

Senior Systems Engineer



Position Title:	Senior Systems Engineer		
Department:	Engineering		
Function:	Systems Engineering		
Level of role:	Senior Functional	Location:	Melbourne. Core engineering function resides in Melbourne. Bid Projects and customer related activities may require travel to Brisbane and Canberra sites.
Security level required:	NV1	ITAR designated:	Yes

Key Relationships: (Internal/ External)
<p>Internal:</p> <ul style="list-style-type: none"> Functional/Project Managers and Engineering Managers, Systems Engineers, Other Engineering Staff, ILS staff <p>External:</p> <ul style="list-style-type: none"> Customer Project and Technical Staff (including Customer Engineering Manager and Design Acceptance Authority Representative), subcontractor engineering managers/staff

The Company:	Elbit Systems of Australia Pty Ltd (ELSA) is a growing presence in the defence and law enforcement industries in Australia. A subsidiary of Elbit Systems Ltd, ELSA develops state of the art technologies and integrates them into the Australian market. ELSA's main business is Systems Integration for the Australian Defence Force (ADF), with an emerging presence in the law enforcement, intelligence and cyber markets.
Position Purpose:	<ul style="list-style-type: none"> Provides senior systems engineering services to Projects and Bids across the entire system engineering life cycle including conception, design, realisation, integration, verification, acceptance and support. Shapes the development of systems within a dynamic, multinational company providing cutting edge technology to the Australian Defence Forces. Successful delivery, through a multidisciplinary engineering team, of the engineering scope within a project. This includes delivery of engineering deliverables and services on time, on budget and with quality acceptable to both ELSA and the customer. The scope of engineer activities includes systems engineering, system level design, verification and specialty engineering.

Core Responsibilities:	Key Tasks:	Expected Results:
Systems Engineering Project Activities	<ul style="list-style-type: none"> Lead Systems Engineering activities as part of a project (or bid) team Orchestrate system engineering activities in accordance with recognised systems engineering framework based on standards such as SCRUM, ANSI/EIA-632, ISO/IEC 15288 or the INCOSE Systems Engineering Handbook. Identification and quantification of system goals and capabilities. Analysing and eliciting customer needs and required functionality, documenting and managing requirements. Creation of alternative system level architectures, design concepts and system deployment solutions. Undertake design analysis and trade studies. 	<ul style="list-style-type: none"> Delivering against commitments of time, cost and quality Production of coherent engineering artefacts embodying the applied Systems Engineering approach, which is both technically and commercially feasible. Delivering products that are safe, fit for purpose and environmentally compliant.

	<ul style="list-style-type: none"> • Requirement specification and traceability of systems, sub-systems and products. • Interface definition and design. • Hands-on equipment integration activities in a laboratory and field environment • Working with Software/Application intensive systems. Work to configure, operate and problem solve these systems. • Development of test procedures and verification that the design is properly built and integrated including post-implementation assessment of how well the system meets its goals. • Application of System Safety to all engineering activities, including regulatory compliance. • Responsible for exercising individual knowledge, skills, initiative and professional judgement in order to resolve issues and problems with project scope. 	
Systems Engineering Functional Activities	<ul style="list-style-type: none"> • Influential in the continued improvement and development of Engineering Department plans and processes • Provide mentoring of other Systems Engineering Staff as required 	<ul style="list-style-type: none"> • A Systems Engineering framework benefitting (both employees and customers) from continuous improvement • Quality development and nurturing of workforce capabilities
Planning the engineering work packages	<ul style="list-style-type: none"> • Develop work breakdown structures and detailed bases of estimates for each work package (when assisting bids and proposals) • Include risk mitigation in the engineering planning • Develop an engineering schedule and integrate it into the overall project schedule • Influence the development and maintenance of a systems engineering management plan (SEMP) • Scope of engineering planning includes systems engineering, safety engineering, design engineering, specialty engineering and V&V. 	<ul style="list-style-type: none"> • Engineering delivery strategy that meets cost and schedule constraints of the project • Engineering plan that is well communicated to the engineering team and project stakeholders • Plan is actively used to guide engineering activity and is regularly updated as the project moves into different phases
Ensure company resources are in place to support project engineering activities	<ul style="list-style-type: none"> • Support the performance management and development of ELSA junior engineers allocated to the project • Manage the establishment of corporate tools and project-specific tools/systems to support the engineering plan 	<ul style="list-style-type: none"> • Engineering tools/systems meet the needs of the project and are available to those that need them at the right time
Manage the engineering activities in accordance with the approved engineering plan	<ul style="list-style-type: none"> • Manage and supervise design within all relevant disciplines • Status relevant engineering activities against the approved schedule • Manage all engineering contract deliverables for on-time delivery to the customer 	<ul style="list-style-type: none"> • Managerial level of understanding of all engineering activities within the scope of engineering work • Control of engineering activities and understanding of associated design maturity • Understand engineering resource

