



इंटरनेशनल एडवांस्ड रिसर्च सेंटर फॉर पाउडर मेटलर्जी एंड न्यू मटेरियल्स) एआरसीआई,

बालापुरपीओ हैदराबाद 005 500

INTERNATIONAL ADVANCED RESEARCH CENTRE FOR
POWDER METALLURGY AND NEW MATERIALS (ARCI), BALAPUR P.O
HYDERABAD 500 005



संयुक्त राष्ट्र
ONE EARTH - ONE FAMILY - ONE FUTURE

EoI Reference No. SC20220093/PO

Date:14.12.2022

Expression of Interest (EoI) for Implementation of Web-based Enterprise Resource Planning (ERP) Solution for ARCI

EoI Documents	:	Documents can be downloaded from www.arci.res.in www.eprocure.gov.in
Submission of the EoI	:	As per EoI document
Date of Publication of EoI Notice	:	14/12/2022
Last Date for visiting of Site (ARCI Hyderabad) by the Bidder	:	23/12/2022 1500hrs
Clarifications to be sought by the bidder on or before	:	27/12/2022 1630hrs
Bid submission start date and time	:	30/12/2022 0900 Hrs
EoI submission end date and time	:	06/01/2023 1530hrs
Opening of EoI	:	09/01/2023 at 1100 Hrs
For any enquiry	:	Tel : +91-40-24452578, 579, 343 Fax No. +91-40-24452699 email : For Technical: naresh@arci.res.in For Non-Technical: stores@arci.res.in



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Expression of Interest

Introduction: -

International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) is an Autonomous Research and Development Centre of Department of Science and Technology (DST), Government of India with main campus at Balapur, Hyderabad and with operations in Chennai and Gurugram.

This current document published by ARCI is to invite Expression of Interest (EoI) to solicit and examine the response of the eligible IT service organizations that are registered in India to achieve operational efficiency in a paperless, and quick and effective manner, with transparency and accountability by automating ARCI's operations by implementing an Enterprise Resource Planning (ERP) Solution as per the rules of Govt. of India and those of the Organization.

It is preferred that only interested and eligible service providers, who fulfil the given qualification criteria to apply for the EoI in the prescribed format. The current document is therefore to explore the response from the prospective bidders.

The timelines and the requirement mentioned in this document are subject to change and shall be firmed up while the Technical and Commercial bids are called for by ARCI at a later date.

Final specifications, Terms and Conditions of the contract shall be made after going through the responses and comments of the respondents. However, it may please be noted that the decision of ARCI shall be final while addressing the issues raised by respondents, in response to this document.

Invitation for Bids shall be called for after the specifications are finalized by ARCI. ARCI may change any or all of the Specifications, Terms and Conditions in the Final document from the specified specifications and Terms and conditions of the current EoI. The revised set of conditions and specifications shall then be a part of final invitation for Bids document that will be published at the time of calling for Bids.

ARCI reserves the right to summarily reject any or all of the offers received in response to this Expression of Interest without assigning any reason thereof.



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समृद्धि कुटुम्बकम्
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NOTICE FOR INVITING OPEN E-TENDER

International Advanced Research Centre for Powder Metallurgy and New Materials (henceforth referred to as ARCI) is an Autonomous Research and Development Centre of Department of Science and Technology (DST), Government of India with main campus at Hyderabad and with operations in Chennai and Gurugram.

Scope of Work: Expression of Interest (EoI) for Implementation of Web-based Enterprise Resource Planning (ERP) Solution for ARCI.

You are invited to submit your most competitive online quotation through CPP Portal (Central Public Procurement Portal) website <https://eprocure.gov.in> on or before the prescribed due date. Manual bids shall not be accepted except for the original documents, if any mentioned in this tender.

Tender Enquiry No: (Case No.) SC20220093/PO dt: 14.12.2022.

- Item/ Services to be provided at:

International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur Post, Hyderabad – 500 005, Telangana, India.

- **Estimated Delivery period: 06 months from date of Purchase Order.**

Validity of Bid: Quotation should have minimum validity of **90 days** from the date of opening.

Last date for submission: 06.01.2023 before 15:30 Hrs.

The bidders are required to submit soft copies of their bids electronically on the CPP Portal before the last date stated above using valid Digital Signature Certificates.

All the tenders, in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected.

“NO REQUEST FOR CLARIFICATION OR QUERY SHALL BE NORMALLY ENTERTAINED AFTER THE CLARIFICATIONS END DATE” Should ARCI deem it necessary to amend the bidding documents as a result of a clarification, it shall do so by hosting the clarifications and amendments on the website of ARCI/CPP Portal only for the benefit of other prospective bidders. Hence, prospective bidders are requested to follow the websites regularly.

DISQUALIFICATION OF TENDERS:

The tenders are liable for rejection in the following circumstances:

- If they are not in line with the terms and conditions of this tender notice.
- Conditional quotations
- Incomplete/Unsigned tenders.
- Tenders submitted through Fax or e-mail.

Director, ARCI reserves the right to accept or reject any or all tenders either in part or in full or to split the order without assigning any reasons there for.

The original hard copies of EoI bid documents along with supporting documents, etc., should be submitted on or before the due date to the following address:

**International Advanced Research Centre for Powder Metallurgy and New Materials,
Balapur Post, Hyderabad – 500 005, Telangana**

IMPORTANT NOTE: Amendment, Corrigendum if any to this tender document, WILL BE HOSTED ONLY IN ARCI WEBSITE and CPP Portal and no separate Press Notification will be issued. Bidders are advised to visit our website and CPP Portal regularly to know such details.

Director, ARCI, Hyderabad

SPECIAL INSTRUCTIONS FOR ONLINE BID SUBMISSION:

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal fore-Procurement are at <https://eprocure.gov.in/eprocure/app>. The bidders must carefully follow the instructions.

- Possession of valid Digital Signature Certificate (DSC) and enrolment/registration of the contractors/bidders on the e-procurement/e-tender portal is a prerequisite for e-tendering.
- Bidder should do the enrolment in the e-Procurement site using the "Click here to Enroll" option available on the home page. Portal enrolment is generally free of charge. During enrolment/registration, the bidders should provide the correct/true information including valid e-mail-id. All the correspondence shall be made directly with the contractors/bidders through e-mail-id provided.
- Bidder need to login to the site through their user ID/ password chosen during enrolment/registration.
- Then the Digital Signature Certificate (Class III Certificates with signing key usage) issued by NIC/SIFY/TCS/nCode/eMudra or any Certifying Authority recognized by CCA India on e-Token / Smart Card, should be registered.
- The DSC that is registered only should be used by the bidder and should ensure safety of the same.
- Contractor / Bidder may go through the tenders published on the site and download the required tender documents/ Annexures for the tenders he/she is interested.
- After downloading / getting the tender document/ Annexures/ Appendices, the Bidder should go through them carefully and then submit the documents as asked, otherwise bid will be rejected.
- If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account the corrigendum / addendum published before submitting the bids online.
- Bidder then logs in to the site through the secured log in by giving the user id/ password chosen during enrolment/registration and then by giving the password of the e-Token/ Smart Card to access DSC.
- Bidder selects the tender which he/she is interested in by using the search option & then moves it to the 'my tenders' folder.
- From my tender folder, he selects the tender to view all the details indicated.
- It is construed that the bidder has read all the terms and conditions before submitting their offer. Bidder should go through the tender Annexures and appendices carefully and upload the documents as called for; otherwise, the bid will be rejected.
- Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ Annexure and generally, they can be in PDF/xls/rar/zip/dwf formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. Each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same can be uploaded, if permitted. Bidders Bid documents may be scanned with 100 dpi with black and white option. However if the file size is less than 1 MB the transaction uploading time will be very fast.
- Bidder should take into account the corrigendum / addendum published from time to time before submitting the online bids.

- The Bidders can update well in advance, the documents such as certificates, annual report details etc., under My Space option and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
- While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
- The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the bid document including General conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.
- The bidder has to upload the relevant files required as indicated in the covered content. In case of any irrelevant files, the bid will be rejected.
- The bidders are requested to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.
- After the bid submission (i.e after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number, given by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and will also act as an entry pass to participate in the bid opening date.
- The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening.
- Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers. The confidentiality of the bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.
- The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- For any queries regarding e-tendering process, the bidders are requested to contact as provided in the tender document. For any further queries, the bidders are asked to contact over phone as mentioned in the CPP website or send an email to - cphp-nic@nic.in.

Scope of work / Requirement Schedule

*** Scope is only indicative at this point of time.**

ARCI is looking for Off-the-Shelf or low-code or no-code platform-based ERP product implemented with industry's best practices, which has to be customized as per the requirements of ARCI.

The bidder may interact with the concerned groups of ARCI to study the existing systems, expectations of the Users from new system and perform gap analysis to articulate how many requirements are readily available and how many are to be customized/adapted/discarded in the proposed solution.

ARCI presently using a two-tier architecture based in-house developed ERP applications, which were developed using SAP Adaptive Server Enterprise Small Business Edition (Database) and Appeon PowerBuilder (Front-End) and are being used since 1997-98. The bidder should study the existing applications, database design and propose a detailed plan for migrating existing data into the proposed solution.

The bidder should specify design of the proposed solution, which includes

- Functional architecture
- Technical architecture
 - application layer
 - data access objects layer
 - database layer etc.
- Security architecture
 - authentication and authorization
 - data/information security
- Scalability and performance

The bidder should study existing IT infrastructure and provide the Network & Server deployment architecture for the proposed solution along with relevant diagrams.

The bidder should provide a detailed implementation plan containing all the schedules and milestones, which includes Project Preparation, Business Design / Blueprint, Deployment, Configuration / Customization / Development, Testing and Go-Live of Beta Version of ERP system, Data Migration, Training, Documentation, Go-Live of Stable Version of ERP system, Warranty Support, Application Maintenance & Enhancement Services (AMES) Support for 8 Years.

The Delivery period for implementation of the proposed system with all the modules and GO-LIVE should be within six months from the date of contract/purchase order. The Warranty, Application Maintenance & Enhancement Services (AMES) Support begins from the date of GO-LIVE.

1. The General features:

The General features required in the proposed ERP System for ARCI:

- ERP system should be hosted in the in-house datacenter of ARCI. However, the application should support hosting in public/private cloud platform.
- Secure web-based access using https.
- Supporting biometric, internet banking, and smart card inputs.
- Interfacing with third-party payment gateways.
- Configurability through web-interface or client interface.
- Provision for decision support mechanism.
- Facilitate paperless working.
- Dynamic Workflow based process approval.
- Digital signatures for selected high level functionaries and e-Sign for other officials.
- Comprehensive data and application security features.
- Adequate security provisions for preventing tampering of the software as well as data.
- Archival of information and data.
- Audit logs of user sessions and audit trail.
- Provision to define and view rules & regulations of the Organization as per applicable GoI / ARCI norms.
- Provision for role-based and data item based access rights.
- Provision of interactive validations of data entries.
- Provision for dynamic reports generation as per requirements.
- Capability for continuous improvement and upgradation.

2. Number of Users:

The Design of the System should support operation by at least 500 Users and handle up to 2000 Users in future.

