

(PREVIEW)

*Indian Standard***SUPERVISORY CONTROL AND DATA ACQUISITION  
(SCADA) SYSTEM FOR POWER SYSTEM  
APPLICATIONS****1 SCOPE**

The SCADA system specifies facilities for monitoring and control functions of distributed process from a central location. The SCADA system described here are meant for operation of the transmission and distribution power system network. This standard provides definition and guidelines for the specification, performance analysis and application of supervisory control and data acquisition (SCADA) systems for use in electrical utilities. These can also be used for remote operation of a sub-station.

The SCADA systems typically use computer systems consisting of servers, workstations and front end processors at a central location, referred as the control centre and a data acquisition and supervisory control device or a group of devices, generally referred as remote communication and control interface (RCCI), located in the sub-stations/power stations. In this standard the term RCCI denotes any data acquisition and supervisory control device, for example intelligent electronic devices, programmable logic controller, bay control modules, remote terminal unit, etc, that directly communicate to a remote control centre. The present day sub-stations are adopting new technologies like sub-station automation systems which perform the data acquisition and supervisory control functions similar to a RCCI but in more detail. The sub-station automation systems generally have gateways for communicating with the computer systems at the control centres. This standard does not cover the requirements of sub-station automation systems

SCADA system is deployed as an integrated component of energy management systems/distribution management systems in present day control centres. This standard does not cover the details/functioning of the advanced applications (like EMS/DMS) and only a reference is given.

**2 REFERENCES**

The standards listed in Annex A are necessary adjuncts to this standard.

**ANNEX A**

*(Clause 2)*

**LIST OF REFERRED INDIAN STANDARDS**

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
1885 (Part 50) : 1985 (Part 52) : 1980	Electrotechnical vocabulary: Telecontrol Data processing	2309 : 1989	Code of practice for the protection of buildings and allied structures against lightning ( <i>second revision</i> )
3043 : 1987 9000 : 1977	Code of practice for earthing Basic environmental testing procedures for electronic and electrical items	14570 : 1998	Electrical measuring transducers for converting ac electrical quantities to analogue or digital signals
12746 (Part 1/Sec 3) : 1993	Telecontrol equipment and systems: Part 1 General considerations, Section 3 Glossary	60947 (Part 1) : 2004 SP 30 : 1985	Low voltage switchgear and controlgear: Part 1 General rules National Electrical Code