

नेशनल इंस्टिट्यूट ऑफ फाउंड्री एंड फोर्ज टेक्नोलॉजी
(मानव संसाधन विकास मंत्रालय के तहत एक स्वायत्त संस्थान)

National Institute of Foundry & Forge Technology
(An Autonomous Body under the Ministry of Human Resource Development)



DOCUMENT FOR
EXPRESSION OF INTEREST
FOR SRS ERP

NOTICE INVITING EXPRESSION OF INTEREST FOR SRS ERP

No. NIFFT/EoI/08/2016/

10th August, 2016

Background

National Institute of Foundry and Forge Technology is a fully residential Government of India co-educational Institute situated at Hatia, which is about 8 KMs from Ranchi. It was established in the year 1966 by the Government of India in collaboration with UNDP-UNESCO to provide qualified engineers and specialist for running Foundry and Forge Industries. It is an autonomous and Centrally Funded Technical Institute (CFTI) under Ministry of Human Resource Development (MHRD), Government of India.

Intent of EoI

The Institute is planning for implementation of ERP at the Institute.

Expression of Interest

NIFFT hereby invites Expression of Interest from vendors with experience in implementation of ERP system in academic institutions and in other Govt. organizations against this Notice. Details of the EoI are available at www.nifft.ac.in and www.eprocure.gov.in/cppp

The detailed EoI with all relevant documents mentioned as above has to be sent to the Prof IC (Admin), National Institute of Foundry and Forge Technology, Hatia, Ranchi, Jharkhand 834 003 on or before 5.00 p.m on 09th September, 2016.

GENERAL INFORMATION

1. The National Institute of Foundry and Forge Technology (NIFFT) invites sealed EoI from eligible bidders for the Software Requirements Specification (SRS) and ERP system based on this SRS.
2. The scope of work is described in detail in the EoI document which may be downloaded from the Institute website www.nifft.ac.in and submitted to the Prof IC (Admin), National Institute of Foundry and Forge Technology, Hatia, Ranchi, Jharkhand 834 003.
3. All EoIs must be submitted in single part that should contain the technical information, enclosed in a sealed envelope duly super scribed as **“EoI for Software Requirements Specification (SRS) and ERP system based on this SRS.”**
4. The schedule of commencement of downloading of EoI documents and submission of EoI is as follows: -
 - (a) Commencement of downloading of EoI documents : 11th August, 2016
 - (b) Pre-EoI Conference : 22nd August, 2016 / 1000 hrs
 - (c) Last date and time of downloading of EoI documents : 02nd September, 2016 / 1700 hrs
 - (d) Last date and time for receipt : 09th September, 2016 / 1700 hrs
 - (e) Date and time for opening of EoIs. : To be notified later.
 - (f) Date & Time for presentation by technically qualified bidders : To be notified later.EoIs will be opened in the presence of bidders' authorised representatives who choose to attend at the specified date and time.

5. In the event of the date specified for EoI receipt and opening being declared as a holiday for the Institute, the due date for submission of EoIs and opening of EoIs will be the following working day at the appointed time and place.
6. Conditional EoIs shall not be accepted.
7. Over writing shall be avoided. Erasures and other changes shall bear the dated initial of the person signing the EoI.
8. **NIFFT** reserves the right to cancel / withdraw the invitation for EoIs without assigning any reasons and shall bear no liability whatsoever consequent upon such a decision.

QUALIFYING REQUIREMENTS

9. The bidders should possess the following qualifications / experience:
 - (a) Eligible bidders, for the purpose of this EoI are ERP software owners i.e., SAP or Oracle or MySQL or their Authorized Partners, hereinafter referred to as “**BIDDER(S)**”.
 - (b) The bidders shall be eligible to participate in the competition only if they fully satisfy the Mandatory Qualifying / experience requirements as stated below. The Successful bidder (SB) as per the evaluation methodology of the Institute shall directly address supply of ERP licenses and associated implementation related services. All the contractual obligations will be between NIFFT and the SB. NIFFT is however agreeable to enter into a license agreement with ERP Software Owner at NIFFT’s option for usage of ERP licenses.