As per the requirement, Module-wise no. of Users may be identified and proposed accordingly.

3. Technical Requirements and Scope:

- The bidder should include all software product/s licenses including database, operating system, and associated solution components within the BID.
- The bidder should study the existing infrastructure of ARCI and should propose any Hardware /Network/Security Infrastructure required for ERP considering a detailed backup strategy, Disaster recovery, storage recovery.
- The system should be modular in nature.
- Should have Single Sign on (SSO) facility with secured operations such as two-factor authentication etc.
- A role-based access control (RBAC) has to be set up with the right roles and responsibilities identified and outlined.
- The user interface (UI) must follow principles of responsive design to cater to devices of all form factors (laptop/desktop/tablet/mobile).
- The solution should support e-mail and AD/LDAP integration

- Provide System Administration and Maintenance procedures and documentation
- The database character set should be UNICODE to support English, Hindi and local languages of India.
- The database must allow for fine-grained audit control i.e., it should allow auditing the most granular level data access and user actions.
- The bidder must ensure Data migration from legacy systems.
- The proposed solution should support integration with the existing systems such as Canteen Management System, Attendance System, Messaging System, etc., or may propose alternate system which is to be integrated seamlessly with the proposed ERP system.

4. Functional Requirements Specifications (FRS):

The bidder should study and implement all the existing/required process of

- I) Project Lifecycle Management System
- II) Administration and Human Resources Management System
- III) Stores, Purchases and Inventory Management System
- IV) Finance, Accounts & Payroll System
- V) Library Information System
- VI) Security System
- VII) Utilization of Equipment System.
- VIII) International Cooperation System

The processes mentioned are as per the internal study carried out and are indicative only. At the time of implementation, the bidder shall be required to improvise the same and may also have to add some related modules for automating activities of all the Centres at ARCI.

Apart from the above, future requirements such as Students Admissions, Examinations, Students Portal, other academic requirements and all such requirements as and when needed may be able to add-on, customize and integrate with the proposed ERP system at a later date.

I. Project Lifecycle Management System (Core Module)

Sub Module: Technology Marketing

It is mandatory to maintain the details of the prospective companies in the system for future communications. The companies are identified based on their area of interest, core business and their turn-over. It is further categorized as High Potential / Medium Potential / Low Potential companies for marketing.

Input	<p>Company Details: Details like Company Name, Sector, Potential, Address, Phone No, Key Person, Email ID, and Turnover Patent Count. The companies will be contacted based on their area of interest. A company can have multiple areas of interest. Hence these are to be recorded individually.</p> <p>Technology Master: Details of the available technologies and their categories have to be recorded. Based on the area of interest of the company, the technology information can be shared in a predefined format (preferably by email).</p>
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Process	Interaction Progress: Progress of the interactions with the customer is to be recorded to decide the potential of the company in doing business with ARCI.
Output	Search mechanism to be provided for finding company / Technology with the relevant fields. Reports to be made Sector wise / Turnover wise / patent Count Wise / Area of Interest wise

Sub Module: Contract Agreement

To utilize the technology developed by ARCI, various companies will tie-up through a contract Agreement.

The Contract Agreement includes the following

1. Non – Disclosure Agreement (NDA)

2. Implementation Agreement

Input	<p>Non – Disclosure Agreement: This document is highly confidential and it will be signed by both the parties (ARCI and the Company) to comply with the Terms & Conditions. The following information needs to be captured into the system</p> <ul style="list-style-type: none"> i) Company Name ii) Company Address iii) Contact Person Details iv) Company Area of Interest v) Agreement Start Date vi) Agreement Expiry Date vii) Status viii) NDA Extension Status(Yes or No) ix) NDA Extension Date x) Implement Agreement Signed Status (Yes or No) xi) Remarks xii) User ID xiii) Time Stamp xiv) IP Address <p>Implementation Agreement: There are different types of agreements with the Companies as follows,</p> <ul style="list-style-type: none"> i) Technology Transfer Agreement. ii) Technology Development and Demonstration and Transfer Agreement iii) Technology Demonstration iv) Co-operative Research and Development Agreement v) Sponsored Research Agreement vi) Joint Development Agreement vii) Service Agreement, viii) Contract Research Agreement
Process	Any advance payments/payments during the agreement stages to be captured
Output	Search mechanism/reports to be provided for finding agreements with the relevant fields.

Sub Module: Project Management System

There are various types of projects under taken by ARCI.

1. Technology Transfer Projects (Option agreements, tech/know-how development, demo, transfer, work order) (all Intellectual Property Development Indices (IPDIs)/ Technology Readiness Level (TRL) levels)
2. Contract Research Projects (upto IPDI-5)
3. Collaborative/Co-operative Projects (multi party projects) (upto IPDI-5)
4. Sponsored (Extramural Projects) (Funded by Govt. agencies)
5. In-house projects (Managed/Monitored by respective Centres only)

Input	Each Project has Project Investigator (PI) and Co-PI, and members. Project details such as project sanction details, funding body, collaborators should be captured. The technical/scientific progress, industry potential, IPDI level, plan of action of the project are to be recorded once in a defined period.
Process	Projects with Agreements: The Project is divided into different Milestones with timelines. The defined Milestones which are divided further into Activities that are assigned to concern team members. The team members should have the facility to update the activity details towards the Milestones from time to time. Sanctioned Projects : The team members should have the facility to update the activity details towards the Milestones from time to time. Common points for all types: Financial transactions are to be captured and updated from time to time. Patents, Publications related to project to be captured. Options to upload/download Sanction Orders, Statement of Expenditures (SE)/Utilization Certificate(UC) etc. PI should be able to upload Project Proposal Document and Costing Document System should alert the PI for end date of milestone.
Output	Search mechanism to be provided for finding of projects with the relevant fields. Various reports including SE/UC are to be generated. Project-wise status, funding body-wise reports, technical status, financial status, Real time SE/Ucs of the Projects etc List of agreements Type of agreements with year wise

Sub Module: Post Technology Transfer Activities

Input	After transferring the technology, it is required to follow up the payment of the royalty and technology fee as per agreement. Based on the Agreements the technology receivers should pay royalty for the years that are mentioned in the agreements.
Process	For Verification Purpose, Company should provide their Balance Sheet to ARCI.

	The Payment Paid / Pending from the Companies should be intimated to Centre for Technology Acquisition and Transfer (CTAT) Team to follow up.
Output	Search mechanism to be provided for finding of activities with the relevant fields.

Sub Module: Costing

Project Approximate Cost estimation to be recorded in the system with work-flow of approvals. After the costing approval, invoice is generated through the system but no information is available with the costing user. The Costing prepared for the services or for Technology Transfer will be presented before core Committee which will decide the final Costing.

The following are the Services for which CTAT Team will do the costing.

- 1) Technology
- 2) Technology Transfer for Sponsored R & D Projects
- 3) Development
- 4) Job Works
- 5) Industry Sponsors
- 6) Govt. Sponsors
- 7) Services & Equipment.

Input	Preparation of Project Approximate Cost estimation Integration with PMS
Process	Invoice generation, costing workflow and approvals.
Output	Search mechanism to be provided for finding of costings with the relevant fields.

Sub Module: Patent Docketing

Maintaining ARCI patents life cycle.

Input	<p>A. Invention Disclosure Form (IDF) and IP analysis request forms : Scientist should be able to send it to CTAT for taking up the task of patent analysis</p> <p>B. Form for Committee Approval for patent filing and process flow</p> <p>C. There are multiple stages in the life cycle and each stage has a timeline.</p> <p>Patent application filing (Complete Specification (CS), Provisional Specifications (PS)): date of application, name of inventors, applicant, assignee, filed at country (India/US/etc.), documents/forms, publication,</p> <p>Examination (1st, 2nd, and so on),</p> <p>Hearing(date, receiving letter, etc)</p> <p>Grant/reject.</p> <p>Grant No, Grant date, life cycle period, letter of grant</p> <p>Maintenance</p> <p>Approval process for renewals, renewals for 20 years, filing form-27</p> <p>Drop with reason during the process</p> <p>In addition to above, International Patents will have following additional stages,</p>
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	<p>Modes : Patent Cooperation Treaty (PCT), Convention application</p> <p>Dates, timelines, list of countries, International Search Report(ISR), International Preliminary Examination Authority (IPEA), National phase, date of National phase, date of international application, request for examination, First Examination Report(FER), hearing, grant/reject</p>
Process	<p>Each of the above stages is a time-bound process. Alerts to be generated based on pre-defined timelines prior to the end of each stage.</p> <p>It should be integrated with Finance System.</p> <p>Patents coming out of Projects should be integrated.</p> <p>Patent agent handling the case at each stage, Professional charges paid/reimbursement charges/expenditures should be captured, approval for payment for linking to Finance system for payments and payment status.</p>
Output	<p>Various reports based on projects should list out respective patents.</p> <p>Reports should be generated for any combination of the above fields.</p> <p>Year-wise / applicant wise / stage-wise/ inventor wise/ project wise/ centre wise</p> <p>Process flow for A, B and C</p>

II. Administration and Human Resource (Core module)

Sub Module: Manpower Requirement

Input	Manpower requirement form with approvals 1. Project Staff, Research PDF, SRF, JRF, PGTP, GTP, Project Students, Summer Interns etc. 2. Outsourced staff 3. Regular staff 4. Deputation
Process	Uploading documents for requirements/justification Approval for manpower
Output	Should generate dynamic reports
Work-flow	USER > HEAD > AD > HR In-charge > OSD > DIRECTOR > HR Asst.
Interface	Based on the type of staff , work-flow to be defined.

