Expression of Interest

for

Mobile Application Development Services

Ver 2.0
(16-May-2023)

DIGITS,

Indian Institute of Science, Bangalore

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https://digits.iisc.ac.in

Contents

Background

The Indian Institute of Science, located in Bangalore, is a renowned institution that has been a leader in research and education since its establishment in 1909. The Institute's focus on cutting-edge research and innovation has enabled it to make significant contributions to scientific discovery and technological advancement, both in India and around the world. The Institute's commitment to academic excellence is reflected in its rigorous academic programs, world-class faculty, state-of-the-art research facilities, and diverse student body. With a long and illustrious history, the Indian Institute of Science is a proud symbol of India's commitment to scientific progress and intellectual achievement.

DIGITS (Digital Campus and IT Services) Office serves as the hub for digitalization at IISc. It is a dedicated unit that plans and develop cutting-edge information technology (IT) and networking system for the campus, as well as provide agile IT and networking services to promote operational excellence at the Institute.

We are pleased to invite Expression of Interest (EoI) from eligible vendors for developing a mobile application for our organization. Our organization is committed to providing innovative solutions to our stakeholders, and we recognize the critical role that mobile technology plays in achieving this objective.

The aim of this EoI is to identify vendors who have the necessary expertise and experience to develop a state-of-the-art mobile application that meets the unique needs of our organization. We are seeking a vendor who can work collaboratively with us to deliver a high-quality product that enhances our ability to serve our stakeholders effectively.

We are committed to a fair and transparent selection process that ensures a level playing field for all interested vendors. This EoI document provides detailed information about the scope of work, eligibility criteria, evaluation methodology, and submission guidelines.

We encourage all eligible vendors to submit their EoI and participate in this exciting opportunity to work with our organization.

Currently, IISc faculty, staff, and students use several stand-alone applications to access various facilities. However, users have to know the URLs of each application portal, which makes it challenging to use them effectively. To simplify the process, IISc has decided to develop a mobile app that will provide a single interface for accessing all these services. The following sections list the applications that will be included in the proposed mobile app.

Eligibility Criteria

- Vendor should possess adequate knowledge in the domain of developing customized mobile apps.
- They should have executed at least one project of a similar nature that has been deployed in a large academic campus, and should attach a copy of the purchase order/work completion certificate from clients as proof.
- Additionally, vendors will be required to make a presentation to a technical committee to explain their methodology for meeting IISc's requirements.
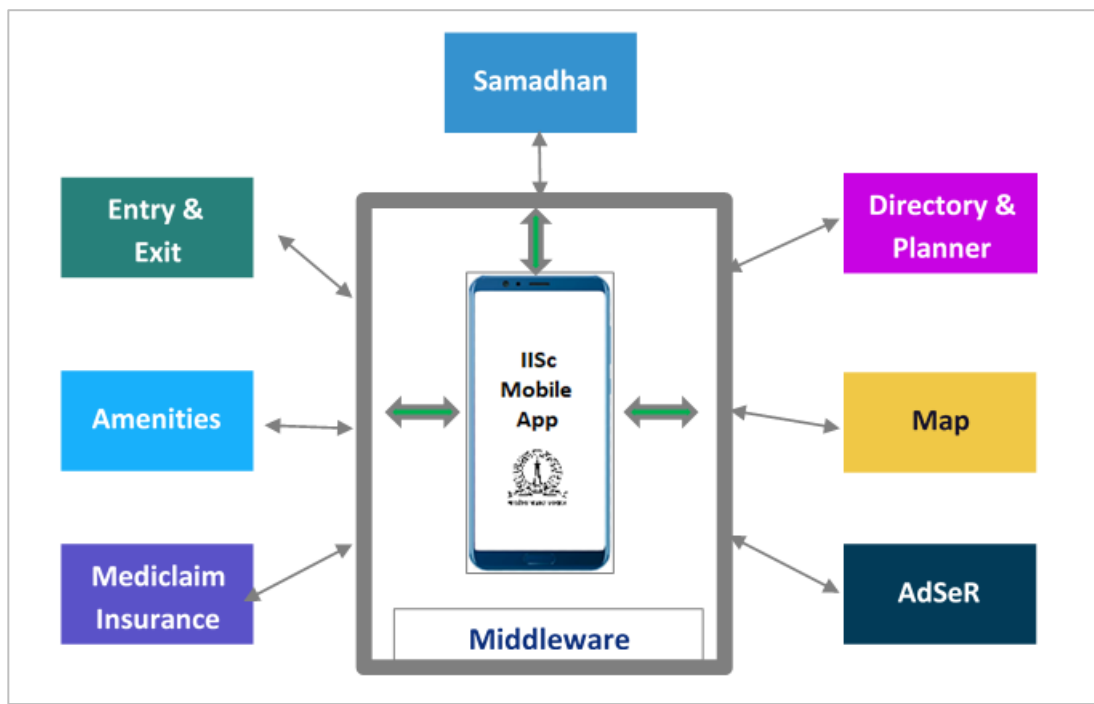- If the committee deems it necessary, the vendor may also be asked to arrange for a PoC.