MANDATORY REQUIREMENTS FOR THE BIDDERS

10. The bidder should: -
 - (a) Be a corporate body engaged in Software development.
 - (b) Have SEI CMM Level 5 or equivalent / higher certification.
 - (c) Have ISO 9001 or equivalent / higher certification.
 - (d) **Have been in Software Development Business Including Enterprise Software Architecting with revenue generation from the business exceeding Rs. 4 Crore a year during the three years preceding 31st March, 2016.**
 - (e) Be an Authorized SAP / OA / MySQL based application (MQLBA) implementation partner (Applicable to Non OE).
 - (f) Have experience in implementing modules for **Indian Customers** for most of the functionalities of University Management Software Systems.
 - (g) Have executed at least one implementation on the proposed ERP in a University of repute. The user base of such an implementation should be more than 100 users.
 - (h) Have implementation experience of the ERP with at least 3 Government customers (PSU/Central/State) in India.

The EoI should be kept valid for a period of 120 days from the date of opening of the EoI.

All qualifying requirements must be supported by documentary evidence.

Notwithstanding anything stated above, NIFFT reserves the right to review the bidder's capability and capacity to perform the contract at the time of award and reserves the right to accept or reject any EoI without assigning any reason thereof.

LIST OF DOCUMENTS TO BE SUBMITTED ALONG WITH THE EoI:

11. The bidder must submit: -
 - (a) EoI document duly signed on each page.
 - (b) Signed copy of information relating to their infrastructure, financial capability & turnover etc.
 - (c) Signed copy of latest Income Tax Assessment Certificate / PAN Card.
 - (d) Signed copy of Sales Tax Registration Certificate.
 - (e) Signed copy of Service Tax Registration Certificate.
 - (f) Signed copy of VAT Certificate
 - (g) Testimonials/Self Certifications in respect of all the mandatory requirements mentioned at Para 8, above.
 - (h) Proof of Software Development Business including Enterprise Software architecting with revenue generation from the business exceeding Rs 4 Crore a year during the three financial years preceding 31st March, 2016.
 - (i) A list of important customers in last three years i.e. 2013-14, 2014-15 & 2015-16.
 - (j) Technical literatures and original specifications sheets of each item offered.
 - (k) Undertaking for providing comprehensive support for minimum 3 years after warranty period.
 - (l) Proof of Authorized SAP/OA/MQLBA implementation partner.
 - (m) Proof of SEI CMM Level 5 or equivalent/higher certification.
 - (n) Proof of ISO 9001 or equivalent / higher certification.
 - (o) Proof of Experience in implementing modules for Indian Customers for most of the functionalities of Educational Institute Management Software Systems.
 - (p) Signed copy of power of Attorney, if any.
 - (q) Signed copy of partnership Deeds, if any.
 - (r) Check list in respect of Technical Specification.
 - (s) Check list in respect of General Compliance.
 - (s) The best practices and the standards that will be followed by the bidder.
 - (t) Methodology to be adopted for the project.
 - (u) Work plan with activities and their content and duration, milestones, the deliverables (including a PERT Chart for activities).
 - (v) Organization and staffing for this project.
 - (w) Quality and Competence of Staff to be deployed: A profile of each member of the team giving, basic qualifications, years of experience and details of experience, particularly experience in SAP / OA / MQLBA implementations. Experience in particular modules of SAP / OA / MQLBA are to be given for each member.
 - (aa) **Testimonials from at least two customers for whom a SAP / OA / MQLBA based project have been successfully completed.**
 - (ab) All other Schedules & Annexure provided in EoI document for submission.
12. Bidders shall quote for the whole system.