Sub Module: Recruitment

Input	Recruitment process for Project Staff, Research PDF, SRF, JRF, PGTP, GTP, Project Students, Summer Interns, Outsourced staff and Regular staff / Deputation is as follows 1. Masters for Advertisement, Posts, Projects, Qualifications, Reservations, Subject Groups, Universities 2. Publishing Advertisements 3. Online Application 4. Scrutiny by HRD 5. Formation of Scrutiny Committee & Approvals 6. Shortlist by Committee 7. Final shortlist 8. Generate Call Letters for Written Test/Interviews 9. Process for Written Test/Approvals 10. Update Written Test Results / Approvals 11. Formation of Interview Panel 12. Process Interviews
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	<p>13. Call letter Processing</p> <p>Recruitment for other posts such as Consultants/Contract/Inspire faculty/Women Scientist/ TARE / Faculty Internship staff without advertisement</p> <ol style="list-style-type: none"> 1. Entry of posts 2. Selection Process 3. Communications
Process	<ul style="list-style-type: none"> · Uploading documents (pdf, word, excel) · Taking input data (based on the parameters) to sort out the applicants' information – preliminary shortlisting of the applicants · Able to provide privileges to the committee members/Experts to view and give their remarks
Output	<ul style="list-style-type: none"> · Should generate and download the reports (applicants data in pdf, excel and word formats) · Scrutiny Summary · Publish the Results · Issue of Offer letters
Interface	<p>Director, Members of Scrutiny Committee, Members of Interview Panel, HRD In-charge</p> <p>Director, HRD In-charge have the privilege to restrict the access to the above members at different levels</p>
Workflow Management	<p>Advertisement -> receipt of the applications -> generation of sheets -> formation of committee(s) -> assessment of applications by the committee -> publishing shortlist of the candidates -> mail communication to the candidates (call letter) -> access of application data to the Interview Panel -> data entry -> publishing results -> mail communication to the candidate (offer of appointment)</p>

Sub Module: Joining Formalities

Input	<p>For Staff and Others</p> <ol style="list-style-type: none"> 1. Relieving order from the Previous employer 2. Last Pay Certificate from the Previous employer 3. Experience Certificate from the Previous employer 4. Medical fitness certificate 5. Joining report 6. Orientation 7. Centre allotment 8. Forms of Character and Antecedent verification 9. Hometown declaration 10. Details for email creation 11. Details for ID Card/Biometric registration 12. Details for Medical card 13. Eligible facilities such as Room, Furniture, UPS, Desktop, Laptop, Printer, Internet access, etc. 14. EPF/NPS registration 15. Group Insurance (two types) <p>The module should also cover joining formalities for Students/Project Staff, Medical Insurance and Deputed staff.</p>
Process	<ul style="list-style-type: none"> · Uploading documents/Images · Data Entry · Sending requests to other department(s) · Pay fixation · Obtaining approvals from the authorities
Output	<ul style="list-style-type: none"> · Issue of Joining Order · Creation of email id · Issue of ID Card · Issue of Medical Card · Issue of Other facilities
Interface	<p>For pay fixation and Joining Order</p> <p>For Room - HR section & Civil In-charge</p> <p>For Furniture - HR section & Furniture In-charge</p> <p>For creation of email ID, provision of Desktop, Laptop, Printer, Internet access - HR section & CITS</p>

	<p>For issue of ID Card - HR Section & Security office</p> <p>Issue of Medical Card - HR section & Admin Section</p> <p>For all the processes,</p> <p>HRD -> Finance -> OSD -> Director -> Concerned Dept.</p>
Workflow Management	<p>Uploading documents -> Entry of Details -> generate notes for approval -> generate Joining orders for issuance, creation of email-id and other facilities, generate ID card for printing, generate Medical card for printing</p>

Sub Module: General Services

Input	<ol style="list-style-type: none"> 1. Service Book 2. Family declaration 3. Profile Management 4. Basic pay and DNI 5. Character & Antecedents verification reports 6. Caste verification reports 7. Annual increment processing 8. PRAN details 9. ACR for Staff 10. ACR for Non-Employees 11. Promotions <ul style="list-style-type: none"> • Committee Formation, Shortlist, Interview Call Letters, Interview Panel, Promotion 12. Probation clearance 13. Personal Foreign Trips 14. Transfers 15. Circulars/IONS/OOs/OMs 16. Committees Formation & Management 17. Medical record/data of each employee who visits MI room. It shall cover his medical history and year details/results of Annual Medical Checkups.
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Process	<ul style="list-style-type: none"> · Uploading documents · Updating the details (Data Entry) · Uploading images · Generating notes for approval · Sending requests to other department(s) · Obtaining approvals from the authorities
Output	<ul style="list-style-type: none"> · Generate Profile of the Employee · Generate orders of annual increments and communication to the concerned section(s) under intimation to the individual · Generation of ACR forms · Generation of reports with the details of receipt of C&A and Caste verification reports for probation clearance · Issue of Orders
Interface	<p>For Annual increments, HR Asst. >>HR In-charge > OSD >> DIR>> Finance</p> <p>For ACR, Staff >>RO >>HEAD >> AD >> DIR >> In-charge (ACR)</p> <p>For ACR (Others) Probation clearance (Staff) HR Asst. >>HR In-charge > OSD</p> <p>For extension of Probation, final approving authority is Director</p>
Workflow Management	<p>Uploading documents -> Entry of Details -> generate notes for approval ->obtaining approval from the competent authority(ies)-> generate orders for issue</p>

Sub Module: Employee self-services

Input	<p>For Employees</p> <ol style="list-style-type: none"> 1. Biometric Attendance System for all 2. Monthly work reports 3. Holiday list management 4. Leave Management (Regular Staff) <ul style="list-style-type: none"> • CL • EL • HPL • RH • Maternity Leave • Paternity Leave • Child Care Leave • Extraordinary Leave • Leave Not Due • Study Leave 5. Leave Management (Other Staff) 6. Joining Report 7. HRA processing 8. Placement/Absorption/Movement/Promotions 9. LTC application & settlement 10. Loans/Advance processing <ul style="list-style-type: none"> • Computers/HBA/etc 11. Medical Bills (OP/IP/Hospital) 12. Telephone/Mobile/Broadband Bills 13. Children Education Allowance 14. Income tax declaration 15. Annual property return 16. NOC <ol style="list-style-type: none"> a. Applying for outside job/Attending interview b. To pursue higher studies c. To apply for new/renewal of Passport/Visa 12. Experience/Service certificate 13. Honorarium/Cash Incentives
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	<ul style="list-style-type: none"> a. Non-executive b. Hindi Exams c. Outside Experts <p>14. Incentives (for staff)</p> <ul style="list-style-type: none"> a. Acquiring higher qualification b. Any other <p>For Students</p> <ul style="list-style-type: none"> • View of Attendance, • Monthly work reports, • leave management, • Performance review updating, • Project Report with Plagiarism checks, • Permission for working beyond office hours/holidays <p>For Others (Housekeeping, outsourced, canteen, pump house, electrical, IT)</p> <ul style="list-style-type: none"> • Personal profile • EPF and insurance • Monthly salary. (etc.) <p>Canteen coupons booking</p> <p>Training</p> <p>Conferences (Attendee/Oral/Poster)</p> <ul style="list-style-type: none"> • Nomination, approvals, registration and payments <p>Awards/Honors</p> <p>Publications/Papers BC</p> <p>Patents</p> <ul style="list-style-type: none"> • Search application, Report generation, approval process <p>Visits by Colleges/Institutes/Guests</p> <p>Deputation</p> <p>Foreign Visits</p>
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Process	<p>Uploading documents</p> <p>Data entry</p> <p>Generating notes for approval</p> <p>Sending requests to other department(s)</p> <p>Obtaining approvals from the authorities</p> <p>Automation of shortfall calculations</p> <p>Income tax calculations should include medical claims, Children Education Allowance etc.</p> <p>Automation of Non-executives cash incentive process</p> <p>Travel allowance calculation of foreign visits to be automated</p> <p>After training/conference participation, the user should submit all the details</p>
Output	<p>Issue of No Objection certificate for different purposes as per the inputs</p> <p>Issue of Orders for different purposes as per the input</p> <p>Generation of reports related to annual property returns</p>
Interface	<p>LTC Application Staff > Head > LTC Admin Asst. > APO > DR > Staff > Fin Asst. (LTC Advance)</p> <p>LTC Settlement Staff > LTC Admin Asst. > LTC Fin. Asst. > OSD > Staff</p> <p>Annual Property Returns Staff > APO > Director > Admin. Asst. (APR) & Vigilance Officer ></p> <p>Promotion / Placement / Absorption / Movement HR Asst. > APO > Committee Members > Director > APO</p> <p>Leave (Regular) Based on the existing policies of ARCI and CCS Rules, the work-flow for the leave is to be defined</p> <p>Leaves (Others) Based on the existing policies of ARCI, the work-flow for the</p>

	<p>leave (others) are to be defined</p> <p>NOC/Passport/Visa/ Experience/Service Certificate</p> <p>Staff > APO > Director> Admin. Asst.</p>
Workflow Management	<p>Uploading documents -> Entry of Details -> generate notes for approval -> obtaining approval from the competent authority(ies)-> generate orders for issue</p>
Remarks	<p>For any changes in the leave/attendance, the higher authorities should get alert.</p> <p>Leave should have Prefix and suffix dates, permission to leave/joining station.</p> <p>Transfer of roles for higher officials during their leave should be part of the system</p>

Sub Module: Retirement and Resignation

Input	<p>Sub-sub module: Retirement processing</p> <ul style="list-style-type: none"> · Auto-closure of benefits · No Due Certification automation · Hand-over Process · Encashment of EL · EGIS · Gratuity · Issue of service certificate · Issue of Last Pay Certificate · Medical Insurance · OP Reimbursement <p>Sub-sub module: Resignation processing</p> <ul style="list-style-type: none"> · Auto-closure of benefits · Encashment of EL · Gratuity · Issue of service certificate · Issue of Last Pay Certificate · Transfer of Service Book · Lien details with Staff feedback
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	Death Process EDLI
Process	<ul style="list-style-type: none"> · Uploading documents · Updating the details (Data Entry) · Uploading images · Generating notes for approval · Sending requests to other department(s) · Obtaining approvals from the authorities
Output	· Issue of the Orders as per the input
Interface	Resignation Staff > Head > AD > APO> DIR> Admin/Fin. Asst. for Settlement
Workflow Management	Uploading documents -> Entry of Details -> generate notesfor approval ->obtaining approval from the competent authority(ies)-> generate orders for issue

Sub - Module: Dispatch/Dock

Input	Doc/Materials in and out by all sections through courier. Tracking of Doc
Process	<p>A unique no. has to be generated by system for all the requests which are received/made by Dispatch Section.</p> <p>Provision to capture area, bilingual format or not etc.</p> <p>Alert to respective User on entry</p> <p>Docket No/Consignment No. info to respective user.</p>
Output	<p>Daily reports of requests</p> <ol style="list-style-type: none"> 1. Inward 2. Outward
Interface	<p>Inward : Dispatch Asst. > Staff</p> <p>Outward : Staff > Dispatch Asst.</p>

Workflow Management	Uploading documents -> Entry of Details -> generate notes for approval -> obtaining approval from the competent authority(ies)-> generate orders for issue
Remarks	Various reports based on the inputs and outputs required Module for covering Hindi section, quarterly inputs (especially) letters/email received/sent, MoU/Agreements signed etc. Quarterly minutes of OLIC meetings, workshops etc.,.

