

**Application for Booking the Services of C-CAT Centre, CEMILAC**

1.	Name of the Organization	
2.	Name of Contact Person	
3.	Address and Telephone Number and E -mail id of the Contract Person & Organisation	
4.	Name & Designation of People that Require Entry to C-CAT	
5.	Name of the Project	
6.	Type of Analysis	
7.	Tool Required (Optional) If this is not mentioned, available tool suitable for activities mentioned in para 6 will be allocated by the centre	
8.	Duration (No. of Days) for Which the Booking is Required	
9.	RCMA/CEMILAC Person Involved in the Airworthiness Certification of the Item/LRU/System	
10.	Confirmation Availability of all the Pre-requisite Information as per Annexure 1	Yes /No
11.	Prior Security Approval for Company Personnel to work in CEMILAC Premises has been obtained or not? If yes provide the Reference Number of Security Clearance Letter	Yes /No Ref:

**Undertaking by the Applicant**

I, hereby undertake that the usage of C-CAT Centre for the Complex Electronics Hardware/Firmware Verification & Validation is for the end use of the above Project only and if I get the permission from Chief Executive (A), CEMILAC to use the facilities at CEMILAC premises, my team will abide by all the rules and regulations and security instructions of CEMILAC.

I also declare that I take the full responsibility of the Analysis Results and indemnify CEMILAC and its personnel from any legal consequences arising from the above work.

Signature of Applicant

Date:

Name and Designation

**For Office Use Only**

Recommended / Not Recommended

Security & Vigilance

RD/GD/Director

GD (MS)

Time Slot Available ..... to .....

**Technology Director (C-CAT)**

**Approval by Chief Executive (A), CEMILAC**

Approved / Not Approved

Chief Executive (A), CEMILAC

**Pre-requisite Technical Information Essential for Complex Electronics  
Hardware (CEH) Verification & Validation**

<b>Purpose</b>	<b>Tool name</b>	<b>Vendor</b>	<b>Ver no.</b>	<b>Pre-requisite</b>
Requirement Analysis, Traceability to Test document	Req Tracer	Mentor Graphics	2022.3	As Per Appendix A or HRD, FRD, HTD (in .doc file format)
Code Simulation & Debugging	Questa Sim	Mentor Graphics	2022.3	Source Code
Code Coverage	Questa Sim	Mentor Graphics	2022.3	Source Code
Linting Analysis, Auto Check Compliance with DO-254 Standard	Q-Verify	Mentor Graphics	2022.3	Source Code
Cover Check	Q-Verify	Mentor Graphics	2022.3	Source Code & Test Bench
CDC Analysis	Q-Verify	Mentor Graphics	2022.3	Source Code & Test Bench
Design & Validation of Module	Vivado	Xilinx	2022.2	Source code & Target Hardware

**A. Preliminary Data**

- a) System Safety Assessment (SSA)
- b) Plan for Hardware Aspects of Certification (PHAC)
- c) Function Requirement Specification (FRS)

**B. Hardware Design Data**

- a) Hardware Requirements Document (HRD)
- b) Hardware Design Representation Data (HDRD)
- c) Conceptual Design Data (CDD)
- d) Detailed Design Document (DDD)
- e) Hardware/Software Interface Data (IRD)

**C. Verification & Validation Data**

- a) Hardware Traceability Data (HTD)
- b) Hardware Review & Analysis Procedure (HRAP)
- c) Hardware Test Procedure (HTP)

**CEH Certification-Stages of Involvement (SOI)**

**SOI-1: Hardware Plans**

- a) Plan for Hardware Aspects of Certification (PHAC)
- b) Hardware Design Plan (HDP)
- c) Hardware Verification & Validation Plan (HVVP)
- d) Hardware Configuration Management Plan (HCMP)
- e) Hardware Process Assurance Plan (HPAP)
- f) Hardware Design Standards (HDS)
- g) Hardware Requirement Standards (HRS)
- h) Hardware Coding Standard (HCS)
- i) Hardware Verification and Validation Standard (HVVS)
- j) Hardware Archive standards (HAS)

### **SOI-2: Hardware Design Data**

- a) Hardware Requirements (HRD)
- b) Hardware Design Representation data(HDRD)
- c) Conceptual Design Data (CDD)
- d) Detailed Design Data (DDD)
- e) Top-Level Drawing
- f) Assembly Level Drawing
- g) Installation Control Drawings
- h) Hardware/Software Interface Data (IRD)
- i) Tool Assessment Qualification Data (TAQD)

### **SOI-3: Verification & Validation Data**

- a) Hardware Traceability Data(HTD)
- b) Hardware Review and analysis procedures(HRAP)
- c) Hardware review and Analysis results(HRAR)
- d) Hardware Test Procedures (HTP)
- e) Hardware Test results (HTR)
- f) Hardware Acceptance Test Criteria (HATC)
- g) Tool Assessment and Qualification Data (TAQD)

### **SOI:4 Certification**

- a) Hardware configuration Management Records (HCMR)
- b) Hardware Accomplishment Summary (HAS)
- c) Hardware Environmental Configuration Index (HECI)
- d) Hardware Process Assurance records(HPAR)
- e) Hardware Configuration Index (HCI)