13. **SCOPE OF THE CONTRACT:**

The ERP system shall be implemented at NIFFT Computer Center for all the modules forming part of the scope. A Software Requirements Specification (SRS) is to be first prepared. **Appendix I** is a broad outline of the business processes and the components that need to be computerized. The chosen vendor will have to make a detailed study of the organizations by going through available documents and by interviewing employees to prepare the SRS. Further the Bidder/Vendor shall specify computing and networking needs and assist NIFFT in sizing the Hardware and communication for ERP implementation as part of the SRS. **Estimate of the man-months required for the rest of the project is to be done as part of the SRS (if this estimate is not adequately justified, and is thus not to the satisfaction of NIFFT, NIFFT reserves the right to terminate the contract at this stage and to continue the project with the next bidder in the merit list). The SRS will be followed by gap analysis indicating the gaps between the requirements and what the package software provides by default. Based on this gap analysis, the requirements have to be implemented on one of the packages viz., SAP or OA or MQLBA as offered. Other tasks will include testing, data entry and training.**

SRS: BROAD REQUIREMENTS

NIFFT is embarking on the installation of a comprehensive, integrated software system, to address the needs of all its major functions. Institute needs a common database which can be shared by all departments so as to bring down any redundancy of work as well as ensure better coordination and work-flow. Some of the prerequisites expected from the integrated software are:

- (a) Reduce paper work and manual filing and record keeping.
- (b) Web-based application hosted in the campus network with the capacity for future improvement and upgradation.
- (c) Faster and automatic customized report generation.
- (d) Availability of Real- time information at all levels.
- (e) Provides an effective Decision support system so that timely decisions can be taken.
- (f) Data consistency and highly secured system with flawless backup and restoration system.

NIFFT envisages the creation and establishment of an Information and Communication Technology (ICT) frame work for improving the efficiency of delivery of its services to all its stakeholders – the student community, the teaching faculty, the administrative staff and the general public at large. The project is intended to have a complete integrated Institute Management Solution. The Institute envisages improving the Information and Communication Technology Usage and improving the efficiency of delivery of services to the students at large. The proposed Institute Automation ERP solution is intended to be a complete integrated Institute Administration and Management System connecting all student centric services.

The Institute is inviting EoI for the deployment of a solution based on SAP / OA / MQLBA for the main portions of the application. The EoI is also for the supply of the necessary modules of SAP / OA / MQLBA and other related software (such as a Database Management System and Middle tier Server Software along with licenses thereof).

A Software Requirements Specification (SRS) is to be first prepared. **Appendix I** is a broad outline of the components that need to be computerized. The chosen vendor will have to make a detailed study of the Institute by going through available documents and by interviewing employees to prepare the SRS. The SRS will include a gap analysis indicating the gaps between the requirements and what the package software provides by default. Based on this SRS and gap analysis, the requirements have to be implemented on one of the packages SAP or OA or MQLBA. Other tasks will include testing, data migration, data entry and training.

Appendix I gives the details of the system, i.e., functional scope of all the sub-systems, to be implemented. For the purpose of evaluation, the number of licenses given below will be used. At the time of order, the number of licenses may change based on actual need. Bidders will therefore have to quote for the software assuming the following number of licenses: -

- (i) LICENSES UNDER ALL FUNCTIONAL ERP MODULES: **100**
- (ii) LICENSES UNDER SELF SERVICE: **100**
- (iii) PROVISION FUNCTIONALITY FOR STUDENTS: **1000**

All the ERP licenses supplied shall be unrestricted and fully functional. NIFFT shall exercise extent of AUTHORIZATION to be allowed to individual users. The users may be conveniently grouped by the Institute to exercise TRANSACTIONS on ERP System or takeout reports/views from different Sub Systems of the ERP or avail MIS/DSS support from ERP or such other appropriate classification. The ERP licenses at (i) above shall be general and not categorized under any module. Institute shall have right to conveniently distribute these licenses across the modules as per need.

REPORT GENERATION: A number of reports have to be created. The exact number and format of the reports will be determined by the bidder/vendor during the SRS stage.