Sub - Module: Support Requests

Input	<p>Support requests for resolution of issues for:</p> <ul style="list-style-type: none"> -- Telephone -- General -- Housekeeping -- Canteen -- Pest control -- Manpower -- IT <p>> Various users should have an option to raise any support request/complaint for the above said matters.</p> <p>> Each support request has to be given a unique number.</p> <p>> On Receipt of each support request, the respective staff member should get a notification about the support request through e-mail.</p> <p>> After resolving the issue the employee will update the status of support request.</p> <p>> On resolving a support request the user (complainer) should get a notification.</p>
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Sub - Module: Transportation

Input	<p>Request for In-house and Hired Vehicle bookings</p> <p>Provision for fuel, repairs, insurance, road tax, fitness for own vehicles.</p> <p>Tracking AMCs</p> <p>ARCI's own vehicle details : To store the database of ARCI vehicles</p>
Process	<p>Vehicle booking request by User</p> <p>Vehicle allotments and record keeping</p> <p>Payments processing</p>

Output	Reports on <ol style="list-style-type: none"> 1 Daily/monthly requests received 2. Daily/monthly requests disbursed 3. Alert on Insurance renewals
Remarks	Various reports based on the inputs and outputs required

III. Stores, Purchases and Inventory Management System (Core Module)

Sub Module: Vendor Registration

Input	Vendor name, address, GST No. etc
Process	A form may be available to vendors directly for their input or Stores User or IO may fill the details. Upload of relevant documents. Authorization by SSPO
Output	Vendor Creation report
Interface	Form – for external access, Stores User and IO
Work-flow Management	External User/Stores User/IO -> SSPO

Sub Module: Materials/Service Indents

Input	Indent details includes item/service details, estimated cost, suppliers etc.
Process	<ol style="list-style-type: none"> 1. Indenter defines the Type of Purchase based on the value of the Goods/equipment/service to be procured: <ol style="list-style-type: none"> a. Advertised Tender Enquiry (Open Tender Enquiry/Global Tender Enquiry). b. Limited Tender Enquiry. c. PAC (Proprietary Article Certificate). d. GeM Procurement e. Rate Contract Requisition 2. Indent will be verified by Head of the division. 3. Indent will be forwarded to Accounts Section for verifying the availability of funds/Budget from OP/Project funds. 4. Indent will be forwarded to Stores Section for verification and conducting scrutiny by the committee. Based on the Case Value and Centre, the respective Committee (LP-1 to 4, LP-GEN, STPC- 1to9, SPC) to be defined by the System.

	<p>5. Based on the committee recommendations, indent shall be forwarded to Finance & Accounts Officer for commitment of Funds/Budget from OP / Project funds</p> <p>6. Indent shall be forwarded to Head / Associate Director / Director for Sanction of Proposal as per Delegation of Financial Powers.</p>
Output	Indent report with approvals and remarks
Interface	Indent, approval
Work-flow Management	<p>IO -> HEAD ->BUDGET CHECK -> SSPO ->OSD-> HEAD / AD / DIRECTOR -> STORES</p> <p>Based on the Fund type, value and procurement method the work-flow will be defined.</p>
Remarks	<p>Tender mode: default option to be GeM, No supplier info need to be included for GeM modes.</p> <p>An auto email may be sent to respective members of the Committee a day before the meeting.</p> <p>A template for Minutes of the meeting to be provided and comments / remarks to be updated in the template and updated against the case.</p> <p>Upload of drawings/documents/budgetary quotations etc. option should be available.</p> <p>Repeat purchase within 3 months to be restricted.</p> <p>When item is selected, previous purchase details are to be displayed.</p> <p>AMC/Repair of Equipment should contain history of cases related to AMC/repair maintenance and warranty.</p> <p>Original Value of the Equipment should be captured.</p> <p>Item Master:</p> <p>Search mechanism to find existing item / service.</p> <p>Asset Tag for each and every item to be maintained after MRN and IV.</p> <p>Migration of existing inventory to the new setup. Take measures not to store redundant data.</p> <p>Standard procedure for creating of suppliers' master and item master to be provided to avoid duplication entries.</p>

Sub Module: Enquiry Preparation

Input	Capturing the indent details, enquiry creation date, end date.
Process	<p>For Single/Limited/Proprietary Tenders, enquiries are sent to respective bidders,</p> <p>For CPP/Global tenders, only enquiry details are saved</p> <p>For Repeat Orders, dummy enquiry is created.</p> <p>Upload of relevant documents.</p> <p>Verification of the documents.</p> <p>Authorization by SSPO.</p> <p>Purchase modes like Expression of Interest, Purchase Committee are to be covered.</p>

	<p>Bid Validity should be 75 days for Local Purchase and 90 days for Foreign Purchase.</p> <p>Procurement Mode Priority : GeM bidding else CPPP through a predefined form to be filled by IO for proceeding to CPPP or else GTE through a predefined form to be filled.</p>
Output	<p>Enquiry reports vendors wise</p> <p>An auto email to vendors after creation of Enquiry</p> <p>Predefined form for CPPP/GTE</p>
Interface	Stores User, Enquiry and interface with GeM/CPPP/GTE
Work-flow Management	To be defined.

Sub Module: Enquiry Opening

Input	Captures date of bids opening (technical/commercial/both), their offer status, RTGS/EMD details.
Process	<p>Tender Opening Committee Comprising Chairman, TOC, SSPO, Duty Officer and Stores User performs Bid opening (Technical/Commercial/Both)</p> <p>The activity is recorded in the system with remarks, if any.</p> <p>Mandatory columns such as BID No, Validity etc. to be maintained.</p> <p>EMD submission and release should be as per GFR guidelines.</p> <p>Alert for EMD expiry date</p>
Output	Enquiry Opening Report, Notice to IO for re-enquiry/other action. EMD/BG release note.
Interface	Stores User -> TOC, interface with GeM/CPPP/GTE
Work-flow Management	Stores User -> TOC -> SSPO -> IO To be defined.

Sub Module: Technical CST

Input	Capture technical bids outcome filled by IO.
Process	<p>Alert for IOs to complete Technical Comparison on time.</p> <p>Option to upload of signed bids received by emails</p> <p>GeM Technical Bid documents uploading facility to be provided.</p>
Output	Technical CST report
Interface	IO, interface with GeM/CPPP/GTE
Work-flow Management	IO -> HEAD -> Stores To be defined.

Sub Module: Commercial CST & PO Recommendation

Input	Commercial CST is prepared for quotations of Technically qualified bidders
Process	<p>Bidder wise details of price, terms and conditions to be captured.</p> <p>PO Recommendation: Note for approval containing the summary of processes of Enquiry, Enquiry Opening, TCST, CCST and recommendation of PO on a party. Terms and conditions master to be defined. Facility to incorporate changes as per the case may be provided with work-flow approvals. GeM Commercial Bid documents uploading facility to be provided.</p>
Output	Commercial CST, PO Recommendation approval,
Interface	
Work-flow Management	Stores User -> SSPO -> IO ->HEAD-> AD -> DIRECTOR
Remarks	<p>LP/FP separately to be processed. Option to prepare Hybrid CST to be available.</p> <p>Option to upload signed bids received by emails.</p> <p>Clarifications by IO to be captured after Commercial CST and before PO recommendation when the L1 value is more/significantly less than Case Value.</p> <p>Provision to upload documents in all the stages. GeM Soft copies also required to be uploaded.</p>

Sub Module: Local PO Preparation

Input	Captures Party details, items/service to be delivered, due date, taxes, payment terms.
Process	<p>Facility to create Single/Limited/PAC tender POs and GeM/CPP tenders PO.</p> <p>If the PO terms is advance payment, alert may be generated to Stores User to initiate Advance payment.</p> <p>Send auto email to vendors and respective IO after PO confirmation.</p> <p>Refund of EMD of unsuccessful bidders alert/NOTE to be generated.</p> <p>Necessary GFR compliance to be checked.</p> <p>Warranty information should be linked to respective item.</p> <p>BG submission and release should be part of it.</p> <p>BG expiry alerts before a month to IO and Stores.</p>
Output	PO reports, BG reports
Interface	Stores, interface with GeM/CPPP/GTE
Work-flow Management	To be defined.
Remarks	Case history access may be provided to all the IOs.

	<p>File tracking may be proposed based on the need of manual file movement.</p> <p>For POs concerning repair of equipment, dispatch details of the item to be included.</p> <p>Inputs/Comments/suggestions pertaining to Case (File note) to be introduced in every work-flow stage.</p>
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Sub Module: Foreign PO Preparation

Input	In addition to LP PO columns, Foreign purchase order includes various payment methods such as LC/Advance/Direct/Sight draft agent details, PO Annexure.
Process	Send auto email to vendors and respective IO after PO confirmation. Mode of transport : air/sea may be captured in the Foreign Enquiry. Warranty information should be linked to respective item.
Output	PO report
Interface	Stores, interface with CPPP/GTE
Work-flow Management	To be defined.
Remarks	Case history access may be provided to all the IOs. For POs concerning repair of equipment, dispatch details of the item to be included.

Sub Module: Local PO Payments

Input	Capture invoice details, party details, payment %, with/without taxes, deduction details etc.
Process	Payments are of two types : Advance and Bill passing Contains Invoice details, party details, payment %, with/without taxes, deduction details etc.
Output	PO Payment approval Note
Interface	Stores, interface with GeM/CPPP/GTE
Work-flow Management	Stores User -> SSPO -> IO -> HEAD-> AD -> DIRECTOR -> Finance User To be defined as per fund type, value and procurement mode etc.

Sub Module: Foreign PO Payments

Input	Capture invoice details, party details, payment %, deduction details etc. Payments related to customs, insurance, freight etc also covered..
Process	Foreign Payments types : LC Opening, LC Closing, Customs charges, Customs clearance charges, Freight, Insurance, Advance, Sightdraft / Direct (Other than LC)

	<p>Contains Invoice details, party details, payment %, with/without taxes, deduction details etc.</p> <p>Amount to be captured in Foreign Exchange for Foreign exchange payments.</p> <p>Integration with Customs portal for monitoring the arrival of goods to minimize demurrage charges, if provided.</p> <p>LC Opening and Closing to be captured separately and maintained along with the documents. Alerts to be generated to IOs/Stores about expiry date.</p> <p>API integration with various Banks for exercising Foreign exchange transactions including debit advice/SWIFT</p> <p>Alert for balance payments to be generated.</p>
Output	PO Payment approval Note, LC register, Other reports
Interface	Stores
Work-flow Management	<p>Stores User -> SSPO -> IO -> HEAD-> AD -> DIRECTOR ->Finance User</p> <p>To be defined as per fund type, value and procurement mode etc.</p>

Sub Module: Rate Contract Agreements

Input	<p>RC for Chemicals, Gases, Electrical, Glassware, Civil</p> <p>Captures rates for given period of time.</p> <p>PO creation based on RC agreement rates and T&C</p>
Process	Agreement with Vendor to be created for sending POs for a given period of time.
Output	RC Agreement, POs,
Interface	Stores, interface with GeM/CPMP
Work-flow Management	<p>Stores User -> SSPO -> IO -> HEAD-> AD -> DIRECTOR ->Finance User</p> <p>To be defined as per fund type, value and procurement mode etc.</p>
Remarks	<p>Any change of rates during the agreement period to be automated with approvals.</p> <p>Grouping of multiple invoices/PO payments of single supplier into single billpass.</p> <p>Provision to search for any items of the Rate Contract Vendor (may be external source like excel)</p>

Sub Module: Direct Purchase Authorisation

Input	Captures Direct Purchase details with items and its rates
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Process	Verification of nature of items (Consumable/Non-consumable) and authorization of DPs
Output	DP Authorization Note
Interface	Stores, interface with GeM
Work-flow Management	Stores User -> SSPO To be defined
Remarks	Search mechanism for MRNs/Ivs

Sub Module: Material Receipt Note and Issue Voucher

Input	MRN captures no. of items received by ARCI. This is applicable to only products. Issue Voucher captures no. of items issued on various individuals
Process	Security IN process provides list of items delivered. Provisional and Final MRN to be prepared based on the IO's acceptance of the final quantity.
Output	MRN, Final MRN and Issue Voucher
Interface	Stores, interface with GeM/CPPP/GTE
Work-flow Management	Stores User -> SSPO -> IO
Remarks	Link to Security's Materials IN process so that IO take necessary action. The Security IN Process should facilitate adding other items delivered. FAC form to be added for Foreign PO inspection reports

