

Experience in SCADA Implementation Projects

| Sl. No. | Project Title | Type of Industry | Kalki's Scope | Main Functionalities | SCADA | Protocols | No of S/S | Voltage Levels |
|---------|---------------------------|------------------|---|--|-------------------|-------------------------|-----------|---------------------------------------|
| 1 | DAS for A24A and NPPS | Oil & Gas | Kalki's scope of work included system design, development, engineering, testing and commissioning of Smartstation - Substation Management software at site. | Monitoring, recording and storage of switchgear operation and parameters, Circuit breaker control Bus bar animation, Collection of fault data, Automated disturbance downloading, Disturbance analysis, Printing of stored parameters, Logging of events, Energy reporting for 11KV and 440V switchboards | Ge Fanuc iFIX 4.0 | Modbus | 2 | 11 KV & 440V |
| 2 | SCADA for DIAL | Airport | Supply of CP16-2 gateways, Panel Engineering, SCADA Application engineering, CP16-2 Gateway Configuration, Conducting FAT, Testing and Commissioning at Site, Conducting SAT. | Breaker control, Report Generation, Alarms & Events logging | PVSS, Siemens | IEC 61850, Modbus | 6 | 33KV, 11KV and 415V |
| 3 | SAS for Vizag Steel Plant | Metal | Supply of CP16-2 gateways, Panel Engineering, SCADA Application engineering, CP16-2 Gateway Configuration, Conducting FAT, Testing and Commissioning at Site, Conducting SAT. | Breaker control, Report Generation, OLTC control, Alarms & Events logging | WinCC, Siemens | IEC 61850, Modbus, DNP3 | 2 | 220kV, 33KV and 11kV (2 switchboards) |
| 4 | ENMC and IMCS | Oil & Gas | Kalki's scope of work included system design, development, engineering, testing and commissioning of Smartstation - Substation Management software for KNPC's M85 and M86 substations. Scope includes local and centralised SCADA system for both station. Total No of IEDs is 640. | General network information, giving a quick overview of all main network components, General system information, giving a quick overview of all ENMC (sub) systems, Overview of distribution, down to high voltage feeder level, Information on control status, alarm status, object status, measurements, Reports and Trends, Events and Faults, Recorded Transients and Disturbance data | Ge Fanuc iFIX 4.0 | Modbus | 3 | 3.3KV and 440V system |
| 5 | DAS for GC9 & GC10 | Oil & Gas | Kalki's scope of work included system design, development, engineering, testing and commissioning of Smartstation - Substation Management software at site. | Monitoring, recording and storage of switchgear operation and parameters, Circuit breaker control Bus bar animation, Collection of fault data, Automated disturbance downloading, Disturbance analysis, Printing of stored parameters, Logging of events, Energy reporting for 11KV, 3.3KV and 440V switchboards | Ge Fanuc iFIX 4.0 | Modbus | 2 | 11 KV, 3.3KV and 440V |
| 6 | DAS for Sabriyah | Oil & Gas | Kalki's scope of work included system design, development, engineering, testing and commissioning of Smartstation - Substation Management software at site. | Monitoring, recording and storage of switchgear operation and parameters, Circuit breaker control Bus bar animation, Collection of fault data, Automated disturbance downloading, Disturbance analysis, Printing of stored parameters, Logging of events, Energy reporting for 11KV and 440V switchboards | Ge Fanuc iFIX 4.5 | Modbus | 1 | 11 KV and 440V |
| 7 | DAS for GC-24 | Oil & Gas | Kalki's scope of work included system design, development, engineering, testing and commissioning of Smartstation - Substation Management software at site. | Monitoring, recording and storage of switchgear operation and parameters, Circuit breaker control Bus bar animation, Collection of fault data, Automated disturbance downloading, Disturbance analysis, Printing of stored parameters, Logging of events, Energy reporting for 11KV, 3.3KV and 440V switchboards | Ge Fanuc iFIX 4.5 | Modbus | 1 | 11 KV, 3.3KV and 440V |
| 8 | DAS for Magwa Substation | Oil & Gas | Kalki's scope of work included system design, development, engineering, testing and commissioning of Smartstation - Substation Management software at site. | Monitoring, recording and storage of switchgear operation and parameters, Circuit breaker control Bus bar animation, Collection of fault data, Automated disturbance downloading, Disturbance analysis, Printing of stored parameters, Logging of events, Energy reporting for 11KV and 440V switchboards | Ge Fanuc iFIX 4.5 | Modbus | 1 | 11 KV and 440V |

