

*Request for Proposal*

*For*

*Selection of Vendor*

*For*

*Implementation of Data Centre and Integrated Automated System*

*at*

*Indian Roads Congress (IRC)*



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## **1 Background of Indian Roads Congress (IRC)**

The Indian Roads Congress (IRC) is the premier technical body of Highway Engineers in the country. The IRC was set up in December, 1934 on the recommendations of the Indian Road Development Committee best known as Jayakar Committee set up by the Govt. of India with the objective of Road Development in India. As the activities of the IRC expanded, it was formally registered as a Society in 1937 under the Societies Registration Act of 1860. Over the years Congress has burgeoned and grown into a multi -dimensional many faceted organization, devoted to the cause of better roads & better bridges in the country.

The Congress provides a National forum for sharing of knowledge and pooling of experience on the entire range of subjects dealing with the construction & maintenance of roads and bridges, including technology, equipment, research, planning, finance, taxation, organization and all connected policy issues. In more specific terms the objectives of the Congress are:

- To promote and encourage the technology and practice of building and maintenance of roads;
- To provide a channel for the expression of collective opinion of its members regarding roads;
- To formulate and promote the use of standard specifications;
- To advise regarding Research and Development connected with roads;
- To hold periodical meetings, to discuss technical issues regarding roads;
- To suggest legislation for the development, improvement and protection of roads;
- To suggest improved methods of administration, planning design, construction, operation, use and maintenance of roads;

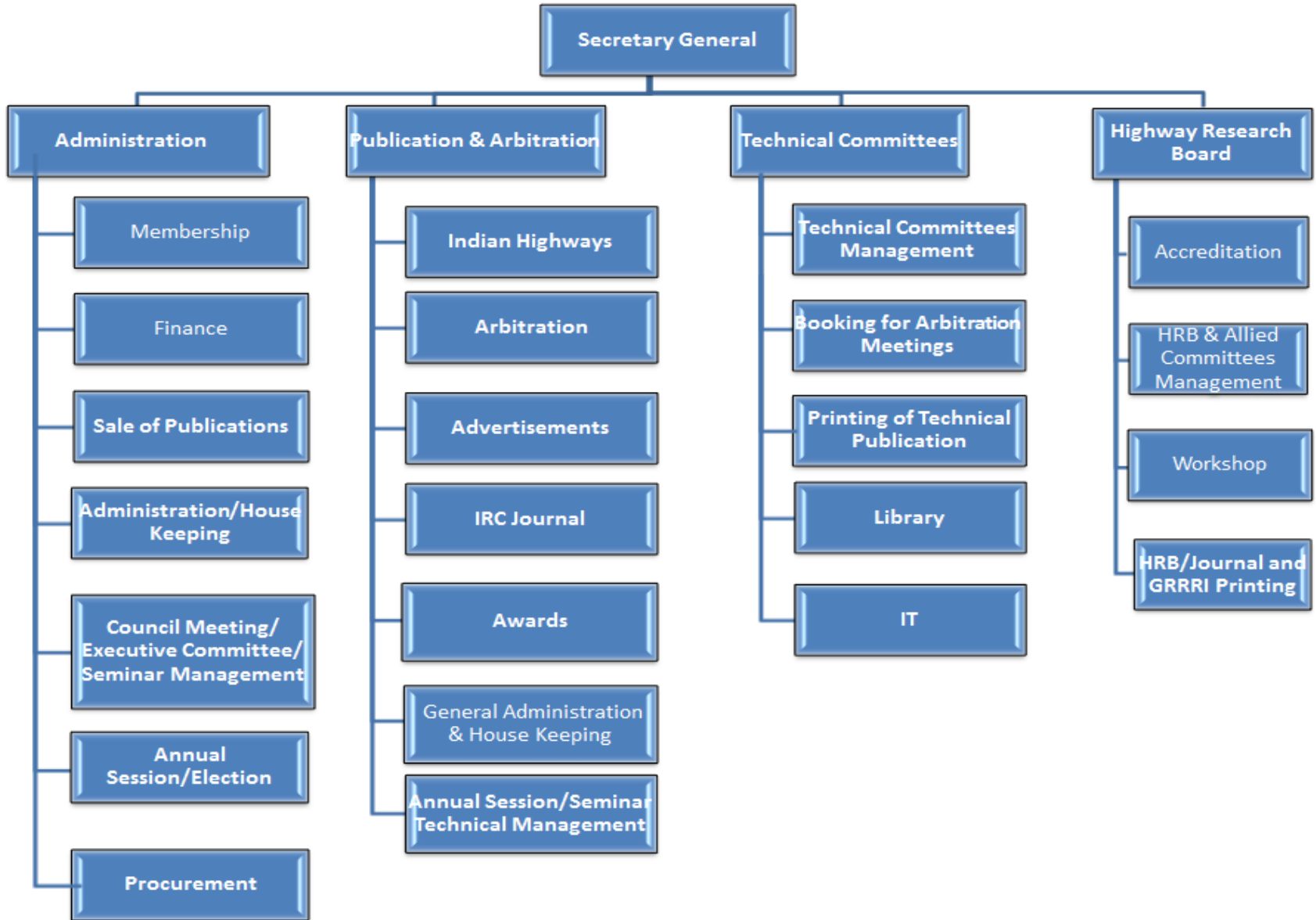
- To establish, furnish and maintain libraries and museums for furthering the science of road making;
- To publish, or arrange for the publication of proceedings, journals, periodicals and other literature for the promotion of the objects of the Society;
- To accept subscriptions, subsidies, donations, endowments and gifts in furtherance of the objects of the Society;
- To invest and deal with the funds of the Society or entrusted to the Society, to acquire and hold any movable or immovable property, and to borrow or raise money for the furtherance of the objects of the Society and to sell, lease, exchange, or otherwise deal with the same;
- To grant pay, prizes, honoraria, or scholarships (including traveling scholarships) for meritorious work in furtherance of the objects of the Society;
- To do all such other lawful things as may be, incidental or conducive to the attainment of the above objects;

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## **1.1 Organizational Structure of IRC**

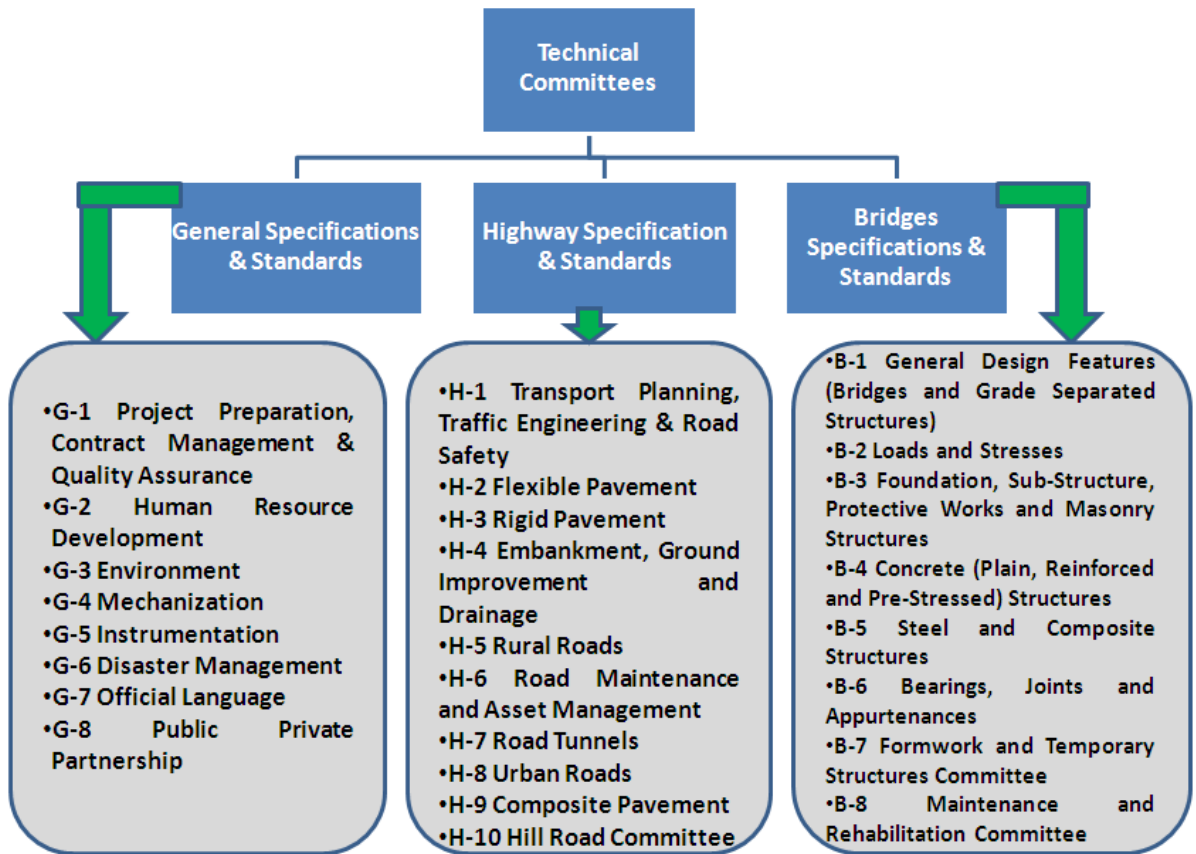
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The organizational structure of IRC is given in the diagram below:



The day to day activities of IRC are handled by a Secretariat which is headed by Secretary General. The Secretary General is assisted by Director/Addl. Director (Tech) in Technical matters of Highway Research Board Section and Indian Highways, Journal, Seminar Publication and Arbitration Section and by the Deputy Secretary (Admin.) in administrative matters. The secretariat is responsible for management of members, sale of publications, management of technical committees for creating, updating and reviewing codes of practices and standards used by roads and bridges engineers, publishing of Indian Highways, Journal, and Seminar Publications, Arbitration Management and Annual Session management. To undertake all these activities administrative section provides support through finance, housekeeping general administration, and library section. A brief description of various activities and sections of IRC are given below:

**Technical Committees**– The Technical section in IRC is responsible for creating, updating, reviewing and finalizing the codes of practices, specifications and standards followed by roads and bridges engineers. This section undertakes the above activities in coordination with various technical committees. The technical committees formulated by IRC are Think Tank for their subject areas.



There are three Apex Committees, viz, General Specifications and Standards (GSS), Highways Specifications and Standards (HSS) and Bridges Specifications and Standards (BSS). These three Committees are responsible for formulation of Codes of Practices, Standards and Guidelines in their respective areas of functioning. There are nine Technical Committees under Highways Specifications & Standards Committee, seven under General Specifications and Standards and eight under Bridges Specifications and Standards committee. The members of these committees are experts from various government and non-government bodies in the country. The details are given in the above figure. The technical section undertakes meeting management for all these committees and also finalizes the outcomes of these meetings to create the final specifications, codes and standards. In addition to these committees there is a committee on "Identification Monitoring and Research Application (IMRA), Core under Highway Research Board.

- **Administration section, Sessions, Seminars, Speeches, Council Meetings, Executive Committee, Procurement and Housekeeping** – This section handles all administrative activities to support various sections of IRC. IRC coordinates about 6 executive committee meetings in a year, 3 council meetings, 1 seminar and 1 annual session. Annual Session management is an involved activity undertaken by IRC. The administrative support for Annual session management includes interaction and coordination with the State Government hosting the annual session, membership management, and election process, attendance of delegates and registration of new members during the annual session. This section also undertakes registration of new members and management of members. The members/non-members can register themselves online through the portal and pay the fees the fees through credit card or debit card. The coordination of meetings includes support for booking of the venue, logistics, communication and travel management. To undertake its activities, this section interacts with the members, finance section, sale of publication, and publishing, printing and technical section. All procurement activities of IRC are also coordinated by the administration section. In addition to all these activities general administration, housekeeping and travel management is also undertaken by this section. This section also maintains the personnel files of all employees.
- **Finance (Cash, Advances, Membership and Annual Contribution)** – The finance section of IRC interacts with all the other sections for capturing all financial transactions. IRC receives payments from members, seminar participants, state governments, central government and any other public and private institution, arbitration fees, subscription fees, publication fees, advertisement fees and income from consultancy and research work. Receipts are generated for all incoming financial

transactions. Payments made by IRC include salary to all employees, payment to vendors, networking with other national/international organizations, office maintenance, insurance of assets, general office expenses etc. Vouchers are generated for all outgoing financial transactions. The finance section follows a double entry cash accounting system for maintaining the accounts. Pension and GPF are maintained as separate accounts and have separate trial balances. This section also maintains the membership data and keeps track of the Annual contributions. All financial transactions are recorded in the books of accounts and financial statements are generated periodically.

- **Sale of Publication, Dispatch, Diary and Reprinting** - One of the main sources of revenue for IRC is through sale of publications. This section maintains the inventory of all books, journals, codes, standards, specifications, diaries, bags etc. and releases the reprinting orders as and when additional stock is required. The details and price of new publication is sent to this section by the Technical Section. Members and non-members can buy the publication online through the portal and can pay through credit card or debit card. Members and non-members can also physically come and buy books / publications from this section. In some cases the books are sent by courier or post. This section undertakes management of subscription for journals for the members and subscribers. The payment received by this section is recorded and the details along with the cash are sent to the finance section.
- **Indian Highways, Seminar's papers & Proceedings, Advertisements and Arbitration** - This section handles the printing of Indian Highways Journal which is a monthly magazine. Along with the printing of this magazine advertisement management is also undertaken by the section. This section undertakes the printing of the Seminar's papers and proceedings and provides support to handle arbitration cases.

- **Highway Research Board** – Highway Research Board consolidates and coordinates the research activities in the roads, bridges and road transport. Highway Research Board functions through the committees. The activities of these committees are coordinated by the board. IRC funds the activities of the HRB in addition to the contributions received from central and state governments. HRB also has a committee on Identification, Monitoring and Research Applications (IMRA) which regulates the Road Research Work done in the country during the year.
- **Library, Website & Networking** – IRC maintains the information on the books from the Library of the Director General (Road Development) and the Indian Roads Congress. These books can be requested on loan by the members of the Indian Road Congress who are in service of the Central or state Governments and members who are not in service. The portal provides the link where user can view which publications are available in IRC and the associated cost. In addition to the maintenance of the library this section looks after the complaints and issues related to hardware and networking in IRC. IRC has dynamic website. The content for the website has been developed by various sections of IRC. Website will be jointly handled by IRC. IRC has a local area network in both the offices in RK Puram and Jamnagar House. All networks related issues and complaints will be handled by IRC.
- **IRC Journal and General Administration Section** – IRC journal is a quarterly magazine where technical papers and articles are published. The papers included in IRC journal are also presented during annual session. Some of the papers are also selected for awards. This section coordinates the invitation to the authors for annual session. It undertakes general administration and housekeeping activities for RK Puram office.

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## **2 Process Background`**

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The section given below provides the overview of the processes, issues and computerization needs of the various sections in IRC.

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### **2.1 Membership**

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All activities of IRC are centered on members. Membership section is therefore one of the main section of IRC. IRC has members who are qualified engineers or personnel connected with roads. This section maintains a rule book according to which membership is accepted. Any qualified engineer, who is or have been connected with roads, and any other person, who is a scientist of eminence, or is engaged in a responsible capacity in sciences related to road construction and maintenance can be elected as member of the society by Secretary General acting on behalf of the council.

There are about 14,000 members in IRC as on date and their details are currently maintained in a centralized database on the portal. Members of IRC are divided into following categories:

- Members
- Life Members
- Student Members
- Individual Associate Members
- Individual Associate Life Members
- Associate Members

- **Members:** Members consist of engineers fulfilling the eligible qualification criteria and who are or have been connected with construction and maintenance of roads. Other person being scientist of eminence in, or being engaged in a responsible capacity in the sciences allied to road construction and maintenance, as may be elected members of the Society by the Secretary General acting on behalf of the Council.
- **Life Member:** Life Members are those members who have paid subscription for the entire life. Members whose subscriptions are not in arrears may compound their future annual subscription by a single payment depending upon their age at that time and may be elected as Life Members (LM) of the Society by the Secretary General acting on behalf of the Council. IRC has defined compounding fees value which is dependent on the age. Young engineers, up to the age of 35 can also pay the compounding fees in three installments.
- **Student Members:** Students of Final Year of B.E./B. Tech or M.Tech/Ph.D in Engineering may be elected as Student Members (SM) of the Society by the Secretary General on behalf of the Council. The Student members do not have the voting rights.
- **Individual Associate Members:** Such persons, who, while not eligible to be members are or have been; in the opinion of the Executive Committee, engaged in the administration of roads or road transport or so engaged in business connected with construction and maintenance of roads or with the manufacture or sale of materials used in connection with the making or repairing of roads or of road transport vehicles or the operation thereof, may be elected Individual Associate Members (IAM) of the Society by the Executive Committee acting on behalf of the Council.

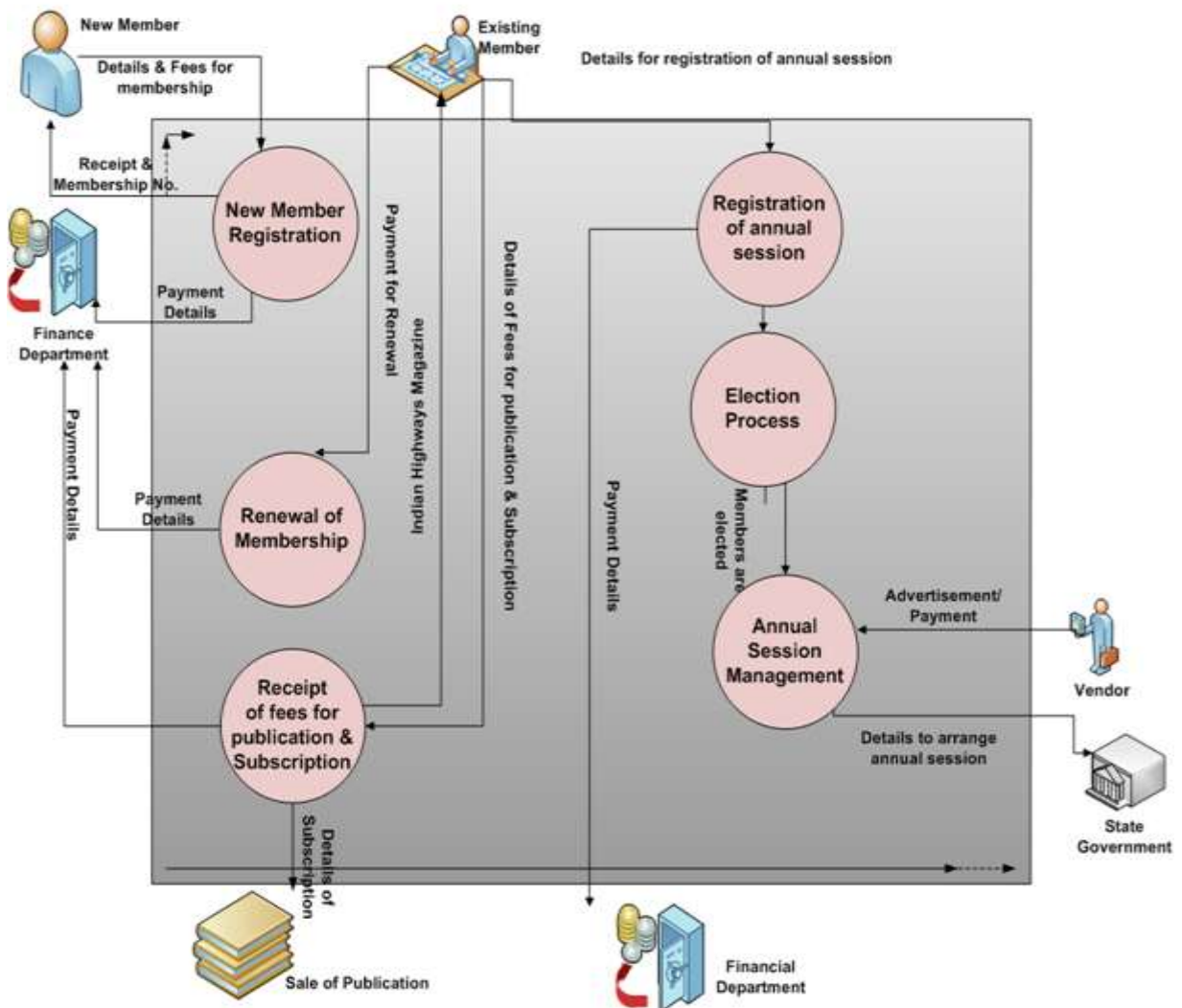
- **Individual Associate Life Members:** Individual Associate Members whose subscriptions are not in arrears may compound their future subscription by a single payment depending upon their age at the time and may be elected as Individual Associate Life Member (IALM) of the Society by the Secretary General acting on behalf of the Council.
- **Associate Members:** Such Institutions, Govt. Sections, Public Bodies or Corporations/ Companies who have been, in the opinion of the Executive Committee, engaged in the administration of roads or road transport or so engaged in business or work connected with the construction and maintenance of roads or with the manufacture or sale of material used in connection with the making or repairing of road transport vehicles, or the operation thereof, as may be, elected Associate Members (AM) of the Society by the Executive Committee acting on behalf of the Council.