Sub Module: Inventory Module

Input	This includes a) Physical Verification: Capture yearly process of physical verification of the inventory items conducted by Inventory Committee b) Condemnation: Capture approval process of condemning any non-consumable inventory item with a work-flow c) Disposal : Capture sale of condemned items
Process	Physical Verification of inventory items, its availability status and remarks to be captured Condemnation of items approval form should contain reason for condemnation, efforts taken for repair etc. Based on the Fund, procured value, no. of years utilized the approval mechanism will be defined.
Output	Physical Verification report (individual/summary) , Condemnation approval note Disposal process report and approval report
Interface	Stores

IV. Finance, Accounts & Payroll System (Core Module)

Finance and Accounts Module should have the following features:

1. Complete Accounting Package with dynamic reports covering many financial years.
Accounts : (a) Operational Fund (b) Sponsored Project (c) TDT Funds (d) Consolidation of Funds (a+b+c),
 - a) Cash Book, b) Bank Book (Bank Wise) ,c) General Ledgers d) Account Wise Subledger, e) Vouchers (Receipt, Payment , Journal) (f) Receipt & Payment Account, (g) Trial Balance (h) Income & Expenditure (i) Balance Sheet, & Schedules, Sub Schedules (Annual Accounts As per the Format prescribed by DST) (j) Sub Ledger Reports (k) Depreciation Calculations & Statements & Journal Voucher (As per W.D.V. Method & Income Tax Act 1962), Monthly Salaries Journal Voucher.
 - Fixed Deposits Module & Reconciliation, Bank Reconciliation Statements for All Bank Accounts & TSA & CNA Accounts.
 - Advances to Staff (HBA, COMPUTER) Interest calculations
 - Reports as per GFR & DST requirements
 - Funds presently operated are (a) Operational Fund (b) Sponsored Project (c) TDT Funds (d) Consolidation of Funds (a+b+c), provision should be made for adding more funds & its consolidation.
 - Graphical Reports
 - Statement of Expenses & Utilisation Certificates , Periodically & Years
 - Other Standard reports Etc.
2. Complete Budgeting Module : (a) Operational Fund (b) Sponsored Project (c) TDT Funds
 - (1) Operational Fund
 - Major Budget- Head
 - (a) Salaries, (b) General (c) Capital (d) Infra Structure , Others
 - (b) Minor Head
 - (c) Account Head
 - (d) Budget Estimates for the current year (Periodical)
 - (e) Budget Estimates for Future Periods
 - (f) Budget Estimates during the Two Accounting years
 - (g) Budget Allocation & Expenditure Incurred & Balance of Funds & Commitments
 - (h) Periodical Reports to DST & Competent Authority
 - (i) Standard Reports
 - (j) Salaries, General & Capital Expenditure & Commitment Reports
 - (k) Graphical Reports
 - (2) Sponsored Projects
 - a) Budgets as per the formats of the Funding Body(DST, DRDO, Space Etc)

- b) Statement of Expenses & Utilisation Certificates , Periodically & Years as per the Funding Body
- c) Commitment Statements as the Each Project & Program Code
- d) Statement of Assets Created against Each Project/ Program at any given date & During the Period.
- e) Other Standard Reports
- (3) TDT Fund Projects
 - f) Budgets as per the formats of the Costing Committee (Customers & Project Wise)
 - g) Statement of Expenses & Utilisation Certificates , Periodically & Years as per the Funding Body
 - h) Commitment Statements as the Each Project & Program Code
 - i) Incentive Calculations (Core & Individual)
 - j) Statement of Assets Created against Each Project/ Program at any given date & During the Period.

Provision should be available for adding more categories & also integrating with the above categories.
- 3. Complete Payroll package including Income Tax calculation etc.
- 4. Semi- HR module , to facilitate integrated functioning with HR Section
- 5. Semi-Stores and Purchase module
- 6. Semi- R&D Project Accounts Module
- 7. Integration with Medical Claims
- 8. Integration with Administration modules
- 9. Module for Tax Administration, like GST , Income Tax TDSs, otherStatutory Liabilities (labour cess, professional Tax etc) .
- 10. Module for Invoice Raising and GST collection, remission, availing GST Credit
- 11. Financial reports like Annual Accounts in DST format, Cash Basis and Accrual Basis
- 12. Integration with external agencies like Banks, Income Tax , GST, PFMS , EPF, NPS,Professional Tax, GeM etc.
- 13. System should allow for auditing and complete audit trail and audit log
- 14. MIS module with reports such as Receivables, Allocations, Expenditure and Commitments with various dynamic features and should be able to generate and access by the respective users/departments at any point of time and any duration.
- 15. The list is not exhaustive and further requirements can be added during the development stage.
- 16. Foreign TD Advance
- 17. Foreign TD settlements
- 18. Imprest advance & settlements
- 19. Cash Book & Bank Book
- 20. BRS – for all bank accounts.
- 21. LTC Register/Advances
- 22. Foreign TD Register/Advances
- 23. LocalTD Register/Advances
- 24. All GFR format (Dynamic Report)
- 25. UC and SoE (GFR format)
- 26. Fixed Asset Register
- 27. Stock Verification System

The functionalities required for a Finance and Accounts are given in detail below:

Input	<p>Type of Funds</p> <ol style="list-style-type: none"> 1) Operating Fund 2) Sponsored 3) TDT 4) All together above <p>Based on in-house projects, the allocation takes place.</p> <p>Budget & Allocation (OP)</p> <ol style="list-style-type: none"> 1. Salary (user defined category wise) 2. General (user defined category wise) 3. Capital (user defined category wise) <p>Based on creation of Projects, the SP&TDT budget allocation begins.</p> <p>Budget & Allocation (SP)</p> <p>Heads will be as per the Sanctioning Body</p> <p>Recurring</p> <ol style="list-style-type: none"> 1. Manpower (linked to HR and payroll) 2. Consumables 3. Travel Local 4. Travel Foreign 5. Contingency 6. Overheads 7. Others <p>Non-recurring</p> <ol style="list-style-type: none"> 1. Capital Major 2. Capital Minor 3. Fabrication 4. Technology Development <p>Budget & Allocation (TDT)</p> <p>Direct</p> <ol style="list-style-type: none"> 1. Raw Materials 2. Purchasing of Consumables 3. Travel 4. Hiring of Manpower (linked to HR and payroll) 5. Outsourcing <p>Indirect</p> <ol style="list-style-type: none"> 1. Machine Utilization 2. Manpower 3. Characterization <p>Alert to PIs/FAO before a head (salary/equipment/etc) fund is exhausted</p> <p>The Finance & Accounts system is to be subdivided to three different</p>
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	<p>modules – Accounts, Sales and Bills, each relatively operating together.</p> <p>Accounting System:</p> <ol style="list-style-type: none"> 1. Preparation of Vouchers Cash Receipt, Cash Payment, Bank Receipt, Bank Payment, JVs 2. Accounts 3. Sub-ledgers 4. Assets-Depreciation <p>Sales System : Deals with generation of</p> <ol style="list-style-type: none"> 1. Quotations 2. Delivery Challans 3. Pro-forma Invoices 4. Direct Invoices 5. Receipt Note <p>Bills:</p> <p>Input types are two types:</p> <ol style="list-style-type: none"> 1. Personal Claims 2. Official Payments <p>By Finance</p> <ol style="list-style-type: none"> 1. TD Advance 2. Advance Reimbursement 3. TD Claim / Settlement 4. Advance Settlement 5. Imprest Advance <p>By Payroll Section:</p> <ol style="list-style-type: none"> 1. Monthly Payroll and recoveries particulars 2. Tax deductions and remissions 3. Supplementary Pay Bill 4. Honorarium Claims 5. DA Arrears claims <p>By Administration and Personnel:</p> <ol style="list-style-type: none"> 1. LTC Advance 2. LTC Final Claim 3. EL Encashment 4. Service End- claims 5. Increment 6. Promotion 7. Placement 8. Pay Fixation 9. Children Education Allowance 10. Stipend / Fellowship 11. Honorarium to Experts/Staff 12. House Keeping Bill 13. Manpower Bill 14. Security Bill
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	<p>15. Pest Control Bill 16. Garbage Bill 17. Catering Service Bills 18. Publicity Bills 19. Other Miscellaneous Bill 20. Medical Bills (Hospitals) 21. Telephone Reimbursement 22. NPS Withdrawal request, 23. Medical Reimbursement</p> <p>By Stores:</p> <ol style="list-style-type: none"> 1. Local Purchase Orders Advances/payments 2. PO- Final Settlement (create alert to IO/Stores for expiry of BG) 3. Foreign PO Advance / LC / Sight draft /Direct / TT after shipment payments. Alerts for LC and Payments to be generated. 4. Customs duty / Insurance /Fright Forward/ LC Opening / LC Amendment / Demurrage / Customs Clearance charges etc 5. Stationary Bill 6. Bank Guarantee 7. EMD 8. All Purchase Indents/Payments should be viewable to Finance <p>LC register has to be linked</p> <p>By Electrical & Civil Maintenance Section:</p> <ol style="list-style-type: none"> 1. Electricity Bill 2. Water Bill 3. Work Order Bill 4. RA Bill
Process	<ol style="list-style-type: none"> 1. Once the bill is entered into the System, the user will submit online form by uploading relevant papers like tickets, Boarding Passes etc. and forward the same to Accounts Section 2. Provisions should be made so that guest visitors can also do the same. 3. The bill will be assigned to the concerned dealing assistant automatically. Dealing Assistants will check the budget, verify the bills and submit the processed bills to the FAO. 4. On approval, the bills will be forwarded to OSD. 5. On approval of OSD, the bills will be forwarded to Payment section. 6. Payment Section will verify the availability of Funds, Budget and generate the bank letter for payment. 7. The next day, the Payment seat will update the payments with UTR number and a mail has to be sent to all payees of the details of payment.