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|---------|---|------------------|---|---|--------------------------------------|-------------------------------|----------------|------------------------|
| 9 | IEC 61850 SAS for a Leading Hydro Power Plant | Power | Design, Engineering, Preparation & Approval of Drawings/Documentation, Integration, Installation, Commissioning, and Testing of Complete Automation(including panels and other hardwares) System including, I/O list preparation, FDS (functional design specification document) preparation & approval, Schematic/Lay out drawing preparation and approval, database building, supply of items as listed below, MMI, FAT, SAT as per specification requirement | Monitoring Analog and Digital Parameters, Busbar Animation, Breaker Control, Alarms and Alarm History Display, Real Time and Historical Trending, Sequence of Events, Time Synchronization, Relay Parameterization, Reports, Fault and Disturbance analysis | Ge Fanuc iFIX 5.0 | IEC 61850 | 1 | 11KV and 3.3KV |
| 10 | IEC 61850 SAS for a Leading Thermal Power Plant | Power | Design, Engineering, Preparation & Approval of Drawings/Documentation, Integration, Installation, Commissioning, and Testing of Complete Automation(including panels and other hardwares) System including, I/O list preparation, FDS (functional design specification document) preparation & approval, Schematic/Lay out drawing preparation and approval, database building, supply of items as listed below, MMI, FAT, SAT as per specification requirement | Monitoring Analog and Digital Parameters, Busbar Animation, Breaker Control, Alarms and Alarm History Display, Real Time and Historical Trending, Sequence of Events, Time Synchronization, Relay Parameterization, Reports, Fault and Disturbance analysis | Wonderware 10.0 | IEC 61850 | 1 | 11KV and 3.3KV |
| 11 | SAS for Raw Material Handling Plant, VSP | Metal | Supply of CP16-2 gateways, Panel Engineering, SCADA Application engineering, CP16-2 Gateway Configuration, Conducting FAT, Testing and Commissioning at Site, Conducting SAT. | Breaker control, Report Generation, Alarms & Events logging | WinCC, Siemens | IEC 61850 Modbus | 1 | 6.6KV |
| 12 | DAS for BSP | Metal | Supply of CP16-2 gateways, Panel Engineering, SCADA Application engineering, CP16-2 Gateway Configuration, Conducting FAT, Testing and Commissioning at Site, Conducting SAT. | Breaker control, Report Generation, Alarms & Events logging | WinCC, Siemens | IEC 61850 | 1 (5 Sections) | 6.6KV |
| 13 | Scada for Powergrid | Power | Integration, Installation, Commissioning, and Testing of Scada system | Breaker control, Report Generation, Alarms & Events logging,Trends,PLCC communication,LDC communication | MicroSCADA, ABB | IEC 101 | 4 | 400/220 kv |
| 14 | SAS for IOCL, Mathura | Oil & Gas | Kalki's scope of work included system design,Scada development, engineering, testing and commissioning | Breaker control, Report Generation, Alarms & Events logging,Trends | MicroSCADA, ABB | Lon, Modbus | 5 | 11 KV, 6.6 KV and 440V |
| 15 | SAS for TNEB | Power | Kalki's scope of work included system design,Scada development, engineering, commissioning and testing | Breaker control, Report Generation, Alarms & Events logging,Trends,PLCC communication,LDC communication | FactoryLink | IEC 61850 | 5 | 11 KV and 440V |
| 16 | SAS for Karama | Power | Kalki's scope of work included system design,Scada development, engineering, commissioning and testing | Breaker control, Report Generation, Alarms & Events logging,Trends,PLCC communication,NCC and DCC communication | SicamPAS | IEC 61850 IEC 101,103 and 104 | 8 | 11 KV and 440V |
| 17 | SAS for Reliance Jamnagar | Oil & Gas | Kalki's scope of work included system design,Scada development, engineering, commissioning and testing | Breaker control, Report Generation, Alarms & Events logging,Trends | WinCC, Siemens | IEC 61850 | 1 | 33 KV and 220 KV |
| 18 | Power Management System | Petrochemical | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Electrical SCADA | ABB Advant SCADA/PPA,AC-450,MP SCADA | Control Net,MMS,OPC | 18 | 220KV |
| 19 | Power Management System | Cements | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Electrical SCADA | ABB PPA,AC-450 controller | Control Net,MMS,OPC | | |
| 20 | Power Management System | Refinery | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Electrical SCADA | ABB Advant SCADA | Control Net,MMS,OPC | | |

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| 21 | Power Management System(PMS) | Gas | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 22 | Power Management System(PMS) | Petroleum | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 23 | Power Management System(PMS) | Cements | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 24 | Composite Islanding load Management system(CILMS) | Metals, Aluminum | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Generator Shedding,Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 25 | Integrated Load Management System(ILMS) | Metals, Aluminum | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Generator Shedding,Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 26 | Power Management System(PMS) | Metals, Aluminum | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Generator Shedding,Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 27 | Power Management System(PMS) | Metals, Aluminum | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Generator Shedding,Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 28 | Power Management System(PMS) | Refinery | Application Development,HMI,FAT,Commissioning,SAT | Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 29 | Power Management System(PMS) | Refinery | Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Load Sharing, Synchronization,Electrical SCADA | ABB 800XA,AC 800M Controller | Control Net,MMS,OPC | | |
| 30 | Electrical Control System(ECS) | Refinery | Panel Design and Engineering,Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Manual Load Shedding,Overload Load shedding, Test Load Shedding,Circuit breaker control and Electrical SCADA | Step-7 S7-400H Controller, Wincc HMI | Profibus,OPC,IEC-104,Modbus TCP | 14 | 11KV, 6.6KV and 415V |
| 31 | Electrical Control System(ECS) | Refinery | Panel Design and Engineering,Application Development,HMI,FAT,Commissioning,SAT | Fast Load Shedding,Under frequency,Overload Load shedding,Manual Load shedding, Load Sharing, Synchronization,Capacitor Bank Switching, Maximum Demand Based Load shedding, Electrical SCADA | WinCC HMI | Profibus,OPC,IEC-104,Modbus TCP, IEC 103, Modbus RTU | 8 | 220KV, 33KV, 11KV, 6.6KV, 0.415KV |
| 32 | Power Management System(PMS) | Manufacturing | Panel Design and Engineering,Application Development,HMI,FAT,Commissioning,SAT | Load Shedding,Load Sharing,Mode management, Synchronization,Under frequency load shedding,OLTC control | WinCC HMI | Profibus,OPC,IEC-104,Modbus TCP | | |