An entrance fee is payable by the members on election. This fee is approved by the Council from time to time. The membership section receives payment from members and also receives payment for subscription and publication. Members of IRC get 25% discount on publication. IRC also organizes an annual session and seminars. Any member or non-member can attend annual session. All non-members have to become member during the annual session to be eligible for participating in the session. For attending seminars membership is not compulsory. Membership section performs following activities:

- New members registration
- Renewal of membership
- Receipt of payment for fee and publication
- Tracking of payment
- Regular information to members
- Annual session management

## 2.1.1 Process Diagram

The process diagram given below provides the details of all the processes carried out by the membership section. The process flow diagram includes the activities carried out by the section and the flow of information and data from and to various entities in IRC . The details of all the activities mentioned in the process diagram are given below:



- **Application for Membership:** Any qualified engineer or a person who is connected to the roads can apply for membership in IRC.

The prospective member sends the details through a form which can be downloaded from IRC's website and membership fee is also sent along with the form to IRC. This application is accepted as provisional membership subject to the approval by the Executive Council. Along with this any person who is qualified to become member of IRC can now register online through portal by paying fee through credit card or debit card. The fee is given through cheques, demand draft , cash and through credit card or debit card on a portal. The persons who gets registered online receives the receipt through email. Membership section sends the fees and membership details to the finance section. Confirmation for the same can be sent by mail also. IRC registers new members during the Annual Session. Any person of foreign country and from SAARC country who is eligible to become member of IRC can also register through portal or through other means, for membership.

- **Renewal of Membership:** The membership can be renewed by paying the renewal fees to IRC. The portal provides this facility to members of IRC. They can login into the portal using their username and password and can renew their membership online by giving payment through payment gateway. Confirmation for renewal is sent automatically to the members through mail. Membership section sends the renewal fees and details of the members who have applied for renewal to the finance section. The renewal fees and membership details are updated in the respective databases. The membership section has to keep track of the renewal dates and send the reminder for renewal to the members.
- **Receipt of payment for fee and publication:** Existing members of IRC has the facility to purchase the publication and subscribe online through IRC portal. IRC prepares the list of the members who want to subscribe and that list is sent to the Sale of Publication section.

- **Annual Session Management:** Annual session is a major event organized by IRC every year. Annual session can be held in any of the state. The Annual Session is organized in partnership with the state government. Any member or non-member can attend the annual session. All Non-Members have to become a member during the annual session. The member or non-member registers for annual session through portal. Confirmation mail is sent to members automatically through portal. IRC prepares the invitation booklet for the annual session with all the details included in the same. The portal provides facility to members and their spouse to register online and pay the fees through payment gateway. A fee for the spouse is also charged. The organization and logistics for the annual session are handled by the state government in coordination with the IRC. The portal also handles attendance during members who are present for annual session. Activities held during the annual session include election of the council and executive committee, technical sessions, award for the papers, technical exhibition, cultural programs, post session tours and consolidation of the discussions after the annual session. A separate site in the portal is created for handling the Annual Session and the host state Government is expected to create a dedicated web site for the Annual Session.
- **Election Process:** During the annual session, IRC conducts the election for electing the members to the governing council, executive committee and technical committees. All IRC members participate in the election process. The process of election is held during the annual session with help of portal and the results are announced at the end of the annual session. The member can mark his vote online during annual session.

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### **2.1.2 Current ICT and Phase II Requirements**

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Central data base is maintained for membership section. Membership section interacts with other sections in IRC. The membership fees, annual session registration, seminar fees, publication fees collected by the membership section are sent to finance section with the required details. Integration of membership with finance section is required so that fees for membership section is automatically updated into the finance section using automated system.

Membership section is totally computerized during phase I and during phase II the proposed ICT system must provide the following functionality:

- The main requirement of Membership section is to integrate with Finance Department, Sale of Publication section and Technical Committee Section.
- Some MIS reports are handled by the portal. However all financial reports and books of accounts have to be provided by the automated system.

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## **2.2 Sale of Publication**

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This section at IRC essentially handles storage and distribution of all publications which are sold to the members or non-members. This section currently has 267 publications which are divided into 10 categories. Every year around 10 publications are added to the list and 1 or 2 are either deleted or are merged with other publications.

The publications sold by IRC are prepared and updated by the technical section. After finalizing the contents of the publications, the technical session, directly sends the first lot for printing. The technical section also sends the details of the publications and the cost to the Sale of Publication section. After receipt of the first lot of the printed publication, this section maintains the inventory and manages the sale and dispatch of the same. Thereafter any reorder to the printers is managed by this

section. This section deals with a number of printers and publishers to stock the required publications.

Sale counters of IRC are located in the Jamnagar House and R.K.Puram offices of IRC. In addition to these two counters, IRC has regional Sale Counters in Hyderabad, Bhubaneswar and Guwahati. Now members can also buy publication online through portal by giving payment through credit card or debit card. Information regarding publication is displayed on the portal. Members are given discount of 25% on one copy of the publication. Apart from members this section also deals with subscribers. This section accepts payment for material by either cash or through demand draft and through credit or debit card.

For all cash payments, manual receipt is given to the purchaser. For online payment members receives receipt through email. Sometimes this section receives the request for purchase through a letter. For all such cases a Performa invoice is sent to the requestor. On receipt of the correct demand draft, the sale of publication section dispatches the material. Cheques are not accepted for such requests. The material is dispatched only if the demand draft of the correct value is received.

This section performs the following activities:

- Receipt of Material
- Sales Process
- Dispatch process
- Reprinting of codes
- Subscription management
- Inventory Management

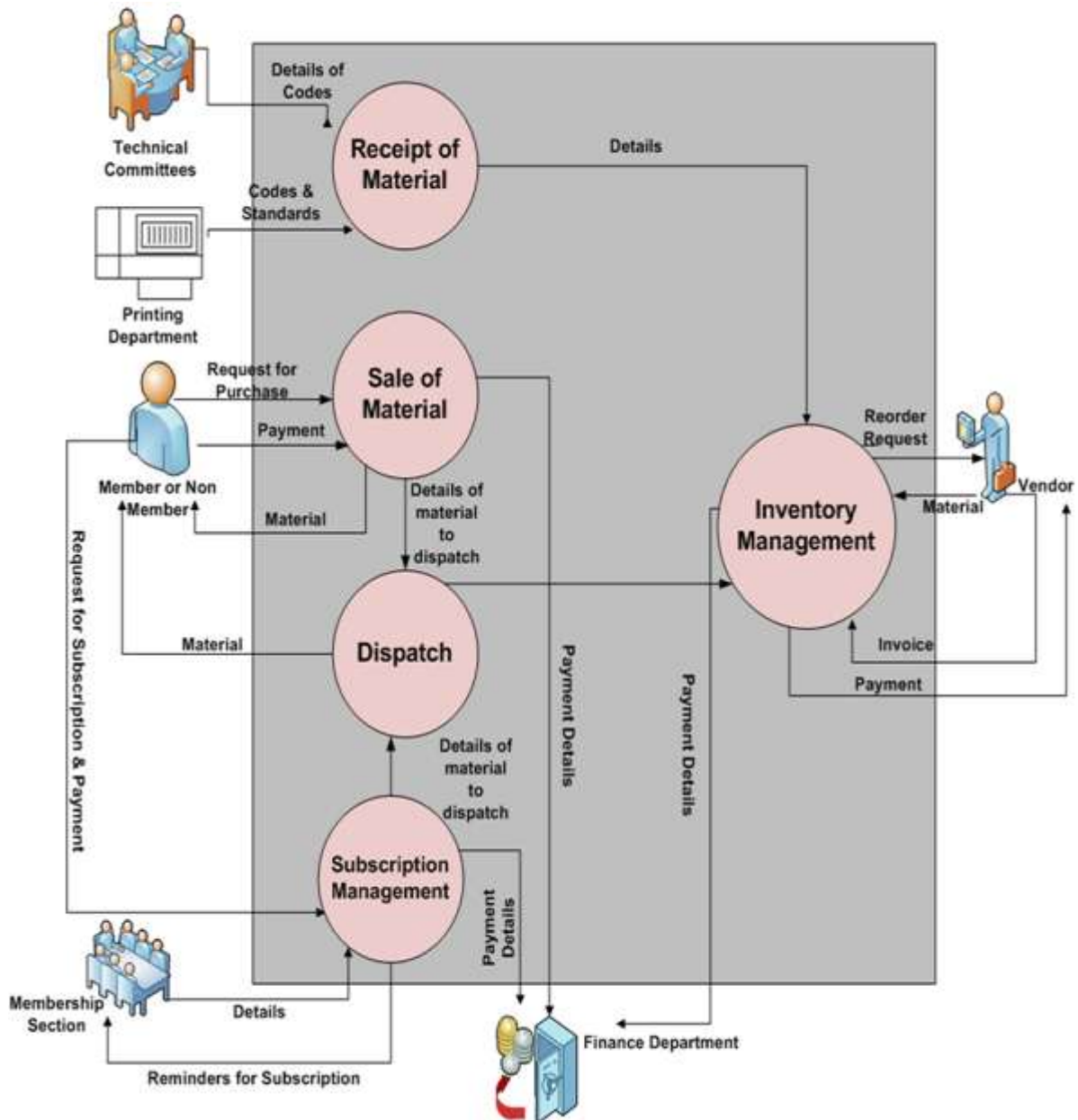
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### **2.2.1 Process Diagram**

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The process diagram given below provides the details of all the processes carried out by the Sale of Publication section. The process flow diagram

includes the activities carried out by the section and the flow of information and data from and to various entities in IRC. The details of all the activities mentioned in the process diagram are given below:



- Receipt of Material:** Any new material which is prepared by the Technical Committees of IRC is sent to Sale of Publication section. The Technical Committee section creates the material and sends the first lot for printing directly to the printers. The technical

section also provides the details such as cost, number of books etc. to the Sale of Publication section. External vendors and printers (upon receipt of material from technical committee section) send the material to Sale of Publication section. Thereafter this section directly interacts with the printers and vendor for the reorder processing. However if any revisions are required in any existing material, the technical committees section undertakes the same and the new updated publication is processed similar to the new publication.

- **Sales Process:** Any member or non-member can request for the material from IRC online through portal. The material is issued after the payment is received. The payment and its details are sent to the finance section. All members of IRC get a discount of 25% on one copy of the publication. The portal has the facility to check the membership status of the requestor and only if there are no dues from the member, the discount is given. Sometimes, the members request the Sale of Publication to send the Proferma Invoice of the material requested. This section sends the Proferma Invoice to all such members. Currently this section accepts cash, demand drafts and payments through credit card or debit card to sell the publications, standards, codes etc. The portal provides facility to members to check the status of their purchase order.
  
- **Dispatch Process:** The dispatch process deals with the outward dispatch of material from external stakeholders. The dispatch may be done using any of the following means:
  - Courier
  - Registered post
  - Speed post.

The external stakeholders have to send the demand draft of the correct amount to IRC and also bear the postage charges for any material dispatch. This section sends the material by post, courier or speed post

after receipt of the full payment. The computerized system at IRC is expected to completely automate all the aspects of receipt and issue of mail at IRC. All mails will be scanned at the two locations including R.K Puram office of IRC and Jam Nagar House of IRC.

- **Subscription Management:** The subscription management services are available only to the registered members of the site. The user can see the list of periodicals which are available to the user for subscription along with their price and frequency information on a click of mouse. If user finds the desired publication in the list then he can subscribe himself through the portal.
- **Inventory Management:** Since this section stocks all the publications, standards, codes, journals, magazines etc. the inventory management is an important activity. After all the transactions the inventory is updated to keep track of the reorder level and ensure that enough material is in stock for the sale. The portal gives facility to keep record of challan and admin user can add new challan into the system. System updates Stock management (Challan) list and also updates Publication Management Stock position in the system. IRC admin can also update the list of damaged stock in the system.

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### **2.2.2 Current ICT and Phase II Requirements**

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All the publications of IRC are widely used by the members and non members of IRC across the country. Currently these publications can be bought from the sale counters in IRC offices in Delhi, Hyderabad, Bhubaneswar and Guwahati by either cash or draft payment. IRC portal also provide the facility to buy publication by doing payment through credit card or debit card. All orders received from web portal will be

processed by the section and the material can be dispatched at the given address.

This section requires that existing inventory management module should be able to be integrate with the finance section, membership section and technical committees to share the information regarding sales transactions, membership details and publication details.

The sale of publications requires the following functionality in the ICT based system proposed to be implemented at IRC.

- Inventory management – Integration with finance, membership to share the information regarding sales transactions, membership details and publication details

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## **2.3 Finance**

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IRC has double entry system. Receipts are created by finance section for all accounts receivables including cash, cheques or demand drafts. Finance section receives payment from member including subscription of member, renewal fee and registration fee for annual session, seminar fees, and contribution from the state governments. This section also receives payments from Sale of publication, arbitration fees, advertisement fees and Annual Contribution from state governments and public sector enterprises. Finance section currently has a standalone system using DBase to enter and process financial data. Finance section makes an entry into the system and receipt is sent to the concerned section. Each section maintains its own accounts.

Various income heads of IRC are as follows:

- Fees & subscription including annual subscription, entrance fees and life membership fees
- Sale of publications

- Annual contribution from Government of India and State governments
- Registration fees for session and workshop
- Seminar sponsorship, registration fees and miscellaneous income
- Advertisement receipts
- Contribution for Highway Research Board
- Amount receipt for special meetings and council meeting
- Income from consultancy and research work
- Interest on investments
- Miscellaneous income such as arbitration fees, accreditation fees and any other receipts.

The Finance section deals with three banks-SBI , Maharashtra Bank and HDFC bank. Inward payment is sent to the banks with pay-in slips. Only HDFC bank provides services for payment gateway online transactions.

IRC makes the payments to the vendors and printers for procurement of the publication, standards, codes, seminar publication etc. All purchases of IRC are approved by the Secretary General for payment and this approval comes through file, no verbal approvals are accepted.

The expense heads of IRC are as follows:

- Establishment expense including salaries to all employees, local and other allowances, gratuity contribution, pension contribution, travel allowance, CGHS contribution, Medical reimbursement, conveyance, deposit linked insurance, GPF, salary, contribution to the new pension scheme
- Office equipment expense
- Printing of publication expense for publication and printing of HRB
- Postage and packing expense
- Expenses to organize and conduct Seminar
- Session and workshop expenses
- Council General expenditure

- Contingent expenditure including conveyance, meeting expenses, newspaper and periodicals, telephone, general printing and stationery charges, bank charges, vehicle repair and maintenance, web site expenditure, office repair, insurance of assets, rent, security charges, employee welfare expense, water expense etc.
- Renovation of the office
- Consultancy and research expenses
- Networking with other national and international organizations
- General expenses including audit charges and library books

IRC maintains following books of accounts for their financial transactions:

- Petty Cash
- Journals
- Ledgers
- Day Books

Finance section uses DBase software for financial processing and maintaining their books. The current software allows the finance section to undertake:

- Account Master Maintenance to add, edit, delete, print master file
- Cash Book general processing
- Posting transaction to Ledger
- Generation of Trial Balance
- Generation of Balance Sheet
- Annual Budget Statement
- Budget creation and consolidation

Finance section performs the following activities:

- Monthly generation of cash books
- Financial accounting
- Bank reconciliation

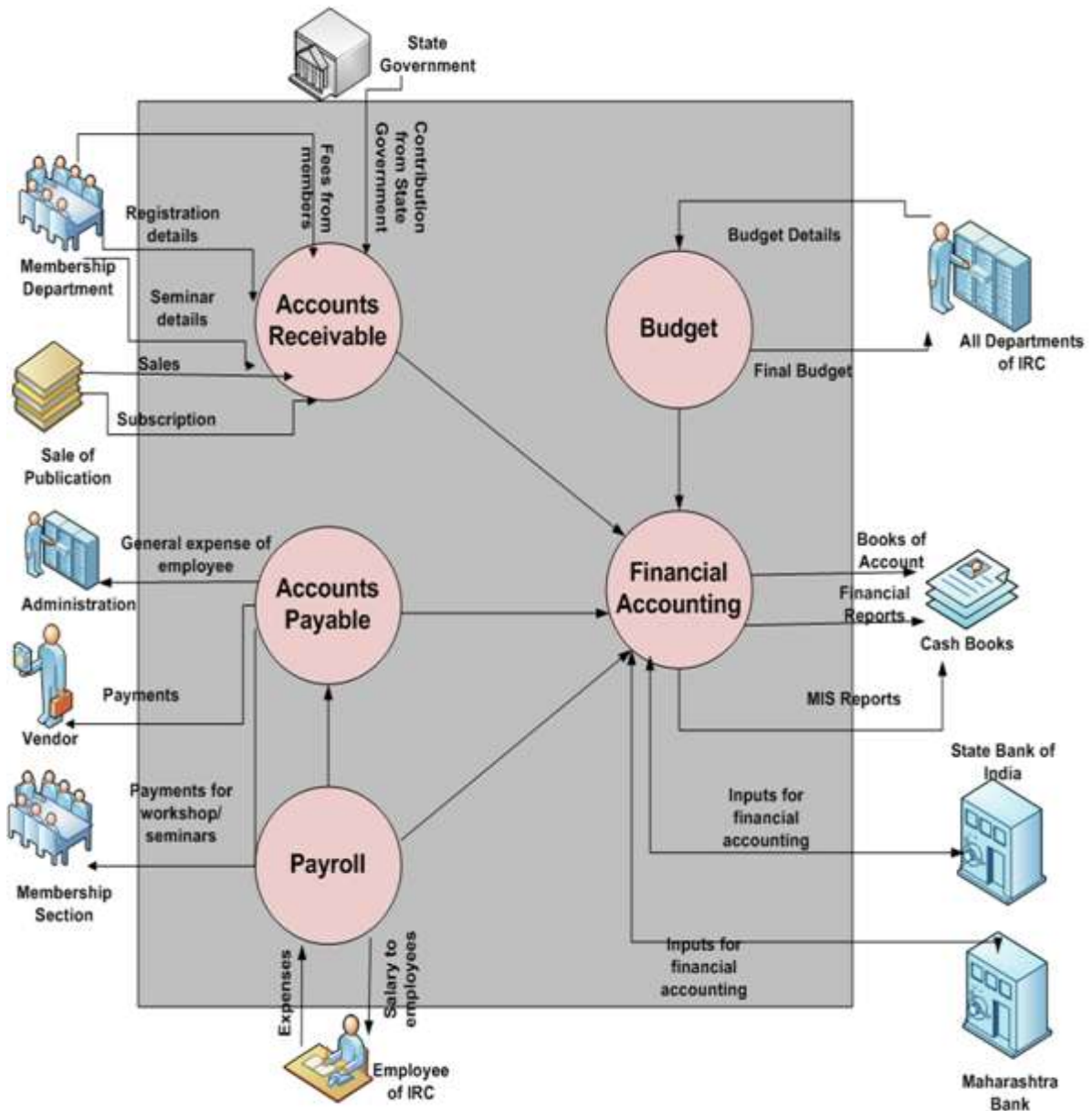
- Payment and Receipt accounting
- Payroll
- Budget
- Balance Sheet

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**2.3.1 Process Diagram**

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The diagram below depicts the overall flow of activities at the finance department:



- Accounts receivables:** All payments received by IRC are accounted for in this activity. The payments received by IRC include membership fees both online and manually, payment from sale of publication, seminar fees, subscription fees, advertisement fees, arbitration fees and contributions from the government. Most of the payments are received by the respective sections. However finance section also receives payments from members and non members. The payment received is accounted for and receipt is sent to the respective sections. The institute maintains accounts

with SBI as well as Maharashtra Bank. All payments received by IRC are immediately deposited in the bank with pay in slip. All transactions are recorded in books of accounts.

