

SKILLS FRAMEWORK FOR PUBLIC TRANSPORT SKILLS MAP - SENIOR ENGINEER/ENGINEER (SIGNAL AND COMMUNICATIONS)				
Sector	Public Transport			
Track	Rail Engineering			
Sub-Track	Signal and Communications			
Occupation	Rail Engineer			
Job Role	Senior Engineer/Engineer (Signal and Communications)			
Job Role Description	<p>The Senior Engineer/Engineer (Signal and Communications) leads multiple teams in performing preventive and corrective maintenance for signal, communication and control systems. He/She provides technical advice to team members, supervises complex maintenance issues pertaining to fault analyses and testing of signal, communication and control systems, and re-prioritise work activities to address maintenance requirements. He provides recommendations and technical support to implement organisational continuous improvement initiatives, and is also involved in the engagement and management of external contractors and ensuring the compliance 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 team player with good interpersonal skills and demonstrates strong supervisory, leadership and decision-making skills to implement work processes and systems to meet operations and maintenance requirements.</p>			
Critical Work Functions and Key Tasks	Critical Work Functions	Maintain signal, communication and control systems	Key Tasks	
			Manage signal, communication and control systems preventive maintenance work carried out across multiple teams	
			Manage the signal, communication and control systems corrective maintenance work carried out across multiple teams	
	Support maintenance activities and operational requirements	Support maintenance activities and operational requirements	Supervise complex fault analysis and testing of signal, communication and control systems	
			Define procurement specifications for the sourcing of vendors	
			Manage contractors and stakeholders external to the Signal and Communications team to ensure safety requirements, operating standards and quality standards are met	
			Manage the condition and quantity of supplies required for maintenance activities at work base	
			Endorse inspection and maintenance documents for work closure	
			Ensure workplace adherence to Workplace Safety and Health (WSH) policies, procedures and regulations when carrying out work	
	Support continuous improvement activities to enhance service reliability	Support continuous improvement activities to enhance service reliability	Ensure workplace adherence with the Rapid Transit System (RTS) Codes of Practice	
			Evaluate recommendations on workflow improvements to enhance the reliability and efficiency of signal, communication and control systems	
			Conduct engineering studies to improve efficiency and reliability of signal, communications and control systems	
	Manage people and team performance	Manage people and team performance	Support the implementation of engineering initiatives to enhance the reliability of signal, communication and control systems	
			Re-prioritise work activities and manpower allocation to address deviation from planned maintenance schedule	
			Identify team's training needs	
Track section's expenditure to assist in the forecasting of annual budget				
	Technical Skills & Competencies		Generic Skills & Competencies (Top 5)	
	Asset Management	Level 4	Communication	Intermediate
	Budgeting	Level 3	Interpersonal Skills	Advanced
	Change Management	Level 4	Leadership	Intermediate
	Communication Auxiliary Systems Maintenance	Level 4	Lifelong Learning	Intermediate
	Communication Backbone System Maintenance	Level 4	Problem Solving	Intermediate
	Communication Power System Maintenance	Level 4		
	Condition-based Assets Monitoring Management	Level 3		
	Continuous Improvement Management	Level 4		
	Data and Statistical Analytics	Level 4		
	Emergency and Security Communication Systems Maintenance	Level 4		
	Equipment Maintenance and Housekeeping	Level 3		
	Innovation Management	Level 4		
	Internet of Things Application	Level 3		
Inventory Management	Level 3			

Skills & Competencies	Maintenance Scheduling	Level 4
	Manpower Planning and Deployment	Level 3
	Network Systems Maintenance	Level 4
	People Development	Level 4
	Project Management	Level 4
	Radio System Maintenance	Level 4
	Rail Regulatory Compliance	Level 4
	Report Writing	Level 3
	Robotics and Automation Application	Level 3
	Signal Interlocking Systems Maintenance	Level 4
	Signalling Auxiliary Device and Equipment Maintenance	Level 4
	Staff Performance Management	Level 3
	Stakeholder Management	Level 3
	Supervisory Control and Data Acquisition System Maintenance	Level 4
	Systems Engineering Thinking	Level 4
	Technology Application	Level 2
	Trackside Automatic Train Control Equipment Maintenance	Level 4
	Train Supervisory System Maintenance	Level 4
	Trainborne Automatic Train Control Equipment Maintenance	Level 4
	Travel Information System Maintenance	Level 4
	Vendor Management	Level 3
	Video Surveillance System Maintenance	Level 4
	Work at Heights	Level 3
	Workplace Facilities Safety Management	Level 3
	Workplace Safety and Health Culture Development	Level 4
	Workplace Safety and Health for Confined Spaces	Level 3
Workplace Safety and Health for Electrical Safety	Level 3	
Workplace Safety and Health for Fire Prevention and Fire Fighting	Level 2	
Workplace Safety and Health for Incident and Accident Investigation	Level 3	
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.