







KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
Indian Institute of Science campus, Bengaluru

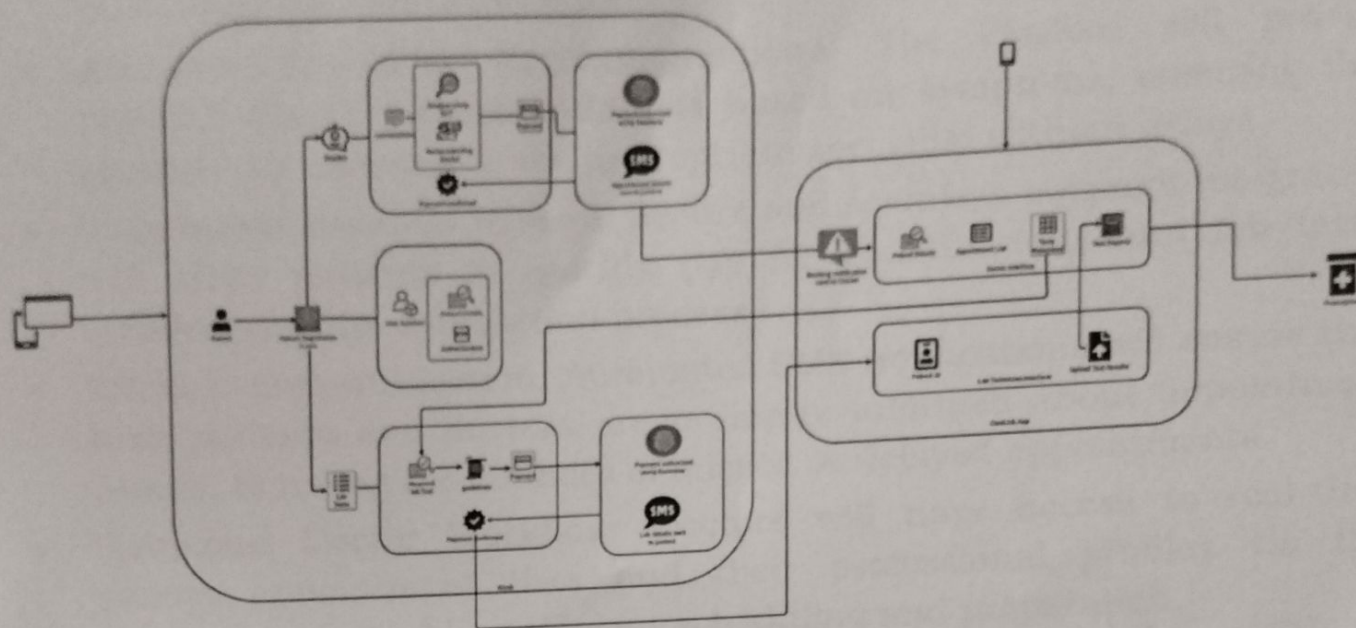
Telephone: 080 -23600978, 23341652 || Email: spp@kscst.org.in
Website: www.kscst.org.in/spp.html or https://kscst.karnataka.gov.in/en

**STUDENT PROJECT PROPOSAL FOR THE
48th SERIES OF STUDENT PROJECT PROGRAMME**

1.	Name of the College: Sahyadri College of Engineering & Management
2.	Project Title: CareLink : Revolutionizing Global Healthcare With AI-Powered Kiosk
3.	Branch: Information Science & Engineering
4.	Theme: Healthcare management, Artificial Intelligence
5.	Name of project guide: Name: Ms. Amritha Mohan C K Email id: amritha.is@sahyadri.edu.in Contact No.: 9482712763
6.	Name of Team Members: Name: ANJALI P NAMBIAR USN No.: 4SF21IS009 Email id: anjali.nambiar2003@gmail.com Mobile No: 9743352610  Name: ASHISH GOSWAMI USN No.: 4SF21IS015 Email id: ashishgoswami1013@gmail.com Mobile No.: 8804339456  Name: K RAKSHITHA USN No.: 4SF21IS037 Email id: rakshitharakshitha6242@gmail.com Mobile No.: 9632983944 