- **Accounts Payable:** IRC makes payments to vendors for various activities such as printing, procurement of various items, miscellaneous expenses, and general administration. In addition to these IRC makes payments to employees for general expenses as approved by the IRC management. Majority of the payments are made by cheque. All payments upto Rs.Ten Thousand can be approved by the Deputy Secretary and payments upto Rs.Five lakh are approved by the Secretary General. The approval process involves movement of a file, no verbal approvals are accepted. All payment transactions are recorded in the books of accounts.
- **Payroll:** IRC has at present 44 employees on the payroll. Payroll process in the finance section takes care of all employee payments. These include the pay, arrears, allowances, and advances. The activities of this unit are closely linked to administration section which handles the HR issues. This unit also maintains accounts for trust funds. The administration section sends the attendance details to the finance section. The finance section processes the payroll data.
- **Budget:** The budgeting exercise at IRC begins around the end of every year. All the sections prepare their budgets and send the same to the finance section. The finance section maintains and updates the budget on a regular basis. IRC requires a formal budgeting process with the automatic budget update and control.
- **Financial Accounting:** Accounting at IRC is done through a double entry accounting system. Finance section maintains a standard books of accounts such as journals, ledgers, day book and cash book. The accounts are consolidated and Balance Sheet

and Profit & Loss statement are prepared. Bank account reconciliation happens through monthly statements. There is a need for automated reconciliation of bank account entries.

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### **2.3.2 Current ICT and Phase II Requirements**

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As in any other organization, finance section is one of the most important sections of IRC. The current computerization at the finance section essentially revolves around use of DBase program to enter and process finance data. This data is consolidated and reports are generated as and when required.

None of the sections have any connectivity with the finance section leading to a lot of manual flow of information on payments and receivables between different sections and finance.

Thus there is a strong need for the implementation of an integrated financial accounting system linked to all sections of IRC. Such a system is likely to fulfill the current computerization needs of the finance section.

A computerized accounting system at the institute needs to automatically reconcile payments received at the institute and deposited at the bank. Similarly payments received through cheques, demand drafts and online payments need to be reconciled with their respective sources and appropriate entries made in to the individual account of the payee. Thus a computerized accounting system will provide an environment where in transactions and reconciliation shall happen seamlessly without the need of any paper work. The other sections can also check the status of the payment to various parties on line. This will not only save the physical effort and time to respond to parties but will also enhance the credibility and image of IRC with the vendors.

The finance section requires the following functionality in the ICT based system proposed to be implemented at IRC.

- An integrated software environment shall provide for automatic reconciliation of account and flow of data and information between different sections and finance section.
- Data entry of all transactions should be from a source point and should not be repeated.
- Payments received through cheques, cash, payment through online and demand drafts need to be reconciled with their respective sources and appropriate entries made in to the individual account of the payee.
- Automatic Bank Reconciliation- Reconciliation of accounts with the banks is an essential requirement of IRC.
- A computerized accounting system will provide an environment where in transactions and reconciliation shall happen seamlessly without the need of any paper work. The sections can also check the status of the payment to various parties on line. This will not only save the physical effort and time to respond to parties but will also enhance the credibility and image of IRC with the vendors.
- All Financial Accounting and MIS reports including day book, cash book, balance sheet, profit & loss statement.
- Computerization of payroll activity in finance department.
- Maintenance of account for Pension, GPF and Insurance separately.
- Process of Budget preparation and monitoring of budget.
- Audit trail feature to review the transactions during the financial audit.
- Budget estimates including analysis of figures relating to income and expenditure would be integrated with IT system.

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## **2.4 Administration**

This section provides administrative support to various activities like Sessions, Seminars, Speeches, Council Meetings, Executive Committee, Procurement and Housekeeping. IRC coordinates about 6 executive committee meetings in a year, 3 council meetings, 1 seminar and 1 annual session. To undertake its activities this section interacts with membership section, finance section and technical section. This section also maintains personal files of all employees. In addition to the above it also manages travel of the employees who travel to attend annual session, seminars and other meetings, manages the procurement process for the organization, and manages the housekeeping activities.

List of activities undertaken by this section include:

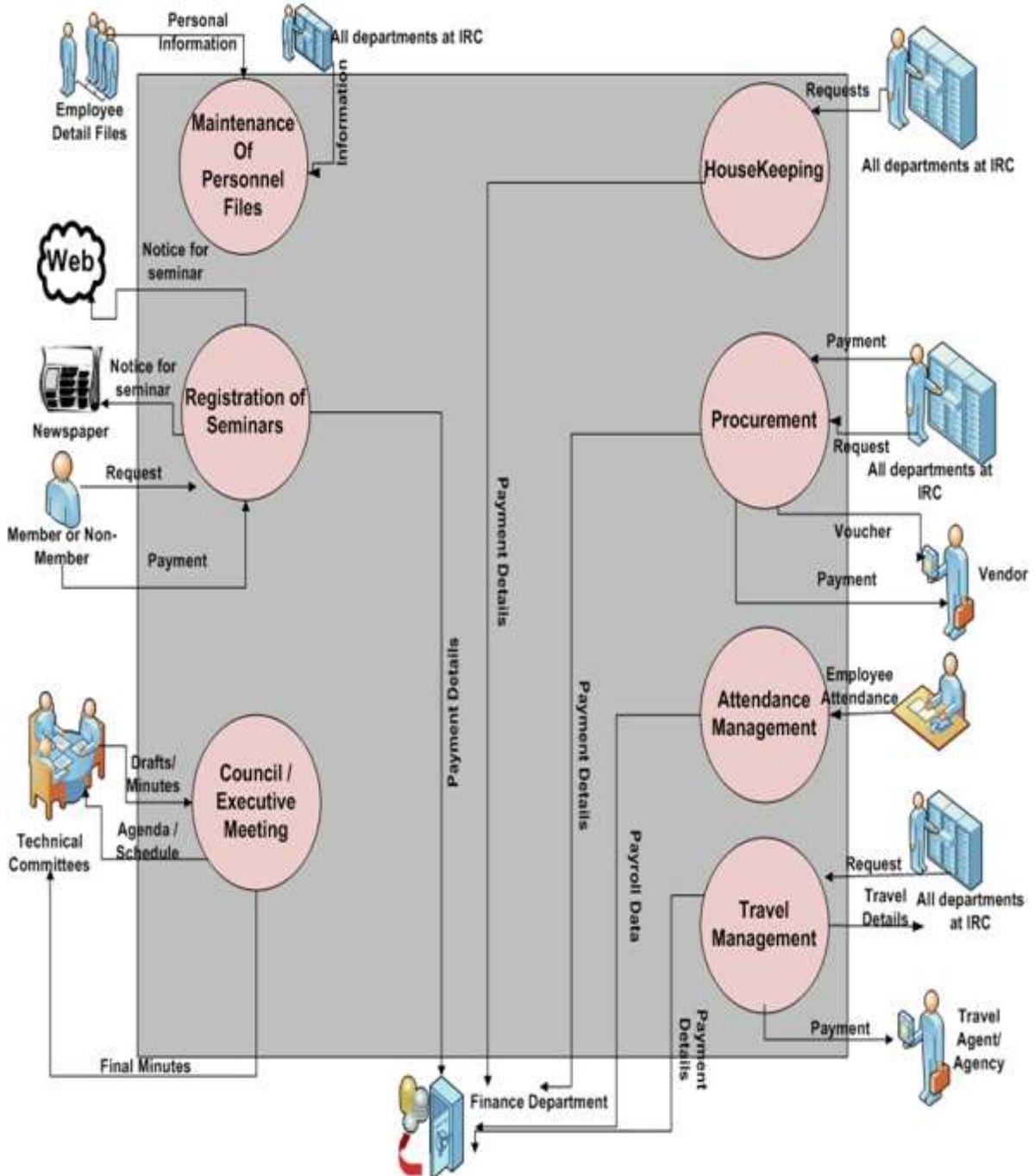
- Support to Executive Committee
- Council Meetings management
- Seminars / Annual Session coordination and management
- Procurement
- Speeches management
- HR Management

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#### **2.4.1 Process Diagram**

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The diagram below depicts the overall flow of activities at the administration department:



- Maintenance of Personal files of employees:** The administrative section maintains personal files of all employees of IRC. The files contain data pertaining to employee's joining date, retirement, promotion, salary, increment, ACR and all data related

to the tenure of the employee. These files are highly confidential in nature and are kept under lock and key in the safe custody.

- **Seminar/Annual Session Coordination Management:** The notice for the seminar is published on the web and in the newspaper. Registration for seminar is open to members and non members. The registration details and payment for the seminar is received by the administration section. Member or Non –member can register for the seminar through the portal by submitting the fee through credit card or debit card. The payment details of the participants are sent to the finance section. The participants' details are sent to the Executive Committee and the confirmation is sent to the members. This section also sends the invitation to the speakers and chairman. All logistics and administrative arrangements for the seminar are handled by this section.
- **Council/Executive Meeting:** This section interacts with the technical committee section by sending them the agenda and schedule of the meeting. Drafts and minutes of meeting are sent to Technical Committee section for review and finalization. The administrative and logistics for the council and executive meeting are also handled by this section.
- **Procurement:** All sections of IRC interact with administration section for procurement. Various sections of IRC send the request for procurement to this section. Administration section interacts with the vendors for procurement and payments. All payments are accompanied with the preparation of vouchers.
- **Attendance Management:** Biometric machines are installed at two offices of IRC. Current system provides reports for attendance in the organization.

- **Travel Management:** The administrative section also organizes travel for all employees of IRC for attending annual sessions, meetings, seminars etc.
- **Housekeeping:** The administrative section also manages housekeeping activities such as maintenance of the offices, equipment, network, security etc. The renovation, construction of the office and new floors is also managed by this section.
- **HR Management:** Administration Department of IRC handles the personnel matters in respect of 25 employees of the organization. These include 2 officers and other staff members including Desk officers, Assistant officers, stenos and others. The Human Resource modules required in Enterprise Resource Planning include:
  - Workflow based Attendance module
  - Employee master for salary processing
  - Leave records
  - Encashment of leaves
  - Increments
  - Promotions
  - Annual Confidential Report
  - Confirmation
  - Fixation of pay
  - Recruitment
  - Training & Development

Such a computerized HRMS environment at IRC shall lead to higher employee satisfaction and hence higher productivity.

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#### **2.4.2 Current ICT and Phase II Requirements**

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The administration section requires a system which can automate the approval process using a workflow based system for movement and

noting on the files. Since this section maintains all personnel files, the same can be scanned and kept in a highly secure area of IRC.

This section will require the following functionality in the ICT based system proposed to be implemented at IRC.

- Attendance and leave management system
- Workflow based Attendance module
- Employee master for salary processing
- Leave records
- Encashment of leaves
- Increments
- Promotions
- Annual Confidential Report
- Confirmation
- Fixation of pay
- Recruitment
- Training & Development

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## **2.5 Indian Highways, Seminar Publication & Arbitration Section**

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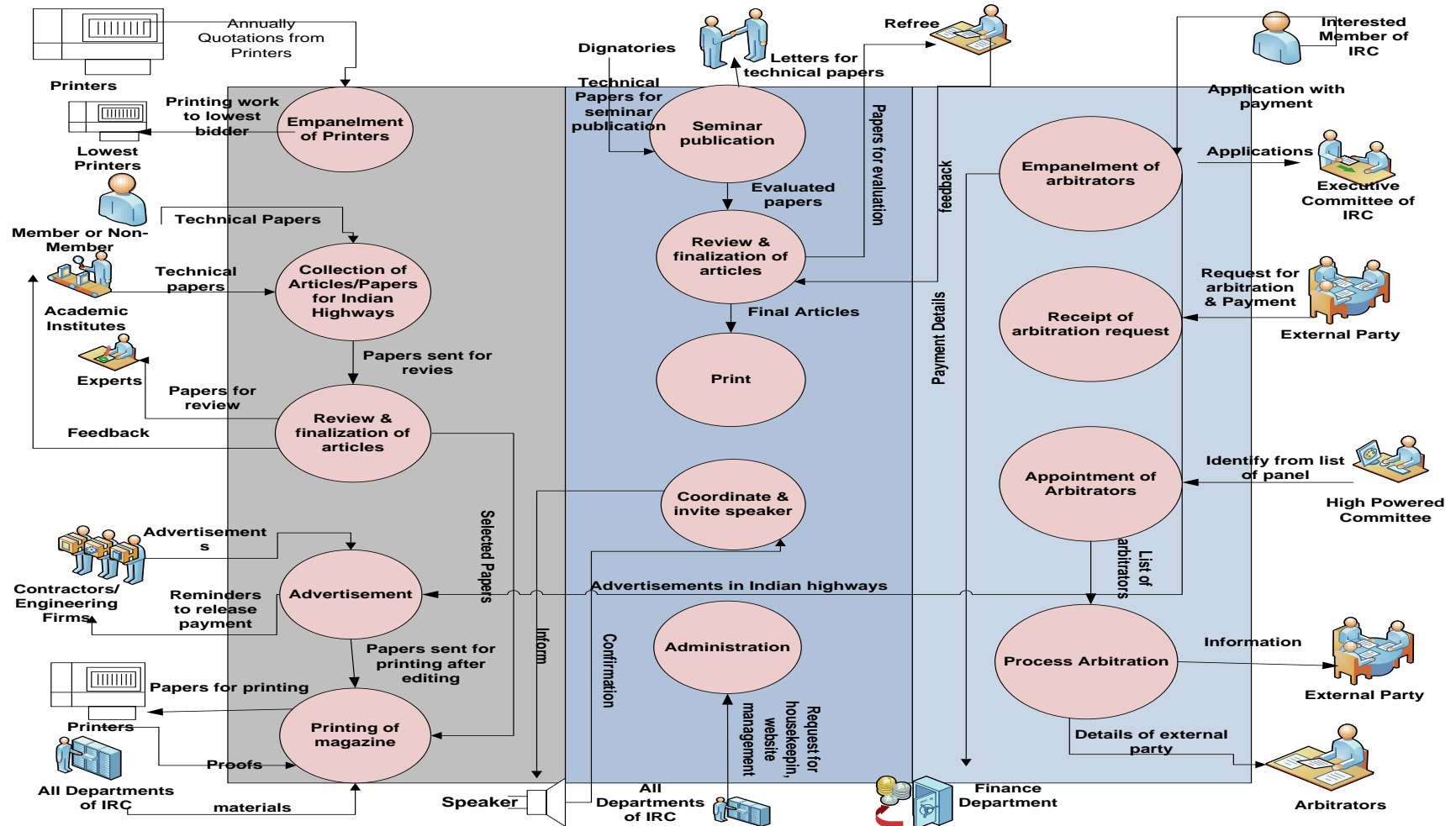
This section handles the publication of “Indian Highways” journal. This journal is a flagship journal of IRC. This is a monthly journal published by IRC and is bought by members and non-members. Members and non-members contribute articles in this journal. This journal is well received by the construction community in the country. Since the journal is well received in India, it attracts a lot of advertisements from contractors, engineering firms or consultants. This section also invites technical papers for the seminars and publishes a seminar technical booklet. IRC conducts one seminar in a year. The seminar is open to members and non-members. This section also manages the invitation to the speakers and coordinates with the speakers for conduct of the technical sessions during the seminar. Since IRC is premier technical body in the road

construction industry, it also provides the services to handle arbitration cases. IRC empanels the arbitrators and handles the arbitration cases by assigning the empanelled arbitrators to the cases. IRC charges the processing fees from the parties for nominating the arbitrators. Various activities carried out by this section include:

- Empanelment of Printers
- Collection of articles and papers for Indian Highways
- Review of articles and finalization of articles
- Printing of articles for Indian Highways
- Process of printing advertisements in Indian Highways
- Printing of Seminar Publication
- Coordination with Speaker
- Arbitration, empanelment and nomination of arbitrators
- Administration

## 2.5.1 Process Diagram

The diagram below depicts the overall flow of activities at the department:



- **Empanelment of Printers:** This section manages the publishing of Indian Highways journal and Seminar publication. The printing of these publications is outsourced to the printers. IRC has a process of empanelment of printers so that the procurement cycle is not repeated for printing of these journals every month. IRC invites the quotations from the printers. Based on the rates and qualitative criteria three printers are empanelled. Lowest rate is offered to three printers and based on the acceptance of the rate, three printers are empanelled. This section ensures that equal work is allocated to the printers. After the completion of the work order payment is processed.
- **Collection of articles and papers for Indian Highways:** Indian Highways is a prestigious journal of IRC. It is therefore very important to ensure that good technical articles are published in this journal. Members and non-members contribute technical papers for this journal. IRC has a panel of experts from various technical committees and other industry forums and academia. The portal gives the facility to collect papers from member/non-members. The papers received from authors are sent to experts for review and finalization. The portal keeps track of the articles received from various authors and the feedback sent to them for finalization. The validations done on the portal also ensures that the same article is not repeated in the journal.
- **Review of articles and finalization of articles:** The articles received are given to experts and some technical committees for review. The articles are reviewed and feedback is sent to authors. After changes are made to the articles, the final list goes to Secretary General for approval. Since this is a monthly magazine, this section has to follow up with the authors for timely receipt and finalization of the articles. Once the articles are finalized the printing process is initiated.

