

عنوان مقاله:

Implementation of UCA Based Inter and Intra Substation Communication Architecture

محل انتشار:

بیستمین کنفرانس بین المللی برق (سال: 1384)

تعداد صفحات اصل مقاله: 9

نویسندگان:

Alireza Bakhtar - Azerbaijan Power Engineering Consultants (MONA) Tabriz, Iran

Mahni Kooshavar - Azerbaijan Power Engineering Consultants (MONA) Tabriz, Iran

خلاصه مقاله:

Modern electric power systems have been called "The largest human made machine" because they are physically large, literally thousands of miles, which are operating in precise synchronism. The paper provides a concise explanation of the automation and supervisory Control and data acquisition (SCADA) requirements in grace of maturing next generation microprocessor based IEDs, which is found crucial, by the Azerbaijan Power Engineering Consultancy (MONA) Company for the substations in Iran. Protocols play a major task in communication systems, therefore commonly accepted communication protocols RS232, RS485, DNP3.0 and IEC 60870 are discussed briefly and the state-of-the-art data ommunication protocol IEC61850/ utility Communication Architecture (UCA) are explored in depth. With the promising advantages and maturing of the IEC61850/ UCA, utility companies are forced to begin implementation of substation protection, control system, which is based on this technology. Also, this paper describes such a design for Sahand 230/132/20 kV substation, pretty important power station, with regard to the control, protection, and information flow, control sequence and reliability, which is required and expected by Azerbaijan .Regional Electric Company. In addition to mentioned points, this paper includes a brief tutorial on IEC61850/UCA

کلمات کلیدی:

Automation, Protocols, Communication, UCA, GOOSE, DCS

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/20337>

