


## 7.2.4 Emerging job roles dashboards

# Digital Systems Engineer

 Estimated Time Horizon: Short-term

## Trends Impacting This Role

Technology trends such as BIM Technology, Digital Twin, Modular Construction, Remote Monitoring and 5G, IoT & Smart Buildings.

## Other Considerations

Companies looking to enhance workplace productivity and improve organisational resilience in Design & Construction, can leverage this specialised role.

## Responsibilities of the Role

The Digital Systems Engineer is responsible for the development, integration, monitoring, and optimisation of current and new processes and systems. The job holder will work with the team to continuously innovate and integrate existing and new systems, in accordance with clientele demands and technical requirements, to deliver unique multi-disciplined solutions. The job holder will also manage the potential complexities and risks of the solutions, to ensure the delivery of high-quality solutions.

## Job Tasks

- ▶ Research and develop strategic maps and execution plans for the development, implementation and/or integration of new and current processes and systems in Design & Construction
- ▶ Liaise with clients to understand clients' requirements to create unique multi-disciplinary solutions
- ▶ Analyse and review results and/or outputs of the solutions to inform and optimise the configuration and quality of existing products
- ▶ Review the progress and needs of the working team and keep abreast of cutting-edge digital solutions available in the market

## Technical Skills and Competencies

Application Support and Enhancement	Applications Integration	Artificial Intelligence Application	Augmented Reality Application
Building Information Modelling Application	Business Needs Analysis	Construction Technology	Continuous Improvement Management
Critical Thinking	Data Collection and Analysis	Design for Manufacturing and Assembly	Emerging Technology Synthesis
Integrated Digital Delivery Application	Integrated System Design and Application	Programming and Coding	Project Risk Management
Quality System Management	Systems Integration	Systems Thinking	Technology Application
Technology Road Mapping	Technology Scanning		

## Critical Core Skills

Collaboration	Communication	Customer Orientation	Problem Solving
Transdisciplinary Thinking			

*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.*