- **Printing of Articles in Indian Highways:** The final articles after review are sent to Secretary General for final approval for printing. After receipt of the approval from the Secretary General, the printing process is initiated. The empanelled printers are invited to undertake the printing activity. This section has to follow up with the printers for timely delivery of the journal.
- **Process of printing advertisements in Indian Highways:** Since Indian Highways is a popular and flagship journal of IRC, it attracts advertisers from the construction community. This section interacts with the advertisers and receives advertisement requests from them. The advertisement request is accompanied with the payment for advertisement. Through the portal IRC admin or member or any guest user can register the request for advertisement. The requester can pay online using credit card or debit card and receives the receipt online through email. The payment can also be paid through demand draft; cash or cheque. The advertisers create the advertisement online submits through the portal to IRC. Some of the advertisers have annual contract with IRC and make the payment in installments. This section has to keep track of the payments and release advertisements accordingly. The payment received is recorded by the section and the details of the same are also sent to the finance section.
- **Printing of Seminar Publication:** Seminar is an annual activity in IRC. This section is responsible for collection of technical papers for finalization and printing of the seminar publication. This section sends letters to dignitaries and experts for contribution of technical papers for printing in seminar publication. Technical papers received are sent to referees for evaluation. Feedback from referees is sent to the authors for necessary action. Some of the papers are selected for presentation during IRC seminar. This section manages technical committee meeting to finalize and publish the Seminar Publications

- **Coordination with Speakers:** IRC invites speakers for the technical sessions in the seminars. The authors of the shortlisted papers are invited as speakers for the seminar. IRC sends the invitation to the shortlisted speakers. The speakers are informed about the presentation. Confirmation from speakers is received and regular follow up is required to ensure that the seminars are held successfully.
- **Arbitration:** IRC is an organization of repute in construction community. IRC provides arbitration services to the disputing parties. IRC has a process to empanel arbitrators. The advertisement for empanelment of arbitrators is given in the Indian Highways journal. This section receives the applications with payment from interested IRC members for empanelment as Arbitrators. Payment details are sent to finance section. This section scrutinizes all the applications in accordance with the guidelines for empanelment and gets the approval of Executive Committee. The request for appointment of Arbitrator is processed as per rules and after getting processing fee of Rs.25,000/-, arbitrators are appointed by High Powered Committee. This section also maintains the approved Panel of Arbitrators. Any party working on the project in the domain of IRC can apply for arbitration along with the processing fees. The High powered committee appoints the arbitrator from the empanelled list. In addition to the arbitrators, IRC also provides the facility to conduct the arbitration meeting. The details of the money received from the empanelled arbitrators and conflicting parties is sent to the finance section.
- **Website Management:** IRC has dynamic website. The content for the website has been developed by various sections of IRC. Website will be jointly handled by IRC and implementation vendor of phase-1.

- **Network Management:** IRC has a local area network in both the offices in RK Puram and Jamnagar House. All networks related issues and complaints will be handled by IRC.
- **Administration:** This section organizes meetings for IRC-IBC Joint Building Committee for constructing additional floors to IRC-IBC HQ building and looks after general administration of RK Puram office.

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### **2.5.2 Current ICT and Phase II Requirements**

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Since this section coordinates the management of monthly publication, timely execution of all activities including receipt of articles, review and finalization of articles and technical papers, advertisements and consolidation of all these activities is very critical.

This section requires an integration with the finance section for sharing the financial data. The following functionality in the ICT based system proposed to be implemented at IRC.

- Process of empanelment of Printers
- Workflows for approval of articles which are sent to Secretary General.
- Integration with Printing Department for printing various advertisements in Indian Highways magazine.
- Process of empanelment and empanelment of Arbitrators, providing facilities to parties for holding of arbitration meetings.
- Integration with finance department for sending the money received for empanelment of Arbitrators and appointment of Arbitrators for various parties going for Arbitration.

## **2.6 IRC Journal & General Administration Section**

This section deals with printing of quarterly IRC Journal 1, 2, 3&4. This journal also includes technical papers and articles collected from Chief Engineers, E-in-Cs, and Sectional Heads of all States of PWDs, important Engineering Firms, Consultants, Contractors, Research and Academicians. The process of collection, review and finalization of articles is similar to the one followed for the Indian Highways journal. However, no advertisements are included in this journal. Some of the selected articles and technical papers included in this journal are presented during the Annual Session and are also selected for various awards constituted by IRC.

This section coordinates the technical sessions and presentations during the annual session. IRC invites the authors and also coordinates with the committee to award the technical papers and articles.

In addition to the above activities, this section also undertakes the administration and office upkeep of the office in RK Puram.

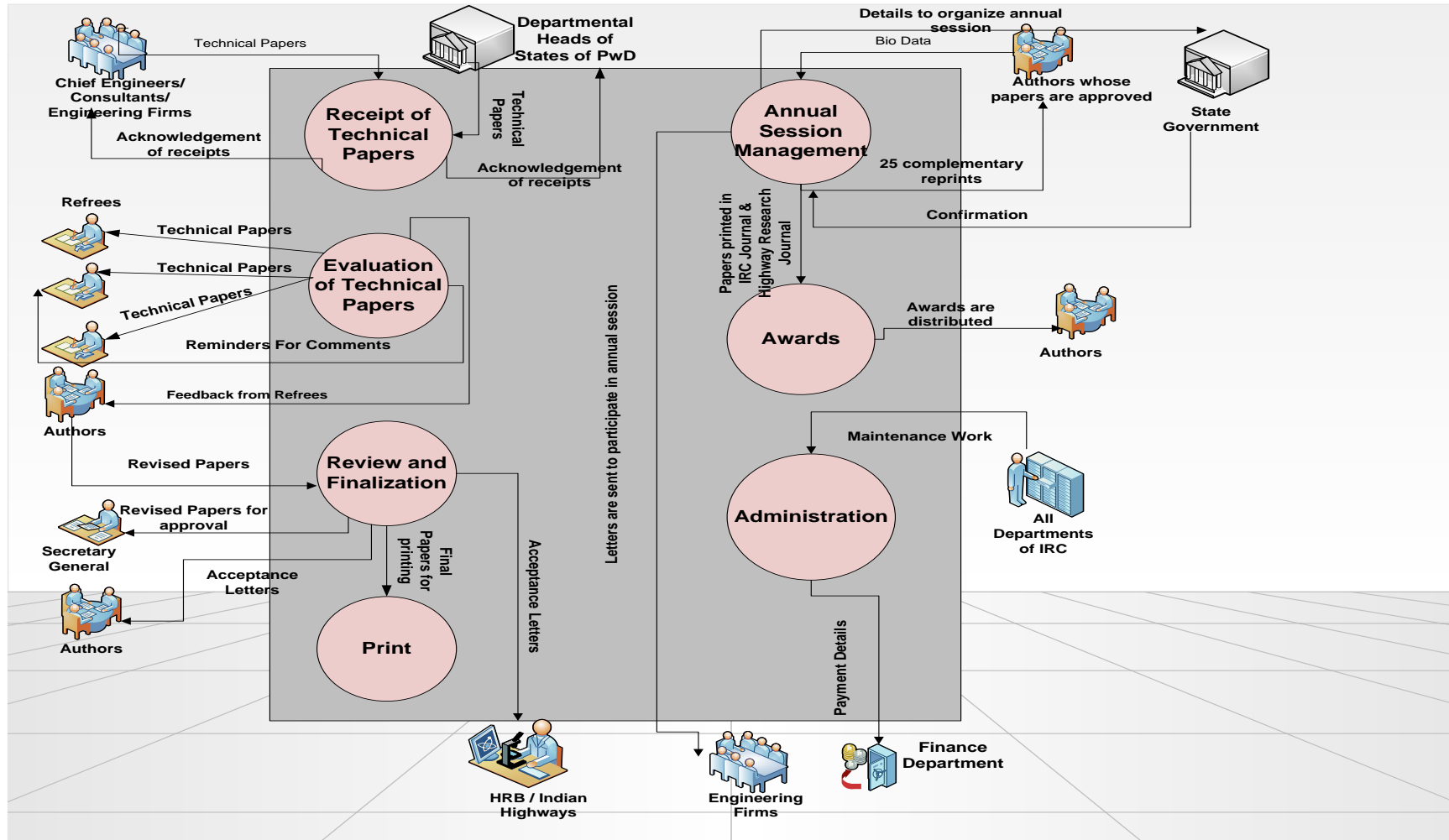
Various activities performed by this section are:

- Receipt of Technical Papers for IRC Journal
- Evaluation of Technical Papers
- Review and Finalization of Technical Papers
- Annual Session Management
- Awards Function
- Administration

The individual processes of this section are as shown in the diagram below:

## 2.6.1 Process Diagram

The diagram below depicts the overall flow of activities at the department:



- **Receipt of Technical papers for IRC General:** This invites technical papers and articles from Chief Engineers, E-in-Cs, and Sectional Heads of all States of PWDs, important Engineering Firms, Consultants, and Contractors etc. The portal has the facility to accept these technical papers for IRC General. After receipt of the articles and technical papers the section sends the Acknowledgement Letters and Declaration Form are sent online through mail. Each Technical Paper is forwarded to three referees for evaluation and feedback. Referees provides the feedback through the portal also.
- **Evaluation of Technical Papers:** Each Technical Paper is forwarded to three referees for evaluation. Referees are reminded regarding timely receipt of feedback and comments. The authors are requested to revise their Technical Papers in accordance with the comments of the referees.
- **Review and Finalization of Technical Papers:** The revised Papers are considered by Technical Officers and approved by Secretary General for IRC Publication like, Journal Parts 1, 2 & 3, Indian Highways and Highway Research Journal. After the approval of Secretary General, IRC acceptance letters are sent to authors and files are transferred to concerned sections such as Indian Highways & HRB.
- **Annual Session Management:** The authors of the Papers which were approved for discussions during Annual Session are also requested to send brief Bio-Data of all authors and prepare themselves for Power Point Presentation. 25 Complimentary reprints of published papers are provided to respective authors. Authors are requested to participate during the Inaugural function of IRC Annual Session for receiving the awards. Letters are sent to Engineering Firms for participating in the Technical Presentation during the Annual Session by paying the prescribed fee per

presentation. This section also coordinates with the State Government Officials who organize IRC Annual Session for successful conduct of Technical Sessions of IRC. Topic for Panel Discussion/ Expert Talk to be conducted during Annual Session has to be approved by the Executive Committee. Letters are issued to Experts for receipt of issues related with Panel Discussion. These Panelists are selected to make presentation during the Annual Session. The comments of Papers presented/discussed in every Annual Session are transcribed from CD and the same are sent to the respective authors. After receipt of replies of comments from the authors, the final papers are printed with proceeding of IRC Journal Part 4. Opening and Concluding Remarks of Chairman/Co-Chairman of each paper and some Speeches of dignitaries are transcribed from CD and also printed with proceeding of IRC Journal Part 4.

- **Awards Function:** The Papers printed in IRC Journal and Highway Research Journal is put up to the Papers Committee for recommended award Medals and Commendation Certificates by IRC. The IRC admin maintains the award listing on the portal. The authors of the papers selected for award are informed and invited for the award ceremony. The authors are intimated through the email or SMS that their paper has been selected for the function.
- **Procurement of Services and Goods by IRC:** This section is responsible for procurement of different items and general administration for the RK Puram Office. For purchasing different items in R.K. Puram Office, quotations are invited and items are procured as per the procurement norms of IRC. This section also processes the payments of all official bills of Landline/Cell Phones/Electricity/Delhi Jal Board/ Property Tax etc. of R.K. Puram Office. This section also looks after the official vehicles and payment of fuel bills, maintenance of Photocopier Machine,

Intercom Systems, Computer & Printers etc and maintenance of R.K. Puram Office (HQ Building).

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### **2.6.2 Current ICT and Phase II Requirements**

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Since Annual session management and printing of quarterly journal are activities of repute in IRC, it is essential to provide all kind of ICT support to improve the effectiveness of this section and ensure that the activities are executed in time and are successful.

The following functionality in the ICT based system is proposed to be implemented at IRC.

- A procurement module to automate the procurement process and linking the same to the finance section.
- Workflow based system for approval of Secretary General for Technical Papers which gets printed in Indian Highways and Highway Research Journal
- Integration with sections such as Indian Highways & HRB for sending Technical Papers
- Procurement of Services and Goods by IRC.

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## **2.7 Technical Committee & Codes Printing Section**

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As a premier technical body of the highway engineers, one of the prime activities of IRC is to create and publish standards, codes and specifications for the highway engineers, consultants, contractors and auditors. To create and update these standards, codes and specifications, IRC appoints technical committees. Three main Committees and their sub committees at IRC are:

- Highways Specifications & Standards Committee
  - H-1 Transport Planning, Traffic Engineering & Road Safety

- H-2 Flexible Pavement
- H-3 Rigid Pavement
- H-4 Embankment, Ground Improvement and Drainage
- H-5 Rural Roads
- H-6 Road Maintenance and Asset Management
- H-7 Road Tunnels
- H-8 Urban Roads
- H-9 Composite Pavement
- H-10 Hill Roads
- Bridges Specifications, Standards Committee and
  - B-1 General Design Features  
(Bridges and Grade Separated Structures)
  - B-2 Loads and Stresses
  - B-3 Foundation, Sub-Structure, Protective Works and  
Masonry Structures
  - B-4 Concrete (Plain, Reinforced and Pre-Stressed)  
Structures
  - B-5 Steel and Composite Structures
  - B-6 Bearings, Joints and Appurtenances
  - B-7 Formwork and Temporary Structures Committee
  - B-8 Maintenance and Rehabilitation Committee
- General Specifications and Standards Committee.
  - G-1 Project Preparation, Contracts Management &  
Quality Assurance
  - G-2 Human Resource Development
  - G-3 Environment
  - G-4 Mechanization
  - G-5 Instrumentation
  - G-6 Disaster Management
  - G-7 Official Language
  - G-8 Public Private Partnership

The Council or Executive Committee under authorization by the Council or the President has the power to appoint the Committees, their Conveners, Member Secretary and Co-conveners and make Rules to direct their working. The Secretary General, IRC appoints the members of the committees in consultation with the Conveners of the respective committees. The conveners of committees may form sub-committees for specific purpose with a limited tenure.

The Committee can have the following types of members.

- Ex-officio Members: The Director General (Road Development), the President and Secretary General, IRC shall be Ex-officio members of all committees and they may nominate any person to attend the meetings on their behalf.
- Regular Members: Regular members are the members appointed under Rule 20.1 and are expected to attend all the meetings of the Committee.
- Corresponding Members: Corresponding members are persons possessing expertise in the subject being dealt by the Committee/ Sub-committee and are not expected to attend the meetings of the Committee. They are, however, sent all the Papers relating to the Committee and are expected to give their views in writing for the consideration of the Committee.
- Co-opted Members: These are members with specialized knowledge or expertise who are invited to attend the Committee meetings for a limited purpose of giving views on specified topic/subject.

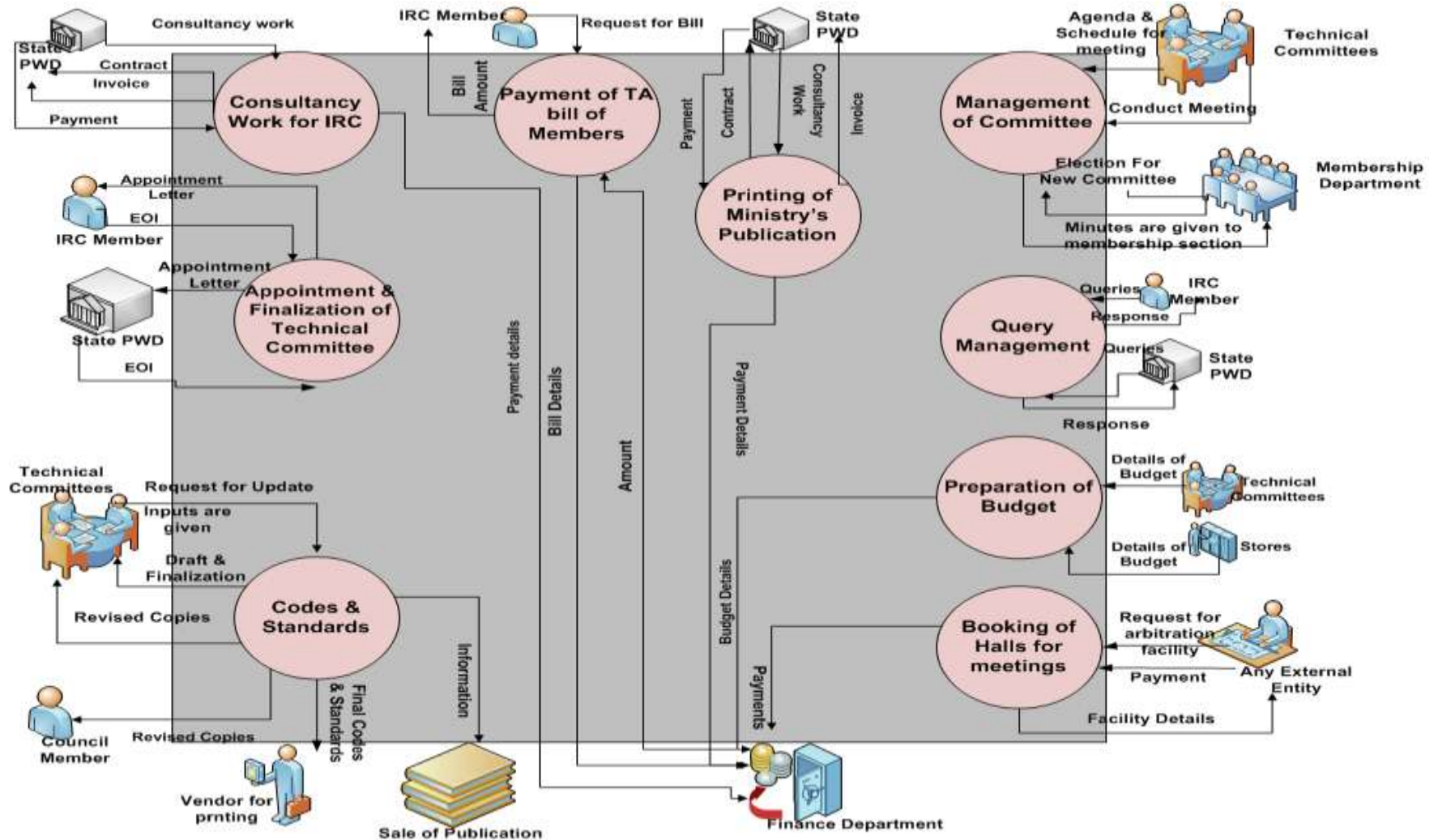
The participation in the Committees is purely on voluntary basis. Members who do commendable work on a Committee and help in developing Standards, Specifications or in the preparation of a Special Publication, with the approval of the Executive Committee, are presented with commendation certificate in recognition of their work.