Scope of Work

The selected vendor will be responsible for designing, developing, and deploying a user-friendly mobile application that facilitates various utilities in the campus. The application must have a visually appealing and intuitive UI/UX design that is easy to use and navigate, enabling the users to easily locate the information they need. The application must be built to work on both Android and iOS devices.

The main goal of the application is to serve as a single point for accessing various services. It must integrate with existing applications used by IISc faculty, staff, and students to avail various facilities, and provide a seamless user experience. The vendor must ensure that the application is scalable and can accommodate additional functionalities and services in the future.

Project Details

Application Architecture

- A middleware should be used to route the communication between the mobile app and applications.
- Develop APIs at application end that will be utilized by the mobile app.
- The system architecture should be designed to be modular and adaptable for incorporating additional features in the future. For instance, users should be able to make online payments at various amenity centers

Application Features

Refer Annexure I section for application features.

Deliverables

The vendor is expected to deliver several items upon the release of the first version of the application. It is important to note that these items may be subject to changes as future enhancements are implemented. The architecture of the application should be designed in a modular and extendable manner so that it can accommodate additional functionalities that may be required in the future. For instance, the application should allow for online payments at different amenity centers.

1. Software Requirements Specifications document
2. High Level Architecture document
3. API document
4. Software Test Plan
5. Software Test Cases
6. Source Code and binaries for both Android and iOS
7. Release Notes
8. User Manual

Selection Criteria

After the technical presentation, an expert committee will shortlist 3 or 4 potential vendors. In the selection process for the mobile application development vendor, the evaluation will be based on the bids submitted by the shortlisted vendors. The L1 bidder, which is the bidder with the lowest price, will be selected for the awarding of the project. It should be noted that the L1 bid is determined not only by the overall cost of the project, but also by considering the cost of resources per month and the total effort required within the appropriate time unit, such as weeks or months. This comprehensive evaluation will ensure that the total cost for delivering the scoped phase of the project can be accurately calculated. Therefore, vendors are expected to provide the project efforts and associated costs for resources required. This will enable a fair and transparent evaluation process, leading to the selection of a vendor who can provide the best value for money while meeting the necessary project requirements.

Documents Required for validating Eligibility Criteria

- Certificate of incorporation or registration of the company.
- PAN (Permanent Account Number) card of the company.
- GST (Goods and Services Tax) registration certificate.
- References or testimonials from previous clients or projects.
- Technical proposal outlining the vendor's approach to developing the mobile application, including details of the technology stack, methodologies, and tools to be used.
- ~~Financial proposal specifying the cost of the project, including a breakdown of the costs involved in development, deployment, and maintenance of the mobile application.~~

How to Submit the EoI

EOI with all enclosures should be emailed to office.digits@iisc.ac.in or posted to the DIGITS, Indian Institute of Science, Sir C V Raman Road, Bengaluru – 560012 on or before 5 p.m. on ~~27-04-2023~~ 19-05-2023. Late submissions will not be considered.

There will be a clarification meeting arranged on 21-04-2023 at 2.30 pm in the DIGITS committee room.

