

<b>SKILLS FRAMEWORK FOR ENGINEERING SERVICES</b> <b>SKILLS MAP – ENGINEER/SUPERVISOR (OPERATIONS AND MAINTENANCE)</b>					
<b>Sector</b>	Engineering Services				
<b>Track</b>	Operations and Maintenance				
<b>Occupation</b>	Engineering Professional				
<b>Job Role</b>	<b>Engineer/Supervisor (Operations and Maintenance)</b>				
<b>Job Role Description</b>	<p>The Engineer/Supervisor (Operations and Maintenance) is responsible for ensuring the continuous operations of equipment, components and systems. He/She supervises the operations and maintenance of equipment and systems. He leads the initiatives for identifying and implementing innovation within the organisation. He also follows corporate guidelines and best practices, monitoring compliance of work activities to regulatory and statutory policies, procedures and regulations. He implements emergency response plans and adheres to workplace safety and health (WSH) requirements. He manages a team of technicians and contributes to the improvement of business operations.</p> <p>He is a good team player and is adept in engaging and interacting with internal and external stakeholders. He is systematic and logical in his work approaches, possesses good analytical and problem-solving skills, and is able to work in a fast-paced environment. He is also expected to work on a rotating or day-shift, and/or may be employed on-call basis.</p>				
<b>Critical Work Functions and Key Tasks / Performance Expectations</b>	<b>Critical Work Functions</b>	<b>Key Tasks</b>	<b>Performance Expectations* (For legislated / regulated occupations)</b>		
			Maintain equipment and systems	Assign responsibilities and resources for inspection, testing, repair and predictive maintenance of equipment and systems	In accordance with: • Workplace Safety and Health (WSH) Act; • Building Control Act; • Electricity Act; • Fire Safety Act
				Interface with procurement team and vendors to align lead time with planned maintenance work activities	
				Recommend repair works and solutions to address equipment and system failures	
				Conduct root cause analysis of equipment and system failures and malfunctions	
				Analyse testing, maintenance and repair records to identify trends, potential malfunctions and solutions applied	
				Outline housekeeping procedures and standards to be adhered to for maintenance and repair works	

		Conduct test runs of new processes involving automated equipment, systems and controls	
	Conduct operations	Liaise with internal stakeholders on operations	
		Determine resourcing requirements to achieve operational state in accordance with organisational standards	
		Develop operational plans and Standard Operating Procedures (SOPs) for equipment and systems	
		Devise methods of application for emerging technologies to improve performance monitoring and process troubleshooting	
		Conduct root cause analysis of equipment and system underperformance	
		Manage responses to emergencies and crises	Analyse the impact of emergency response plans and relevant safety procedures on operations
	Coordinate the emergency response team activities		
	Manage health, safety and environment	Ensure compliance with the organisational Workplace Safety and Health (WSH) policies and Environmental Management Systems (EMS)	
		Ensure that contractors and vendors comply with the organisation's WSH and EMS standards and practices	
		Conduct WSH and EMS accident and incident investigations	
		Implement sustainable engineering procedures and guidelines	
	Manage people and organisational function	Monitor resource availability to support business operations	
		Monitor employee performance by utilising performance management systems	
		Provide inputs on team's recruitment, training and development needs	
		Ensure adherence to planned budgets and financial forecasts	
		Implement risk management plans and risk controls within the team	

		Propose improvements to business processes and operations to drive continuous improvement	*Performance Expectations are non-exhaustive and subject to prevailing regulations	
<b>Skills &amp; Competencies</b>	<b>Technical Skills &amp; Competencies</b>		<b>Generic Skills &amp; Competencies</b>	
	Artificial Intelligence Application	Level 3	Communication	Advanced
	Asset Management	Level 4	Problem Solving	Advanced
	Building Information Modelling Application	Level 3	Interpersonal Skills	Intermediate
	Business Presentation Delivery	Level 3	Teamwork	Intermediate
	Change Management	Level 3	Decision Making	Advanced
	Civil and Structural Engineering Management	Level 4		
	Condition-based Assets Monitoring Management	Level 3		
	Continuous Improvement Management	Level 3		
	Cost Management	Level 3		
	Data and Statistical Analytics	Level 3		
	Electrical Engineering Management	Level 3		
	Emergency Response Management	Level 3		
	Engineering Drawing Interpretation and Management	Level 3		
	Environmental Management System Framework Development and Implementation	Level 3		
	Equipment and Systems Repair	Level 4		
	Equipment and Systems Testing	Level 3		
	Equipment Maintenance and Housekeeping	Level 3		
	Facility Maintenance	Level 3		
	Geotechnical Engineering Management	Level 4		
Hazards and Risk Identification and Management	Level 3			

	Instrumentation and Control Design Engineering Management	Level 3	
	Internet of Things Management	Level 3	
	Inventory Management	Level 4	
	Learning and Development	Level 2	
	Maintenance Scheduling	Level 3	
	Manpower Planning	Level 3	
	Mechanical Engineering Management	Level 3	
	Organisational Resource Management	Level 4	
	Organisational Risk Management	Level 3	
	Preventive Maintenance	Level 3	
	Programme Management	Level 3	
	Project Risk Management	Level 3	
	Quality System Management	Level 3	
	Robotic and Automation Technology Application	Level 3	
	Staff Management	Level 3	
	Stakeholder Management	Level 3	
	Structural Testing	Level 3	
	Sustainable Engineering	Level 3	
	Technical Inspection	Level 3	
	Technical Writing	Level 3	
	Technology Application	Level 3	
	Third Party Management	Level 3	
	Workplace Safety and Health Culture Development	Level 3	
	Workplace Safety and Health Framework Development and Implementation	Level 3	
<b>Programme Listing</b>	For a list of Training Programmes available for the Engineering Services sector, please visit: <a href="http://www.skillsfuture.sg/skills-framework/engineeringservices">www.skillsfuture.sg/skills-framework/engineeringservices</a>		

The information contained in this document serves as a guide.