



HIL Power User Training

On-site, Hands-on

Dec 8, 2026 | Bengaluru, India

- ❑ **Objective**
 - Kick-start your HIL testing with a hands-on overview of how to make the most of the latest features of the Typhoon HIL Toolchain.
 - Duration: 1 day x 8 h
- ❑ **Pre-requisites**
 - Software installation on each attendee's computers
 - [HIL Fundamentals > Introduction to the Typhoon HIL Toolchain](#)
- ❑ **Recommended pre-requisites**
 - [HIL Fundamentals > Basic Workflow](#)
 - Complete [HIL Fundamentals](#)



Agenda

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8:00 - 8:30 **Registrations and Welcome**

8:30 - 9:45 **General Introduction**

Introduction to Typhoon HIL:

- Technology Introduction
- Integrated Simulation Environment
- Support Center & Documentation
- HIL Academy

Training Setup:

- Device Overview
- Creating a Typhoon Account
- Installing the THCC Software

9:45 - 11:15 **Getting Started**

Toolchain Overview:

- Typhoon HIL Control Center
- TyphoonSim

Running Your First Model:

- Schematic Editor – Model Design
- TyphoonSim – Offline Simulation
- HIL SCADA – Panel Design
- Real Time Simulation

11:15 - 11:30 **Coffee Break**

11:30 - 12:30 **Fundamentals of Real-Time Modeling and Simulation**

Typhoon HIL Solution Modeling Principles:

- Challenges of Real-Time Simulation
- System Architecture

- Converter Modeling Approach
- Model Partitioning
- Q&A

12:30 - 13:30 **Lunch Break**

13:30 - 14:15 **C-HIL Interfacing and Scaling**

C-HIL Interfacing and Scaling

- Analog and Digital IOs
- Scaling and Offset
- Interface Boards and HIL Connect
- Demonstration Example

Auto Code Generation:

- TI C2000 Toolbox

14:15 - 15:30 **HIL for Grid Modernization**

Introduction to Grid Modernization Library:

- Typhoon HIL for Grid Modernization and Test Solutions (BESS/EMS/PPC)
- Communication Protocols (Modbus, CAN, etc.)

Example Model:

- Terrestrial Microgrid Demonstration

15:30 - 15:45 **Coffee Break**

15:45 - 17:00 **HIL for Test Automation**

Introduction to TyphoonTest IDE:

- Typhoon HIL API
- TyphoonTest IDE

Example Model:

- Demonstration