TASKS:

- (A) Preparation of a Systems Requirements Specification (SRS) document based on a study of the processes of the Institute. The SRS should be prepared using industry standard practices based on models such as Use Cases. The actual methodology to be used is to be given in detail. For a SRS centered around Use Cases, the following must be included (in case a vendor wishes to propose an alternative technology, all details must be provided in the EoI. It is not acceptable to have a solution where there is no SRS preparation and the activity is combined with the gap analysis exercise). It is to be understood that the SRS is not for a bespoke implementation, but as a first step to understand the existing processes and to provide specific inputs to the gap analysis. Since the SRS will be based on end-user inputs, its preparation will help speed up the implementation: -
 - (i) High Level Description of the processes with categorisation.
 - (ii) Use Cases (both business and system use cases), with use case diagrams, templates, and other standard techniques.
 - (iii) Non-functional requirements (other than those listed below).
 - (iv) Format of all input screens (the required fields need to be identified).
 - (v) Formats of all Reports.
 - (vi) Security Architecture Specifications.
 - (vii) Hardware and networking requirements, including specifications of equipment, sizing, etc. Inputs provided here will correlate with the performance guarantees to be provided by the implementation.
 - (viii) Platform software requirements i.e. System Software, Development Platform(s), Database(s), etc.

(ix) Estimate of the man-months required for the rest of the project. (if this estimate is not adequately justified, and is thus not to the satisfaction of the Institute, the Institute reserves the right to terminate the contract at this stage and to continue the project with the next bidder in the merit list).

- (B) **Acceptance of the SRS**. This document shall form the basis of the creation of the gap analysis document and so its completeness will be important to ensure that there are no misunderstandings at the end of the implementation.
- (C) Submission of Gap Analysis Document, detailing for each Use Case in the SRS, gaps between the Use Case and the default features of the Application Package (SAP / OA / MQLBA Module) is a must. Also to be included is a “Business Mapping Report”. This may be a separate report or it may be part of the Gap Analysis document and for each gap, the proposed solution is to be given. While this will typically include configuration information or identification of programs to be written, it may also include suggested changes in business processes for cases where the Application Package cannot be configured to meet the existing processes.
- (D) Acceptance of the Gap Analysis Document after mutual discussion will identify the implementation goals and will form the basis for issuing completion certificates and concomitant payments.
- (E) Implementation of SAP / OA / MQLBA Modules as per the gap analysis document.
- (F) Testing.
- (G) Migration of Data available in current systems.
- (H) Entry of data, where not available electronically.
- (I) Training – The following set of training modules will have to be imparted: -
- (i) Pre-implementation training is to be given for all concerned so that the SRS preparation takes into account the ERP package to be used.
 - (ii) Separate training sessions for users will have to be conducted for different software modules for the concerned set of users in each case.
 - (iii) Administrators’ Training will include training for java / ABAP / other programming, configuration, installation, back-up, and all other required applications, DBA training.

In order to save time, configuration work should start as early as possible, particularly where the issues are clear.

VARIOUS COMPONENTS OF THE NIFFT SOFTWARE SYSTEM

The functional requirement of the Institute is as follows.

Admission Management

- (a) Online Registration - Prospective Students register for programs and uploading students' credentials based on which admission management process is triggered.
- (b) Merit List - Admission Category wise seats handling, custom rule-based short listing, counseling, documents verification and admission conformation at Institute level.
- (c) Entrance Exam- Handling online or offline entrance exams, generation of Admit Cards and generating merit list based on them or integration with JEE (Mains) / CCMT / CSAB merit list.
- (d) Admission Process - Collection of Fee, Assignment of UID, ID card generation at Institute level.
- (e) Admission Cancellation/Transfer- Handling admission cancellations and transfers of students.

