

Trends impacting this role

Sustainability **(** Robotics & IoT Automation

In the next 1 - 3 years...



The job will potentially require

MODERATE JOB REDESIGN

A fair proportion of the job tasks will be substituted by technology, with human intervention required for high value-adding tasks as against routine, repetitive tasks

Responsibilities of the role today

The Assistant Engineer / Senior Technician is responsible for supporting the planning of corrective, preventive and predictive maintenance activities that ensure equipment and systems are fully functional and in optimal **operating condition**. He/She follows corporate guidelines and best practices, ensuring work activities are carried out safely and enhancing the organisation's compliance with regulatory and statutory policies, procedures and regulations.

Responsibilities of the role in the future

Moving forward, this role is still responsible for supporting the planning of corrective, preventive and predictive maintenance activities that ensure equipment and systems are fully functional and in optimal operating condition. The job holder is required to be familiar with technology tools used for tracking and monitoring equipment and **systems performance** to identify issues. The job holder is also required to provide guidance to peers and juniors in his/her area of work.

Critical Work Function	Job tasks today	Job tasks within the next 3 years
Conduct operations	Operate equipment and systems in adherence to operational plans and Standard Operating Procedures (SOPs) and interpret indicators of equipment and system underperformance, damages, and malfunctions	 Operate equipment and systems in adherence to operational plans and Standard Operating Procedures (SOPs). A combination of Internet of Things (IoT) smart sensors and AI-enabled dashboards enable real-time monitoring and tracking of indicators of equipment and system underperformance, damages, and malfunctions, and allow the job holder to swiftly identify issues.
	Follow resourcing plans in support of engineering projects	Follow resourcing plans in support of engineering projects.
	Apply emerging technologies for performance monitoring and process troubleshooting, perform repair works on equipment and systems, and carry out housekeeping of tools after maintenance and repairs	Apply emerging technologies for performance monitoring and process troubleshooting, perform repair works on equipment and systems, and carry out housekeeping of tools after maintenance and repairs.
Maintain equipment and systems	Conduct or support the testing of equipment and systems, calibration of automated systems and controls, interpret results of equipment and systems testing, and document testing, maintenance and repair works	 Conduct or support the testing of equipment and systems, calibration of automated systems and controls. Robotics Process Automation (RPA) can be used to draft standard testing, maintenance, and repair works documentations and automate routine filing of documents. Some human judgment may still be required for oversight and managing quality of output.

Assistant Engineer / Senior Technician (Operations and Maintenance) [2/3]



Critical Work Function	Job tasks today	Job tasks within the next 3 years
Manage responses to emergencies and crises	Implement emergency response plans and relevant safety procedures and supervise the emergency response team	Implement emergency response plans and relevant safety procedures and supervise the emergency response team.
Manage health, safety and environment	Coordinate with vendors to ensure compliance with Workplace Safety and Health (WSH) policies and Environmental Management Systems (EMS), supporting accident and incident investigations when needed	Coordinate with vendors to ensure compliance with Workplace Safety and Health (WSH) policies and Environmental Management Systems (EMS), supporting accident and incident investigations when needed.

Redesign possibilities

Vertical	stacking
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• Stacked with *Technician / Coordinator* to become **Engineering Associate**.



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In addition to the Skills and Competencies identified in the <u>Skills Framework for Engineering Services</u>, the following additional TSCs and CCSs have been identified as relevant for the job role going forward:

Additional Technical Skills and Competencies (TSCs)				
Data Analytics	Green Facilities Management	Internet of Things Management*		

Additional Critical Core Skills (CCSs)					
Adaptability	Digital Fluency	Self Management			

- Skills denoted by an asterisk (*) are not available in Skills Framework (SFw) for Hotel and Accommodation Services (HAS) but available in other SFw.
- Skills not marked are available in SFw for HAS but are not currently tagged to this job role in the function.