

SKILLS FRAMEWORK FOR PUBLIC TRANSPORT				
SKILLS MAP - PRINCIPAL ENGINEER/ENGINEERING MANAGER (SIGNAL AND COMMUNICATIONS)				
Sector	Public Transport			
Track	Rail Engineering			
Sub-Track	Signal and Communications			
Occupation	Rail Engineer			
Job Role	Principal Engineer/Engineering Manager (Signal and Communications)			
Job Role Description	<p>The Principal Engineer/Engineering Manager (Signal and Communications) leads cross-functional teams in maintenance work involving signal, communication and control systems. He/She possess extensive technical knowledge in signal, communication and control systems and facilitates the implementation of organisational maintenance regimes and continuous improvement initiatives. He also applies his engineering expertise in providing advice on engineering studies, as well as the engagement and management of external contractors to ensure achievement of operating requirements and quality work standards.</p> <p>He may be required to perform shift duties at various rail premises such as workshops, depots, train stations, and train tunnels. He is a good communicator and applies his leadership and managerial skills to fulfil the department's operational responsibilities.</p>			
Critical Work Functions and Key Tasks	Critical Work Functions	Maintain signal, communication and control systems	Key Tasks	
			Lead the execution of cross-functional preventive maintenance work involving signal, communication and control systems	
			Lead the execution of cross-functional corrective maintenance work involving signal, communication and control systems	
	Support maintenance activities and operational requirements		Lead technical recovery, complex fault analysis, and testing of signal, communication and control systems	
			Recommend vendors based on proposal evaluation and cost estimation	
			Manage multiple contractors and stakeholders external to the Signal and Communications team to ensure safety requirements, operating standards and quality standards are met	
			Ensure workplace adherence to Workplace Safety and Health (WSH) policies, procedures and regulations when carrying out work	
	Drive continuous improvement activities to enhance service reliability		Ensure workplace adherence with the Rapid Transit System (RTS) Codes of Practice	
			Formulate improvement plans for maintenance processes	
			Implement enhanced maintenance regimes to improve the reliability and efficiency of signal, communication and control systems	
	Manage people and team performance		Evaluate the feasibility of engineering studies to improve the reliability and efficiency of signal, communications and control systems	
			Evaluate and approve maintenance schedule deviations to re-allocate manpower	
			Implement training plans for staff to meet industry requirements and/or engineering standards	
Manage annual budget required by the branch				
Skills & Competencies	Technical Skills & Competencies		Generic Skills & Competencies (Top 5)	
	Asset Management	Level 5	Communication	Advanced
	Budgeting	Level 4	Interpersonal Skills	Advanced
	Business Continuity Management	Level 5	Leadership	Advanced
	Change Management	Level 5	Lifelong Learning	Advanced
	Condition-based Assets Monitoring Management	Level 4	Problem Solving	Advanced
	Continuous Improvement Management	Level 5		
	Data and Statistical Analytics	Level 5		
	Engineering Maintenance Management	Level 4		
	Innovation Management	Level 5		
	Internet of Things Application	Level 4		
	Maintenance Scheduling	Level 5		
	Manpower Planning and Deployment	Level 4		
	Organisational Planning and Target Setting	Level 4		
	People Development	Level 5		
	Project Management	Level 5		
	Rail Regulatory Compliance	Level 5		
Robotics and Automation Application	Level 4			

	Staff Performance Management	Level 4	
	Stakeholder Management	Level 4	
	Systems Engineering Thinking	Level 5	
	Technology Application	Level 3	
	Vendor Management	Level 4	
	Workplace Facilities Safety Management	Level 4	
	Workplace Safety and Health Culture Development	Level 5	
	Workplace Safety and Health for Incident and Accident Investigation	Level 4	
Programme Listing	For a list of Training Programmes available for the Public Transport sector, please visit: www.skillsfuture.sg/skills-framework/public-transport		

The information contained in this document serves as a guide.