

**SKILLS FRAMEWORK FOR ELECTRONICS
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Productivity and Innovation					
TSC	Solutioning					
TSC Description	Generate solutions by systematic analysis of the problem, proposing preventive and/or corrective measures and evaluating the effectiveness of the measures from different perspectives					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
				ELE-PIN-4003-1.1	ELE-PIN-5003-1.1	
				Develop solutions by reviewing the root cause(s) of the problem and propose possible action(s) to address the problem and achieve optimisation	Formulate solutions to address issues typically encountered by one assuming a managerial role	
Knowledge				<ul style="list-style-type: none"> • Definition of what is to be measured • Knowledge of the problem • Problem solving methodology • Collection of data • Analysis of information, data and trends • Preventive and corrective measures • Strategy for improvement 	<ul style="list-style-type: none"> • Definitions of systems thinking • Benefits of systems thinking • Organisation from a systems perspective • Situations that can affect the achievement of desired goals and outcomes • Comparison of the various system thinking tools and their application • Comparison of the various systems thinking approaches and their application to problem-solving • Characteristics and application of the decision-making models • Limitations of appropriate evaluation process to assess effectiveness of chosen solutions • Possible success indicators of chosen solutions 	

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Abilities				<ul style="list-style-type: none"> • Establish the objectives and processes necessary to deliver results • Apply appropriate methodology • Collect data for charting and analysis • Analyse results against the expected results and propose improvements • Evaluate and monitor effectiveness of improvement solutions 	<ul style="list-style-type: none"> • Analyse issues that affect the achievement of desired goals and outcomes in the macro context • Apply systems thinking approaches and processes to identify the root causes of non-achievement of desired goals and outcomes and the homeostasis of the organisation • Develop an implementation plan for the chosen solutions to resolve issues that affect the achievement of desired goals and outcomes in an organisation • Assess the effectiveness of the chosen solutions using an appropriate evaluation process • Use systems thinking tools to formulate possible solutions to resolve issues that affect the achievement of desired goals and outcomes • Select suitable solutions using established criteria to resolve issues that affect the achievement of desired goals and outcomes • Recommend corrective actions to improve chosen solutions 	
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