

ANNEXURE - 2

Integrated multimedia software/Hardware for training in CNC programming

Programming and Training Software/ Hardware-class room version up to 12 user licenses plus 1 master

Further requirements with respect to Multimedia software/ Hardware for teaching CNC technology are given below:

- The training module shall be complete software training solution for CNC Machining. The program has to be prepared, tested and simulated (2D & 3D) in the same ways as working on the machine itself.
- The same function and handling as on the machine control shall ensure that a CNC program generated with this software has to run on the machine.
- The Teachware must be in ENGLISH. All the parameters must be clearly & precisely defined.
- The software must be able to **run independently on PCs without machine.**
- The Teachware must be with **permanent life time licenses.**
- The software should include CNC Programming concepts and G and M codes, ISO programming formats, canned cycles, subprograms etc. Each programming command must be explained with a text explanation, graphic of the tool path & 3D simulation as per actual machine.
- Work holding used in CNC machines: The Teachware **shall include the different work holding devices used in turning & milling operations.**
- Interaction between teacher & trainees through CNC programming software/console would be preferable.
- The Teachware must be suitable for CNC Turning & milling machines With **Fanuc OiT, Siemens828D, Siemens 810 Controller** types and or above these versions. Student must be able to check a CNC program through ;enter a part program, select and assign cutting tools for the operation, run syntax check to list errors in the program, correct the syntax errors, simulate to verify the tool path graphically (2D & 3D).
- Must have inbuilt DNC to transfer a proven program directly to a CNC machine through USB or any convenient media or connection.
- Tool library must have all commonly used tools, types and sizes in turning & milling operations. Trainee must be able to define the new tools and holders.
- Teachware should include turning tools, grooving tools, threading tools, drill, tap, reamer, face mill, end mill, boring tools, finish bore, T slot mill, Countersink, chamber mill, side and face mill, etc. Indexable insert geometries, cutting edge geometry, ISO nomenclature for inserts.
- This procurement shall have to be compatible with the latest requirement of the industry.

• **Signature of the Vendor:** _____

• **Name of the Vendor:** _____

• **Seal of the Vendor :** _____