About the Institute

The National Institute of Industrial Engineering (NITIE) was established in 1963 under the aegis of the United Nations Development Programme and the International Labour Organization. Over the years it has emerged as a centre for managerial excellence by fostering industrial productivity and leadership. NITIE has emerged as one of the premier management institutions of India and has been conferred the coveted status of ‘Centre of Excellence’ along with such institutions as the IIMs and IISc, by the Ministry of HRD, India.

NITIE is dedicated to help Indian businesses make their presence felt globally. NITIE has decided to act as driving force not only in manufacturing sector but all dynamic sectors of the Indian economy. It has aligned its vision and activities in line with the current and future needs of the Indian economy and its vibrant and growing sectors.

Future orientation of the Institute will be based on education and research towards strengthening the knowledge base, development of businesses and industry, sustainable development of the region, supporting communities for their economic development, and integration into the global economy. The Institute has its own distinct profile in certain strong niche areas. It has strong linkage with private and public sectors, national research institutes, other academic institutions, universities, government organizations, and communities.

NITIE’s vision is- “To be the thought leader in Industrial Engineering education and research, and partner in the manufacturing renaissance of the nation.”

NITIE’s mission is- “To advance transformative education and industry-inspired research in Industrial Engineering.”

The institute conducts the following major programmes:

- Two-year Post-Graduate Diploma in Industrial Engineering (PGDIE)
- Two-year Post-Graduate Diploma in Industrial Management (PGDIM)
- Two-year Post-Graduate Diploma in Industrial Safety and Environmental Management (PGDISEM)
- Two-year Post-Graduate Diploma in Manufacturing Management (PGDMM)
- Two-year Post-Graduate Diploma in Project Management (PGDPM)
- One-year PGPEX-VLFM, Visionary Leaders for Manufacturing (VLFM), an executive program jointly conducted by NITIE Mumbai and IIT Delhi
- Fellow Programme (equivalent to Ph. D)

Coupled with the latest advances in computing technologies, NITIE feels that it is an opportune time to review its information systems, including the possibility of moving away from the current legacy systems to the use of commercially available system packages that are specialized for higher education.

NITIE is looking for well-established, best-of-breed solutions to implement Enterprise Resource Planning (ERP) system that includes Accounts and Finance, Academic Administration, Student Life Cycle.
Management, Hostel Management, Sponsored Research & Industrial Consulting (SRIC), Central Purchase and Stores, Inventory Management, Project Accounting for Estate Management (for construction projects initiated or in progress), Asset Management functions, Human Resource Management, Payroll and other associated business processes that are required for a higher education institution. This Request for proposal (RFP) is to seek information and proposals regarding such system packages with its associated implementation services as well as the detailed quotation for it.

**Need for ERP**

To meet the current challenges for sustaining competitiveness in the market as well as to move towards excellence in governance with less paperwork and enhance efficiency of the people and processes, there is a need for NITIE to undertake an ERP implementation. This exercise will enable NITIE to streamline and standardize processes across the organization and to adopt some of the global best practices being followed in organizations providing higher education.

Some of the key benefits/objectives envisaged are:

- Utilize the cloud architecture for solution that is aligned to the future.
- Single version of information to all the stakeholders from common database.
- Information available seamlessly and on-demand without manual intervention.
- Automate and Integrate NITIE activities and operational processes.
- Online consolidation of various business processes like accounts, administration and academic courses’ processes and few other business processes.
- Online reconciliations of various information (projects, financials etc.)
- Real Time and end-to-end visibility of information on multiple dimensions (projects, financials, inventory, customer, vendor database etc.) across the institute.
- Online Collaboration from scheduling to faculty feedback.
- Online availability of real time data to improve operational efficiency.
- Consolidation of data and availability of IS.
- Integration and sharing of data between operations, organizational entities by seamless user connectivity.
- Changeover from manual disparate legacy systems to multi-functional ERP.
- Maintenance of single accounting structure across the institute.
- Consolidation of financial statements of all departments / locations at a single point.
- To put requisite checks and balances in place.
- Streamlining and automating various HR functions/activities.
- Automate all HR and Payroll related activities on a centralized HR and Payroll database on a single application with a seamless integration.
- To facilitate e-learning for students.
- Ability to connect with the various digital processes of the government like digitization, digital records repository, etc.
The solution provider would, as part of the RFP, need to study the current processes and the needs of the various departments while proposing the integrated solution.

