



 +33 (0)6 78 91 31 94

A portrait of a man with short brown hair and a slight smile, wearing a bright yellow high-visibility safety vest over a dark shirt. He is standing outdoors on a paved surface, with a yellow metal railing visible behind him.

Process & regulation - Control systems (ALSPA expert)

TECHNICAL SKILLS




Skills	Level	Details
Alspa P320 control systems	★★★★★	
<ul style="list-style-type: none"> Alspa Series 5 & 6 Alspa Series 4 Controcad internal design Historian & IMS internal design C370 C80-75, C80-35 & Rx3i CE2000 & CE3000 MFC1000 MFC3000 Trusted (ICS Triplex) BPS DEPP2000 Specific tools (CRW, CCW, CLOGSQL & others) Gateways (CSS-F & CSS-G) Alspa internal communication protocols (E900 & E920) FIP & EPL Data extraction from Alspa DCS 	★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★ ★★★★★ ★★★★★ ★★★ ★★★★★	<p>System expert on <i>Alspa</i> products. Advanced use, knowledge of internal design of the control system (work experience with development teams).</p> <p>Conception of customized tools interacting with <i>Controcad's</i> database in order to answer specific requirements (i.e. mass modification in the logic diagrams, automation of the interfacing with <i>DEPP2000</i>, data extraction for project retrofit by another manufacturer).</p> <p>Knowledge of real-time database analysis and debugging tools (<i>DbScan</i> / <i>RTSpy</i> / <i>DataspY</i>).</p> <p>Setting up of redundant communication interfaces, for instance with <i>Osisoft PI</i> system or dispatching center.</p> <p>Interfacing of third-party DCS or products with <i>Alspa</i> PLCs, good knowledge of internal communication protocols (exchanges with PLCs & supervisors).</p> <p>Time synchronization, cyber-security, and so on.</p>
Power plants & steam process	★★★★★	
<ul style="list-style-type: none"> Gas (combined cycle) Fuel Coal Hydro Geothermal Concentrated solar power District heating 	★★★★★ ★★ ★★ ★★ ★★★★★ ★★★★★ ★★★★★	<p>Good expertise on power plants and steam process.</p> <p>Commissioning, design & implementation of new concepts when required, modifications, tuning, operation, training, and so on.</p>
Power plants sub-systems	★★★★★	
<ul style="list-style-type: none"> Water Steam Cycle HRSg SRSg Gas, coal or fuel-fired boilers Boiler protection system Auxiliaries Electrical 	★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★	<p>Deep-knowledge of power plants sub-systems & regulation loops associated.</p> <p>Conventional, contact & air-cooled condensers, <i>OTC</i>, feed-water storage, deaeration, preheating & supply (with or without variable speed pumps), main steam system, bypasses, steam temperature control, drum level control, boilers (with or without circulation pumps), drains, ejectors & vacuum pumps, gland steam system, closed cooling water system, and so on.</p>
Turbines	★★★★★	
<ul style="list-style-type: none"> Steam Turbines Controsteam & TGC Gas Turbines (GT26, GT13) Controgas Egatrol & Turbotrol Hydraulic turbines 	★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★ ★★	<p>Commissioning, operation & tuning of steam turbines on many different projects with specificities (HP/IP startup, specific starts, bad steam quality) requiring to change the regulation concept.</p> <p>Commissioning of hydraulic & gas turbines (<i>GT26</i> & <i>GT13</i>).</p>

