

**SKILLS FRAMEWORK FOR TOURISM
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE**

TSC Category	Infocomm Technology Management					
TSC	Internet of Things Management					
TSC Description	Interrelate computing devices, equipment and machines' data in a networked environment to provide specific solutions					
TSC Proficiency Description	Level 1	Level 2	Level 3 TOU-TEM-3004-1.1	Level 4 TOU-TEM-4004-1.1-1	Level 5 TOU-TEM-5004-1.1	Level 6
			Analyse the information provided by the network and/or dashboard in order to apply and sustain the operational needs	Manage operations execution using Internet of Things (IoT) solutions for performance 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 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 related to the industry • Connectivity in industry and/or events using sensors, smart devices and other technologies for data collection and control • Equipment automation • Advanced process control • 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"> • Perform troubleshooting of automated tools and information • Analyse the automated tools and information • Perform systems information integration to analyse the big data 	<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 	<ul style="list-style-type: none"> • Design and develop an IoT application in a team-based environment • Conceptualise and articulate solutions making use of IoT • Manage data in IoT Applications 	

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			<ul style="list-style-type: none"> • 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 venue 	<ul style="list-style-type: none"> • Use simulation tools to analyse and predict the performance improvement • Implement dashboard, reporting for key performance indicator management • Monitor the effectiveness of IoT solutions 	<ul style="list-style-type: none"> • Design application and automation using smart devices • Synthesise data visualisation and exploration business intelligence tools 	
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