<u>Technical Specifications for Finite Element Based</u> <u>Multiphysics Software Package</u>

| Essential Coupled | Structural Mechanics, Fatigue, Electrochemical and Corrosion |
|------------------------|--|
| Multiphysics modules | physics |
| Types of Element | Shell, membrane, beam or solid |
| | Tets, Brick, prism, and pyramid for 2D and 3D meshing or |
| | combination of these. |
| Deforming Object | Arbitrary Lagragian Eulerian (ALE) mesh framework. |
| Meshing | |
| Numerical Solver | Capable of computationally solving 2nd order custom Partial |
| Robustness | differential |
| | equations. |
| Interface with MATLAB | Capable of integrating with MATLAB to send input data for |
| | simulations and receive data for on-the fly post processing. |
| Graphic User Interface | Possess a graphic user interface to generate the model, discretize |
| | and visualize the results on the fly. |
| High Performance | Capable of efficiently running complex simulations in a |
| | shared/distributed |
| | memory architecture and utilize large number of CPUs. |
| User Database | The software should have a large academic and industrial user |
| | database. |
| Scholarly Benchmarking | The software has been utilized in generating research findings |
| | that were published in Scopus index high impact journals. |

Conditions:

- 1. Quotes are requested by two-bid system Technical bid separate cover & Financial bid separate cover combined in single big cover.
- 2. A separate compliance **certificate/sheet should be attached** indicating whether the proposed system meets above said specifications along with necessary details.
- 3. Included technical support for 1 year from the date purchase with options to extend on an annual basis.

<u>Other Terms:</u> Only OEMs or their authorized agents can quote and PO will be placed on OEMs only.