Skills	Level	Details	
Regulation	★★★★★	Regulation expert. Standard PID controllers & advanced regulation, such as: <ul style="list-style-type: none">Cascade & parallel PID for HRSG multi-stage desuperheatersEnthalpy-based feed-forward for bypass temperature control, followed by temperature-based PID.Open-loop feed-forward for contact condenser level control, followed by level-based PID.Open-loop combustion curves for gas-fired boiler followed by fine O₂-base control.3-elements drum or condenser level control.Specific regulation strategies design & commissioning.	
Communication protocols	★★★★★	Good general expertise on communication protocols. Commissioning of several equipments exchanging data through communication protocols. Redundancy management and problems associated with it. Good knowledge of network interfaces (<i>Ethernet</i>) and serial links (<i>RS232 / RS485</i>).	
<ul style="list-style-type: none">Modbus: RS232, RS485, TCPIEC101 & IEC104ProfibusDNP3OPCDebugging tools (protocol as well as signal layers)	★★★★★ ★★★★★ ★★★★ ★★★★ ★★★★ ★★★★		
Process engineering standards	★★★★★	Permanent use of KKS, PFUPs and P&ID on many new power plants as Alstom or GE commissioning engineer, or later on for modifications. Occasional use of ECS for French projects.	
<ul style="list-style-type: none">KKSECSPFUPsP&ID	★★★★★ ★★ ★★★★★ ★★★★★		
Miscellaneous			
<ul style="list-style-type: none">NavisworksMicrosoft Office suiteAutocadMatlabSimulinkOsisoft PIPCS7	★★ ★★★★★ ★ ★★ ★ ★★★★ ★	<ul style="list-style-type: none">WindowsSolaris and UnixVAX / Alpha SererSQLC / C++ / C#Visual basic / VBA	★★★★★ ★★★★★ ★★ ★★★★★ ★★★ ★★★
Languages			
<ul style="list-style-type: none">FrenchEnglishSpanishGerman	★★★★★ ★★★★★ ★ ★	First Certificate of Cambridge, regular use of English as commissioning engineer all over the world. Extremely basic knowledge of Spanish & German.	

★ Basic knowledge
★★ Operational but may require support
★★★ Good level

★★★★ Very good level
★★★★★ Expert

EDUCATION & WORK EXPERIENCES OVERVIEW

Period	Company & Location	Position details
Since 2015	<p>ICSS (SELF-CONTRACTOR)</p>  <p>Based in Montpellier, France</p> <p>Interventions worldwide</p>	<p>CEO - Commissioning engineer & Alspa Expert</p> <p>Technical and project ownership support for various industrial projects, mainly on the energy (power plants) and control system businesses.</p> <p>Site interventions: commissioning, tuning, modifications, troubleshooting, maintenance, training.</p> <p>Remote support and engineering, maintenance contracts.</p> <p>High flexibility as self-contractor. Fast adaptation to new processes or systems.</p> <p><i>Alspa</i> expert for many users & DCS suppliers all over the world (maintenance & support contracts).</p>
2008 to 2014	<p>ALSTOM POWER AUTOMATION AND CONTROL</p>  <p>Based in Massy, France</p> <p>Interventions worldwide</p>	<p>Commissioning engineer</p> <p>Expert on <i>Alspa P320</i> products.</p> <p>Technical and project ownership support. Engineering studies, on-site commissioning and troubleshooting.</p> <p>Assignments on all kinds of power plants in France and abroad (more than 22 different sites in 13 different countries).</p>
2003 to 2008	<p>ICAM</p>  <p>Toulouse, France</p> <p>4 months spent in Australia 1 month spent in Cambodia</p>	<p>Engineering degree</p> <p>Multidisciplinary technical training: materials, mechanicals, energetic, electricity, electronics, informatics & industrial automation.</p> <p>6-months assignment for the French Navy during the last year, in charge of the conception of a torque measurement and recording device for diesel engines.</p>

PERSONAL INTERESTS

AVIATION	<p>Gliders, ultra-lights & powered aircrafts pilot.</p> <p>Gliding instructor.</p> <p>Aircrafts & gliders mechanic (<i>Part 66-L</i> license)</p> <p>Aerobatics pilot (French champion in 2019, category <i>Promotion</i>)</p>
ENGINEERING & MECHANICS	<p>Non-professional design & manufacturing of industrial parts or systems.</p> <p>Use of machine tools (lathe, milling machine, laser cutter...)</p>
VARIOUS	<p>Travels, hiking, outdoor & water activities</p>