Course Management

All the course prerequisite transactions shall be done by Course Coordinator before academic and examination section utilizes the system. The list of events to be executed by the Administrator is: -

- (a) Define courses conducted by the Institute under different categories viz. M. Tech, B. Tech, ADC, Ph. D.
- (b) Define course structure or scheme of examination for each of the courses under all the categories.
- (c) Define papers included under each of the courses.
- (d) Enter details of the papers such as its nomenclature, paper type like Theory or Practical etc.
- (e) Enter the marks details for each paper type which includes max, min marks for passing etc.
- (f) Define passing, gracing, exemption logic for each course separately. This shall also include various checks such as even and odd semester passing criteria for some of the courses, sports and grace marks etc.
- (g) Validation of student's eligibility for taking a particular course.

Any changes in the above listed events should be updated in the system by the administrator or primary user of a particular section in the following cases: -

- (a) Modification of existing course by introducing new subject / syllabus / paper. The administrator should be able to attach the new course structure to an existing course conducted by NIFFT keeping the old structure as valid and its applicability.
- (b) Multiple course structure attached to the same programme.
- (c) Changes in the pattern or duration of programme.

Examination Management

Set **Pre-Conduct** Procedure of examination. Check login credentials of Examination Section. if OK, allow access to system. Steps to set the process are: -

- (a) Selecting the panel of examiners as per the Institute Rules from the master panel.
- (b) Select examiners for paper setting, assessment, evaluation, revaluation, dissertation, practical etc., separately.
- (c) Generate seat numbers & print hall tickets, student register & other related reports.

Set **Post-Conduct** procedure of examination. Check login credentials of examination section. if OK, allow access to system. Steps to set the process are: -

- (a) Enter the marks from mark input form into the system.
- (b) Process the results. System should run the grading and logic engine implicitly to process the results.
- (c) The result format changes from course to course. System Administrator should be able to design/modify the format as and when required.
- (d) Prepare and print result register, marks card, passing certificates etc.
- (e) Provision for revaluation and verification.
- (f) Print Provisional degree certificates/ mark sheets as per the request.
- (g) Statistical record to be maintained.
- (h) List of ranker / topper and awarding for scholarships / medal as per the endowments.
- (i) Declaration of result through online by entering candidate's roll number/UID. It should have the provision to link with the Institute Intranet site and the Institute website.
- (j) Set of convocation procedure and Print convocation certificates for eligible candidates.

Student Portal (integrated to Institute Intranet site) [STUDENT INFORMATION SYSTEM]

- (a) Access through student UID & password.
- (b) Updation of personal information (Residential address, contact details, etc.).
- (c) Inbox facility.
- (d) Examination notification and time table.
- (e) Hall ticket information and hall ticket printing facility available on the portal.
- (f) View examination result and related analysis.
- (g) Convocation notification.
- (h) Request for duplicate documents.
- (i) Auto reply facility.
- (j) News on Institute Sports/ Extra-curricular/Other activities.

Library Management System (LMS) / Integration with KOHA

- (a) Accessibility of the librarian to the students' database.
- (b) Accessioning and coding using Dewey's Decimal Classification (DDC) standards.
- (c) Keep track of all issue, return of books, etc.
- (d) Keep track of fines, etc.
- (e) Generate alerts for new arrivals to users through the portal once new books have been entered.
- (f) Bar-code based library attendance system.

Institute Fee Management and Fee Accounting

- (a) Complete automation to fees Management process.
- (b) Create Institute fees structures, manage reminders to Institute authority, students, etc. and reports.
- (c) Fee collection and submission process and automatic accounting entry in the accounting system.
- (d) Late fee and fine calculations and management.
- (e) Provision for management of fee concessions.
- (f) Due fee reports, collected v/s due month on month fee report.
- (g) Auto Generation of Fee Receipts and duplicate receipts.

Automation of the Institute Financial Accounting

Presently Institute is using Tally Financial Accounting Package. The integrated software system should be integrated with all the financial transactions through Tally Financial Accounting Package.

