial development and reducing industrial environmental pollution.

On a more practical level, the Conference and Workshop are aimed at achieving the following objectives:

1. To present state-of-the-art technology and systems of industrial automation and possible future developments, in order to assess their effects on Arab industries.

2. To discuss the automation systems and standards and degrees of automation found in the various Arab industries, in order to address the acquisition of operating and maintenance skills for those systems.

3. To build up capabilities and skills to cope with the different hardware and software components of modern industrial automation systems, which include various robotic sub-systems. This programme should serve to promote further regional programmes to enhance the diffusion of the relevant technologies in the region.

III. ACTIVITIES, OUTPUT AND TOPICS

Activities of the programme will comprise the holding of:

1. The Conference on Automation and Related Computer Applications.

2. The Workshop on Industrial Automation and Robotics.

The outputs of the programme will be:

1. The Proceedings of the Conference.

2. A technical publication on issues and problems of industrial automation in the Arab region (discussions of the Workshop).

Topics covered in the Conference and Workshop will include: computer-aided design (CAD), computer-aided manufacturing (CAM) (including flexible manufacturing systems), computer-aided testing (CAT), computer vision and pattern recognition, robotics, modern control systems, expert systems and man-machine interfaces.

IV. ORGANIZATION

1. Sponsorship

The Conference and Workshop will be organized by the Joint ESCWA/UNIDO Industry and Technology Division in co-operation with the Iraqi Ministry of Industry and Military Production and the UNESCO Regional Office for Science and Technology for the Arab States (ROSTAS).

2.   Date and place

The Conference and Workshop will be hosted by the Iraqi Ministry of Industry and Military Production from 20-25 April 1991.

3.   Participation

The Conference and Workshop will bring together policy-makers, industrial managers and technical experts to discuss various issues pertaining to industrial automation. Participants in the meeting will attend in their individual capacities and not as representatives of Governments. The training workshop will be addressed by a number of international experts in the field of industrial automation and related subjects.

4.   Working languages

The working languages of the conference will be Arabic and English, while the working language of the workshop will be English.

V.   FINANCIAL ARRANGEMENTS

1.   For lecturers to the workshop, ESCWA will provide an economy round-trip ticket via the most direct air route. ESCWA will not assume responsibility for any of the following costs which may be incurred by the participants while attending the conference/workshop.

(a)   Compensation for salary or related allowances for the participants during the period of the conference/workshop.

(b)   Any costs incurred with respecct to insurance, medical bills or hospitalization fees.

(c)   Compensation in the event of death, disability or illness.

(d)   Loss or damage to personal property of participants during travel or while attending the conference/workshop.

2.   Representatives of regional and international organizations and of companies participating in the conference/workshop activity will do so at their own expense.

VI.   INFORMATION

1.   For further information from ESCWA, please contact:

Officer-in-Charge
Joint ESCWA/UNIDO Industry and Technology Division
c/o Palais des Nations
CH-1211 Geneva 10
Switzerland

or United Nations Development Programme (UNDP) offices:

Telex: 213468 Iraq
Fax : 5569437 Baghdad, Iraq

2.   For further information from the Conference/Workshop Steering Committee, please contact:

The Industrial Automation Conference Steering Committee
Ministry of Industry and Military Production
Industrial Automation Project
P.O. Box 6086
Baghdad, Iraq
Telex: 21-2919 KAST IK
Fax : 020242638
Tel : 8879276 (direct) or
5535099 (Ext. 357).