

SKILLS FRAMEWORK FOR ELECTRONICS SKILLS MAP - SENIOR INTEGRATION ENGINEER				
Sector	Electronics			
Sub-sector	Semiconductor and Data Storage			
Track	Technical and Engineering			
Occupation	Engineer			
Job Role	Senior Integration Engineer			
Job Role Description	The Senior Integration Engineer develops and converges new processes to meet business needs. His/Her work also includes assessing production processes and machines to identify possible limitations during technology development phases. He, as the subject matter expert, is required to qualify integrated processes to meet business and time-to-market requirements and also collaborate with external suppliers to explore possibilities of integrating their technology to future products. He is responsible for developing a management system to ensure that operations meet both internal and external parties' quality requirements.			
	He has to take the lead in managing cross-functional teams in continuous improvement projects and assist in implementing process improvement projects. He plays an important role in organisational development through development of on-the-job training and mentoring of team leaders.			
	The Senior Integration Engineer possesses an analytical mind and leadership skills to steer the team to perform their best and achieve the desired organisational outcomes.			
Critical Work Functions and Key Tasks	Critical Work Functions	Administer product and process engineering	Key Tasks	
			Develop and converge new processes	
			Manage devices and process developments to meet customers' requirements	
			Assess production processes and machines to identify possible limitations during technology development phases	
			Qualify integrated processes to meet business and time-to-market requirements	
	Collaborate with external suppliers and explore possibilities to integrate their technology to future products			
	Control maintenance process and manufacturing issues	Manage experiment design process margin for Standard Operating Procedures (SOPs) set-up and systems maintenance		
		Characterise new 'Bill of Materials' and their interactions between assembly processes during development phase		
		Prioritise key process weaknesses for baseline continuous improvements to yield and/or quality and/or production costs		
	Conform to management system requirements	Develop quality systems to ensure operations meets both internal and external parties' quality requirements		
		Enhance safety procedures and ensure good housekeeping in the area of responsibilities		
	Contribute to continuous improvement	Lead cross-functional teams in continuous improvement projects		
		Lead continuous improvement projects		
Collaborate with stakeholders in improvement activities to meet organisational goals				
Influence organisational development	Develop on-the-job training programmes			
	Develop workplace learning plans			
	Develop team leaders through capability development and coaching			
	Lead team leaders in the development of business unit strategies and operational plans			
Skills & Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
	Audit Management	Level 5	Communication	Intermediate
	Change Management	Level 3	Creative Thinking	Intermediate
	Conflict Management	Level 4	Decision Making	Intermediate
	Continuous Process Improvement	Level 5	Leadership	Advanced
	Crisis Situations Management	Level 3	Lifelong Learning	Intermediate
	Data Analytics Systems Design	Level 5		
	Data Synthesis	Level 5		
	Defect Density Monitoring	Level 5		
	Effectiveness Management	Level 5		
	Enterprise Risk Management	Level 4		
	Factory Systems Management	Level 5		
	Failure Analysis	Level 5		
	Innovation Management	Level 4		
	Internet of Things (IoT) Management	Level 5		
	Learning and Development	Level 4		
	Manufacturing Process Management	Level 5		
New Product Introduction	Level 5			

	Operations Management	Level 5	
	Organisational Analysis	Level 4	
	Organisational Strategising	Level 4	
	Parametric Testing	Level 5	
	Process Integration	Level 5	
	Quality Systems Management	Level 5	
	Workplace Safety and Health (WSH) Systems Management	Level 5	
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.