

SKILLS FRAMEWORK FOR ELECTRONICS SKILLS MAP - PRINCIPAL ENGINEER				
Sector	Electronics			
Sub-sector	Semiconductor and Data Storage			
Track	Technical and Engineering			
Occupation	Engineer			
Job Role	Principal Engineer			
Job Role Description	<p>The Principal Engineer is responsible for developing, enhancing, and influencing the organisation's technical roadmap. He/She drives sustainable manufacturing strategies by managing the integration of all module processes for lean manufacturing in accordance with organisation's requirements. He establishes organisation engineering quality management systems and evaluates quality engineering processes to satisfy business and legislative requirements.</p> <p>In partnership with the other departments, he is responsible to create business opportunities through innovation and recommend changes to current technical practices.</p> <p>The Principal Engineer is expected have an analytical mind to provide technical guidance and mentorship to the technical department with a large degree of autonomy.</p>			
Critical Work Functions and Key Tasks	Critical Work Functions	Key Tasks		
	Conduct research and development	Influence the future technology roadmaps		
		Develop organisational leading technologies		
	Drive sustainable manufacturing strategies	Manage integration of all module processes for lean manufacturing		
		Establish manufacturing strategies for sustainability		
	Conform to management system requirements	Establish organisation engineering quality management systems		
		Evaluate quality engineering processes to satisfy business and legislative requirements		
		Strategise the organisation's Workplace Safety and Health programmes		
	Contribute to continuous improvement	Innovate and change current industry practices to create business opportunities		
		Establish lean manufacturing systems for the organisation		
		Develop big data analytics plans		
	Influence organisational development	Conduct interviews and make hiring decisions		
		Act as technical guru to mentor engineers		
Build high-performance teams that work collaboratively				
Formulate framework to manage conflict grievances and disputes between employees				
Lead collective bargaining processes between employees				
		Align human resources with business needs		
Skills & Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
	Business Continuity Planning	Level 4	Communication	Advanced
	Business Planning	Level 5	Decision Making	Advanced
	Change Management	Level 5	Global Mindset	Intermediate
	Conflict Management	Level 5	Lifelong Learning	Advanced
	Crisis Situations Management	Level 5	Transdisciplinary Thinking	Advanced
	Effectiveness Management	Level 5		
	Enterprise Risk Management	Level 6		
	Innovation Management	Level 6		
	Learning and Development	Level 6		
	Manufacturing Process Design	Level 6		
	Organisational Analysis	Level 5		
	Organisational Strategising	Level 5		
	Research and Development	Level 5		
	Risk Appetite and Goals Setting	Level 5		
Technology Roadmapping	Level 5			
Workplace Safety and Health (WSH) Systems Management	Level 6			
Programme Listing	For a list of Training Programmes available for the Electronics sector, please visit: www.skillsfuture.sg/skills-framework/electronics			

The information contained in this document serves as a guide.