

کد سند: RO-S-F-28-01

معاونت پژوهشی



تاریخ صدور:

تاریخ ویرایش: ---

فرم خلاصه انگلیسی طرح / پروژه

Project Title:

Identification of needed standards to retrofit the control system of gas turbines to be included in bid documents. **Project**

Department:	ROADMAP OF TECHNOLOGY DEVELOPMENT IN CONTROL SYSTEM DESIGN OF POWER PLANT	Employer:	NIROO RESEARCH INSTITUTE
Project Manager:	JAVANEH ZIATABARI	Project Code:	PCSPN02-1

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Project Necessity:

Unfortunately lots of power plants are working with the lack of spare parts especially electronic spare parts, so serious distractions in power network are probable. Due to the condition of sanctions and affordability, the only efficient and accessible way is retrofitting of the existing systems. Moreover, there exist lots of Iranian companies which are gaining the potential of retrofitting the systems. So the procedures and standards for the retrofit should be available and strictly examined to be followed. The identification of these standards is the objective of this project.

Project Goals:

Extraction of needed standards to retrofit the control systems of thermal power plants.

Abstract:

In order to set the proper supervisory layer of the retrofit project, the identification of needed standards was done in the following aspects:

- Tender documents
- Basic design
- Detail design
- Acceptance tests (SAT, FAT, Software verification)
- Performance tests

- Hardware exchange
- Documentations
- Guaranty & Warranty

The standards were classified in to 3 classes of critical, necessary and desired.

Steps and methodologies:

- Identification of the standards in accordance to bellow items:
 - Design and performance of control system.
 - Operation & maintenance of system
 - FAT, SAT, temporary & permanent delivery
 - Instrumentations, field and cubicle.
 - Network, data acquisition & process.
- Determining dependency of the identified standards and prerequired tables
- Rating the standards in to three levels of Critical, Necessary, Desired
- Determining the task monitoring time tables and milestones

Main Results (technical outputs, patents, papers, books, reports, etc.):

The reports on:

- Standards of design and performance of control system.
- Standards of operation & maintenance of system
- Standards of FAT, SAT, temporary & permanent delivery
- Standards of instrumentations, field and cubicle.
- Standards of network, data acquisition & process .