Development and implementation: Integration and installation; Hardware design HWDE

Description

The specification and design of computing and communications equipment (such as semiconductor processors, HPC architectures and DSP and graphics processor chips), typically for integration into, or connection to an IT infrastructure or network. The identification of concepts and their translation into implementable design. The selection and integration, or design and prototyping of components. The adherence to industry standards including compatibility, security and sustainability.

Level 6

Controls hardware design practice within an enterprise. Influences industry-based models for the development of new technology components. Develops effective procurement strategies, consistent with business needs. Ensures adherence to that relevant technical strategies, policies, standards and practices.

Level 5

Specifies and designs complex hardware components/ systems. Selects appropriate design standards, methods and tools, consistent with agreed enterprise policies, and ensures they are applied effectively. Reviews others' designs to ensure selection of appropriate technology, efficient use of resources, and effective integration of multiple systems and technology. Contributes to policy for selection of components. Evaluates and undertakes impact analysis on major design options and assesses and manages associated risks. Ensures that hardware designs balance functional, service quality, security, systems management and sustainability requirements.

Level 4

Designs computing and communications equipment, taking account of target environment, performance, security and sustainability requirements. Translates logical designs into physical designs, and delivers technical prototypes of proposed components for approval by customer and execution by technicians. Designs tests to measure performance of prototypes and production output against specification and inform iterative development.