	<ul style="list-style-type: none"> • Manage all engineering artefacts that are required for delivery to internal customers such as ILS and production 	<p>requirements and align tasking to strengths of allocated resources</p> <ul style="list-style-type: none"> • High quality engineering artefacts are delivered to customers • Engineering activities are adequately controlled through configuration management activities and processes • Designs are approved by delegated technical authorities for the associated systems. • All engineering activities are aligned to satisfying the scope of the contract and the company's governance requirements.
Report status of engineering work packages	<ul style="list-style-type: none"> • Capture metrics for management of engineering activities • Develop status reports for project and organisational management • Conduct engineering (design) reviews (internal/external) • 	<ul style="list-style-type: none"> • Metrics measure the progress of important activities within the project • Metrics are available and are used by the whole project to drive project performance • Reporting focusses enabling management to support project delivery
Customer engagement	<ul style="list-style-type: none"> • Correspond with the customer in a range of informal and formal modes • Conduct engineering reviews and working group meetings in accordance with the contract and to manage the technical risks • Manage the delivery of contracted engineering deliverables and address customer responses in a timely fashion 	<ul style="list-style-type: none"> • Documented agreements and positioning with the customer • Strong working relationship with the customer's engineering team • All customer meetings are used to manage project risks and opportunities • Engineering deliverable are delivered on time and with minimal customer feedback
Sub-contractor technical management	<ul style="list-style-type: none"> • Develop engineering aspects of the statement of work • Review the sub-contractor's plans • Review the sub-contractor's engineering deliverables • Work with the sub-contractor to manage technical risks and opportunities 	<ul style="list-style-type: none"> • Sub-contract covers the engineering scope of required work and deliverables; and is aligned to the overall project • Subcontractor delivers the required deliverables in accordance with the contract and the approved plan
Support the project's overall objectives	<ul style="list-style-type: none"> • Manage the project interfaces into the engineering work packages (ILS, Production, project management, commercial, etc.) • Support the project manager in overall planning, management and reporting activities. 	<ul style="list-style-type: none"> • Agreement with other groups in the project on schedule for internal deliverables • Project lead team acts on project priorities and not on work package priorities
System Safety	<ul style="list-style-type: none"> • Take reasonable care to ensure personal safety and health at work and of other persons in the work place • Observe all safe working practices as directed by the supervisor and the use of personal protective equipment as and when provided • Report ALL accidents, incidents and hazardous situations arising in the course of work 	<ul style="list-style-type: none"> • Proactively address identified safety issues

Training & Qualifications:	
Essential	Desirable
<ul style="list-style-type: none"> • Tertiary qualification(s) in Engineering degree in C4I centric discipline (e.g. Communications, Information Systems, Software, Electrical) • 5+ years' of Systems Engineering lifecycle experience within a defence environment 	<ul style="list-style-type: none"> • Masters of Engineering degree in C4I centric discipline (e.g. Communications, Information Systems, Software, Electrical) • Military Land System Projects (HMI design, human factors aspects, C4I experience) • Communications systems background
Work Experience & Industry Knowledge:	
<p>Experience</p> <ul style="list-style-type: none"> • Leading teams of engineers • Working with software, communications and system integration projects • System Safety Engineering • Working on Defence projects • Plan and schedule development • Managing subcontractors • Customer relationship management <p>Knowledge</p> <ul style="list-style-type: none"> • Engineering of Defence Systems • Australian Defence contracting standards • Systems engineering • Objectives of each lifecycle phase • Design management and design control • Design metrics • Configuration management • Range of relevant engineering disciplines • Project Management (desirable) • Contract management (desirable) • Broad knowledge of ILS and production (desirable) 	
Core Behavioural Competencies & Skills:	
<ul style="list-style-type: none"> • Managing senior stakeholders • Team building and team communications • Motivating others • Negotiation skills • Planning and coordinating • Analysing project performance • Excellent written, verbal and interpersonal communication skills • Proactive support to customers/stakeholders • Adapting quickly to changing and volatile project requirements • Willing to undertake domestic and international interstate travel when required 	