



Deemed to be University under
Distinct Category

NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING AND RESEARCH (NITTTR), BHOPAL

Deemed to be University under Distinct Category

Ministry of Education, Government of India



Expression of Interest for

Web Application Development of Hostel/Guest House Booking System

National Institute of Technical Teachers' Training and Research, Bhopal
(Deemed to be University under Distinct Category)
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1. Background

National Institute of Technical Teachers' Training and Research, Bhopal is a unique premier institution, established in 1965 by Ministry of Education, Government of India for teacher training and improving quality of entire gamut of Technical Education System. The Institute holds expertise through continuous R&D in the areas like development of specific competencies related to new technologies, subject matter development, classroom and laboratory-based learning, industry institute internship, management of technical institutions, personality development, entrepreneurship development, examination reforms and student assessment, learning & instructional resources development, video production and multimedia development, educational projects planning & management, community development, evaluation of programmes & projects.

NITTTR, Bhopal has an excellent track record of introducing several new innovations in the technical education and has successfully implemented several time-bound and professionally challenging projects for varied clientele. In nineties, the Institute has successfully served the client states in implementing the highly acclaimed and successful World Bank Assisted Projects viz. Tech. Ed. I, II and III on 'Strengthening the Technician Education System.' The Institute has also been providing need-based customised support by conducting training programme for TEQIP institutes under phase I, II and III.

NITTTR Bhopal has been involved in the implementation of many national initiatives. In recent past NITTTR, Bhopal is involved in offering MOOCs courses through SWAYAM platform. The Institute has been identified under the Pandit Madan Mohan Malviya National Mission on Teachers and Teaching as the Teaching Learning Centre (TLC) in Vocational Education Training & Entrepreneurship Development. NITTTR Bhopal has also been selected as National Resource Centre (NRC) for Assessment & Evaluation in ARPIT Scheme.

The institution has taken a lead in design and implementation of AICTE's National Initiative for Technical Teacher Training (NITTTR) and National Mentoring Mission of National Education Policy-2020 by conducting the initial Orientation Training Programmes for Mentors. Looking to the present need, the institute has also been conducting webinar series and online Programmes. In pursuit of excellence, NITTTR Bhopal has transformed itself over the years. NITTTR enjoys the status of a World Class Institute in the area of Human Resource Development. 'Quality' and 'Need-based' has become the key word to its functioning, which gets reflected in its services and resources. NITTTR Bhopal exhibits the ethos of client driven and competency-based approach in all its services.

2. Eligibility Criteria

- Vendor should possess adequate knowledge in the domain of developing customized web apps.
- They should have experience to develop at least one project of a similar nature.

3. Scope of Work

The purpose of this project is to design, develop web-based Hostel/Guest House Booking System that allows users to check availability, make reservations, manage bookings, payment gateway and facilitate administrative tasks efficiently within 2 months and 1 month for deployment and testing from the date of work order.

Summary:

- Develop a user-friendly, responsive web application for hostel/guest house booking.
- Enable real-time room availability status.
- Allow online booking, payment, and cancellation processes.
- Provide an admin dashboard for hostel/guest house management.
- Generate automated reports on occupancy, revenue, and booking history etc.

4. Selection Criteria

- i. In the selection process for the web application development vendor, the evaluation will be based on the bids submitted by the shortlisted vendors.
- ii. After the technical presentation, an expert committee will shortlist potential vendors.
- iii. Eligible vendors will submit the financial proposal in sealed envelope specifying the cost of the project for development, deployment and maintenance of the web application for one year.
- iv. The L1 bidder, which is the bidder with the lowest price, will be selected for the awarding of the project.
- v. It should be noted that the L1 bid is determined by overall cost of the project within the appropriate time limit as mentioned in scope of the work.

5. 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 web application, including details of the technology stack, methodologies, and tools to be used.
- Financial proposal specifying the cost of the project of the bidder will be submitted after successful technical presentation.

6. How to Submit the EoI

EOI with all enclosures should be emailed to purchasenitttr@gmail.com or before 5 p.m. on 21/10/2025

Late submissions will not be considered.

NITTTR, Bhopal reserves the right to reject any/or all the EOIs without assigning any reasons whatsoever.

7. Important Date

SN	Items	Date
1	Publication of EOI	06/10/2025
2	Receiving of Online EOI documents	On or before 21/10/2025 (by 5:00 p.m.)
3	Technical Presentation	Will be communicated later
4	Opening Financial Proposal	Will be communicated later
5	Declaration of Awarding of the Project	Will be communicated later

Annexure I

Requirements for Web Application Development for Hostel/ Guest House System

Guest House / Hostel Booking System

(Requirements Specification Document)

Objectives: Develop web application for Guest House/Hostel Booking System

Major Function:

1. Photo Gallery / Video Gallery for Visitors
2. Online Booking Module
3. Automatic & Manual Room Allotment
4. Payment integration with cancellation facility
5. Various account reports with Meta Search Facility
6. Various MIS reports with Meta Search Facility
7. Role based Dashboard
8. Admin & Super Admin Dashboard

Tools/Technologies: JSP & Servlet, Java based framework (Spring Boot) for REST API Services, Angular and MySQL Server

A. Basic Information of Guest House / Hostels

1. Major guest house/hostels

SN	Name	Hostel Type
1	Saran Guest House	Guest House
2	Vishveshraiya Guest House	Guest House
3	Trainee Executive Hostel	Hostel
4	Chandrakant Hostel	Hostel
5	Guest House (EC Ahmedabad)	Guest House
6	Guest House (EC Goa)	Guest House

2. Room Tariff & Charges

Will be provided to vendor.