	<p>8. Payment Advice to be generated and sent to the receiver by email.</p> <p>Other Processes</p> <ol style="list-style-type: none"> 1. Monthly Tax remission and challans have to be generated. 2. Generation of Tax returns in prescribed forms is required. Tax summary. 3. Integrate PFMS or provision to upload statements monthly / periodically have to be generated 4. Monthly Statements to DST are to be generated 5. Bank reconciliation statements 6. Monthly Expenditure Reports 7. Pay slips 8. Pay Bill register
Output	<p>Reports needed as below:</p> <ol style="list-style-type: none"> 1. Annual Accounts as per approved CA/DST Formats 2. PFMS Upload formats, SEs, Utilization Certificates 3. Budgeting Formats (Monthly, Quarterly and Yearly), and Projections 4. Form 16 and Form 16A 5. Query Based reports for various scenarios
Interface	<ol style="list-style-type: none"> 1. This should be able to maintain department-wise budgeting and accounting 2. It should have a full-fledged accounting module which can maintain ledgers, groups of ledgers, General Ledger, Trial Balance, and prepare Annual Accounts in formats prescribed by DST including Preparation of P&L account, Income and Expenditure Account, Balance sheet, Receipts and Payment Account, GST reports. Preparation of accounts both on cash basis and accrual basis should be possible. Maintenance of Bank Accounts, preparation of Bank Reconciliation Statement online, Preparation of scheme-wise accounts, and preparation of Statement of Expenditures, Utilization Certificates should be enabled. 3. Upload of legacy data should be enabled. 4. Integration with all concerned sections is required. 5. The system should allow preparation of various static and dynamic reports. 6. All the users i.e. Staff, Students and Vendor should be able to interact with the system and able to raise their requests for advances, settlements, reimbursements, recoveries only through the ERP. 7. Functionality for tax administration i.e. to define various taxes, their rates of deductions in different periods, deduction in each bill, remission and its accounting and generation of tax returns in prescribed formats is required. 8. Maintenance of accounts as per the scheme codes and scheme components defined in PFMS and EAT module of

	<p>DST are required. PFMS Upload reports are required.</p> <ol style="list-style-type: none"> 9. Request for Booking of Air tickets and their subsequent matching with the TA claims should be possible. 10. Budgeting: Functionality to define budgets and allow expenditure department-wise, section-wise, HOD-wise, Scientist-wise, purpose-wise and ledger-wise, group-wise, OH-wise, period-wise are required. Scientists/Centre in-charge to prepare projected expenditure is required. 11. Functionality for Costing, i.e. facility to define cost centers and reports to assess the costs is required. 12. Provision to see the time taken to process various bills, facility to return/hold bills online with remarks is required. 13. Cheque Printing Functionality and Bank Advice letters are required. 14. Data migration from existing system and its sanity check. 15. For contracts and Agreements, where multiple bills are generated, facility to maintain cumulative amounts as per the Schedule of Payment is required. 16. Facility to record, alerts Bank Guarantees, EMDs and Security Deposits collected and returned is required. 17. Fixed Deposits and Investments management 18. Separate Accounting for Conferences and Events. (Receipts and Expenditure) 19. Issue of Medical Referral letters 20. Issue of Pay Certificate
Workflow Management	<p>Dealing Assistant <input type="checkbox"/> FAO <input type="checkbox"/> OSD <input type="checkbox"/> Director <input type="checkbox"/> Payment <input type="checkbox"/> Accounting and Reconciliation <input type="checkbox"/> Reports.</p> <p>Workflow to be defined based on the module/process.</p>
Remarks	<ol style="list-style-type: none"> 1. Dealing Assistant <ol style="list-style-type: none"> a. Initiate process of online bills/documents. b. The dealing assistant will be decided whether the Expenditure has a proper sanction, approval and budget, the invoice is in correct format and rejects if any one of this is missing. c. If these conditions are satisfied, then the amounts will be restricted to approved limits and submits the bill to FAO (for bills up to a limit say Rs _____) and to OSD through FAO (for bills valuing more than Rs _____) Director through FAO and OSD (for bills valuing more than Rs. ____) 2. FAO/OSD/Director <ol style="list-style-type: none"> a. FAO/OSD/Director may pass the bill or reject the bill for reasons to be recorded or hold the bill for clarifications. In each case the bill will be pushed back to the Dealing Assistant for resubmission 3. Release of Payments <ol style="list-style-type: none"> a. All bills approved by FAO/OSD/Director will be forwarded to Payment Assistant who will enter the

	<p>cheque no., amount, the account details of the Payee etc and prepare a cheque, obtains the signature of the FAO on the cheque and send it to bank for payment or make the NEFT/RTGS payment</p> <p>4. Accounting, Bank Reconciliation and PFMS Entry</p> <p>UTR no.s / reference no.s of all payments completed will be entered into the System for reconciliation and for sending an intimation to the concerned, for making proper Accounting entries and for entry in PFMS EAT module.</p>
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Sub Module: Payroll and Taxation Module

Input	<ol style="list-style-type: none"> Salaries Arrears Income Tax
Process	<p>Salary Process :</p> <ol style="list-style-type: none"> It should start with the Employee Creation from Admin & HR Section along with full details i.e., Family and Dependents as these are required for many other activities connected with the Accounts Section. The Payroll process starts with attendance and leave data forwarded by Admin & HR. The Pay levels need to be defined both as per 6th & 7th Pay Commission. Differential statement of 6th Pay and 7th Pay Commission Any changes in Pay, Pay Level due to Promotion / Increment etc. will be carried out by Admin & HR Section after obtaining due approvals. On submission of monthly attendance by Admin & HR Section, the payroll will be generated by Dealing Assistant (pay roll) for each group of employees separately. Dealing Assistant (Payroll) will add further recoveries if any have to be made from individual salaries employee wise. An Excel sheet upload will be useful. Staff may report any other income received from any sources received like for attending guest lectures, selection committee meetings etc in the particular month and also report tax if any deducted by the third parties.

	<p>Arrears :</p> <ol style="list-style-type: none"> 1. DA Arrears calculations should be automated 2. Promotional Arrears calculations should be automated 3. Incentive Arrears Calculations should be automated 4. Pay anomaly reports for previous period <p>Income Tax Process :</p> <ol style="list-style-type: none"> 1. Provision for definition of Income Tax rates applicable for each financial year and various rebates / exemptions available under the Income Tax under various years needs to be defined by the system. Provision for updation / definition of new items should be available. 2. Income Tax to be deducted and remitted to the GoI employee's salaries is based on the Income for the whole year and other income defined by the deducted every month based on an estimated salary for the whole year. System should be capable of providing the estimated salary for all employees/students and the estimated tax to be deducted every month. 3. In calculation of the tax to be deducted, the system should consider the other incomes declared by the employee/student, and other payments made to the Staff in R&D Projects also. 4. Tax deductions under various sections 5. Section 89 relief – for income tax form 10e
Output	<p>Reports needed as below:</p> <ol style="list-style-type: none"> 1. Payroll Software should be able send Pay slips through Email and self-driven downloadable one. 2. Payslip with leave balance/designation/loans data as on date. 3. Payslip with Income tax calculation statement. 4. Income tax calculation as per the declaration and define proportionate deduction automatically. 5. It should provide the Reports to be sent to Bank such as Payment Advices, Income Tax Challans to be sent to Bank and for Online Payment, etc., 6. The Form-16 and Form-16A also to be downloadable whenever the Employee/student needs. 7. The Reports software should be dynamic and flexible as different reports are to be sent to DST frequently. 8. All the Statutory Forms and Payments Reports should be generated. 9. The Reports generated should be downloadable in Excel, Word, PDF and any other user-friendly mode. 10. Report showing the Pending Advances age-wise for follow up and settlement. 11. Report calculating interest for delayed settlement of advances. 12. Imprest Reports. <p><u>Other requirements :</u></p> <ol style="list-style-type: none"> 13. Entry of PRC pay scales and calculations arrears (Dynamic) 14. HBA, Computer & Vehicle advances register and interest calculation – Each employee

	<ul style="list-style-type: none"> 15. TDS recovery proportionately in paybill process. 16. FORM 16 & PART B calculation sheets 17. Paybill module including HRIS/Contract/Project staff & IT TDS calculation & TDS recovery. 18. Annual Paybill summary – earnings & deductions 19. PF/NPS contribution master data- each employee 20. Transport allowance proportionately- New join/resignation etc. 21. Gratuity and EL liability calculation – each financial year 22. Calculation of EL/HPL for recovery on leaves 23. Calculation of Retirement/Service/Death Benefit 24. Auto generating of payment note for approval. 25. Payroll lock system (HR entry) during entire process of Paybill. 26. Pay slips are inbuilt the IT TDS calculation summary. 27. Maintain of Paybill register in prescribed formats (GoI) 28. EPF/NPS Registers (Index, Broad sheet & (GoI)
Interface	<ul style="list-style-type: none"> 1. To enter External data for recovery or payment, there should be an Excel Upload source. 2. The Income and Tax Sources from R&D Projects and others should also be enabled to record and recover the Taxes from Payroll. 3. External Source of Income and the Taxes should be allowed. 4. There should not be any limit in creating the number of Accounting Heads. 5. Dealing Assistants who want to send the recoveries from salaries should be allowed like LTC Advance, TA Advance etc.
	<p>For Reimbursements, Advances and Settlements:</p> <ul style="list-style-type: none"> 1. The Employee/student mode should be enabled and allowed to claim Reimbursements, Advances and Settlements by Employee/student themselves. 2. They should be able to claim and view the status of their claims. 3. All types of claims by employees/student should be enabled. 4. Submission of Claim Forms in PDF along with Bills and Invoices.
Workflow Management	Dealing Assistant > FAO > OSD > Director
Remarks	<ul style="list-style-type: none"> 1. The software for payroll may be fully utilized by Accounts Section and partially by Admin & HR, Director's Office. 2. Lock-in of Master data during payroll process should be enabled. 3. Incentive Calculation should consider various process of Costing, Transaction, Sales Invoice, Revenue etc.

Below points which are linked to other modules to be included in the proposed system.

1. Capital Equipment purchases link to respective sponsored projects
2. HBA Advance interest calculation to be automated
3. Arrears calculation based on effective date to be automated
4. Budgeting to be split year-wise allocation and commitment
5. Auto JVs for depreciation and salaries
6. Asset register as per GFR
7. Asset creation as soon as the IO inspection and payment
8. GSTR-1, GSTR-2, GSTR 3B and GSTR-9 reports to be automated
9. Access to Foreign TDs
10. Consolidated Bill passings to be generated
11. PO format, Bill passing format to be changed

V. Library Information System (Core Module)

Input	<p>The present Library Information System used by TIC has the following modules:</p> <p>Load OPAC Reports Housekeeping</p>
Process	<p>Load:</p> <ul style="list-style-type: none"> - Processing of Documents such as books, bound volumes of journals, standards, patents, etc. - Creation of master like currency, publisher, country, language, vendor, etc. <p>OPAC:</p> <ul style="list-style-type: none"> - Allow users to search the database by author, title, keyword (s), series, etc. - Reservations of books/other reading materials - Document status - Member Account <p>Housekeeping:</p> <ul style="list-style-type: none"> - Issues or returns of documents - Renewals - Generation of books / serials requisitions - Purchase orders for books & serials - Receiving of journal issues
Output	<p>Reports:</p> <ul style="list-style-type: none"> - Book issues during a period - Book returns during a period - Book reservations during a period - Overdue issues of books

	<ul style="list-style-type: none"> - Follow-up notices - Book issues by member ID wise - Book issues by member name wise - Receipts for overdue
Remarks	<p>The following modules also to be included</p> <p>Acquisition Cataloguing Circulation Serial Control OPAC Reporting and Statistics Administration</p> <p>Each module is expected to perform the following activities:</p> <p>Acquisition:</p> <ul style="list-style-type: none"> - Generation of document requisitions - Preparation of Purchase Orders - Payment for books <p>Cataloguing:</p> <ul style="list-style-type: none"> - Receiving books from vendors - Accessioning of books - Providing Classification number - Automatic duplicate checking of title - Automatic generation of keywords for every significant word in title - Facility for manual creation of keyword (s) - Provision to attach links to the table of contents for each document - Provision of stop word list (helps in defining which word to ignore while automatically generating keywords from title) - Provision to update the stop list as and when required - Generation of list of recent arrivals <p>Circulation:</p> <ul style="list-style-type: none"> - Document issues - Document returns - Reservation - Fine collection <p>Serials Control:</p> <ul style="list-style-type: none"> - Journal requisitions - Purchase orders - Payment for journals - Receiving journal issues

