

EXPRESSION OF INTEREST

BEML, H&P DIVISION, K.G.F invites EXPRESSION OF INTEREST from prospective vendors with expertise and track record of success in:

Design, Development, Implementation and Sustenance of Industry4.0 tools, technology, applications and solutions for CNC machines with FANUC and SIEMENS controls.

High level requirements

1. Validate IIOT readiness and compatibility for 70 CNC machines (available at H&P Division, BEML, K.G.F) with Fanuc & Siemens control.
 - a. List of pre-requisite as scope of BEML's readiness to implement the system to be proposed.
2. Operations Management System for above CNC machines should provide
 - a. Real time Insights of Process and production activity with processed graphical representation on dashboards (For cycle time, setup time, downtimes with reasons, parts count, scrap parts with reasons etc)
 - b. Analytics of data captured to generate periodic reports and dashboards for machine/s **OEE**
3. Maintenance Management System for above CNC machines should provide
 - a. Real time information of machine parameters / status on dashboards
 - b. Instant alarms & notifications for the issues/break downs
 - c. Analytics of data captured to generate periodic reports and Real time dashboards /Reports for **machine availability**, Idle time, break down alarms , maintenance schedules , critical element health and Alerts etc.
4. Hardware and Software System infrastructure with IIOT Platform specifications to Design, Develop, implement and sustain the systems as stated in point no 2 and 3
 - a. Solution must be " On premise" (Not cloud based)
 - b. Solution must meet Cyber security compliance.
 - c. Human Machine Interface CNC machine level.
 - d. Ability to provide reports and dashboards on devices like mobile phones/ pads with dedicated mobile Apps.
5. Scope for Expansion in Future :
 - a. Openness, flexibility & scalability to cover and integrate Conventional machines / Assets
 - b. Extending the services in future to various locations of BEML plants at Bangalore, Mysore and Palakkad.
 - c. Provision for data exchange and Integration with SAP and PLM systems for accessing Production plan & work orders from SAP, 2D/3D drawings/models, Quality plans and process plans (Work instructions)and NC programs.

6. Details to be provided after study :

- a. Roadmap with timelines for implementation in phases –
Phase 1 –Implementation for maximum 25 CNC IIOT ready machines
- b. Feasibility report with Phase wise budgetary quotes with Cost benefit and risk analysis.

Note: Interested vendors may to visit BEML H&P division, KGF complex to Understand the Requirements.