


7.2.4 Emerging job roles dashboards

Environmental Sustainability Engineer

 Estimated Time Horizon: Short-term

Trends Impacting This Role

- ▶ Technology trends i.e., 5G, IoT & Smart Buildings
- ▶ Megatrends i.e., Sustainable Construction/ Buildings

Other Considerations

Companies looking to install environmental sustainability initiatives that addresses sustainability of Design & Construction systems and processes in the long-term, can leverage this job role.

Responsibilities of the Role

The Environmental Sustainability Engineer is responsible for tracking and monitoring the usage of resources, so as to develop and implement environmentally sustainable solutions for the project. The job holder will also be responsible for monitoring and enhancing the effectiveness of the solutions to reduce consumption and wastage in the long-term. The job holder may be involved in environmental sustainability development projects that require familiarity with the green rating process, to ensure projects’ achievement of green standards.

Job Tasks

- ▶ Track, analyse, report and forecast resource usage demands and carbon emission levels to determine sustainable and cost-effective outcomes for projects
- ▶ Develop, oversee and assess long-term environmental sustainability plans and solutions i.e., usage of sustainable materials, to achieve desired targets and/or determine whether project objectives are met
- ▶ Determine inefficiencies in existing Design & Construction systems and processes to implement appropriate solutions
- ▶ Conduct sustainability assessments using environmental certification standards, and manage the green rating process of Design & Construction projects


Technical Skills and Competencies

3D Modelling	Biophilic Design in Built Environment	Building Information Modelling Application	Civil and Structural Engineering Management
Coastal Engineering	Compliance with Legal Regulations	Computational Design	Construction Technology
Continuous Improvement Management	Design for Maintainability	Design Thinking Practice	Environmental Sustainability Management
Geotechnical Engineering Management	Green Building Strategy Implementation	Hydrodynamic and Flood Mitigation	Integrated Digital Delivery Application
Material Studies and Production Processes	Project Risk Management	Quality System Management	Regulatory Submission and Clearance
Site Assessment and Analysis	Structural Testing	Sustainable Engineering	Technical Inspection

Note: Skills highlighted are not exhaustive but have been preliminarily identified as potentially most pertinent to the job role and may be adjusted based on individual organisational strategy and needs.

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Critical Core Skills

Collaboration	Communication	Customer Orientation	Problem Solving
Transdisciplinary Thinking			

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