Following activities are performed by this section:

- Create and update Codes & Standards
- Management of Committees and its meetings
- Printing of Codes, Special Publication & Re-Printing

## 2.7.1 Process Diagram

The working process for the Committees is shown in the diagram given below:



- **Appointment & finalization of Technical Committee:** This committee is formed by inviting Expression of interest of membership from all States PWD, IRC Members and other Organization. Appointment of Members, Convenor/Co-Convenor/Member-Secretary is done during this process. TOR is made and appointment letter is sent to all Convenor/Co-Convenor/Member-Secretary.
- **Create & Update Codes & Standards:** Codes, Specifications & Standards are created by Technical Committees. The agenda for updating the standard, codes & specification is sent to the members of the technical committees. The portal has the facility to create draft and user can attach the draft with particular meeting also. The draft is reviewed online and many comments get recorded for the draft. The draft gets finalized after detailed discussions and deliberations. The final copy created after the discussions are sent to printers for printing. The printed copies of the same also get uploaded on the portal for Sale of Publication section for sale to members and non-members. This section also finalizes the price of the publications and intimates the same to the sale of publication.
- **Management of Committee:** The technical committees section sends the request to conduct meeting to all the members. This section creates the schedule and agenda which is sent to all the members of the technical committee. Technical Committee user has been given the dashboard where he can view his list of meetings, List of Minutes of Meeting (MOM) and List of drafts. In addition to this notice of meeting, agenda is circulated to members of the committee by emails and by post. Meeting is conducted and minutes are distributed to all the members of the committee for feedback from the members. The portal has all the facility of creating meeting, attaching minutes of meeting and distributing minutes of meeting to all the members of the committee.

Confidential

Documents for sale of publication section are also discussed in these meetings. If there are any comments on the document then that comment becomes minute and this minute is distributed among the members of the committee. Minutes are distributed to all the members of the committee. After modification documents are sent by post to all members of the committee.

- **Booking of Halls for arbitration meetings:** This section also deals with booking of halls for arbitration meeting. Request to book the hall is received from external entity along with the fee to book the hall. The external entity also provides facility to book hall online through the portal .The payment details are sent to finance section. Logistic details are sent to the external party.
- **Query Management:** IRC member and State Government sends the queries to Technical Committee section and response is sent to IRC member and State Governments who raise the queries.
- **Consultancy work for IRC:** Various Government departments have requirement for creation of roads, bridges standards and codes. These are taken up similar to consulting assignments on a paid basis. These Government Departments sign a contract with IRC. IRC undertakes the assignment, send the deliverables to IRC and upon acceptance of deliverables receives payment. Details of payment are sent to finance department.
- **Payment of TA bill of Members:** Technical members submit their TA bills to the section, bills are processed and upon successful approval, payment is released to respected technical member.
- **Printing of Ministry's publications:** Various Government departments have requirement for creation and printing of publications for roads , bridges standards and codes. These are taken up similar to consulting assignments on a paid basis. These

Government Departments sign a contract with IRC. IRC undertakes the assignment, send the deliverables to IRC and upon acceptance of deliverables receives payment. Details of payment are sent to finance department.

- **Budget Preparation:** This section sends budget details to finance department where the budget is finalized and allocated to respective sections.

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### **2.7.2 Current ICT and Phase II Requirements**

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Technical committees section handles an important activity of creating and updating standards, codes and specifications. To coordinates the technical committee meetings this section has to correspond with 25-40 members for communication schedule, agenda, minutes and feedback from them.

This section also interacts with the printer for first time printing of codes and standards. The procurement module linked to the finance section will enable this section to automate this process. The approval process can be linked to the procurement of printing from the vendors.

This section requires the following functionality in the ICT based system proposed to be implemented at IRC:

- Process of inviting Expression of interest of membership from all States PWD, IRC Members and other Organizations. Appointment of Members, Convenor/Co-Convenor/Member-Secretary.
- Integration with Finance Department for receiving fees for booking of Halls for arbitration meetings.
- Process of Query Management in which members and State Government sends their queries to Technical Committee.

- Payment of TA bill of Members
- Process of accepting grants from State Government.

## **2.8 Highway Research Board (HRB)**

The research, development and knowledge dissemination activities of the IRC are handled by the Highway Research Board. The primary aim of HRB is to serve as national center for road research with the following objective:

- To ascertain the nature and extent of research required
- To correlate research information from various organizations in India and abroad with a view to exchanging publication and information on roads.
- To coordinate and conduct correlation services
- To sponsor research including basic research through universities and research organizations
- To collect and disseminate results of research
- To organization regional / national workshops on tropical subject
- Any other matter related to road research.

Various functions of HRB are:

- Learn field problems and to pass on information based on research or experiences of other States, industry or educational institutions.
- Keep a record of research activity underway or contemplated and take steps to avoid duplication.
- Set up Committees consisting of experts who are concerned with the problems of roads and road transport.
- Identify highway research needs and study of major research problems for inclusion in National co-operative or individual programmes keeping in view the needs of the country

especially the need for appropriate technology for road construction.

- Recommend priorities and schedules of research
- Recommend specific research problems of proven importance for study to specific organizations/institutions as part of long term and short term programmes
- Act as an Advisory Organisation to suggest to the Central and State Governments and Research Organisations programmes of research and also assist various agencies in selection of research projects.

HRB has three types of committees:

- Core Group (to describe)
- Committee for Accreditation of New Materials and Techniques
- IMRA (to describe)

HRB publishes the following journals:

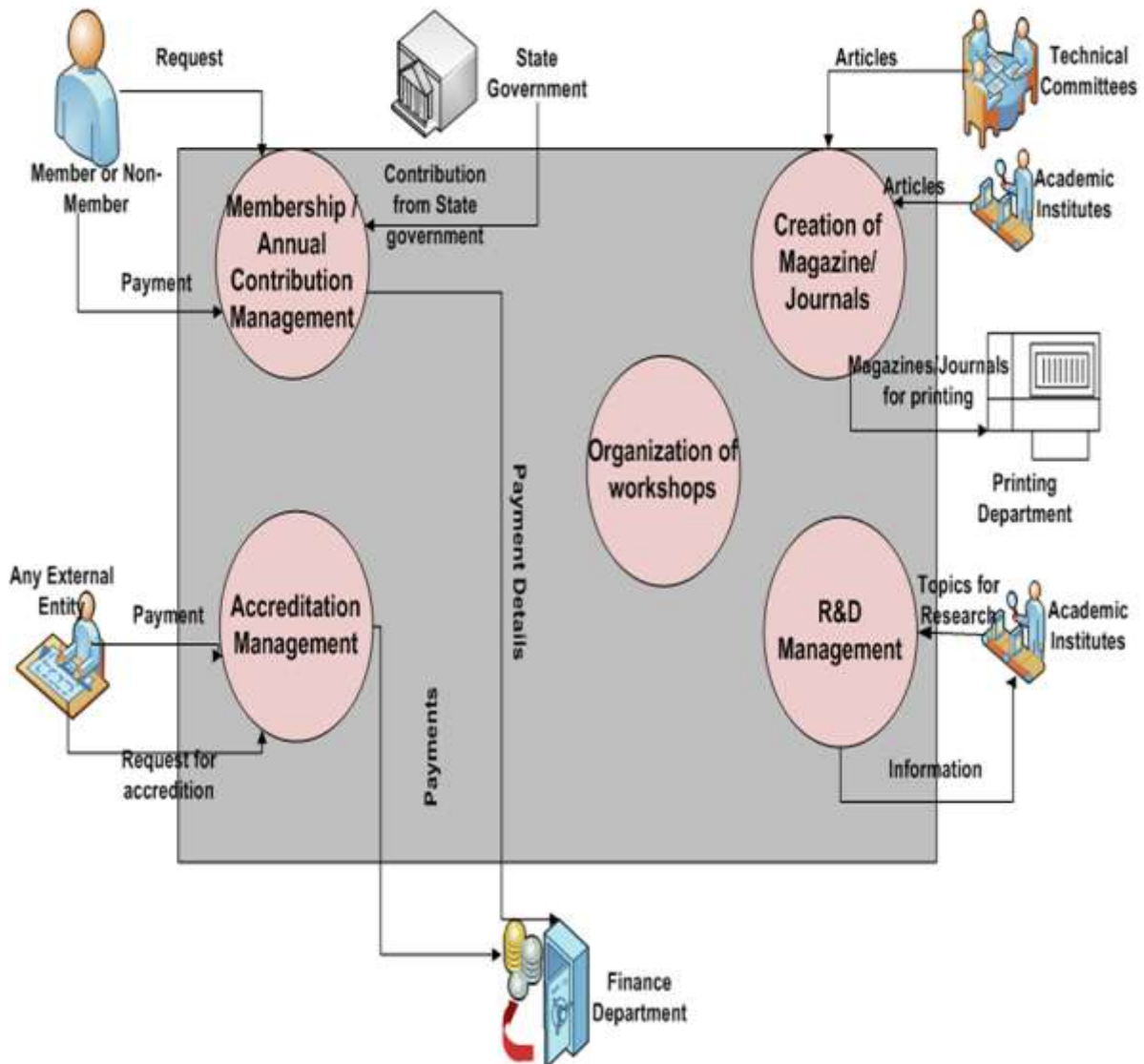
- Highway Research Journals
  - Highway Research Record
  - State-of-the-Art Reports
- 
- **Highway Research Journals:** This publication is exclusively devoted to the Research Papers. These are published under following distinct topics, namely 'Pavements Engineering', 'Geotechnical Engineering', 'Traffic Engineering', 'Bridge Engineering'. Two issues are printed in a year under the aegis of Highway Research Board.
  - **Highway Research Record(Annual):** This is an annual publication and contains the report of research work done in the country during the year and is based on information received from various Road Research Laboratories/Engineering Colleges/Govt. Departments/I.I.Ts/ Consultants. This report is discussed during the Annual Session of the Indian Roads Congress.

HRB performs the following activities:

- Membership management
- Accreditation management
- Publishing State-of-the-Art Reports, HRB journals & HRB Records
- R&D management
- Organization of workshops

## 2.8.1 Process Diagram

The diagram below depicts the overall flow of activities at the department:



- **Membership Management:** : IRC Council can nominate any member of IRC or non-member as a member of HRB and its Subsidiary Committees. The constitution of HRB as follow;
  - Director General (Road Development) & Special Secretary to Ministry of Road Transport and Highway ,Govt. of India
  - Secretary General, Indian Roads Congress

- President, Indian Roads Congress
  - Director, Central Road Research Institute
  - Additional Director General (I), M/o. Road Transport & Highways, Govt. of India
  - Additional Director General (II), M/o. Road Transport & Highways, Govt. of India
  - Director General, Border Road Organization
  - Member (Technical), National Highways Authority of India
  - Director General, NRRDA
  - Director, Indian Academy of Highway Engineers
  - Five Members from State Research Laboratories/Institutes
  - Ten Members from the Chief Engineers of Central/State Highway Sections
  - Five Chief Engineers from the States where PMGSY is being implemented
  - Five Highway Experts from Universities, Engineering Colleges and Institutes of Technology
  - Six members from the Business Sector
  - One Member from User Organization/State Road Transport Undertakings/IRTDA
  - Ten Co-opt members
- **Annual Contribution Management:** The Centre and State Governments make annual contributions to the HRB for sponsoring research schemes. This section ensures that the research schemes are carried out as per the action plan are carried out as per the scheduled. This section receives the payments from the central and state government and sends the same to the finance section.
  - **Accreditation Management:** Any new material, technology and process that is proposed to be used by roads and construction industry can be accredited by IRC. The entity can pay the fees online through payment gateway. HRB charges Rs 50,000 the prescribed fees for accreditation. External entity submit the details and these details are evaluated by HRB for accreditation.

- **Creation of Magazines/ Journals:** This section receives articles from technical committee section and various academic institutions. Upon receipt of these articles, IRC sends them for review and finalization. This section sends the final articles to printing section. These articles are printed in magazines and journals.
  
- **R&D Management:** Academic institutions, who want to undertake research on topics related to roads, send the articles to HRB section. This section sends the information to the academic institutions.
  
- **Organization of Workshops:** This section organizes workshops in association with NHAI/MORTH/MORD/ State PWDs. To organize these workshops the HRB has to interact and coordinate with respective Govt. departments /Faculty Members. The following activities are undertaken by this section for organizing workshops:
  - Preparation of Information Guide
  - Sending letters to State PWDs, Organizations, contractors etc requesting nominations.
  - Preparation of Lecture Notes
  - Receiving registration fee and sending receipts
  - Preparation of list of delegates for Registration
  - Preparation of Badges for delegates
  - Registration of delegates at Host Govt.
  - Preparation of highlights of workshop
  - TA/DA of Faculty Members
  - Realization of Registration Fee.

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## **2.8.2 Current ICT and Phase II Requirements**

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HRB section handles an important activity of undertaking research, accreditation and publication of the HRB journal. To coordinate the committee meetings this section has to correspond with the members for communication schedule, agenda, minutes and feedback from them

This section requires the following functionality in the ICT based system proposed to be implemented at IRC:

- Integration with Finance Department for sending the payment which is revived for accreditation of new materials & technology from organizations and Workshop's registrations and sponsorship donations.
- Reimbursements of TA &DA to the Committee Members

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## **3 Phased Strategy for Implementation**

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The entire ICT requirements of the organization are proposed to be implemented using a two phase approach. In phase I a comprehensive and interactive web portal was developed which will pave the way for seamless integration of IRC with its external stakeholders. The next phase of the project will address the automation of internal needs of the Roads Congress.

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### **3.1 Phase I : Implementation of the web portal**

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In this phase, a web portal was created to address the external stakeholder needs of IRC. The web portal addresses all the business needs of IRC including registration and renewal of members, distribution and selling of all new publications, registration for seminars and annual sessions, management of technical meetings etc. Some of the activities automated in phase I include:

- Online Registration and query for members
- Online registration for annual session
- Automated online election process
- Online payment by members / non-members by debit card or credit card. Members / non-members make payments to IRC for membership registration, renewal fees and registration fees for annual session and seminar.
- Reminders services for various activities in the membership.
- Mass Mailing facility for all stakeholders.
- Agenda Management System to automate the creation and distribution of agenda to all the members of the technical committees.
- Meeting Management System that will provide the facility to schedule and communicate the meeting details to all the stakeholders and members. The confirmation received can be captured and consolidated.

- Alert Management System using various options such as email & SMS to inform the members about the meeting schedule, agenda and receipt of feedback on the minutes of meeting.
- Bilingual support to capture the minutes in Hindi or English language as some of the members in the technical committees require documents in Hindi.
- Updated members' database for reference which can be used by all the sections and other members.
- Online sale of publications
- Biometric machines for attendance are installed at both offices of IRC and attendance is maintained in local office only.
- Office automation system for communication, Mail management, Task management, scheduling , Meeting Management, Reminders, Alert management.
- Library Management: Some part of library management was covered in this phase. The portal provides the link where user can view which publications are available in IRC.

### **3.2 Phase II: Implementation of the Data Center and Integrated Automated System**

In Phase II, IRC would like to automate the remaining business processes including the back office functions to create an integrated automation environment at IRC. The scope of work for this phase will include setting up of a data center for implementation of the integrated system for IRC. The integrated system will address the internal computing needs of integrated financial and administration management of IRC. The vendor will have to automate all back office operations of IRC and will have to integrate back office operation with the portal implemented in Phase I to automate all the processes of IRC. The vendor is expected to study the current extent of computerization and suggest the integration approach and methodology to ensure that the optimum solution is implemented for IRC.

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## **4 Scope of Work for Phase II**

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The IRC now proposes to engage the services of vendor for Phase II i.e. implementation of Data Centre and Integrated Automated System at IRC. The process details of the organization are already given in the previous chapters. The scope of works of the vendor shall include but not be limited to the following :

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### **4.1 As-IS Study**

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The selected vendor shall undertake a detailed study of all the departmental processes pertaining to the current scope of work namely Membership, Finance, Sale of Publication, Technical Committee, HRB ,Indian Highways, Journal, Library, IT and Administration. The program management consultants to this project have already undertaken an organizational process study at the macroscopic level and submitted a technical report. This report will be made available to the implementation vendor for an in-depth understanding of IRC functioning and its processes during the execution of the project. Such a process study shall throw up details of each of the process, process re-engineering needs if any, customization needs for the proposed Integrated Automated solution, its linkages to the proposed integrated internal architecture of IRC etc.

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### **4.2 To-Be Design**

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The selected vendor will be required to create a system architecture and design to ensure that the current system and portal are integrated seamlessly with the scope of work identified in this phase. The vendor is expected to provide design architecture for integration of portal with proposed automated system, network, security and database.

### **4.3 Customization & Conference Room Pilot for Internal Modules**

The above study must clearly throw up the customization needs of the proposed Integrated Automated solution. It must be emphasized here that minimum customization should be proposed for the current product to accommodate the IRC processes and should clearly elaborate as to how the new automated system will integrate with the existing portal. IRC processes are time tested and have withstood organization functioning seamlessly for many years. It is therefore suggested that minimum BPR (Business Process Re-engineering) should be undertaken on the existing organization processes to implement the automated system. It should be specifically noted that no BPR will be entertained to accommodate lack of customization on the part of the selected vendor. BPR will be carefully allowed only to accommodate global best practice in any given area of the institute functioning. The vendor is expected to submit an As-Is & To-Be study report clearly bringing out mapping of the departmental processes to proposed product feature, any BPR needs, project implementation methodology, integration with the current portal, project implementation plan with clear dates for the implementation, training methodology proposed etc. The vendor is then required to customize the automated system, to the processes of the organization and get approvals from the individual process owners through the process of a Conference Room Pilot (CRP) where the process pilot will be demonstrated to the process owners in a conference room set up. All issues flagged by the process owners will be implemented by the vendor and another round of CRP shall follow. This process shall continue till the individual process owners approve the customized modules of the automated system.

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#### **4.4 Data Migration**

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Most of the data is already available on existing databases including list of members, old codes & publications in soft form etc. The data migration requirements are minimal here. Vendors are expected to factor in these data management requirements while pricing the project.

