

**COLLEGE OF ENGINEERING TRIVANDRUM**  
**Thiruvananthapuram -16**

**NOTICE INVITING TENDER(Re Tender)**

**No. P5/2428/24/CET**

18-01-2025

Tender ID	: 2024_DTE_712869_2
Tender NO	: 34/P5/SOFT/CSD/24
Superscription	: Purchase of Modelling and Analysis Software for Centre for Sustainable Development
Last date and time of receipt of tender on the website (www.etenders.kerala.gov.in)	: 10/02/2025 3pm
Date and time of opening of tender	: 14/02/2025 3pm
Date up to which the rates are to be firm	: 10/08/2025
Tender Cost	: ₹1534/-(1300 +18%GST) (1300 should be paid to department and GST amount Rs.234/- should be paid by the bidder directly to GST department)
EMD required	: ₹6372/-

**Item with Specification**

- The tools should provide comprehensive solutions for modeling and simulating integrated and complex systems for use within automotive, aerospace, robotics, process, energy, and other applications.
- A graphical editor for model editing and browsing, as well as a simulation environment, should be included in the tool.
- Ability to perform all necessary symbolic transformations for large systems (> 100 000 equations) as well as for real-time applications.
- The tool should support industry standards for the holistic model-based simulation of physical systems of all disciplines such as mechanics, electrical engineering and electronics, thermodynamics, hydraulics, pneumatics, control engineering, and process technology.
- The ability of the tool should include the capability to handle problems arising from multi-disciplinary simulations involving multiple components.
- It should be possible to simulate the dynamic behavior and complex interactions between/among systems of many engineering fields.
- Tools should support open-source, non-proprietary, object-oriented modeling language like Modelica for users to create their own model libraries or to modify the ready-made model libraries to better match users' unique modeling and simulation needs.

- Tool should support acausal modeling.
- Source code used in the modeling of components, blocks, and libraries provided with the tool should be exposed to the user.
- The Modeling and Simulation environment must be able to deal with implicit DAE descriptions, either by simulating such descriptions directly or by automatically converting them to explicit ODE descriptions beforehand.
- Ability to export and import FMI standard formats.
- Ability to generate C code for the model
- Simulation environment for simulation of developed models, plotting of simulation results and exporting simulation results in the form of ASCII files (with standard formats like TXT, CSV, DAT, etc),
- **Generation of source code and run time executable** for generating and exporting ANSI C source code of the system model developed in the modeling environment ( along with chosen differential equation solvers) which can be modified, compiled and simulated without the need for the license of original software at any target system having specifications same as that of the system in which modeling software is installed; for generating and exporting standalone run time executable of the developed system model without need for any licenses of original software at any target system having specifications same as that of the system in which modeling software is installed.
- Tool shall be able to directly simulate the models developed in the graphical editor. Simulator parameters like initial conditions for the model variables, model parameters simulation time, type of numerical integration method, tolerance limits etc., shall be user settable.
- Libraries should include: Battery, Systems Cooling Library, Electrified Power Train, Brushless DC drives, Human Comfort Library, HVAC, Flight Dynamics, Flexible Bodies, Fluid Power, Thermal Systems Library, Pneumatic System Library, Fluid Dynamics Library, Power Train Library, Electric Power Systems Library, Hydrogen Library, Wind Power, Vehicle System Modeling and Analysis (VeSyMA) Library, VeSyMa Suspension Library, ClaRa+ Library.
- Should include atleast One year Support and Maintenance.
- **Version: Academic Version (Perpetual License)**  
**Service Available in India.**  
Should include One year Support and Maintenance.

### General Conditions :

1. The unit price, all other charges such as delivery, transporting, packing, shipping, loading and unloading charges etc, and GST must be shown separately and should be furnished unambiguously.
2. Payment: 100 % after successful supply, installation, and satisfactory performance.
3. Delivery Period: Maximum Delivery period will be **90 days** from the date of receipt of supply order.
4. The item should be supplied at **CSD, Mechanical Engineering**
5. Preliminary agreement and tender form should be uploaded.

6. 5% security deposit along with agreement should be furnished in Rs.220/- Kerala Stamp Paper within a month/fortnight from the date of receipt of supply order.
7. Date of opening of tender : In case the proposed date declared as holiday, the tender will be opened on the next working day.
8. Only GST registered firms can participate in the Tender. GST number must be mentioned.

NB: The Tender procedure will be made as per Rules mentioned in the Revised Store Purchase Manual.

The bidders should participate this tender through E-Tendering System. Tender cost and EMD should be submitted only through online.

Contact Details : 9746814008

Digitally Approved by  
K SURESH  
PRL CET

The document is digitally approved. Hence signature is not needed.

---