	<p>OPAC:</p> <ul style="list-style-type: none"> - Search for documents by author, title, etc. - Search for serials - Boolean search <p>Reporting and Statistics:</p> <ul style="list-style-type: none"> - Generation of various MIS reports - Statistics on usage of documents <p>Administration:</p> <ul style="list-style-type: none"> - Management of access control <p>Other General Features:</p> <ul style="list-style-type: none"> - SDI service should be there - Abort option should be available in OPAC - Option for stock verification - Option to declare a member defaulter (Delinquency member list) - Change the reservation sequence - Provision to suspend issue of documents to the members who have not cleared the overdue amount - Provision for budget allocation - Requisition for binding of books / journals - Borrows history for individual member (in check-out screen) <p>Note : If the Library Management software is not part of the standard ERP, based on the feasibility, the vendor should develop the software within the ERP or should propose for commercially available/ Open Source Library Management software which can be integrated with proposed ERP.</p> <p>Digital Repository:</p> <p>The developer/bidder should assist ARCI in installation, customization of the open source digital repository software as per the requirements of ARCI and integrate it with the proposed ERP solution.</p>
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VI. Security System (Core Module)

Input	This application is being used at our Security counter by security contract users to record materials in and out and visitors in and out information. Barcode/QR Code based print and readers are to be integrated in the system for ease of operations.
Process	<ol style="list-style-type: none"> 1. Visitors In/Out Register: This is being used to store the information of people who are visiting our organization. After entering the information, it issues gate passes to visitors which is to be signed by the respective official. WebCam integration is to be enabled for capturing of visitors photographs. 2. Material Inward Register: The materials which are coming to ARCI will have delivery note/invoice; with this information the materials are to be registered at the gate in this module. 3. Material Outward Register: There are two types of gate pass we follow in this application: <ol style="list-style-type: none"> 1. Returnable gate pass: Materials which are going out of ARCI but will return after a period will go with “returnable gate pass”. This information is to be stored at the gate with expected return date. 2. Non-returnable gate pass: Materials which are going out of ARCI and will not return will go with “Non-returnable gate pass”.
Remarks	<p>The new ERP should remove the non-returnable item when it goes out of ARCI from the inventory automatically.</p> <p>After making the material inward register again Final MRN is prepared at materials and stores system. Duplication of work is to be reduced in the new ERP system.</p> <p>The new ERP should generate a report at any given point of time, the outstanding returnable materials which have not come back to the Centre. The ERP should also send alerts to the user or concerned TL or AD of materials operations.</p> <p>ERP should cater to need of analysis of visitors, their frequency, divisions visited etc.</p> <p>The received bills/invoices/delivery challans are scanned and stored in the local system. The new ERP system should capture these documents during the entry/exit of the materials.</p>

VII. Utilization of Equipment System (Core Module)

Objective: To computerize the requisition for utilization of equipments to consolidate all requests at one repository to generate various reports such as Program/Centre wise equipment utilization or equipment utilization for various programs etc.

Sub Module: Equipment Master

Input	<p>Capture Equipment details like Equipment Code, Name, Centre, Status, purpose along with Equipment in-charge details and operator details</p> <p>All the existing Equipment details to be recorded in the system.</p> <p>The New Equipment which requires a requisition form for utilization needs an entry into this form and get it approved by the Competent Authority.</p>
Process	<p>Apart from above,</p> <p>Define the analysis duration as 1-hour/2-hours/4-hours basis</p> <p>Each equipment may have different requirement of sample history like details of synthesis, heat/mechanical treatment, and any other studies that were carried out prior to analysis. Necessary fields to be defined equipment based.</p> <p>Define whether equipment is User operated / Equipment operator or in-charge or operated / both. Accordingly, workflow and other functionalities will be defined.</p> <p>Define whether results to User sharable by system or directly.</p> <p>Define whether equipment is characterisation or processing category</p>
Output	Equipment Master report with approvals.
Interface	Equipment in-charge, Linking with the costing module and project management system
Work-flow Management	IO -> HEAD -> AD -> DIRECTOR

Sub Module: Requisition Form

Input	<p>The Requisition form should capture User details, Centre attached, Program Code/Project details, Facility required, Objective(s) of the study, Information desired from the experiments,</p> <p>Sample details to be provided which are specific to chosen equipment.</p> <p>Preferred date and time and priority level for the analysis to be captured.</p>
Process	There are three types of users.

	<p>Application User, who raises the request. It can be Staff, Project Staff, JRF, SRF, and Project Student etc.</p> <p>The request for personnel who are from other organization can be raised by any internal staff or Equipment in-charge or it can be imported from the FMCT website requisition forms.</p> <p>Equipment in-charge, who is the Scientist /Officer in-charge of the equipment.</p> <p>Equipment Operator, who is the person who operates the equipment.</p> <p>Once the details are filled in the form, it passes through a defined workflow.</p> <p>Time slot (allotted_start_datetime and allotted_end_datetime) will be decided by the Equipment in-charge or Equipment Operator based on availability of Equipment Operator in a calendar view.</p> <p>For Certain dates and time, the calendar can be updated with status such as Repair, Maintenance so that it cannot be chosen by Users in the requisition form.</p> <p>Rescheduling of slot option to be provided to Equipment in-charge</p> <p>After completion of the analysis, the Equipment Operator should update the status of requisition, completion date and times (from and to). Duration should be automatically calculated and read-only field.</p> <p>Some of the facilities are chargeable for the users who are from other organization.</p> <p>All the invoice related fields will be filled-up by analyst for invoice generation by Finance.</p> <p>There are a few Equipment Operators available for some of the equipment like FESEM/SEM. They can have maximum of two un-completed slots in advance.</p> <p>Feedback is essential for each and every requisition after the completion/before raising a new one. This should include equipment condition, experience of the analysis etc.</p>
Output	Requisition with work-flow, program/project wise reports, equipment wise, Centre etc. Equipment Calendar, Equipment Log book
Interface	User, Equipment in-charge, Equipment Operator, Heads should have access to the list of requisitions of their respective Centres.
Work-flow Management	USER -> REPORTING OFFICER -> EQUIPMENT IN-CHARGE -> EQUIPMENT OPERATOR -> FINANCE -> USER FOR FEEDBACK

VIII. International Cooperation Module (ICM)

International Cooperation Module is for facilitating the travel of Employees/Research Fellows and Project Staff for travelling abroad and visit of Foreigners to ARCI.

A) Foreign visit by Employees/Project staff/Research Fellows

Input	Whenever any employee/project staff/research fellows has to perform an activity such as presentation in International Conference, pre-inspection and training on equipment being procured, etc., from any foreign country, the process starts. The process is different for a. Regular Employees/Contract Staff b. Project staff / Research fellows
Process	<p>a. Regular Employees/Contract Staff: The process has following stages</p> <ol style="list-style-type: none">1) Internal Committee approval for submission of Abstract2) On acceptance of approval of Abstract by Organizers, obtain approval from Competent Authority through proper channel by submission of all relevant documents including full details of the conference, number of days, abstract copy, acceptance/invitation from organizers, registration fee details, any funding by organizers, if the funding is by ARCI, details of sponsored/bilateral programme with codes etc., to IC Coordinator. a. If the visit is for more than 5 working days, User has to fill the prescribed Part I of the Proforma with all relevant documents enclosed, to IC Coordinator for seeking the approval of Competent Authority through the ARCI Foreign Visits Committee and submit to DST Foreign Visits Committee for approval. User can proceed on foreign deputation only on receipt of approval from DST.3) Upon approval, VISA application process to be initiated by User4) Payment Against registration fee will be processed by HRD on submission of Registration fee details and copy of competent authority's approval.5) Issue of NOC and itinerary by IC Coordinator6) Employment Certificate to be issued by HRD7) Submission of VISA copy to IC Coordinator for booking and issue of tickets and Travel Insurance8) Total Estimate including payment of Advance to Official will be processed by IC Coordinator which includes International airfare, Registration fee,

	<p>accommodation, per diem, internal travel abroad or within India, visa fee, insurance, etc.,</p> <p>9) The candidate takes advance amount, tickets, all other necessary documents required for visit and performs the visit abroad.</p> <p>10) On return the User has to submit Tour Report, Participation Certificate along with settlement of accounts against advance taken.</p> <p>11) IC Coordinator to process payment of Airfare and insurance to Third Party.</p> <p>Settlement: On return to ARCI after the visit, User has to do the settlement of the tour. The User should provide an Expenditure Summary duly signed and submitted within 30 days of their return with all annexures such as tickets, boarding passes, bills against accommodation, internal travel etc. If the tour is for more than 5 working days the User has to submit Part II of the DST prescribed proforma.</p> <p>IC Coordinator verifies and forwards to Finance for final settlement against advance taken by the User. User has to pay back any difference amount to ARCI.</p> <p>b. Project staff / Research fellows:</p> <p>Eligibility for deputation abroad</p> <ol style="list-style-type: none"> Minimum one-year completion of service in case of Project staff and 3.5 to 4 years in case of Research Fellows Research Fellows need to have atleast 2 publications preferably first author / patent Obtain funding from External agency like SERB/CSIR/other institutions for Airfare, Visa fee, registration fee etc., Both Project Staff and Research Fellows should have been graded 'Outstanding' in their recent Annual Review. <p>The process: Points 1 to 7 and 9 to 11 above remains the same.</p> <p>8) Total Estimate including payment of Advance to Official will be processed by IC Coordinator which includes International airfare, Registration fee, visa fee and a fixed amount of US \$ 75/day for not more than 5 days for all other expenses.</p>
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	<p>Settlement: On return to ARCI after the visit, User has to do the settlement of the tour. The User should immediately process Claim for reimbursement by Funding Agency by submitting the claim form along with all enclosures. A copy to be submitted to IC Coordinator. If the tour is for more than 5 working days, the User has to submit Part II of the DST prescribed proforma.</p> <p>User has to inform Finance and IC Coordinator on receipt of reimbursement from the Funding Agency and settle the accounts against advance taken from ARCI.</p> <p>Other validations for (a) and (b):</p> <ol style="list-style-type: none"> 1. If the deputation abroad is less than 8 days the official may be granted ex-India leave for a maximum of 4 days. If the deputation abroad is more than 8 days, ex-India leave limited to 50% of the actual days of official deputation may be allowed suffixing the deputed dates, without any financial implication from ARCI.
Output	<p>Report for Foreign Visits to be generated when and what purpose and Where Visited based on 'From Date and To Date'.</p> <p>Search mechanism to be provided for finding travel details with the relevant fields.</p>

B) Foreign Visitors to ARCI

Input	Foreigners visit to ARCI
Process	<p>The foreign visitors to ARCI happens in following scenarios.</p> <ol style="list-style-type: none"> 1. Installation & Commissioning of Equipment (As part of Purchase Orders of ARCI) 2. Experts visit for technical discussions / lectures / Workshops 3. Bi-lateral / Multi-lateral Student/Faculty Visits <ol style="list-style-type: none"> a) Request from User along with approval or justification/purpose of visit of Foreign Expert to IC Coordinator b) An Invitation Letter to the Foreign Expert who will be visiting ARCI along with Letter addressed to Indian Embassy in respective Countries – IC Coordinator c) Financial implication, if any, on case to case basis – IC Coordinator

Output	Search mechanism to be provided for finding travel details with the relevant fields.
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Sub Module: Lectures – Coordinator, Centre for Technology Acquisition and Transfer

Office Memorandum (OM) for lectures are being issued by Coordinator-CTAT. Honorarium is paid to the Speaker.