IISc reserves the right to reject any/or all the EOIs without assigning any reasons whatsoever.

Annexure I

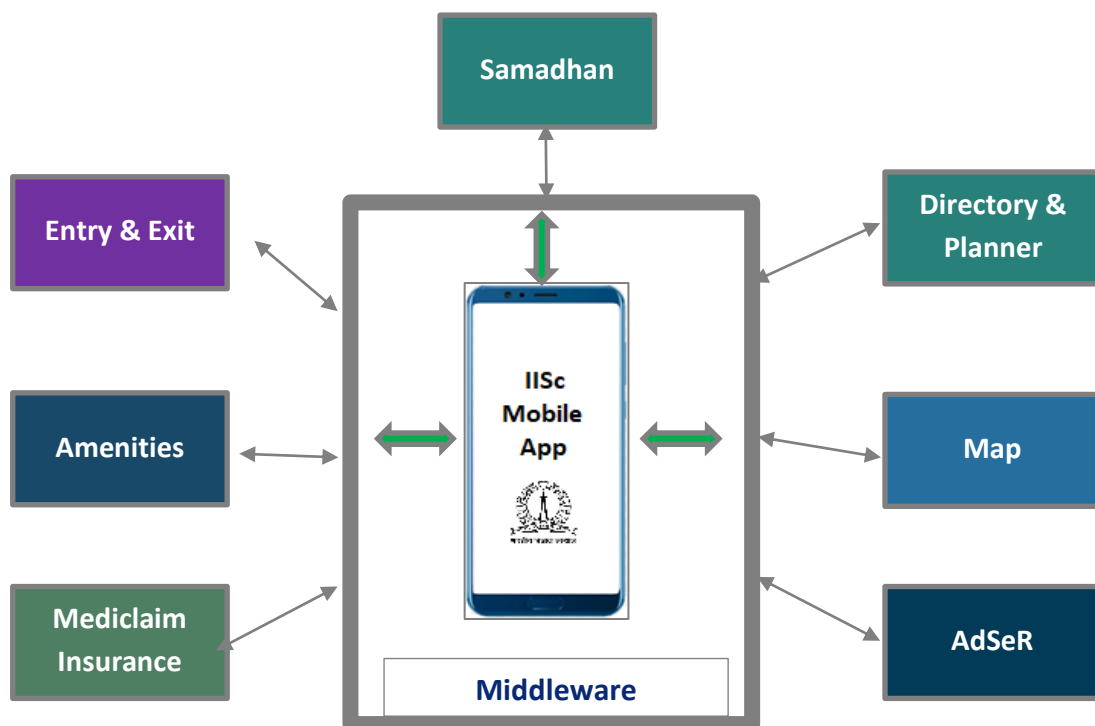# Requirements for IISc Mobile App
Ver 1.0
12-Apr-23

DIGITS, IISc

Introduction

There are a host of applications that are used by IISc faculty, staff, and students for availing various facilities. These applications are currently stand-alone and the users are required to know the URLs of each of these application portals. This makes it difficult for the users to use these portals effectively.

In order to address this issue, IISc has decided to develop a mobile app that will act as a single interface to access all these services. The list of applications to be included in the proposed mobile app are covered in the subsequent sections.

Application Architecture

- The communication between mobile app and the applications are to be routed through a middleware.
- APIs have to be developed at the applications side which will be consumed by the mobile app.
- The architecture should be modular and extendable to be able to take care of additional functionalities in future. For example, it should be possible to make online payments at various amenity centers.

Applications

Subsequent sections cover the features to be made available in the proposed mobile application.

Login/Logout to the mobile App

Slno	Description
1	Users should be able to login to the mobile app using their AD credentials.
2	"Keep me logged in" feature should be provided so that the users need not login every time they open the app.
3	Logout feature should be available to log the user out of the app.

SAMADHAN

SAMADHAN is the Campus Complaint Management Centre to take care of the Electrical, Plumbing, Carpentry and Sanitary nature of complaints from the entire campus (Hostels, Residential Quarters, Administrative Offices and Departments / Centers). The complaints will be either attended to by the in-house technicians or through liaison with the appropriate unit to resolve it. Complaints are received and attended to round the clock (24 x 7). The complaints can be registered on this portal using IISc mail ID.

