Information and Communications Technology Industry Training Advisory Committee
Software Products and Software Services (SW) branch
Unit of Competencies

1. Title	Recommend embedded software architecture models	
2. Code	ITSWAR619A	
3. Range	Evaluate, choose and adopt appropriate embedded software architecture models, tools and standards for the design and development of the different classes of embedded software systems in an organisation. [Architecture – Embedded Software Architecture]	
4. Level	6	
5. Credit	6	
6. Competency		<u>Performance Requirement</u>
	6.1 Comprehend different embedded software architecture models and the technologies behind them	Be able to review and recommend a particular embedded software architecture model (including its design, patterns, their variants, and various supporting technologies) See Remark 1 for examples of technologies of embedded software architecture models.
	6.2 Select and recommend the most appropriate model(s)	Be able to ▪ review an embedded software architecture model ▪ perform comparison and trade-offs analysis among embedded software architecture models (See Remark 2) ▪ propose the most appropriate embedded software architecture model(s) for the classes of embedded software to be developed in an organisation or to solve the existing problems
	6.3 Select and/or develop, necessary embedded software architecture resources	Be able to ▪ select relevant embedded software architecture resources (e.g. standards and tools) based on the given requirements and their best fitness for the intended purposes ▪ develop and implement embedded software architecture resources to support the embedded software architecture
	6.4 Evaluate, choose and adopt appropriate embedded software architecture model(s) professionally	Be able to ▪ review, select and recommend appropriate embedded software architecture model(s), standards and tools ▪ ensure that the adopted embedded software architecture(s) support good software design and development practices, and are in compliance with organisation's guidelines as well as any local and international laws and regulatory requirements, where applicable

7. Assessment Criteria	The integrated outcome requirements of this UoCs are the abilities to: (i) select and recommend the most appropriate embedded software architecture model(s) for the classes of embedded software to be developed in an organisation; and (ii) select and develop the necessary embedded software architecture resources (e.g. standards and tools) for the classes of embedded software to be developed in an organisation.
Remark	1. Examples of various technologies of embedded software framework and platforms are J2ME, Symbian, MSCE, and Embedded Linux. 2. This may involve performing trade-off analysis on an implementation of a given system function through software, hardware and/or the most optimal combination of both.