PROJECTS & SITE ASSIGNMENTS DETAILS*

Name & location	Process & control system used	Project details & work performed overview
MEGALIM ASHALIM PLOT B ASHALIM, ISRAËL	130 MW Concentrated Solar Power - <i>Alspa S6 DCS</i> <i>Controsteam</i> <i>Trusted (CE3500)</i> SRSG/WSC Protection System	<p>Concentrated solar power plant - Process commissioning, tuning and modifications (design of ST startup concept, redesign of MCW operation concept), interfaces & system expert</p> <p>Prototype. 55 000 mirrors, (installed & controlled by <i>Brightsource</i>) with additional gas-fired boiler.</p> <p>Steam turbine control design, implementation and commissioning (with specific startup and trip logic as the unit doesn't have an IP by-pass).</p> <p>Complete redesign of main cooling water operation concept. Implementation, commissioning and validation of the correct operation.</p> <p>Water Steam Cycle, Solar Receiver Steam Generator, BOP commissioning and tuning (with redesign of several control loops). Unit operation.</p> <p>Interfacing of the Alspa global control system with <i>Brightsource's</i> controllers. Expert for Alspa system issues (specificities: cyber-security, EPO and AD).</p>
CFE LOS HUMEROS (UNIT 3) PEROTE, MEXICO	25 MW Geothermal Power Plant - <i>Alspa S6 DCS</i> <i>Controsteam</i>	<p>Geothermal power plant – Process commissioning, tuning and modifications (re-design of condenser control concept, on-site design of unit startup sequencer), interfaces expert</p> <p>General commissioning & operation of the unit.</p> <p>Design, implementation, commissioning and tuning of a new contact condenser regulation concept (in order to protect the steam turbine).</p> <p>Design, implementation and commissioning of the automatic unit startup sequencer.</p> <p>Review and tuning of various water steam cycle control loops.</p> <p>Configuration and commissioning of the interfaces with dispatching system and electrical modules.</p>
RHEINENERGIE NIEHL 3 KÖLN, GERMANY	450 MW KA26 combined cycle with district heating - <i>Alspa S6 DCS</i> <i>Controgas</i> <i>Controsteam</i> <i>Trusted (CE3500) BPS</i>	<p>KA26 combined cycle – Process commissioning, tuning and modifications (re-design of HRSG sprays), interfaces expert, Controcad projects merging</p> <p>Design, implementation, commissioning and tuning of a new concept for HRSG inter-stage desuperheaters, reducing their time of operation during startups, improving speed and accuracy of temperature control and reducing a lot the stress of the steam turbine especially during park load operation (70 MW with bypasses closed).</p> <p>Commissioning tasks (logic modifications design and implementation, regulation, tuning). Unit operation.</p> <p>Interfaces expert. <i>Profibus</i>, <i>Modbus</i>, <i>IEC101</i>, automatic <i>Excel</i> reports generation (<i>IMS</i>) and export, firewalls / routers (<i>Fortigate</i>) configuration.</p> <p>Merging of the <i>Controcad</i> database of the 3 projects used during engineering (<i>Controgas</i>, <i>Controsteam</i>, <i>DCS</i>) into a single project.</p>