3. Types of Users

- Visitors/Guest
- Guest House Caretaker
- Assistant Warden
- Chief Warden
- Institute Staff

- Administrator
- Account Officer

4. Types of Booking

- Individual booking (Government Organization, NITTTR Family, Others)
- Organization/Institute Bulk booking

5. Check in and Check out time

Check In Time: 10 AM everyday
Check Out Time: 9 AM everyday

B. Basic Modules of Guest House / Hostels

1. User Management Module

- **Users Registration:**
 - Account creation via email/mobile Number.
 - Profile management (name, contact details, photos etc).
 - Password recovery/changes.
- **Users Login/Authentication:**
 - User login using credentials (username, password).
- **Admin/User Role Management:**
 - Define user roles (Admin, Manager, Staff, Guest).
 - Role-based permissions and access control.
 - Permissions for specific actions (view, edit, delete).
- **User Dashboard:**
 - Option to update personal information.
 - View upcoming booking details
 - View booking details (history)
 - Apply for booking

2. Room Management Module

- **Room Inventory Management:**
 - Add, modify, or delete room types and categories (e.g., deluxe, standard).
 - Maintain details such as room features (bed size, amenities, floor number, cooler, AC etc).
 - Update room status (available, occupied, under maintenance).
- **Room Pricing Management:**
 - Set base prices for different room categories.
- **Room Availability Management:**
 - Real-time room availability based on dates and occupancy.
 - Automated room allocation.

3. Reservation/Booking Module

- **Booking Search:**

- Allow guest to search rooms by check-in/check-out dates, number of guests, room type, etc.
- Display available rooms with price comparison and additional details.
- **Booking Confirmation:**
 - Send confirmation email/SMS with booking details (reservation ID, room type, check-in/check-out times).
 - Generate and display booking summary.
- **Booking Cancellation and Modifications:**
 - Allow guest to cancel or change bookings based on the hostel's cancellation policy.

4. Payment Gateway Integration

- **Secure Payment Processing:**
 - Integration with third-party payment gateways.
- **Refund and Cancellation:**
 - Automatically process refunds based on the cancellation policy.
 - No partial cancellation.

5. Front Desk/Check-In/Check-Out Module

- **Guest Check-In:**
 - Capture guest details (ID verification, contact info, payment method).
 - Assign room, issue room keys/cards.
 - Update guest status (checked-in, checked-out).
- **Guest Check-Out:**
 - Generate final invoice for charges (room rate, additional services).
 - Option for early check-out and final bill processing.
- **Room Assignment:**
 - Assign rooms based on guest preferences, special requests, and availability.
 - Track check-in and check-out times for better room management.

6. Billing and Invoice Management

- **Invoice Generation:**
 - Automatic invoice generation for all charges (room).
 - Separate invoice for guest and institute (if applicable).
 - Option to include taxes and service charges.
- **Payment History and Transactions:**
 - Track payments made by guests (room charges, extras).
 - Show payment status (paid, due etc).

8. Reporting and Analytics

- **Booking and Occupancy Reports:**
 - Generate reports on booking patterns, occupancy rates, average length of stay.
- **Revenue Management Reports:**
 - Generate financial performance reports, revenue etc.

C. Basic Process Flow of Booking

1: Process flow for Online Paid Booking

1. Hyperlink for opening the Guest House portal will be provided on the institute website or sent to the target guest/visitors.
2. Visitor can view photo gallery / video gallery of guest house facilities
3. Visitor can search for available rooms in any guest house
4. In order to booking, visitor will login into the system using their mobile number and OTP sent to them
5. Basic information like name, father's name, gender, dob, citizenship, email id, Aadhaar card number/valid government id and alternate mobile number/email will be asked from the visitor for making his profile after entering OTP.
6. The visitor can select the rooms for available tariff from any guest house and add to the booking cart.
7. After finalizing the booking cart, the visitor will proceed for payment.
8. After making payment, an online receipt will be generated with "confirmed" booking status.

2: Process & Rules for Cancellation of Paid Booking

1. Visitor can cancel his booking X hours before the booking date. The value of X hours will be provided by the institute.
2. The partial cancellation will not be allowed.
3. Visitor cannot change the booking after making the payment.
4. In order to change the booking, visitor will need to cancel the current booking and apply for new booking.
5. X % of booking amount will be refunded to the visitors if he/she applies for cancellation before Y hours. The value of X & Y will be provided by the institute.
6. Amount will be transferred to his/her account up to 3 working days from the date of cancellation.
7. If visitor or his/her guest does not occupy the room on the first day of booking and does not inform to the guest house then whole booking will be cancelled automatically on the second day. No amount will be refunded in this case.