Following feature are to be made available in the mobile app:

Slno	Features
1	Register complaint
2	Register complaint on behalf of any other user
3	Update the complaint status
4	Check History of complaints and download the history of complaints

Maps

This feature allows the users to find their way around the IISc, Bangalore campus, including buildings, rooms and parking. This is made available using the digitized maps of the IISc Campus.

Slno	Description
1	The Mobile Application shall allow the user to view the digitized maps of the IISc campus.
2	The user shall be able to type/select the place they wish to navigate in the map

Slno	Description
3	The user shall be able to perform outdoor and indoor navigation between two points, rooms, or buildings.

Directory

A directory is a list of individuals or organizations alphabetically or thematically arranged with details such as names, designation, Department and Contact details. All the staff members, based on the department will be listed under the directory feature. The user can view and search the Directory to get the details of the staff members

The planner feature allows the user to schedule an event, appointment and task. This will be in the form of a calendar and allows the user to select a particular date and plan accordingly.

Slno	Description
1	The users shall be able to view the list of individuals or departments along with their designation, address, phone number and Email addresses.
2	The application shall allow the user to make a phone call the selected entry by selecting the call functionality (By clicking on the call logo)
3	The application shall allow the user to send an email to the selected entry by selecting the email functionality (By clicking on the email logo)
4	The application shall display the calendar if the user selects the Planner option.
5	The user shall be able to create an event, tasks, or any "to do" engagements.
6	The user shall get a notification on the screen about the creation of an event.
7	The application should update the database.
8	The application should allow the integration of the calendar.

AdSeR

AdSeR is an online system that facilitates staff & students of IISc to raise service requests to various departments. The requests are automatically forwarded to the respective Department admin for review and resolution. The system tracks various stages of service requests and notifies the requester and department admins about the progress. The service requests can also be delegated by department admins to other staff.

Slno	Description
1	AdSeR users should be able to raise service request (SR) to various departments
2	User should be able to enter the details that are available in the web UI for raising SR
3	User should be able to search and view the SRs raised by him/her
4	User should be able to view all the remarks given by the respective departments on his/her SR

5	Once the SR is resolved by the department, User should be able to return or close the SR.

Mediclaim – Consent additional premium

Employees are allowed to opt for additional insurance coverage once in a year. A feature to be provided for employees to provide their desired coverage amount and the number of installments through which the premium is to be deducted.

Slno	Description
1	Staff & pensioners should be able to select the additional coverage amount.
2	The additional premium amount to be displayed on the screen
3	User should be able to select the number of installments through which the premium can be deducted.
4	No. of installments is to be selected from a dropdown.
5	An acknowledgement email to be sent to the Staff /Pensioner

Amenities

The IISc Amenities Portal enables the Users to provide feedback on various facilities available in the IISc campus.

Slno	Description
1	User should be able to select an amenity from the list of values
2	Based on the selected Amenity, a set of questions has to be displayed to the user.
3	User should be able to choose an option against each of the feedback questions
4	User should be able to submit the feedback

Entry & Exit

An interface to be developed for Staff and Students to log their entry into and exit from the departments by scanning the QR code.

Slno	Description
1	Employees & Students should be able to scan the QR code displayed at the department and the system should capture their movement and time.
2	When the feature is launched, the camera should get opened by default. When the user scans the QR code, the app should automatically log their movement and time.

Annexure II

Self-Declaration Format

Ref. No.:   Date:
To,
The Chair,
DIGITS, Indian Institute of Science

With reference to my/our expression of interest to IISc, it is hereby declared that I/ (name of firm) was not declared ineligible for corrupt & fraudulent practices either indefinitely or for a particular period by any Govt or other agency.

I/ (name of firm) also declare that there are no contractual restrictions or legal disqualifications or other obligations which will prohibit from me/us entering this bid and each and every one of the statement and particulars contained herein are correct.

Signature of the Applicant
Date:
Place:

Seal