Name & location	Process & control system used	Project details & work performed overview
DALIA TZAFIT Kfar MENAHEM, ISRAËL	2 x 435 MW KA26 combined cycle - <i>Alspa S6 DCS</i> <i>Controgas</i> <i>Controsteam</i> <i>Trusted (CE3500) BPS</i>	KA26 combined cycle – System and process commissioning Commissioning & tuning of HRSG, WSC & BOP systems on unit 2. Support for ST & GT. Unit operation. Specificities: high fogging, steam injection & air cooled condensers Troubleshooting of communication issues with several third-parties PLCs. Various protocols.
NEWGEN KWINANA PERTH, WESTERN AUSTRALIA	320 MW KA13E2 combined cycle - <i>P320 S5 DCS</i> <i>TGC V2+</i> <i>Egatrol (interfaced through Modbus)</i> <i>Siemens PCS7 BMS</i>	KA13E2 combined cycle – System and process commissioning, troubleshooting, maintenance, training, support, design and implementation of new functionalities Troubleshooting of open items at the end of the warranty period. Then, several site interventions during outages and remote support to the customer. Design and implementation of new functionalities. Complete review of drums level control. Support for many different process issues during unit restart or operation (on HRSG, WSC, steam turbine, duct burners, AGC...) Implementation of several new communications links to cover new needs (<i>Modbus</i> with HRSG data loggers for temperature monitoring of HP & RH super-heaters, redundant <i>DNP3</i> link with dispatching center for AGC control, <i>Modbus</i> with power meters). Training of customer's teams and remote support (validation of changes they perform before PLC loading, consulting and troubleshooting).
CPCU SAINT-OUEN & VITRY PARIS, FRANCE	2 x 400 T/h District heating - <i>P320 S4 DCS</i> now retrofitted to <i>Alspa S6</i>	District heating – Consulting engineer during control system retrofit, implementation and commissioning of new functionalities, tuning, training, support Single-stage HRSG that can be used as conventional gas boilers (gas turbine off) or as HRSG with supply firing (gas and boiler burners on). Consulting engineer during control system retrofit (<i>P320 S4</i> to <i>Alspa S6</i>) done by the manufacturer (<i>General Electric</i> s). Factory and site acceptance tests. Claims rising and management. Troubleshooting of issues related to the retrofit. After completion of the upgrade, implementation of new functionalities and improvement of the process control. Combustion tests and tuning (open loop curves and O ₂ -based regulation). Technical assistance and training of customer's teams.
SOLVAY COGENERATION TAVAU TAVAU, FRANCE	2 x LM6000 Cogeneration units - <i>Alspa P320 S4 DCS</i>	2 x LM6000 Cogeneration units – Technical assistance and studies for control system retrofit 2 cogeneration units (3 stages boilers) producing steam for industrial process. Technical assistance: maintenance, troubleshooting and modifications if required. Spare parts supply for <i>Solaris SUN</i> stations. Installation and configuration of such stations. Studies for retrofit of <i>P320 S4 DCS</i> to another system (data extraction in preparation of the call for tenders, critical items identification, and so on).

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INTERGEN REDBUD, MAGNOLIA & SEWARD USA	Steam turbine control - <i>Alspa S6</i> supervision <i>TGC v1</i> steam turbine controllers	Steam turbine – Retrofit of the supervision and engineering tools Retrofit of the supervision and engineering tools used by several steam turbines on various sites in the USA (<i>Intergen</i> projects). Keeping the old <i>TGC v1</i> steam turbine controller (based on <i>C80-35</i> PLCs), migration of the <i>Controcad</i> project from version 3.2.5 to version 4.51, and replacement of the supervisors (<i>Solaris SUN</i> stations) by new <i>Alspa HMI</i> stations based on <i>Windows</i> . Studies, project migration, factory acceptance tests and commissioning on site.
SAUDEFALDENE SAUDA, NORWAY	Hydroelectric power plant - <i>P320 S5 DCS</i>	Hydroelectric power plant – Technical assistances, studies for retrofit and communication interfaces Technical assistance: maintenance, troubleshooting and modifications if required. Supplier of industrial PC supporting <i>Windows XP</i> . Installation and configuration of such stations. Studies for retrofit of the <i>P320 S5 DCS</i> . Studies for the replacement of the single <i>IEC101</i> communication interface with the dispatching by two redundant <i>IEC104</i> interfaces.
EDF LUCCIANA BASTIA, FRANCE	7 x 17 MW (MAN engines) Diesel power plant - <i>Siemens PCS7 DCS</i>	Diesel power plant – Instrumentation and commissioning Instrumentation, tests and commissioning of various equipments. On-site studies for new systems to be implemented and interfaced with the DCS.
KRAKATAU STEEL CILEGON, INDONESIA	Cold Steel Mill - <i>VAX/Alpha Server</i> (coils management) <i>80-MT</i> controllers	Cold Steel Mill – E900 protocol expert On-site studies for the replacement of the control system, replacing <i>80-MT</i> controllers by <i>ABB</i> controllers, keeping <i>VAX</i> stations used for coils management. <i>VAX</i> stations were communicating with <i>80-MT</i> controllers using <i>E900</i> protocol.
ERMENEK CONSORTIUM GÖKSU RIVER, TURKEY	2 x 150 MW Hydroelectric power plant - <i>P320 S5 DCS</i>	Hydroelectric power plant – System expert Short-term expert assignment in order to diagnose and solve a blocking issue (impossibility to start the <i>C80-35</i> PLCs and to operate anything). The issue was related to an anomaly in the verifications performed by <i>Controcad</i> when ladders programs associated to <i>C80-35</i> targets (<i>EL</i> domain) were used.
EDF ARAMON ARAMON, FRANCE	1 400 MW Fuel-fired plant - <i>P320 S5 DCS</i>	Fuel-fired plant – System expert and technical assistance Expert assignments to troubleshoot and solve a critical issue blocking unit restart (complete loss of set points stations). Due to a lack of verification during code generation, <i>Controcad v4.2.1</i> allowed overwriting of <i>C80-75</i> memory area affected to reception of set points array sent by <i>E900</i> network by another array affected to redundancy exchanges. Set points were actually received properly by the PLCs, but overwritten right after reception. Later on, various interventions to support the customer.