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#### **4.5 Integration with Web Portal**

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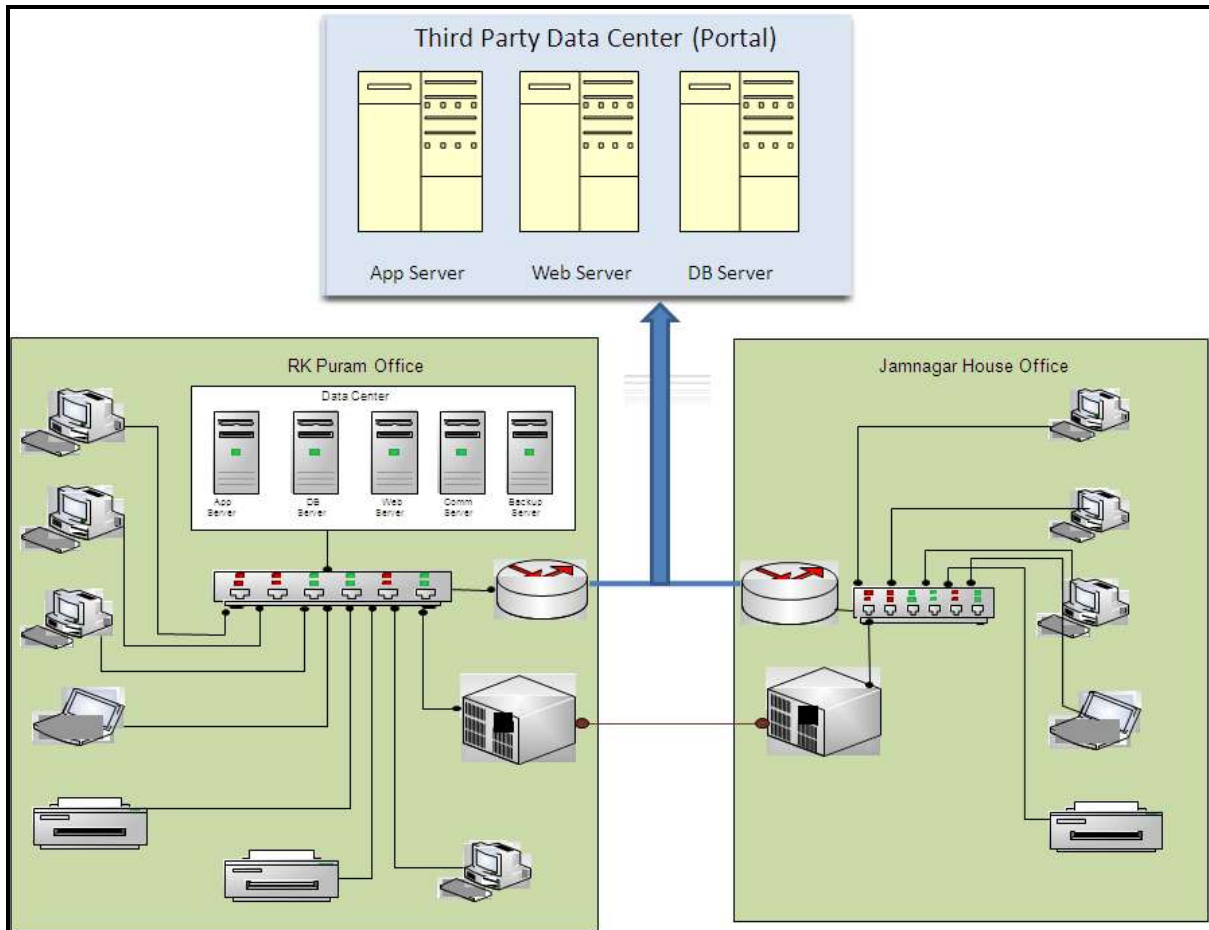
The selected vendor will have to propose an architecture that can seamlessly integrate back office operation of IRC with the existing portal.

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#### **4.6 Operationalize Data center for full roll out**

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IRC currently doesn't have any in-house Data Centre. The servers for current portal are maintained by third party. Vendors are encouraged to visit the current data center to get a complete understanding on the racks, servers, network equipment and system software available at the data center. Vendors will be expected to install application servers to house their specific products. IRC has two offices, one at Jam Nagar and other at R.K. Puram. Vendor are expected to create data center at R.K.Puram office. Vendor is expected to provide mechanism for all the data storage and disaster recovery for this project. Provisioning of bandwidth or leased line connectivity is out of scope for the current project. This shall be separately provided by IRC to the project. The implementation vendor will be expected to install the necessary servers at the data center, install the system and application software and demonstrate the application in an operational mode. The proposed data center architecture is as follows:



The implementation vendor is also expected to size up the backup data requirement of the organization and accordingly suggest and include backup storage in their proposal against the current project implementation. It should be noted that it is a turnkey system integration contract where in the vendor will be expected to clearly demonstrate and operationally implement the functioning of all aspects of the proposed automated system and integration with the current portal. In case the vendors want to propose an alternate solution, they can do so with the justification of such a solution.

#### **4.7 User Acceptance Testing (UAT)**

Client shall undertake the User Acceptance Testing of the implemented system. While the test cases shall be provided by the organization the vendor shall undertake testing of the Integrated Automated System for these test cases and demonstrate the outcome of each of the test cases. A detailed record will be maintained of the tests carried out, expected and actual results achieved and corrections undertaken if any. This record of the User Acceptance Testing shall become the basis for declaring the system ready to go live.

#### **4.8 Full Roll Out of the Integrated Automated System**

Once the vendor achieves successful User Acceptance Test of the integrated solution environment and receives a sign off from the organization, the system shall be put to operational use. The implementation vendor is expected to enter the static master data pertaining to the automated system domains, which are part of the current implementation. These will include general and ledger account details for the finance, inventory details for the Sale and Publication, printer and other vendor details for the procurement and employee data in respect of the two offices of IRC. Some of this data will be available in the physical form and some other will be available in electronic form. While the physical data will be entered in to the system manually, any old electronic data will be ported in to the new system databases.

#### **4.9 Training & Capacity Building**

The vendor is expected to impart comprehensive training on the functionality of proposed automated system implemented under the current project. The training is expected to be implemented to different groups of stake holders. These include the following:

- System & Database Administrators.
- Process owners
- System Maintenance personnel from the Information Technology department
- General users
- Senior managers for receiving various reports from the system.

The largest numbers of participants are expected to be under the general user category. This number is expected to be close to 30. It is expected that this training will be conducted in batches of 5 participants each. All the training shall be conducted at the client premise. Typically training shall be undertaken for the following activities:

- Update Content
- Enhancement
- Error recovery
- Administration
- Disaster Management
- Security

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#### **4.10 Change Management**

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This program implementation is expected to usher in a major change in the way the organization has been functioning hitherto. The implementation vendors are expected to implement a change management methodology during the project so as to make the process of change as seamless and smooth as possible and effectively transiting from the old systems to the new systems.

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#### **4.11 Maintenance**

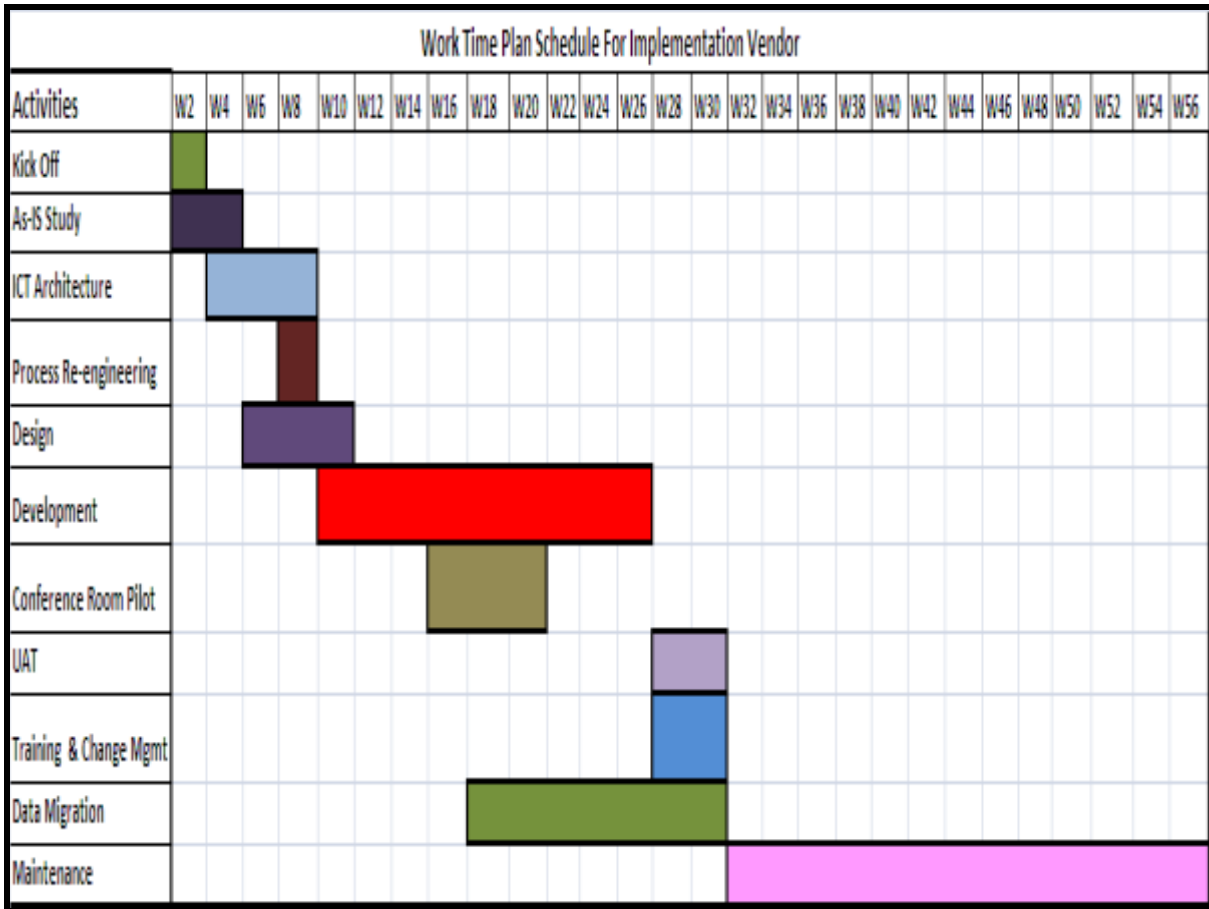
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The selected vendor is required to provide a defect liability cover and maintenance cover for a period of 1 year after handing over the automated System. A separate maintenance contract is expected to be

signed with the vendor to provide maintenance cover for further a period of 3 years. Yearly pricing for such a maintenance should be included in the financial proposal of the bid.

**4.12 Project Timelines**

The proposed project plan is given below. The vendors are expected to confirm the acceptance of this plan in their proposal.



**4.13 Following activities need to be automated**

The vendor needs to automate following activities for the implementation of integrated automated system:

- A complete financial accounting module

- A procurement module to automate the procurement process and linking the same to the finance section
- An integrated software environment shall provide for automatic reconciliation of account and flow of data and information between different sections and finance section.
- Data entry of all transactions should be from a source point and should not be repeated.
- Payments received through cheques, cash and demand drafts need to be reconciled with their respective sources and appropriate entries made in to the individual account of the payee.
- Automatic Bank Reconciliation- Reconciliation of accounts with the banks is an essential requirement of IRC.
- A computerized accounting system will provide an environment where in transactions and reconciliation shall happen seamlessly without the need of any paper work. The sections can also check the status of the payment to various parties on line. This will not only save the physical effort and time to respond to parties but will also enhance the credibility and image of IRC with the vendors.
- All Financial Accounting and MIS reports including day book, cash book, balance sheet, profit & loss statement, Budget Estimates.
- Audit trail feature to review the transactions during the financial audit.
- Computerization of payroll activity in finance department.
- Maintenance of accounts for Pension, GPF and insurance separately.
- Process of Budget preparation and monitoring of budget.
- Inventory management – Integration of this module with Finance department and Sale of Publication Department.
- Empanelment of Printers
- Process of integration of Finance Section with all other sections.

- Process of appointment of committee which is formed by inviting expression of interest from all States
- Process of updating of codes & standards
- Bar Code for all publications in IRC. Bar Code generation, Bar Code reader and procurement of hardware for implementation of this bar code.
- All members of IRC should have Bar Code on their Identity Card and procurement of hardware for implementation of this bar code. Bar Code readers will be available at Sales Counter and counters of IRC.
- Library Management: Partial library management was done in phase I and phase II should include following functionality:
  - User should able to see library classification
  - Library rules should be defined
  - IRC staff should be able to issue books to members and IRC official.
  - Library budget should be maintained.
  - Search facility should be provided in the system.
- A complete workflow management system for all modules including files movement, approval of files needs to be done in phase II.
- Currently the attendance is maintained through biometric machines in 2 offices of IRC. During phase II the biometric attendance needs to be integrated with HR module so that records of leaves are maintained in the system.
- Integration of existing of Document Management System with back office function.
- Offline modules are required for events such as Seminars, Annual Session, Workshops and Sale of Publication Section. These modules will enable IRC to do registrations in case there is no internet connectivity in such events.

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## **5 Structure of the Proposal**

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The vendors are expected to provide a responsive proposal against this request for proposal document. The proposal must clearly bring out an understanding of the current project and sub projects at hand; specific products suggested against each of the required application; project implementation methodology; integration with current portal; training & change management methodology; User Acceptance Testing & Roll out infrastructure suggested and method of implementation of the same and maintenance methodology of the consultants.

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### **5.1 Executive summary**

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This section must bring out the understanding of the vendor in respect of the current implementation of the project. It must indicate the understanding of the vendor in respect of the Organization's processes, their needs of the automated system, inter-relationship of the automated system and linkages with the existing system. Basically the executive summary must capture the essence of the whole proposal so that senior executives may be able to just read the executive summary and get the essence of the proposal submitted

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### **5.2 Understanding of the scope of Work**

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This section must clearly bring out the vendors understanding of the project at hand. Clear demonstration of various aspects of the project on the part of the vendor is likely to enthruse the Organization in associating with the vendor in project implementation.

### **5.3 Specific products suggested for the Project & Their features**

The Vendor must clearly name the specific products with version numbers suggested for the current implementation. The product features must be brought out in this part of the proposal. Mapping of key features of the products with the needs of the project shall provide the necessary clarity to the evaluators to understand the efficacy of the proposed products for the current project and its needs. The vendor must also clarify his/her licensing philosophy. While the actual financial figures shall be provided in the financial proposal of the project, the vendor may explain his licensing philosophy here. Whether S/he uses a server based licensing or module based licensing or licensing in perpetuity or any other form of licensing agreement with the client. The vendor must also list the customization needs along with the requirement of custom build modules

The vendor must also provide detailed configuration of the hardware (Server, scanners, special devices) selected for the implementation of the integrated system.

### **5.4 Implementation Methodology**

The implementation vendor must bring out the implementation methodology with a clear project plan with time lines; As-Is & To-Be study methods and business process re-engineering methodology of the vendor; conference room pilot or any equivalent method used by the vendor to show case project pilots to the customer; UAT & Roll out methods used by the vendor, training and change management methodology used by the vendors and overall implementation plan of the vendor. The implementation methodology should by and large use following suggestive sections:

- As-IS & To-Be Studies
- Customization Requirements
- Business Process Re-engineering
- Physical Implementation
- Conference room pilots
- User Acceptance Testing
- Roll Out
- Warranty Support
- Maintenance support

The vendor is expected to bring out complete functionality of relevant aspects of the integrated automated system suggested for the project. Detailed product features, technology platforms, system software requirements, networking and bandwidth requirements need to be spelt out in the proposal. The methodology and approach adopted by the Implementation organization must include the following key points:

- Overall approach to provide the integrated solution for IRC: The vendor should clearly bring out the methodology proposed to be adopted for the implementation of the current project. Any best practices, proposed to be adopted for the
- The project life cycle including all the phases in the project
- For each phase the vendors must specify the
  - Objective of the phase
  - Input to the phase
  - Activities to be undertaken during the phase
  - Tools and technologies to be adopted
  - Deliverables of the phase
- Project timelines with the major milestones of the project
- Project organization structure with the various team members and their roles and responsibilities
- Deliverables and receivables
- Service Level Agreements

- Risks identifies for the project and their mitigation strategy

## **5.5 Receivables from IRC**

Following inputs will be provided by the client:

- Key process owners for all the processes and activities
- Process details
- Existing applications being used along with their configuration and current digital data available
- Data requirements
- Current hardware and networking
- Timely feedback on the deliverables given by the vendor
- Acceptance and sign-off for different deliverables at different stages
- Information from stakeholders such as banks, members any other government entity.
- Civil work and data center ready facility to host the servers.
- Timely payments
- Phase 1 vendor will share all project reports with the vendor of Project Phase 2. These will include Study Report, Design Report, Web Architecture report and all other reports which were submitted during the project.

## **5.6 Deliverables from Vendor**

The vendor shall deliver the following documents apart from a fully functional and user accepted IRC data center with an integrated application software environment for all the internal process needs of IRC:

- Process study document
- Design Document which will include detailed HLD,LLD and ERD.
- Security Architecture Document

- UAT Completion Document which will include Test Cases with Expected/Actual result , QA reviews.
- Project Closure document which should comprise of User Manual, Technical Manual with FAQ, troubleshooting, custom code with versions management.
- Fully functional and User Accepted IRC Data Centre with integrated application software environment.

## **5.7 CVs of specialist to be deputed for this project**

The implementation vendor shall clearly bring out the CVs of the following specialist to be deputed for this project:

- Project Manager
- Database Designer and Administrator
- Domain Specialist to be used for the project
- Training & Change Management Expert
- Technical Specialist

Minimum qualifications are given in the table below:

Position	Minimum Qualification
Project Manager	An Engineering or IT Graduate / Post Graduate with 7 to 10 years of experience in ICT and having Project management skills.
Database Designer & Administrator	A Post Graduate with at least 5 years of experience in database designing and administration of the same.
Domain Specialist	A Post Graduate with at least 3 years of experience in roads domain.
Training & Change Management Expert	A Post Graduate with at least 5 years of experience in training & change management.

Technical Specialist	Engineering or IT Graduate / Post Graduate with at least 3 years of relevant experience in implementing in integrated automated system.
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The CVs should bring out the qualifications of these specialists, their work experience in the domain in which their role is proposed and similar projects executed by them in the past.

IRC proposes to meet and interview the project manager and other proposed staff prior to the project kick off. Apart from domain and technology understanding, S/he is expected to have a keen sense of understanding of the client needs and positive attitude of working and implementing the project.

The bidders are expected to give detailed write ups for all the sections enumerated above. Salient features of the write up should be elaborated in the respective forms placed at Annexure to this "Request for Proposal" document. Wherever the bidder wishes to add additional information in a format of his choosing, the same may be attached to the "Request for Proposal" response.

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**5.8 Presentation by Chosen Bidders**

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At an appropriate time during the selection process, bidders along with their entire proposed team shall be called to give presentation for their technical proposal. All bidders must give confirmation towards acceptance of this need.

## **6 Bid Process**

### **6.1 General Eligibility**

- This invitation to respond to the "Request for Proposal" is open to the companies as enlisted with Registrar of companies in India and should be in operation for a minimum period of 3 years.
- Bid should be valid for a period of 120(one hundred twenty) days from the date of submission.
- Selected bidder shall enter into a formal contract with IRC and provide necessary performance guarantees as required.
- The bidder should have executed at least 3 similar assignments in the past.
- The bidder should preferably have an ISO or CMM quality certification.
- The bidder should be SEI CMM I Level 5 assessment
- The bidder should have done at least one Software Application Project which involved turnkey implementation
- The bidder should have done single order value of Rs 50 lacs and above for portal/application implementation in last three year in India
- The bidder should have completed Single Order value of Rs 50 lacs for ERP implementation in India
- The bidder should have revenue of at least Rs 5 crore/annum in last three years in India.

