

**SKILLS FRAMEWORK FOR WORKPLACE SAFETY AND HEALTH
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Network Technology Management					
TSC	Internet of Things Management					
TSC Description	Interrelate computing devices, equipment and machines' data in a networked environment to provide specific solutions					
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		WPH-TEM-2004-1.1	WPH-TEM-3004-1.1	WPH-TEM-4004-1.1	WPH-TEM-5004-1.1	
TSC Proficiency Description		Apply interfacing techniques in computer systems for networking and usage of dashboard information	Analyse the information provided by the network and/or dashboard in order to apply and sustain the operational needs	Manage manufacturing operations execution using Internet of Things (IoT) solutions for manufacturing improvement	Formulate Internet of Things (IoT) platforms for storing and managing information provided by the network and/or dashboard to drive operational efficiency and effectiveness	
Knowledge		<ul style="list-style-type: none"> Knowledge basic virtual and/or digital database works Internet of Things (IoT) systems interface Data analytics for operating the robotics through system connections Big data dashboard for task optimisation Industry 5S approach in integration using IoT 	<ul style="list-style-type: none"> Knowledge of how basic virtual and/or digital database works Internet of Things (IoT) system interface Data analytics for operating robotics through system connections Big data dashboard for task optimisation Industry 5S approach in integration using IoT Knowledge of documentation through IoT Knowledge of scheduling tools integration with network 	<ul style="list-style-type: none"> IoT concepts and technical knowledge of IoT implementation in manufacturing Connectivity in manufacturing using sensors, smart devices and other technologies for data collection and manufacturing control Equipment automation Factory automation Advanced process control Manufacturing Execution System (MES) Security and privacy applications for IoT IoT guidelines and communication standards 	<ul style="list-style-type: none"> IoT and the Architecture Reference Model (ARM) Smart Automation Applications and Technologies Large-scale Monitoring and Analytics Applications and Technologies Data modelling, collection and management 	
Abilities		<ul style="list-style-type: none"> Operate the automated tools and information Utilise the system information integration Interpret the control room and dashboard information Interpret robotics and network information to despatch the task Perform tasks to interact with the IoT in an automated plant 	<ul style="list-style-type: none"> Perform the troubleshooting Analyse the automated tools and information Perform systems information integration to analyse the Big Data Interpret the Control Models, Process Control algorithms, Strategies behind the automated system Interpret robotics and network information to perform and/or schedule maintenance work Perform task to interact with the IoT in an automated plant 	<ul style="list-style-type: none"> Analyse Big Data to correlate multiple data from different sources to devise control actions Identify applicable areas for implementing IoT solutions for manufacturing improvement Use simulation tool to analyse and predict the performance improvement Implement dashboard, reporting for manufacturing KPI management Monitor the effectiveness of IoT solutions 	<ul style="list-style-type: none"> Design and develop an IoT application in a team-based environment Conceptualise and articulate a solution making use of IoT Manage data in IoT Applications Design application and automation using smart device Synthesise Data Visualization and Exploration Business Intelligence tool 	