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ENEL SULCIS SARDINA, ITALIA	585 MW Coal-fired plant - <i>P320 S5 DCS</i>	Coal-fired plant – System expert Short-term expert assignment due to a complete loss of supervision, blocking plant operation. Re-installation of the control system and root-cause analysis.
SNET PROVENCE 5 GARDANNE, FRANCE	595 MW Coal-fired plant - <i>P320 S5 DCS</i>	Coal-fired plant – Mass logic modifications Mass modification of the <i>Controcad</i> diagrams and of the PLCs code as a consequence. Writing of an <i>SQL</i> script to automatically modify the mapping of all diagrams using a particular function block. Execution of the script on site, checks and propagation of the modifications to PLCs.
FAPCO FUJAIRAH FUJAIRAH, UAE	2 000 MW KA26 combined cycle with desalination units - <i>Alspa S6 DCS</i> <i>TGC V2+</i> <i>Egatrol (interfaced through CSS-F GCOM)</i>	KA26 combined cycle - DCS installation, commissioning & troubleshooting DCS system engineer. Factory acceptance tests for the complete control system in Massy (France). Installation and commissioning on site. Troubleshooting of open items at the end of the warranty period.
ENGIE DK6 DUNKERQUE, FRANCE	2 x 400 MW KA13E2 combined cycle - <i>P320 S5 Unix DCS</i> <i>IEC104 CSS-G gateways</i> <i>Matrikon OPC servers</i>	KA13E2 combined cycle – Data transfer with <i>Osisoft PI</i> system and BPS modifications Modification of the data exchange between the plant and the <i>Osisoft PI</i> system (from about 2000 points exchanged to more than 10 000). Installation of redundancy on the boiler protection system. Various interventions to support the customer.
ENGIE CYCOFOS FOS-SUR-MER, FRANCE	400 MW KA26 combined cycle - <i>P320 S5 DCS</i> , now retrofitted to <i>Alspa S6</i> <i>Egatrol</i>	KA26 combined cycle – Communication protocols troubleshooting and support Troubleshooting of communication issues between the DCS and the <i>Osisoft PI</i> system. Various interventions to support the customer.
ENGIE COMBIGOLFE FOS-SUR-MER, FRANCE	424 MW KA26 combined cycle - <i>Alspa S6 DCS</i> <i>Egatrol & Turbotrol (interfaced through CSS-F GCOM)</i>	KA26 combined cycle – DCS installation and commissioning Installation of the control system on site. Site acceptance tests. Troubleshooting of open items, customer assistance.