### **6.2 Disqualifications**

IRC may at its sole discretion and at any time during the bid process, disqualify any bidder, if the bidder has:

- Submitted the bid documents after the response deadline;
- Made misleading or false representations in the form, statements and attachments submitted in proof of the eligibility requirements;

- Exhibited a record of poor performance such as abandoning works, not properly completing the contractual obligations, inordinately delaying completion or financial failures, etc. in any project in the preceding three years;
- Submitted a proposal that is non-responsive;
- Failed to provide clarifications related thereto, when sought;
- Submitted more than one bid either individually or as a consortia member;

### **6.3 Fraud and Corruption Practices**

The client will require the successful Consultant to disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents with respect to the selection process or execution of the contract. The information disclosed must include at least the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee.

### **6.4 Conflict of Interest**

The firms who were selected as Program Management consultant are not eligible to participate in this project.

### **6.5 Bidder Workshop**

A prebid meeting will be held on 23<sup>rd</sup> June, 2011 at 9:30 AM at following address:

Indian Roads Congress  
Sector 6, (Near RBI Quarters),  
R K Puram,  
New Delhi- 110022

Bidders are requested to send their queries at the following e-mail addresses, preferably, four days prior to the prebid meeting.

[it@irc.org.in](mailto:it@irc.org.in)

[hkbhatia@gcsindia.com](mailto:hkbhatia@gcsindia.com)

It is requested that all queries will be entertained in writing. Consolidated replies to the queries received for prebid meeting will be provided to the bidders in the bidder workshop.

## **6.6 Submission of responses by Bidders**

The bidder shall submit responses (referred to as 'proposals' or 'bid documents' herein) in a sealed envelope cover consisting of Two (2) copies of all the bid documents (sealed separately) super scribing on the left hand side top Corner as "IRC Project – Original Copy" and "IRC Project –Duplicate Copy". Both copies of the bids (Original and Duplicate) must consist of the following documents sealed in separate envelopes:

- Technical Proposal super scribing on the right hand side top of the cover as "Technical Bid"
- Financial Proposal (Sealed Separately) super scribing on the right hand side top of the cover as "Financial Bid"
- All pages of Technical Proposal and Financial Proposal must be signed by the authorized signatory of the bidder.

List of documents to be submitted as part of Bid documents

- Technical proposal
  - Covering letter as in Annexure 1, together with Bid Security.
  - Proposed project team and CV of key professionals with photographs. All proposed members of the team must be the permanent employee of organization for more than 2 years as on 1<sup>st</sup> June 2011.

- Technical proposal in the format as provided in Section 5
- Forms provided in Annexure 2
- Any other supporting information and documents that are relevant to the bid proposal
- Financial proposal (Price Bid)
  - Final proposal in the format provided in Annexure 3
  - A detailed breakup of the financial proposal. This might be used in case of Incremental work or change in scope.
- Related Information
  - The proposal document prepared by the Bidders and all correspondence and documents related to the RFP shall be written in English and shall conform to prescribed formats, where applicable.
  - The original and all copies of the bid, each consisting of the documents listed in instructions, shall be typed or written in indelible ink and shall be signed by the bidder or a person or persons duly authorized to bind the Bidder to the contract. The latter authorization shall be indicated by written power of attorney and shall accompany the bid.
  - In addition to the identification, the outer and inner envelopes shall indicate the name and address of the bidder to enable the proposal to be returned unopened, in case it is declared late pursuant, and for matching purposes.
  - If the outer envelope is not sealed and marked as above, the IRC will assume no responsibility for the misplacement or premature opening of the proposal.
  - Proposal received by facsimile or email shall be treated as defective, invalid and rejected. Only detailed complete proposals in the form indicated above received prior to the closing time and date of the proposals shall be taken as valid.
  - Two complete sets of the soft copies of the Bid Proposal Documents shall also be submitted, following exactly, the conventions set forth above in respect of the hard copies.

- All the documents comprising the proposal shall be serially page numbered, separately in respect of each volume.

## **6.7 Deadline for submission of bids**

Proposals complete in all respects must be received by IRC at the address mentioned below in an envelope marked as "Bid for Automated Integrated Solution":

Address of IRC –  
The Secretary General  
Indian Roads Congress  
Sector 6, (Near RBI Quarters),  
R K Puram,  
New Delhi- 110022

Last Date / Time for Submission: 1<sup>st</sup> July 2011 by 2:00 PM

## **6.8 Modification Substitution, And Withdrawal of proposals**

The bidder is permitted to modify, substitute or withdraw their Proposal before the last date of receipt of bids. The bidders will not be permit to modify, substitute or withdraw their proposal after the last date of submission.

## **6.9 Bid Opening**

The Technical Bids shall be opened in the presence of bidder's representatives, who choose to attend, at 3:00 pm on 1<sup>st</sup> July 2011. The bidder representatives who are present shall sign a regular evidencing their attendance.

The bidders' names and the presence or absence of requisite documents and such other details will be announced at the opening.

Financial Bids of only successful bidders of Technical Bids shall be opened in the presence of their respective employees on a date to be announced by the IRC for the purpose.

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### **6.9.1 General Guidelines for Bid opening**

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The following guidelines will be applicable:

- No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened.
- As the Bids will be in two parts (Technical and Financial) as indicated in the RFP, there will be two bid-opening events – (i) for the Technical Bids and (ii) for the Financial Bids.
- The Financial Bids of only those bidders, who are responsive and technically qualified during the technical evaluation, would be opened.
- The venue, date and time of opening of the Financial Bids of technically qualified bidders will be intimated to them at the appropriate time, with adequate notice.

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### **6.10 Evaluation of Technical Bids**

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- **Preliminary Scrutiny & Responsiveness:** Preliminary scrutiny of the Technical Bid will be made to determine responsiveness of the bidders. Prior to the evaluation, IRC will determine the responsiveness of each bid to the bidding documents. For purposes of these clauses, a responsive bid is one, which conforms to all the terms and conditions of the bidding documents including whether they are complete, whether the documents have been properly signed, and whether the bids are generally in order.

- **Evaluation of Technical Bids:** Criteria for evaluation of technical bids have been specified in section 7 of this document.
- **Technically qualified bidders:** All the bidders who secure minimum of 80% marks would be considered as technically qualified. The Financial bids of bidders will be opened for further processing. Financial Bids for bidders who are not technically qualified will be rejected un-opened.

## **6.11 Evaluation of Financial Bids**

The Financial Bids of the technically qualified bidders will be evaluated as per the evaluation criteria mentioned below.

- The bidder with lowest Financial Bid (L1) will be awarded 100% score.
- Financial Scores for other than L1 Bidders will be evaluated using the following formula:
- Financial Score of a Bidder= $\{(Financial\ Bid\ of\ L1 / Financial\ Bid\ of\ the\ Bidder) \times 100\}$ % (adjusted to 2 decimals)
- Lump sum fixed Price Bid: Only fixed price financial Bids indicating total price for the deliverables specified in this document will be considered.
- Errors & Rectification: Arithmetical errors will be rectified on the following basis:-
  - If there is discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.
  - If there is a discrepancy between words and figures, the amount in words will prevail.

## **6.12 Joint Evaluation of Technical & Financial Bids**

The following is the procedure for evaluation as applicable to technically qualified bids:

The technical and financial scores secured by each bidder will be added with weightages of 80:20 respectively and a Composite Bid Score arrived at.

$$S = S_t * 0.8 + S_f * 0.2$$

The Bidder securing the highest Composite Bid Score (S) will be adjudicated as the Best Value Bidder for award of the Project.

In the event the bid composite bid scores are 'tied', the bidder securing the highest technical score will be adjudicated as the Best Value Bidder for award of the Project.

The evaluation committee shall reserve the right to negotiate with the bidder(s) whose proposal has been ranked first by the committee on the basis of best value to the assignment. If the committee is unable to finalize a service agreement with the bidder ranked first, it may proceed to the next ranked bidder, and so on until a contract is awarded.

## **6.13 Bid Clarification**

During evaluation of the bids, IRC may, at its discretion, ask the Bidder for clarification on their bid.

## **6.14 Confidentiality**

Information relating to the examination, clarification and comparison of the bids and recommendations for the award of the project shall not be

disclosed to bidders or any other persons not officially concerned with such process until the award of the successful bidder has been announced.

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### **6.15 Right to accept bid**

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IRC reserves the right to accept or reject any bid, and to annul the bid process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder(s) of the grounds for such decision. (Any dispute with regard to bid process shall be decided by the Secretary General, IRC. The decision of Secretary General in this regard shall be final.)

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### **6.16 Notification of award**

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Prior to expiration of the period of bid validity, IRC will notify the successful bidder in writing, that its bid has been accepted.

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### **6.17 Signing of contract and completion of formalities**

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- IRC will send a draft Contract document to the successful bidder, incorporating all agreements between the parties. On receipt of this document, the successful bidder shall review the same, sign and date the contract and return it to the IRC (within 10 days).
- The successful bidder will be required to furnish an EMD in accordance with the conditions of the contract.
- Failure of the successful bidder to sign the contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security. In which event, the IRC may make the award to another bidder or call for fresh bids.

The selected vendor will be expected to depute an onsite consultant to interact with the client and handle day to day activities of the project. This consultant will be designated as the Project Manager. The attendance of any consultant visiting any site of IRC will be marked in a register maintained for the purpose.

**6.18 Seeking prior approval of the IRC in case of substitution of key staff**

Key staff like the project manager, project lead, domain specialist shall not be changed during the course of the project. In the event of any change or substitution in respect of critical staff deployed on the project, the CVs of proposed candidates would be submitted to IRC for the latter’s prior clearance.

**6.19 Forfeiture of Bid Security**

Failure to accept the correction of the errors as specified by IRC, or engaging in willful violation of the bid process, will lead to the rejection of the bid and forfeiture of bid security.

**6.20 Timelines for deliverables**

Sl.No	Deliverable	Time for completion(in weeks from start W)
1	Execution of Agreement and furnishing of EMD	W+1
2.	Process Study	
3.	Customization of Integrated Automated System suits and first conference room pilot	
4	Conference room pilot of the integrated software environment	

5	User Acceptance testing	
6	Roll out & Completion	
7	Training & Change Management	
8	Warranty Maintenance	

The implementation consultants will be expected to sign a contract with IRC with the above timelines.

## **6.21 Delivery and Acceptance**

Mode of delivery for the deliverables specified will be clearly specified by the bidders in their proposal.

Deliverables will be formally accepted after IRC certifies acceptance of the deliverables and recommends for payments to the bidder within thirty (30) days from the date of submission of the deliverables. IRC would generally not take more than four weeks for the acceptability of the deliverables. Any queries with regard to the deliverables will need to be answered by the bidder within a week.

## **6.22 Payment Plan**

The payment plan proposed for the project included in the scope of work for this RFP are as follows:

Project Milestones	Payment %
Project Kick Off	
Acceptance of AS-IS study report	10%
Submission & acceptance of To-BE report and design document	10%
Delivery of software and completion of Conference room pilot for integrated software	10%

Completion of UAT	20%
Completion of roll out	20%
Completion of warranty maintenance	10%
Training & Change Management	10%
Data Transformation	10%

### **6.23           Securities & EMD Penalties**

The bidder will pay an EMD of Rs. 50,000 (Fifty Thousand only) along with the acceptance of the contract in the form of a Cross Demand Draft drawn in favor of "Secretary General, Indian Roads Congress" payable at New Delhi.

The EMD shall be returned to the vendor at the end of the successful completion of warranty maintenance phase of the project without any interest.

### **6.24           Penalties**

The consulting firm will bear full responsibility for delay of any nature in the project timelines.

The timelines as provided by the IRC are to be strictly followed for each and every activity. In case, the consulting firm fails to adhere to the timeline submitted, a penalty of Rs. 5,000/- per day will be levied. In case, it is justified by the consulting firm and approved by IRC that the delay is on account any action or inaction on the part of the IRC and written communication has been provided to the IRC on this account, the penalty will not be enforced.

## **7 Technical Evaluation Criteria**

The technical evaluation of the received bids, provided they are responsive, will be done as per the following criteria:

**1. Proposed integrated solution for the project ..... 30 Marks**

- a) Specific features of the modules and installed base -10 Marks
- b) Proposed Integration approach & architecture -10 Marks
- c) Overall Technology architecture of the solution proposed-10 Marks

**2. Proposed Project Methodology.....30 Marks**

- a) Understanding of all aspects of the project..... 8 Marks
- b) Needs analysis & Customization methodology..... 4 Marks
- c) Implementation Methodology..... 4 Marks
- d) Rollout & post implementation Support ..... 4 Marks
- e) Training & Change Management..... 3 marks
- f) Project Monitoring & Evaluation Methodology..... 3 marks
- g) Service Level Agreement Management..... 4 marks

**3. Proposed Technical Configuration(H/W & Sys S/W)  
.....10 marks\***

**4. Qualification of Key Consultants on the project .....30 Marks**

- a) Project Manager ..... 8 Marks
- b) Technical Specialist ..... 7 Marks
- c) Database Designer and Administrator..... 5 Marks
- d) Domain Specialist to be used for the project..... 5 Marks
- e) Training & Change Management Expert..... 5 Marks

The hardware and system software shall include the servers, active network components like routers and switches, bandwidth available at the data center, operating systems, DBMs and other system software used to create the system architecture.

All the bidders who secure a Technical Score of 80% or more will be declared as technically qualified. The financial bids of only the technically qualified bidders will be opened for further processing.

### **Financial Score (Sf)**

The Financial Bids of the technically qualified bidders will be evaluated as per the evaluation criteria mentioned below.

The bidder with lowest Financial bid (L1) will be awarded 100% score.

Financial Scores for Bidders other than L1 will be evaluated using the following formula:

Financial Score of a Bidder=(Financial Bid of L1 /Financial Bid of the Bidder) X 100}% (adjusted to 2 decimals)

### **Overall Score**

The consultants will be selected using QCBS (Quality and Cost based Selection method). The technical score with the above parameters will have 80% weightage and financial score will have 20% weightage.

The formulae used for such an evaluation is as follows:

The technical and financial scores secured by each technically qualified bidder will be added with weightages of 80:20 respectively and a Composite Bid Score arrived at.

$$S= St * 0.8 + Sf * 0.2$$

where

St = Technical Score

Sf = Financial Score

The Bidder securing the highest Composite Bid Score (S) will be adjudicated as the Best Value Bidder for award of the Project.

Date: [ insert: **date of bid** ]

To:

The Secretary General  
Indian Roads Congress  
Sector 6, (Near RBI Quarters),  
R K Puram,  
New Delhi- 110022  
Dear Sir,

Sub: Proposal for the Implementation of Data Centre and Integrated  
Automated System

1. Having examined the Bidding Documents, the receipt of which is hereby acknowledged, we, the undersigned, offer to design, develop, test, deliver, install, pre-commission, commission, and put into operation the IRC Project, in full conformity with the said Bidding Documents.
2. We undertake, if our bid is accepted, to commence work on the IRC Project and to achieve Implementation, Roll out and Operational Acceptance within the respective times stated in the Bidding Documents.
3. We have read the provisions of bid documents and confirm that these are acceptable to us.
4. We further declare that additional conditions, variations, deviations, if any, found in the proposal shall not be given effect to.
5. We undertake, if our bid is accepted, to commence the work on the IRC Project immediately upon your Notification of Award to us, and to achieve Completion within the time stated in the Bidding Documents.
6. If our bid is accepted, we undertake to provide a Performance Security in the form and amounts, and within the times specified in the Bidding Documents.

7. We agree to abide by this bid, contents of this letter, the Price Schedules, the Bid Security, the duly notarized written power of attorney, and Attachments 1 through [specify: the number of attachments] to this Bid Form, for a period of bid validity from the date fixed for submission of bids as stipulated in the Bidding Documents, and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.
8. We understand that you can avail the bid process any time without liability to any bidder.

**Dated** this [insert: **number**] day of [insert: **month**], [insert: **year**]

**Signed:** \_\_

In the capacity of [insert: **title of position**]

Duly authorized to sign this bid for and on behalf of [insert: **name of Bidder** ]

**Attachments:**

**As per the technical specifications**

**9.1 Proposed Integrated Solution**

Parameters	Key Points / Highlights	Reference in the proposal
Proposed features		
Architecture		
Integration approach		
Hardware & Software configuration		

**9.2 Proposed Methodology**

Parameters	Key Points / Highlights	Reference in the proposal
Understanding of all aspects of the project		
Needs Analysis Methodology		
Design & Architecture methodology		
Implementation methodology		
Roll out & Post implementation support methodology		
Training & Change management methodology		
Project monitoring & evaluation methodology		
Service Level Agreement management		
Project Implementation Plan		

### 9.3 Qualification of Key Consultants

Role	Name	Educational Qualification	Professional Qualifications & Certifications	Total Relevant Experience	Number of Similar projects Handled
Project Manager					
Technical Specialist					
2 Key Developers					
Database Specialist					
Domain Specialist					
Training & Change Management Specialist					

Please provide detailed CV of the key persons in the project team in the format given below.

S.No	Item	Details
1	Name	
2	Specify role to be played in IRC Project	
3	Current job title	
4	Experience in yrs	
5	Number of years with the Organization	

6	Current Job responsibilities	
7	Summary of professional/domain experience	
8	Skill Sets	
9	Highlights of assignments handled	
10	Educational Background, Training/Certification	

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## **10 Annexure – 3 Financial Bid Format**

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### **10.1 Format of Price Bid (to be submitted in a separate envelope)**

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This is a fixed bid System Integration contract. All costs should be annotated in the format given below. Wherever deviations are being proposed, detailed write up should be given to explain the deviation. The financial proposal shall be submitted as a 'fixed price' quote for the deliverables specified in this document

- All prices should be in INR and shall be specified in both figures and words
- Individual prices for development, training & Change management and implementation may be indicated.
- Total Price inclusive of all taxes is to be specified
- The travel involved to interact with IRC staff and officers and their experts connected with this project shall not be reimbursable and would be a part of the total financial proposal.(Minimal travel is expected, if any for interaction with IRC.)
- Annual Price in addition to lump-sum cost for a possible 3 year maintenance contract after successful completion of warranty and maintenance for 1 year should be quoted.

A suggestive framework for financial quotation is given in the table below:

S.No	Name of Component	Unit Cost	Number Of Units / Person Months	Total Amount	
				In Figures	In Words
1	Integrated Automated System				
	License Cost				
	Design, architecture and Implementation Costs				
	Data Entry / Migration				
	Hosting cost				
	Training & Capacity Building				
	Sub-Total				
3	Maintenance Costs				
	Sub Total				
4	Hardware Costs				
	Server Costs				
	Scanner Costs				
	System Software Costs				
	Network Component Costs				
	Any special devices considered necessary for the current				

	implementation				
	Installation Costs If any				
	Sub Total of HW / SW				
	GRAND TOTAL				

**CONTRACT FOR CONSULTANTS’ SERVICES**

**Lump-Sum**

between

\_\_\_\_\_   
 [name of the Client]

and

\_\_\_\_\_   
 [name of the Consultant]

Dated: \_\_\_\_\_

## I. Form of Contract

### LUMP-SUM

(All notes should be deleted in final text)

This CONTRACT (hereinafter called the "Contract") is made the *[day]* day of the month of *[month]*, *[year]*, between, on the one hand, *[name of client]* (hereinafter called the "Client") and, on the other hand, *[name of Consultant]* (hereinafter called the "Consultant").

