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REGIONAL PROGRAMME FOR UPGRADING OF
TECHNICAL SKILL OF MANPOWER OF THE
ARAB IRON AND STEEL INDUSTRY

DP/RAB/81/005/11-52 and 11-53

REPORT OF THE AISU-SEMINAR

EDP APPLICATIONS IN IRON AND STEEL INDUSTRY

in ALGERIA, 11-15th May, 1985

prepared for the Arab Iron and Steel Union

by F. Prammer

UNIDTED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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1. CONSULTANT

Mr. Fritz PRAMMER, VOEST-ALPINE, LINZ AUSTRIA.
Senior consultant and senior project manager for metallurgical information systems.

2. PARTICIPANTS, EXPECTATIONS and PROBLEMS

From	Iron and Steel companies	4
	Industrial engineering	4
	Mining -	1
	AISU	3
	total	12

Participants from two countries: Algeria, Libya.

Expectations of the participants on the seminar to get information on following main areas

- Organization and main functions of an EDP-department in the Iron and Steel Industry.

- How to develop application systems and what methods (tools) are used.

- Strategies and policies used in the EDP-department for developing information systems.

- Introduction of information systems in plants/companies with less or no experience in implementing of automated information systems.

- Production planning and control systems for rolled products.

- EDP-Systems used in different areas in the Iron- and Steel Industry.

Specific problems discussed with the participants

- Determination of a commucication network to connect different process control computers (different types from different suppliers, occuring interface problems) and the central main computer system.

- Organization and introduction of data processing systems

- Application systems and packages used in all fields due to mining

- Introduction of a production planning syster for a hot rolling mill (wire rod mill)

- Lack of information relating EDP-systems in the Iron and Steel Industry.

3. SEMINAR CONTENT

The seminar program was presented in seven parts according to the enclosured seminar outline on four days. The planned excursion to a computer center in Algier on the fifth day was canceled by the participants and used for discussions about actual problems and answering questions.

The interest in the seven subjects was different. So the subjects on

- Organization and function of an EDP-Department
- Methods for developing EDP-systems and how to develop EDP-systems
- Production planning and control syster in metallurgical plants
- Process control systems
- Examples of process automation systems
- Experiences by implementation of EDP-systems

were of high interest for all participants.

The content of the seminar was very extensiv and 6 to 7 hours per day were needed to perform the seminar program in comprehensiv form.

4. CONCLUSIONS

The participants are coming from different enterprises and according to the actual EDP-activities in the company two groups can be made.

Group A) Low level of automation and less experience in developing and implementation of EDP-systems

Group B) Higher level of automation and a number of EDP-applications are running and a number of process control systems are installed.

Dependent on the level of automation the participants had different expectations on the seminar:

ad A:
- How to develop, and what methods are used to develop EDP-application systems
- Main problems in developing information systems
- Introducing EDP-systems, to a certain application systems for production planning and production control in metallurgical plants

ad B:
- How to integrate different application systems, production planning and process control systems
- To determine communication networks
- Energy distribution and energy control systems
- Process coordination (melting - casting - hot rolling)

In order to coordinate the expectation and the needs of the participants with the seminar content, the seminar should be subdivided into two parts.

EDP-applications in Iron and Steel Industry

Part 1 (3 days)

- Organization and function of an EDP-Department
- Strategies, policies and methods
- Main functions and their automation
- Information and decision support systems

EDP-applications in Iron and Steel Industry

Part 2 (2-3 days)

- Production planning and control systems
- Quality control systems
- Process control systems
- Database and Datacommunication systems

The first part should be a basic seminar, based on prepared written comprehensive materials.

The second part should be additionally to the first seminar based on prepared material with discussion and individual consultation according to the requests of the participants.
As the problems of automation are different in a metallurgical plant and in an engineering and consulting company the programm of the seminar part two should be well coordinated with the needs of the participants.

Computer application systems play a vital role in the steel industry and have direct impact through the product quality and product costs. So the seminar in Algier was a very good contribution to this subject. Measured on the length of discussions, the numbers of requests from the participants the seminar deals with actual subjects and was very important for the participants and should be continued by the AISU.