Name & location	Process & control system used	Project details & work performed overview
SKT TERGA AÏN TEMOUCHENT, ALGERIA	3 x 400 MW KA26 combined cycle - <i>Alspa S6 DCS</i> <i>Trusted BPS</i> <i>Egatrol and Turbotrol</i> (interfaced through <i>CSS-F 800xA</i>)	KA26 combined cycle – DCS installation and commissioning Installation and commissioning of the control system for the first unit. Troubleshooting of communication issues between the <i>Alspa</i> DCS and the <i>Egatrol</i> & <i>Turbotrol</i> turbine controllers, through <i>CSS-F 800xA</i> .
ENGIE FLEVO FLEVO, NETHERLANDS	2 x 432 MW KA26 combined cycle - <i>Alspa S6 DCS</i> <i>Egatrol</i> (interfaced through <i>CSS-F GCOM</i>)	KA26 combined cycle – Troubleshooting, expert support to commissioning team Troubleshooting of various open items that couldn't be solved by local commissioning team at the end of the commissioning phase. Communication issues with the <i>Egatrol</i> & <i>Turbotrol</i> turbine controllers, through <i>CSS-F GCOM</i> .
STEG GHANNOUCH GABES, TUNISIA	400 MW KA26 combined cycle - <i>Alspa S6 DCS</i> <i>Egatrol & Turbotrol</i>	KA26 combined cycle - Troubleshooting Troubleshooting of open items before signature of PAC.
INITEC ENERGIA KUREIMAT EL-KUREIMAT, EGYPT	750 MW Combined cycle - <i>P320 S5 DCS</i>	Combined cycle – Troubleshooting Several interventions in order to diagnose and solve several open items: cyber-security, communication protocols (<i>Modbus</i> and <i>IEC101</i>), networks, PLCs, wrong logic, <i>Historian</i> , and so on.
DUBAL CCPP22 DUBAI, UAE	430 MW KA13E2 combined cycle - <i>P320 S5 DCS</i>	KA13E2 combined cycle - Troubleshooting and commissioning Troubleshooting of open items at the end of the warranty period. Commissioning of remote load control from the dispatching center (<i>IEC104</i>).
DUBAL GTX DUBAI, UAE	150 MW GT13E2 gas turbine - <i>P320 S5 DCS</i>	GT13E2 - Commissioning Commissioning of remote load control from dispatching center (<i>IEC104</i>).
CFE LOS HUMEROS (UNIT 2) PEROTE, MEXICO	2 x 25 MW Geothermal Power Plant - <i>Alspa S6 DCS</i> <i>Controsteam</i>	Geothermal power plant – Interfaces expert Expert assignment to solve blocking communication interfaces issues (connection with the dispatching center). Design, implementation and test of a redundant connection using <i>OPC</i> , <i>IEC104</i> and <i>DNP3</i> (successive layers).

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CEYLON ELECTRICITY BOARD WIMALASURENDRA NORTON BRIDGE, SRI LANKA	2 x 25 MW Hydroelectric power plant - <i>Alspa S6.1 Hydro DCS</i>	Hydroelectric power plant - DCS installation and commissioning Installation and commissioning of the control system.
EDF LE HAVRE 4 LE HAVRE, FRANCE	600 MW Coal-fired plant - <i>Alspa S6 supervision C370 and CE2000 PLCs (through CSS-F F900)</i>	Coal-fired plant – Troubleshooting (retrofit of supervisors) Several short interventions on site in order to troubleshoot and solve issues related to the upgrade of the control system supervisors (from <i>P320 S4</i> to <i>Alspa S6</i> interfaced to <i>C370 P320 S4</i> PLCs through <i>CSS-F F900</i> gateways).
PRO ENERGIA BELCHATOW BELCHATOW, POLAND	5 420 MW Coal-fired plant - <i>Alspa S6 DCS</i>	Coal-fired plant - System expert System expert, supporting local commissioning teams.

* Due to NDA (non-disclosure agreements) some projects are not shown or detailed in this list.