Institute Materials Management / Inventory Management

Complete management of inventory including purchases & sales with work flow management. Various purchases are made by the Institute with regards to the consumable items, fixed asset items. The module should be able to generate dead stock register & number for fixed asset items. Its maintenance history is required to be maintained. Auto alerts to be generated once the stock of the consumable items reaches below reorder level. The system should generate the purchase order, up-to-date stock of items, etc.

Institute Payroll Management

Management of automated payroll should include processing of Salary Slips. Institute defined income and deductions heads (graded pay and fix pay structures to be handled). Rule based income tax and PF calculations and option for creating reports and formats. Income tax rule based rebates handling for employees.

Institute Human Recourses Management Modules

- (a) Recruitments -Handling employee recruitment process and personnel file management.
- (b) ***Leave and Attendance***: Leave management process with leave rules configuration, leave encashment, online leave approval Workflow.
- (c) Attendance tracking and management, integration options with Barcode, card based, and biometric based attendance systems
- (d) ***Employee Performance Management*** - "***Appraisals*** - Self / Superiors". Increments handling.
- (e) ***Resignations / Retirement***.
- (f) ***Employee Training and Development***.
- (g) ***Details of Pension, GPF and other terminal benefits like Gratuity, etc.***

Funded Project Monitoring

As the Institute's faculty members are allotted research projects by various Government of India agencies, this module should keep track of all the activities and its progress pertaining to a project. Time to time MIS report is required to be generated.

File & Notes Tracking System

The system should keep track of the movement of files. Automatic alert may be generated for the end users.

Assets & Estate Management

Institute is having wide variety of assets which require periodic maintenance. The system should prepare the maintenance schedule, expenditure incurred for the maintenance. Institute also develops its infrastructure by way of constructing new buildings, labs, etc. through the various funding agencies. The module should keep track of all the activities from the point of tendering to the time of completion of the project. Facility like **e-tendering**, work flow definition should form part of this module.

- (a) Addition of Fixed Assets
- (b) Value Addition to existing assets
- (c) Fixed Asset Register
- (d) Allocation/Reallocation of Fixed Assets
- (e) Asset Transfer
- (f) Asset AMC/Insurance Details
- (g) Depreciation Calculation
- (h) Declaration of Scrap/Sale/Auction

Hostel and Mess Management

The Institute has a number of hostels for boys as well as girls. This module should cover the automation of various hostel related activities viz. allotment of rooms, vacation, mess facility, payment of hostel fees, penalties, refund of caution money etc.

Guest House Management

This module should provide facility for on-line booking request, availability status, billing, etc. MIS reports like booking chart, duty allocation schedule etc. requires to be generated.

Transport & Fleet Management

System should help to keep track of scheduling of vehicles, routes, driver allotment, reservations, bookings and scheduling of all the official vehicles. System should keep track of vehicle log book, maintenance, insurance, etc.

Alumni

Module should help build online student alumni community and quality communication between the Institute and its alumni. Portal feature should have discussion forum, exchange, etc.

- (a) Maintaining the Alumni Database - Contact Details and Current Work Details
- (b) Mailing facility - Institute to Alumni, Alumni to Alumni & vice versa
- (c) Graffiti Wall
- (d) News / Event Forum
- (e) Search Engine

Student Activities /Events

This module should keep track of all the students who have participated under various activities like Cultural/NCC/NSS/Sports. System should be able to generate participation certificate and other related documents. This should also cater to various student welfare schemes like part time job allocation, etc. It should also facilitate in getting placement in various organisations, etc. for their projects, jobs etc.

Health Centre Module

A detailed medical history is to be maintained for each Institute student and employee. All medicine stock should be maintained including procurement, stocking, expiry dates and issue, health insurance, membership, etc. in this module. *This medicine stock can be a part of the Central inventory.*

Document Management Module

All the Institute documents viz. Service Books of the employees, exam results, minutes of the various meetings, circulars, orders, etc. are to maintained / managed for retrievals. This module can also be used for keeping track of receipt and dispatch of documents.