



Australian Government

UEEEEC0045 Modify digital signal processing (DSP) based sub-systems

Release: 1

UEEEEC0045 Modify digital signal processing (DSP) based sub-systems

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to modify electronic digital signal processing (DSP) based sub-systems.

It includes following design brief, applying knowledge of digital and analogue devices, interpreting device specifications, constructing prototypes, testing developed sub-system prototype operation, and documenting design and development work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Identify DSP based system modification requirements

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Work health and safety (WHS)/occupational health and safety (OHS) processes and workplace procedures for a given work area are identified, obtained and applied

1.2 Hazards are identified, WHS/OHS risks are assessed,

	and control measures and workplace procedures are implemented in preparation for work
	1.3 Scope of proposed electronic DSP based sub-system is determined from design brief in consultation with relevant person/s
	1.4 Design development work is planned to meet scheduled timelines in consultation with persons/s involved on the worksite
	1.5 Materials and devices/components required to modify sub-system are determined on compatibility of design specifications with DSP based sub-system requirements and project budget constraints
2 Modify DSP based sub-system prototype	2.1 WHS/OHS risk control measures and workplace procedures are followed
	2.2 Digital and analogue elements used in DSP based systems and industry compliance standards are applied to the sub-system design
	2.3 Alternative design modifications are considered based on the design brief
	2.4 Safety, functional and budget considerations are incorporated in the design
	2.5 Prototype devices and circuits are constructed, programmed and tested for compliance with the design brief and regulatory requirements
	2.6 Prototype faults are rectified and retested to ensure effective operation of design
	2.7 DSP based system modification is documented for submission to appropriate person/s for approval
	2.8 Solutions to unplanned situations are implemented in accordance with workplace policy
3 Obtain design approval for electronic DSP based sub-system modification	3.1 DSP based sub-system modification is presented and explained to client representative and/or relevant person/s
	3.2 Alterations to the design are negotiated with relevant person/s within the constraints of workplace policy, as required

- 3.3 Final sub-system design is documented and approval obtained from appropriate person/s
- 3.4 Quality of work is monitored against performance agreement and/or workplace or relevant industry standards

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH184A Modify digital signal processing (DSP) based sub-systems.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>