3: Process flow for Check-in

1. Check-in Time will be 10 AM every day.
2. Rooms will automatically allotted by the system when visitor will physically come to the Guest House
3. There will also be an option for manual intervention for allotment of the rooms.
4. Visitors will have to submit physical copy of Aadhaar card/valid id card with signature to the Guest House Staff.
5. Guest House Caretaker will upload a scanned copy of the identity card of all the visitors to the system after allotment of the rooms.

4: Process flow for Check-out

1. Check Out Time will be 9 AM every day.
2. After availing the Guest House by visitors, the checkout information will also be entered in the system by Guest House Caretaker.

3. Proper invoice will be generated by the system after check-out by the visitor/guest.

D. Terms & Conditions

1. Vendor will hand over the complete source code of the application with technical specification document to NITTTR, Bhopal.
2. Vendor will provide training to the technical staffs/programmers in technologies (framework/IDE) used for development of application, source code, architecture of application and database, backup process.
3. Vendor will deploy application on Cloud Server/Local Server after successful testing of the software and also train to the technical staff of NITTTR, Bhopal for deployment and backup of the application.
4. Vendor will provide technical support and maintenance/upgradation of the application, bug fixing for next one year without any extra charge after its live deployment.
5. NITTTR, Bhopal will provide cloud instance for testing & deployment of the application and payment gateway provider to integrate the payment interface in the application.
6. Some modules will also be developed by in-house team of NITTTR, Bhopal for which vendor will work in coordination with them and vice versa.
7. 90% payment of quoted amount will be provided only after the deployment of the completely developed (fulfilling the requirement specification of the NITTTR, Bhopal) web application of live server with successful testing of the web application and 10% of quoted amount will be deposited as EPBG for one year.
8. Vendor will develop the customized web application in concerned with the requirement provided by NITTTR, Bhopal.
9. Vendor will develop and provide the secured web application in all respect.
10. Vendor must not share any documentation/communication/source code/credentials to anyone and maintain the confidentiality in all respect.
11. The order may be cancelled in case of delay in development and deployment of the application.

Annexure-2

Format for Expression of Interest (EOI) (To be submitted by Vendor)

Project Title:

Submitted To:

NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH
NEAR POLYTECHNIC SQUARE, SMART ROAD
SHYMLA HILLS, BHOPAL

1. Cover Letter

(On Company Letterhead)

(Date)

To,

[Name of the Contact Person]

[Designation]

[Government Organization Name]

[Address]

Subject: Submission of Expression of Interest (EOI) for Software Development Services

Dear Sir/Madam,

We, [Your Company Name], with extensive experience in software development, hereby submit our Expression of Interest to provide software development services to [Government Organization Name] as per your published invitation.

We understand the importance of delivering secure, efficient, and user-friendly software solutions for government processes and are confident in our ability to successfully execute the project in accordance with the required standards.

Please find enclosed our organizational details, relevant experience, technical capabilities, and other necessary information for your kind consideration.

We look forward to the opportunity to collaborate with your esteemed organization.

Yours sincerely,

(Signature)

[Name of Authorized Signatory]

[Designation]

[Company Name]

[Contact Details]

Note: Prepare the cover letter as per need.

2. Applicant's Profile

Particulars	Details
Name of Organization	
Type of Organization	
Year of Establishment	
Registered Office Address	
Contact Person	
Designation	
Contact Number	
Email ID	
GST Number	
PAN Number	
Registration Details (if any)	

3. Relevant Experience

Please provide details of similar software development projects executed in the last 5 years.

Project Name	Client Name	Duration	Project Value	Description	Technology Used	Completion Status

(Add more rows if required)

4. Technical Capability

- Core Competencies:**
(E.g., Web development, Mobile Apps, Cloud-based solutions, Cybersecurity, Database management, etc.)
- Technology Stack Expertise:**
(E.g., Java, .NET, PHP, Python, Android, iOS, React, Angular, etc.)
- Development Tools and Frameworks:**
(List your preferred tools and frameworks)
- Project Management Tools:**
(E.g., Jira, Trello, Agile Methodology, etc.)
- Quality Assurance Processes:**
(Briefly explain your QA and testing protocols)
- Payment Integration with Banks/Finance Institutes**

(List of name of banks/gateway/finance institute to whom worked)

5. Key Personnel

Provide details of key personnel who will be involved in the project.

Name	Designation	Qualification	Relevant Experience (in years/Months)	Work Experience Brief

(Add more rows if required)

6. Financial Details

Provide annual turnover details for the last 3 financial years.

Financial Year	Annual Turnover (INR)

7. Declaration

We hereby declare that:

- All information provided in this EOI is true and correct.
- We have not been blacklisted by any government agency.
- We agree to abide by all terms and conditions as may be specified by the organization.

(Signature)
(Name of Authorized Signatory)
(Designation)
(Company Name)
(Date)

8. Enclosures

- Company Profile
- Work Orders/Completion Certificates
- Financial Statements (Last 3 Years)
- GST/PAN Certificates
- Other Relevant Documents