**Broad Scope of work**

**ERP Requirements**

NITIE plans to base its Finance and Accounts, Purchase and Stores, HR and Payroll, Academic Administration and a few other business processes on a packaged product developed for the Education sector in India. The software must comply with the Government of India (GOI) rules and regulations.

NITIE at present has Microsoft Office 365 implemented for various purposes like mailing & collaboration like Microsoft Teams, Microsoft SharePoint, etc. and also use the Microsoft Azure platform for various academic purposes. The institute has Office365 platform for its use. The platform proposed for ERP should integrate with Office365 accordingly with single sign on capabilities.

NITIE is looking for well-established, best-of-breed solutions to implement Enterprise Resource Planning (ERP) system that includes Accounts and Finance, Academic Administration, Student Life Cycle Management, Hostel Management, Sponsored Research & Industrial Consulting (SRIC), Central Purchase and Stores, Inventory Management, Project Accounting for Estate Management (for construction projects initiated or in progress), Asset Management functions, Human Resource Management, Payroll and other associated business processes that are required for a higher education institution. The solution proposed to be cloud based on Azure with high availability (99.9% uptime) and SLA defined in the subsequent sections.

**Business Processes at NITIE**

The business processes are categorized as: Accounts and Finance, Project Accounting for Estate Management (For construction projects initiated or in progress), Academics Management, Research & Consultancy (SRIC – Sponsored Research and Industrial Consulting) and Administration covering Human Resources Management, Hostels, Purchase & Stores (CPSC – Central Purchase and Stores).

An indicative list of sub-processes involved in the various programs at NITIE that require implementation are as follows-

1. Admission Process
2. Registration
3. Faculty Allocation
4. Class Schedule
5. Module Registration
6. Time-Table Scheduling
7. Examination Scheduling
8. Grade Card Generation
9. Summer Project Evaluation
10. Faculty Feedback
11. Degree Certificate Generation
12. Interactive Portals for constituents such as student and Faculty.

Other administrative activities include:

1. Hostel Allocation
2. Student Assistantship
3. Bona fide Letter Generation
4. Provisional Certificate Generation

The Solution provider will be required to conduct a detailed process study of all the above activities and prepare high level and detailed flowcharts and get it approved from NITIE before proceeding with design and implementation of ERP.

**Finance and Accounts**

The focus is on creating an integrated system for various accounts of NITIE and their management for easier and better accountability. A fully integrated, online, real-time Financial Management System should be implemented. It should be designed with the best practice financial process workflow in an educational environment, capable of supporting the best-of-breed functionalities and common financial operation practices and come up with integrated modules for general ledger, budgetary management and control, accounts receivable, accounts payable, purchasing and receiving, cash flow management and fixed asset management, etc.

The system should also be fully integrated with other modules such as Project Accounting for Estate Management (For construction projects initiated or in progress), Asset Maintenance, Academics Management, Research & Consultancy (SRIC – Sponsored Research and Industrial Consulting) and Administration covering Human Resources Management, Hostels, and Purchase & Stores (CPSC – Central Purchase and Stores).
The above account processes are only an indicative list that need to be implemented into the system and are liable to change. The major expected functions of the Financial System are as follows:

**General Ledger**
• A robust, multi-currency, multi-book, and multi-period general ledger engine
• A flexible structure for chart of accounts with ability to define/add/remove accounting segments for varying accounting needs,
• Definable grouping of accounts in the form of family trees (flexible parent-child relationships) or equivalent,
• Ability to associate and group accounts into a variety of categories for reporting/extraction/analysis and budgetary control
• Support for activity based costing
• Real-time preparation, validation, and posting of a variety of accounting and budgetary transactions while maintaining best practice accounting control
• Provision of standard, and ability to support ad-hoc, financial reporting
• Best practice month end and year end processing capabilities
• Strong integration with, and serving as central financial repository of, all other finance related modules such as budgetary management, payable, receivable, payroll, funds accounting, student billing, etc.
• Recurring journal functions
• Consolidation and inter-business unit accounts handling
• Receivables
  o Record and track incomes/receivables from various sources
  o Asset charges and generate billing, reminders, etc.
  o Support and handle various forms of payments
• Manage cash flows
• Payable and Payment
• Identification of payees and associated information for validation and pay processing
• Capture the various forms of demands of payment (e.g. invoices from vendors, claims for reimbursement)
• Automatic verification and matching of invoices against required purchase orders and goods received
• Setup and maintenance of schedules for payment of payables of recurring nature and auto-generation of such payments against pre-definable dates
• Generation of payments and corresponding financial transactions (including the realization of commitments as actual expenses)
• Automatic period-end accrual accounting
• On-line access to status/progress of payable/payment processing with a variety of selection criteria
• Strong integration with general ledger and other finance related modules
• Student Programs
  o The system should facilitate Student Program wise accounting of activities relating to fee collections, admissions and placements
  o The system should facilitate multiple fee structures (e.g. Fees for usage of facilities, mess billing, etc.)
- The System should facilitate multiple modes of fee collection (e.g. by check, bank transfers etc.)
- The System should facilitate waiver of fees to certain type of students, scholarships, etc.
- The System should facilitate monitoring fee collection student wise
- The System should facilitate the accounting of revenue for fixed charges as and when collected and provide for variable charges to be collected accordingly
- The System should facilitate the collection of caution deposits from students
- The System should facilitate analysis of budgeted expenditure v/s actual for the student programs.