Input	A standard form can be designed to generate the OM through system.
Process	Notification has to be sent to all the users. Against the OM, system has to automatically raise the payment advice for honorarium.
Output	Search mechanism and reports to be provided for the OMs / Lecturers date wise and with the relevant fields.

5. Site Visit:-

The bidder is advised to visit ARCI to study the requirements in their entirety and also the existing applications before submitting their proposal. The visit shall be performed at least 5 days prior to the EoI submission date.

Bidders are requested to send an eMail to naresh@arci.res.in at least two days prior to visit the site (ARCI Hyderabad), mentioning the details of the Officials with date and time of their visit.

Bidders are requested to visit the site with Authorization letter from their company.

6. EoI submission:-

The EoI containing the Technical Proposal along with documents related with Basic Qualification criteria should be submitted to the below mentioned address on or before the due date. The EoI can be submitted in person or through post/courier. ARCI will not be responsible for transit delay of EoI submitted by Post/Courier etc.

Address:-

International Advanced Research Centre for Powder Metallurgy and New Materials,
Balapur Post, Hyderabad – 500 005, Telangana, India

Two stage bidding procedure

Stage -1:-

Invitation for Expression of Interest (EoI): This document details the terms and conditions for inviting EoI from eligible bidders. The interested bidders are requested to submit their Expression of Interest as a turnkey solution.

Basic Qualification Criteria: The bidder has to submit their Expression of Interest along with qualification documents as per the basic qualification criteria defined in this document. Qualification criteria submitted by the bidder will be evaluated by the concerned authorities.

Technical Presentation: The bidders, who are qualified in the basic qualification process, will be invited to deliver a presentation about their experience and proposed solution towards the EoI. During their presentation, bidder should provide enough evidence of their claims and explain the proposed solution. The Concerned Authority will evaluate the bidders' experience, technical presentation of the proposed solution and qualify/disqualify bidders accordingly.

Request for Proposal: The Final RFP with desired solution will be prepared based on the proposals received from the technically qualified bidders during the stage-1.

Stage-2:-

The technically qualified bidders based on stage-1 will be invited for submission of their techno commercial bids for the decided solution (RFP) in 2 bid method.

BASIC QUALIFICATION CRITERIA

ESSENTIAL:-

The Bidder must possess the adequate experience, expertise and capabilities in implementing a Web-based Enterprise Resource Planning (ERP) Solution. In connection with this, the bidder should strictly adhere to the following Basic Qualification Criteria. **Bidders not meeting the basic qualification criteria will be rejected.**

Relevant documents like Contract Order, Contract Completion Certificate, Maintenance Certificate, Experience Certificate, Company Registration Certificate, Qualification Certificate, Confirmatory / Undertakings notes related to each of the Criteria mentioned below shall be submitted as documentary proof along with their proposal.

CRITERIA		<u>Documents to be provided</u>	<u>Complied Yes / No</u>	<u>Page No(s) of the document</u>
Technical validation (Bidder):				
1	The bidder shall be a company registered under the respective Indian acts (i.e. companies Act -1956) having their registered offices in India.	Copy of Certificate of incorporation.		
2	The bidder should be registered with Income Tax and Goods & Service Tax departments	(a) Attested copy of PAN/GIR Card (b) Attested copy of Goods & Service Tax registration certificate		
3	The bidder should not have been black listed / debarred by any of the government agencies or departments	The bidder shall submit a self-declaration document with appropriate details.		
4	(a). Average Annual Turnover of the company shall have a minimum of Rs.5 Crore or above in the last five years i.e. from FY 2016-17.	(a). The audited financial statement with the Balance sheet, profit & loss account statement, I-T Returns and Annual turnover for the last five financial years shall be furnished.		
	(b). Out of the above mentioned point 4(a), Projects exclusively on ERP should be furnished separately.	(b). For ERP Projects, Certified Work Orders / Agreements of award of contract with Completion Certificate, Maintenance Certificate, and Experience Certificate of the executed ERP Projects shall be furnished.		
5	The bidder should have successful implementation of Web-based	Certified Work Orders /		

	Enterprise Resource Planning (ERP) Solution (which is being proposed to ARCI) independently without any organizational or other intermediary within last five years in at least TWO of any Central Government Organizations / R&D Institutes / Central Universities / Central Academic Institutes / Central Govt. Autonomous Organisations	Agreements of award of contract with Completion Certificate, Maintenance Certificate, Experience Certificate of the executed web-based ERP solution (which is being proposed to ARCI).		
6	The bidder should accept all the EoI conditions unconditionally and sign all the pages of the document to this effect. The competent authority may authorize a person for signing the documents through a letter.	All the pages of the tender document should be signed by the bidder.		
7	The bidder shall be able to implement the solution directly without any organizational or other intermediary.	An affidavit of this effect is to be submitted.		
8	The bidder shall submit authorization from respective OEMs for participating in this EoI.	Authorization letter from OEM		
9	The bidder shall be able to host the proposed ERP Solution on the existing DC-DR sites of ARCI and/or public/private cloud platform.	The bidder shall submit a self-declaration document with appropriate details.		
10	Certifications	The bidder should submit valid ISO 9001 / 27001 / CMMI / MSME certifications		
11	The Bidder shall provide the details of the company including technical strength, skill set, manpower details, and organization structure and shall have enough number of certified professional(s) with minimum Two Years of experience in the relevant proposed technology.	The bidder shall submit a self-declaration document with appropriate details.		
Technical validation (Application Features):				
12	The solution should be completely a web based ERP Solution with all the security features, modular in nature and should be one software solution not multiple software solutions.	The bidder shall submit a Self-declaration of fulfilling the individual criterion signed by their authorized representative.		
13	The proposed solution should be either Off-the-Shelf or low-code or			

	no-code platform based ERP product implemented with industry's best practices, which is to be customized as per the requirements of ARCI.			
14	The application shall be compatible with popular operating systems such as Windows, Linux and Mac at client level. The application shall be compatible with all common web browsers, namely, Google chrome, Firefox, Safari, Microsoft edge etc. and should be compatible with any of the devices such as Desktops / Tablets / Laptops / Mobile phones / etc.,			
15	The bidder should provide mobile apps to allow certain operations/actions for appropriate modules			
16	The application shall be able to import/export the data/reports in the formats such as PDF, DOC, XLS, CSV, etc., as required by ARCI			
17	The solution should have provision to define and view rules and regulations of the Organization as per applicable GoI / ARCI norms			
18	The solution should support biometric, internet banking, and smart card inputs			
19	The solution should interface with third-party payment gateways			
20	The solution should have digital signatures for selected high- level functionaries and e-Sign for other officials.			
21	The application shall be able to provide audit trails.			
22	The bidder shall agree to provide (i) detailed schema of all databases and (ii) regular data backup in local recovery format at the given time for Information Audit and other purposes.			
23	Data Archival - The data need to be archived at regular intervals			

24	Comprehensive data and application security features with adequate security provisions for preventing tampering of the software as well as data should be inbuilt.			
25	Workflows and general access should follow the Role Based Access Control (RBAC). Multiple people can play same role. Also, a person can play multiple roles. The application should support configurable provision for recommendation, approval and auto-escalation at various levels.			
26	The application should be able to expose using Application Programming Interfaces (API) (should follow the OpenAPI Specification (OAS)) to other solutions. This is to support other software systems to have interface and exchange of data.			
27	Integration of SMS, Telegram, WhatsApp like rich text and UI based alerts to users			
28	The database character set should be UNICODE to support several languages.			
29	The bidder must ensure migration of all the existing ERP modules data to the proposed ERP solution			
30	The bidder should certify for the Warranty Support, Application Maintenance & Enhancement Services (AMES) Support up to 8 Years post GO-LIVE			

CONTENTS OF THE EOI

The bidder should submit their expression of interest with following details:

1. The bidder shall provide the details asked in the Basic Qualification Criteria with supporting documents without which their offers will not be considered for further evaluation. Against each point, the bidder shall mention the compliance statement and relevant page numbers of the documents.
2. All documents submitted shall be duly signed by the authorized official of the bidder.
3. Detailed Technical Proposal with Project Implementation Plan for Implementation of Web-based Enterprise Resource Planning (ERP) Solution for ARCI shall be submitted.
4. List of deliverables shall be submitted along with detailed specifications and time lines for delivery & execution of the contract.

1. GENERAL INSTRUCTIONS

- 1.1 Director, International Advanced Research Centre for Powder Metallurgy and New Materials (Herein after referred to as the Director) will receive bids in respect of the work mentioned in this document. Bids received after the closing date, as indicated in this document are liable to be rejected. The Director takes no responsibility for delay, loss or non-receipt of bids sent by post/courier.
- 1.2 The bid shall be submitted in English language only.
- 1.3 Unsealed, unsigned and/or incomplete bids otherwise considered defective are liable to be rejected.

2. CAPACITY OF THE BIDDER

- 2.1 Any person signing the bid shall submit documentary evidence that his/her signature on the bid, submitted by him/her is legally binding upon him/herself, and his/her firm or company, as the case may be.
- 2.2 The bidder shall produce satisfactory proof that they are financially in a position to fulfill the contractual obligations offered to be undertaken by them. The bidder shall indicate the details of their banker.

3 BIDDER TO INFORM HIMSELF/HERSELF FULLY

- 3.1 The bidder is required to carefully examine the documents enclosed and get fully aware himself/herself as to all conditions and matters which may in any way affect the works or the cost thereof, before submitting his offer.
- 3.2 If the bidder finds any discrepancies, omissions, or contradictions in the documents or is in doubt as to the true meaning of any part, he/she shall at once contact in writing for an interpretation/clarification to the Director, ARCI (eMail at: **director@arci.res.in**).
- 3.3 The bidder shall however not be entitled to any extension of time for submission of his/her bid on such account, unless the Director extends the due date.

4. ACQUAINTANCE WITH SITE CONDITIONS & NATURE OF WORK

- 4.1 Bidders are advised to inspect and examine the work site, its surroundings, nature and scope of the work, requirement of equipment, materials, tools and instruments necessary for the faithful performance of the work before submission of bids. The bidder is also advised to obtain all information as to risks, contingencies, responsibilities and other circumstances which might influence or affect his/her bid. It is incumbent on the bidder to have taken into account all the site conditions and difficulties that may be encountered during progress and performance of the work. All bids shall be deemed to have complied with these requirements. Failure to do so shall not absolve him/her of his/her responsibility about proper execution of contract work.