**[Note:** *If the Consultant consist of more than one entity, the above should be partially amended to read as follows: "...(hereinafter called the "Client") and, on the other hand, a joint venture/consortium/association consisting of the following entities, each of which will be jointly and severally liable to the Client for all the Consultant's obligations under this Contract, namely, *[name of Consultant]* and *[name of Consultant]* (hereinafter called the "Consultant").]*

### WHEREAS

- (a) the Client has requested the Consultant to provide certain consulting services as defined in this Contract (hereinafter called the "Services");
- (b) the Consultant, having represented to the Client that it has the required professional skills, and personnel and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract;

### **NOW THEREFORE the parties hereto hereby agree as follows:**

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:

- (a) The General Conditions of Contract;
- (b) The Special Conditions of Contract;
- (c) The following Appendices: **[Note:** *If any of these Appendices are not used, the words "Not Used" should be inserted below next to the title of the Appendix]*  
Appendix A: Description of Services \_\_\_\_\_ (Not used)

- Appendix B: Reporting Requirements \_\_\_\_\_ (Not used)
- Appendix C: Key Personnel and Sub-Consultants \_\_\_\_\_ (Not used)
- Appendix D: Breakdown of Contract Price \_\_\_\_\_ (Not used)
- Appendix E: Services and Facilities Provided by the Client \_\_\_\_\_ (Not used)
- Appendix F: Form of Advance Payment Guarantee \_\_\_\_\_ (Not used)

2. The mutual rights and obligations of the Client and the Consultant shall be as set forth in the Contract, in particular:
- (a) the Consultants shall carry out the Services in accordance with the provisions of the Contract; and
  - (b) the Client shall make payments to the Consultants in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of *[name of Client]*

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*[Authorized Representative]*

For and on behalf of *[name of Consultant]*

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*[Authorized Representative]*

**[Note:** *If the Consultant consists of more than one entity, all these entities should appear as signatories, e.g., in the following manner.]*

For and on behalf of each of the Members of the Consultant

*[name of member]*

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*[Authorized Representative]*

*[name of member]*

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*[Authorized Representative]*

## II. General Conditions of Contract

### 1. General Provisions

1.1 Definitions	<p>Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:</p> <ul style="list-style-type: none"><li>a. "Applicable Law" means the laws and any other instruments having the force of law in the Government's country, or in such other country as may be specified in the Special Conditions of Contract (SC), as they may be issued and in force from time to time.</li><li>b. "Consultant" means any private or public entity that will provide the Services to the Client under the Contract.</li><li>c. "Contract" means the Contract signed by the Parties and all the attached documents listed in its Clause 1, that is these General Conditions (GC), the Special Conditions (SC), and the Appendices.</li><li>d. "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 6;</li><li>e. "Effective Date" means the date on which this Contract comes into force and effect pursuant to Clause GC 2.1.</li><li>f. "Foreign Currency" means any currency other than the currency of the Client's country.</li></ul>
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	<ul style="list-style-type: none"><li>g. "GC" means these General Conditions of Contract.</li><li>h. "Government" means the Government of the Client's country.</li><li>i. "Local Currency" means the currency of the Client's country.</li><li>j. "Member" means any of the entities that make up the joint venture/consortium/association, and "Members" means all these entities.</li><li>k. "Party" means the Client or the Consultant, as the case may be, and "Parties" means both of them.</li><li>l. "Personnel" means persons hired by the Consultant or by any Sub-Consultants and assigned to the performance of the Services or any part thereof.</li><li>m. "SC" means the Special Conditions of Contract by which the GC may be amended or supplemented.</li><li>n. "Services" means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.</li><li>o. "Sub-Consultants" means any person or entity to whom/which the Consultant subcontracts any part of the Services.</li><li>p. "In writing" means communicated in</li></ul>
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	written form with proof of receipt.
1.2 Law Governing Contract	This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.
1.3 Language	This Contract has been executed in the language specified in the SC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.
1.4 Notices	
1.4.1	Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the SC.
1.4.2	A Party may change its address for notice hereunder by giving the other Party notice in writing of such change to the address specified in the SC.
1.5 Location	The Services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the Client may approve.
1.6 Authority of Member in Charge	In case the Consultant consists of a joint venture/ consortium/ association of more than one entity, the Members hereby authorize the entity specified in the SC to act on their behalf in exercising all the Consultant's rights and obligations towards the Client under this

	Contract, including without limitation the receiving of instructions and payments from the Client.
1.7 Authorized Representatives	Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the Client or the Consultant may be taken or executed by the officials specified in the SC.
1.8 Taxes and Duties	The Consultant, Sub-Consultants, and their Personnel shall pay such taxes, duties, fees, and other impositions levied under the Applicable Law as specified in the SC, the amount of which is deemed to have been included in the Contract Price.
1.9 Fraud and Corruption	
1.9.1 Definitions	<ul style="list-style-type: none"> <li>i. “corrupt practice” means the offering, receiving, or soliciting, directly or indirectly, of any thing of value to influence the action of client’s official in the selection process or in contract execution;</li> <li>ii. “fraudulent practice” means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract;</li> <li>iii. “collusive practices” means a scheme or arrangement between two or more consultants, with or without the knowledge of the client, designed to establish prices at artificial, noncompetitive levels;</li> <li>iv. “coercive practices” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or to affect the execution of a contract;</li> </ul>

1.9.2 Commissions and Fees	<p>a. The client will require the successful Consultant to disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents with respect to the selection process or execution of the contract. The information disclosed must include at least the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee.</p>
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2. Commencement, Completion, Modification and Termination of Contract

2.1 Effectiveness of Contract	<p>This Contract shall come into effect on the date the Contract is signed by both Parties or such other later date as may be stated in the SC. The date the Contract comes into effect is defined as the Effective Date.</p>
2.2 Commencement of Services	<p>The Consultant shall begin carrying out the Services not later than the number of days after the Effective Date specified in the SC.</p>
2.3 Expiration of Contract	<p>Unless terminated earlier pursuant to Clause GC 2.6 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SC.</p>
2.4 Modifications or Variations	<p>Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.</p>

2.5 Force Majeure	
2.5.1 Définition	For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.
2.5.2 No Breach of Contract	The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.
2.5.3 Extension of Time	Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.
2.5.4 Payments	During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.
2.6 Termination	

<p>2.6.1 By the Client</p>	<p>The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause GC 2.6.1. In such an occurrence the Client shall give a not less than thirty (30) days' written notice of termination to the Consultant.</p> <ul style="list-style-type: none"> <li>a. If the Consultant does not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the Client may have subsequently approved in writing.</li> <li>b. If the Consultant becomes insolvent or bankrupt.</li> <li>c. If the Consultant, in the judgment of the Client has engaged in corrupt, fraudulent, collusive or coercive practices in competing for or in executing the Contract.</li> <li>d. If, as the result of Force Majeure, the Consultant are unable to perform a material portion of the Services for a period of not less than sixty (60) days.</li> <li>e. If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.</li> <li>f. If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GC 8 hereof.</li> </ul>
<p>2.6.2 By the Consultant</p>	<p>The Consultant may terminate this Contract, by not less than thirty (30) days' written notice to the Client,</p>

	<p>such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (c) of this Clause GC 2.6.2:</p> <ul style="list-style-type: none"> <li>a. If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause GC 7 hereof within forty-five (45) days after receiving written notice from the Consultant that such payment is overdue.</li> <li>b. If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) days.</li> <li>c. If the Client fails to comply with any final decision reached as a result of arbitration pursuant to Clause GC 8 hereof.</li> </ul>
<p>2.6.3 Payment upon Termination</p>	<p>Upon termination of this Contract pursuant to Clauses GC 2.6.1 or GC 2.6.2, the Client shall make the following payments to the Consultant:</p> <ul style="list-style-type: none"> <li>a. payment pursuant to Clause GC 6 for Services satisfactorily performed prior to the effective date of termination;</li> <li>b. except in the case of termination pursuant to paragraphs (a) through (c), and (f) of Clause GC 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel and their eligible dependents.</li> </ul>

### 3. Obligations of the Consultant

3.1 General	
3.1.1 Standard of Performance	The Consultant shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology, software and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub-Consultants or third Parties.
3.2 Conflict of Interests	The Consultant shall hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.
3.2. 1 Consultants Not to Benefit from Commissions, Discounts, etc.	The payment of the Consultant pursuant to Clause GC 6 shall constitute the Consultant's only payment in connection with this Contract or the Services, and the Consultant shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultant shall use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly shall not receive any such

	additional payment.
3.2.2 Consultant and Affiliates Not to be Otherwise Interested in Project	The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-Consultants and any entity affiliated with such Sub-Consultants, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.
3.2.3 Prohibition of Conflicting Activities	The Consultant shall not engage, and shall cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.
3.3 Confidentiality	Except with the prior written consent of the Client, the Consultant and the Personnel shall not at any time communicate to any person or entity any information acquired in the course of the Services, nor shall the Consultant and the Personnel make public the recommendations formulated in the course of, or as a result of, the Services.
3.4 Insurance to be Taken Out by the Consultant	The Consultant (a) shall take out and maintain, and shall cause any Sub-Consultants to take out and maintain, at their (or the Sub-Consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the Client's request, shall provide evidence to the Client

	showing that such insurance has been taken out and maintained and that the current premiums have been paid.
3.5 Consultant's Actions Requiring Client's Prior Approval	<p>The Consultant shall obtain the Client's prior approval in writing before taking any of the following actions:</p> <ul style="list-style-type: none"> <li>a. entering into a subcontract for the performance of any part of the Services,</li> <li>b. appointing such members of the Personnel not listed by name in Appendix C, and</li> <li>c. any other action that may be specified in the SC.</li> </ul>
3.6 Reporting Obligations	<ul style="list-style-type: none"> <li>a. The Consultant shall submit to the Client the reports and documents specified in Appendix B hereto, in the form, in the numbers and within the time periods set forth in the said Appendix.</li> <li><b>b.</b> Final reports shall be delivered in CD ROM in addition to the hard copies specified in said Appendix.</li> </ul>
3.7 Documents Prepared by the Consultant to be the Property of the Client	<ul style="list-style-type: none"> <li>a. All plans, drawings, specifications, designs, reports, other documents and software submitted by the Consultant under this Contract shall become and remain the property of the Client, and the Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof.</li> <li><b>b.</b> The Consultant may retain a copy of such</li> </ul>

	documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SC.
3.8 Accounting, Inspection and Auditing	The Consultant (i) shall keep accurate and systematic accounts and records in respect of the Services hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time changes and costs, and the bases thereof, and (ii) shall periodically permit the Client or its designated representative and up to two years from the expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Client, if so required by the Client as the case may be.

4. CONSULTANT’S Personnel

4.1 Description of Personnel	The Consultant shall employ and provide such qualified and experienced Personnel and Sub-Consultants as are required to carry out the Services. The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultant’s Key Personnel are described in Appendix C. The Key Personnel and Sub-Consultants listed by title as well as by name in Appendix C are hereby approved by the Client.
4.2 Removal and/or Replacement of Personnel	a. Except as the Client may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultant, such

	<p>as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Personnel, the Consultant shall provide as a replacement a person of equivalent qualifications.</p> <p>b. If the Client finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the Client's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Client.</p> <p>c. The Consultant shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.</p>
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5. Obligations of the Client

<p>5.1 Assistance and Exemptions</p>	<p>The Client shall use its best efforts to ensure that it shall provide the Consultant such assistance and exemptions as specified in the SC.</p>
<p>5.2 Change in the Applicable Law Related to Taxes and Duties</p>	<p>If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased</p>

	or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Clauses GC 6.2 (a) or (b), as the case may be.
5.3 Services and Facilities	The Client shall make available free of charge to the Consultant the Services and Facilities listed under Appendix E.

## 6. Payments to the Consultant

6.1 Lump-Sum Payment	The total payment due to the Consultant shall not exceed the Contract Price which is an all-inclusive fixed lump-sum covering all costs required to carry out the Services described in Appendix A. Except as provided in Clause 5.2, the Contract Price may only be increased above the amounts stated in Clause 6.2 if the Parties have agreed to additional payments in accordance with Clause 2.4.
6.2 Contract Price	<p>a. The price payable in foreign currency/currencies is set forth in the SC.</p> <p>b. The price payable in local currency is set forth in the SC.</p>
6.3 Payment for Additional Services	For the purpose of determining the remuneration due for additional services as may be agreed under Clause 2.4, a breakdown of the lump-sum price is provided in Appendices D and E.
6.4 Terms and Conditions of Payment	Payments will be made to the account of the Consultant and according to the payment schedule stated in the SC. Unless otherwise stated in the SC, the first payment shall be

	made against the provision by the Consultant of an advance payment guarantee for the same amount, and shall be valid for the period stated in the SC. Such guarantee shall be in the form set forth in Appendix F hereto, or in such other form, as the Client shall have approved in writing. Any other payment shall be made after the conditions listed in the SC for such payment have been met, and the Consultant has submitted an invoice to the Client specifying the amount due.
6.5 Interest on Delayed Payments	If the Client has delayed payments beyond fifteen (15) days after the due date stated in the Clause SC 6.4, interest shall be paid to the Consultant at the rate stated in the SC.

7. Good Faith

7.1 Good Faith	The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.
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8. Settlement Of Disputes

8.1 Amicable Settlement	The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution of the Contract and the success of the assignment. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.
8.2 Dispute	Any dispute between the Parties as to matters

Resolution	arising pursuant to this Contract that cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SC.
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### III. Special Conditions of Contract

(Clauses in brackets { } are optional; all notes should be deleted in final text)

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1(a)	{The words "in the Government's country" are amended to read "in India".
1.3	The language is : English
1.4	<p>The addresses are:</p> <p>Client:</p> <p>Attention:</p> <p>Facsimile:</p> <p>E-mail:</p> <p>Consultant:</p> <p>Attention:</p> <p>Facsimile:</p> <p>E-mail:</p>
1.6	<p>{The Member in Charge is [insert name of member]}</p> <p>Note: If the Consultant consists of a joint venture/ consortium/ association of more than one entity, the name of the entity whose address is specified in Clause SC 4 should be inserted here.</p>
1.7	<p>The Authorized Representatives are:</p> <p>For the Client:</p> <p>For the Consultant:</p>

1.8	<p>For domestic consultants/personnel and foreign consultants/personnel who are permanent residents in India</p> <p>The consultants and personnel shall pay the taxes, duties, fees, levies and other impositions levied under the existing, amended or enacted laws during life of this contract and the client shall perform such duties in regard to the deduction of such tax as may be lawfully imposed.</p>
2.2	The date for the commencement of Services is [insert date].
2.3	The time period shall be [insert time period, e.g.: twelve months] or such other period as the parties may agree in writing.
3.4	<p>The risks and the coverage shall be as follows:</p> <ul style="list-style-type: none"> <li>a. Third Party motor vehicle liability insurance in respect of motor vehicles operated in India by the Consultant or its Personnel or any Sub-Consultants or their Personnel, with a minimum coverage as per Motor Vehicles Act 1988;</li> <li>b. Third Party liability insurance, with a minimum coverage of [insert amount and currency];</li> <li>c. professional liability insurance, with a minimum coverage of [insert amount and currency];</li> <li>d. employer's liability and workers' compensation insurance in respect of the Personnel of the Consultant and of any Sub-Consultants, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; and</li> <li>e. insurance against loss of or damage to (i) equipment</li> </ul>

	<p>purchased in whole or in part with funds provided under this Contract, (ii) the Consultant’s property used in the performance of the Services, and (iii) any documents prepared by the Consultant in the performance of the Services.</p> <p>f. Note: Delete what is not applicable</p>
3.7(b)	The Consultant shall not use these documents and software for purposes unrelated to this Contract without the prior written approval of the Client.
5.1	“Not Applicable.”
6.2(a)	The amount in local currency is [insert amount].
6.4(a)	<p>The account is:  for local currency: [insert account]  No foreign currency shall be paid.  Payments shall be made according to the following schedule:</p> <ul style="list-style-type: none"> <li>a. Ten (10) percent of the lump-sum amount shall be paid upon submission and acceptance of the AS-IS Study report.</li> <li>b. Ten (10) percent of the lump-sum amount shall be paid upon Submission &amp; acceptance of To-BE report and design document.</li> <li>c. Ten (10) percent of the lump-sum amount shall be paid upon delivery of software and completion of Conference room pilot for integrated software</li> <li>d. Twenty (20) percent of the lump-sum amount shall be paid Completion of UAT</li> <li>e. Twenty (20) percent of the lump-sum amount shall be</li> </ul>

	<p>paid on Completion of roll out.</p> <p>f. Ten (10) percent of the lump-sum amount shall be paid on Completion of Warrant Maintenance.</p> <p>g. Ten (10) percent of the lump-sum amount shall be paid on Completion of Training &amp; Change Management.</p> <p>h. Ten (10) percent of the lump-sum amount shall be paid on Completion of Data Transformation.</p>
6.5	Payment shall be made within 30 days of receipt of the invoice and the relevant documents specified in Clause 6.4, and within 45 days in the case of the final payment.
6.5	Interest for delayed payment will be 6 percent.
8.2	For dispute arising between the parties, the President IRC will appoint sole Arbitrator to decide on the dispute and his decision shall be final and binding on both the Parties.

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## **12      Appendix A:Description of Services**

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Please refer to section-4 for Description of Services

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## **13 Appendix B: Reporting Requirements**

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Following reports will be included in the project:

- As-Is Report
- To-Be Design Report
- Change Management and Strategy Report
- Security Architecture Report
- Training Report
- Monthly Progress Report
- Any other Report requested by the client's representative.

(The details of these reports will be finalized at the time of finalization of the contract.)

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**14      Appendix C: Key Personnel and Sub-consultants**

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List under:

C-1    Titles [and names, if already available], detailed job descriptions and minimum qualifications and experience of Personnel to be assigned to the project, and staff-months for each.

C-2    List of approved Sub-consultants [if already available]; same information with respect to their Personnel as in C-1

C-3    Same information as C-1 for Key Personnel.

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**15      Appendix D: Breakdown of Contract Payment**

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Payments shall be made according to the following schedule:

- a. Ten (10) percent of the lump-sum amount shall be paid upon submission of the Process Study Report.
- b. Ten (10) percent of the lump-sum amount shall be paid upon delivery of software and completion of Conference Room Pilot.
- c. Ten (10) percent of the lump-sum amount shall be paid upon Delivery of software and completion of Conference room pilot for integrated software.
- d. Twenty (20) percent of the lump-sum amount shall be paid upon completion of UAT.
- e. Twenty (20) percent of the lump-sum amount shall be paid upon completion of roll out
- f. Ten (10) percent of the lump-sum amount shall be paid upon completion of warranty maintenance.
- g. Ten (10) percent of the lump-sum amount shall be paid on completion of Training & Change Management.
- h. Ten (10) percent of the lump-sum amount shall be paid on completion of Data Transformation.