- Considering the digitization transitions, the accounting and finance module should be able to integrate with any other payment solutions, including UPI, NEFT, be ready for a pull based transaction system amongst others.

- Account Reporting
  - Reports in customized format as required by the institute

**Administration**

The figure below lists the major processes in administration. This is a combination of human resource needs and institute policy implementation. The list provided here is indicative.
Academics
The broad scope of activities done in the academics domain is presented below. The list provided here is indicative. Where applicable, student lifecycle management over existing office 365 platform and solutions are to be integrated.

<table>
<thead>
<tr>
<th>A. PG Programme</th>
<th>B. Fellow Programme</th>
<th>C. Administrative</th>
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<tbody>
<tr>
<td>A.2. Registration</td>
<td>B.2. Registration</td>
<td>C.2. Bonafide Letter</td>
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<tr>
<td>A.3. Faculty Allocation</td>
<td>B.3. Time Table Scheduling</td>
<td>C.3. Provisional Certificate</td>
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<td>A.4. Class Schedule</td>
<td>B.4. Examination</td>
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<tr>
<td>A.5. Module Registration</td>
<td>B.5. Scholarship</td>
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<tr>
<td>A.6. Time Table Scheduling</td>
<td>B.6. Literature Review</td>
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<td>A.7. Examination</td>
<td>B.7. Pre-Registration</td>
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<tr>
<td>A.8. Grade Card</td>
<td>B.8. Credit Seminar</td>
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<td>A.10. Faculty Feedback</td>
<td>B.10. Synopsis</td>
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Scope of work
The scope of work for solution provider is broadly enumerated below. However, certain service though not mentioned here but are essential as determined by NITIE for success of the ERP implementation across the NITIE campus shall be deemed to be included in the SOLUTION PROVIDER scope without additional price and time period.

The scope of work includes

- Understanding of NITIE’s various Processes
- Scoping, Supply and installation of the ERP licenses of required modules
- Proposing a phase wise implementation plan for all the functions, detailing of co-existence strategies, configuration and realization of the standard application
- Implementing and customizing to meet the functional requirements
- Development of interfaces/ integration with, if any, with the legacy systems, testing, data migration/ porting
• Technical support and end user training
• Final preparation and “Go-Live”
• Post “Go Live” support, documentation, project management and monitoring.

The solution provider will be required to ensure designing, configuring, testing, implementing and managing service of all the functionalities/processes/modules that are required to be implemented are done correctly. The scope of work also includes program management, change management, process improvement, quality review, solution assurance services and other services as detailed in this document. The solution provider is required to critically review the purpose of implementation and shall ensure inclusion of all other essential services (not mentioned specifically) for achieving the objective within the time frame for successful implementation.

The solution provider would act on behalf of NITIE and be responsible for its acts and omissions at all times. The solution provider should help NITIE to assess their IT needs categorically and in implementing ERP in the most compatible, reliable and robust way.

**Request for Proposal**

This “Request for proposal” is for Design, Development, Configuration & implementation of Cloud based Enterprise Resource Planning System for NITIE. Solution providers are requested to submit the detailed proposal on or before 26TH March, 2018 by 15:00 hrs.

**Submission of Proposals**

The proposals duly completed as per the instructions given in this document shall be submitted to the following address on or before the last date of proposal submission.

Manager – Computer Centre
NITIE (National Institute of Industrial Engineering),
Vihar Lake Marg, Near the Residence Hotel, Powai,
Mumbai – 400 087
Phone: (022) 2803 5274
Email: anandnaidu@nitie.ac.in