	<p>Name: VARUN A L</p> <p>USN No.: 4SF21IS121</p> <p>Email id: varunal2003@gmail.com</p> <p>Mobile No.: 9481680079</p>	
7.	<p>Team Leader of the Project:</p> <p>Name: ASHISH GOSWAMI</p> <p>USN No.: 4SF21IS015</p> <p>Email id: ashishgoswami1013@gmail.com</p> <p>Mobile No.: 8804339456</p>	
8.	<p>Processing Fee Details:</p> <p>Please furnish the payment details in the format provided in the last page of the proposal.</p>	
9.	<p>Date of commencement of the Project: 27-05-2024</p>	
10.	<p>Probable date of completion of the project: 19-12-2024</p>	
11.	<p>Scope / Objectives of the project:</p> <ul style="list-style-type: none"> • Implement Patient Self-Service Kiosk: Develop a kiosk that allows patients to register, log in, and independently book appointments and access related services. • Design Symptom-Based Doctor Recommendation System: Integrate a chatbot with a predefined dataset to collect patient symptoms and recommend the appropriate specialist based on symptom patterns. • Integrate Secure Payment Gateway: Integrate Razorpay for secure credit card payment processing, enabling patients to pay consultation and lab test fees directly at the kiosk. • Automate Communication for Appointments: Set up SMS notifications to be automatically sent to patients with appointment details, and enable real-time notifications to doctors via the CareLink app when a new appointment is booked. • Centralize Doctor Information and Appointment Management: Develop the CareLink app for doctors, enabling them to maintain their profiles, view their qualifications, and access a list of patient appointments in real time. • Streamline Lab Test Booking and Payment: Create a feature for patients to select and pay for prescribed lab tests at the kiosk, along with providing guidelines for preparation before the tests. • Enhance Lab Report Accessibility for Doctors: Enable lab technicians to upload test results to the CareLink app, providing doctors with easy access to lab reports for efficient follow-up care. 	

12. Methodology:



The hospital kiosk system starts with a simple, user-friendly interface for patient registration and login, utilizing OTP-based verification for secure identity confirmation. Once registered, patients can access the kiosk and log in for future visits, with their details securely stored for quick retrieval.

Upon logging in, patients interact with a chatbot powered by Natural Language Processing (NLP), which collects and analyzes symptoms. The chatbot maps the symptoms to specialists in its database and recommends the appropriate doctor if three or more symptoms match. Before the doctor's details are revealed, the patient must complete a payment via Razorpay. After payment, the doctor's information is displayed, and an SMS is sent to the patient with the doctor's name and room number. Simultaneously, the CareLink app notifies the doctor of the new appointment.

Doctors use the CareLink app to manage their profiles, including qualifications and daily patient schedules. They can also access lab reports uploaded by technicians, ensuring seamless communication and patient care.

If lab tests are required, the patient can return to the kiosk, select the necessary tests, and review any pre-test instructions. After confirming and paying for the tests via Razorpay, the patient receives SMS guidance. Lab results are uploaded by lab personnel to the CareLink app, allowing the doctor to review them as part of the patient's care.

The entire system undergoes thorough end-to-end testing to ensure all components work together cohesively, from registration and appointment scheduling to lab report management. User feedback from patients, doctors, and lab personnel is collected and used to further refine the system, ensuring a smooth and efficient experience for everyone involved.

13.	<p>Expected Outcome of the project:</p> <ul style="list-style-type: none"> • Enhanced Patient Experience: Patients can easily register, log in, and book appointments independently, reducing the time spent at the hospital and improving the overall experience. • Accurate Specialist Recommendations: The chatbot will provide relevant doctor recommendations based on symptoms, ensuring that patients are directed to the appropriate specialist without delays. • Convenient Payment System: Secure and seamless payment integration will allow patients to quickly pay for consultations and lab tests, streamlining the transaction process. • Efficient Communication: Automated SMS notifications will ensure that both patients and doctors are promptly informed about appointment details, reducing the chances of missed or delayed appointments. • Optimized Doctor Workflow: Doctors will have access to real-time patient appointment lists and their professional profiles via the CareLink app, enabling efficient scheduling and preparation. • Smooth Lab Test Process: Patients will be able to easily book and pay for lab tests at the kiosk, receive relevant test instructions, and enhance their overall experience with the healthcare process. • Improved Continuity of Care: Lab reports will be promptly uploaded and accessible through the CareLink app, allowing doctors to review test results and provide continuous care to patients.
14.	<p>Is the project proposed relevant to the Industry / Society or Institution?</p> <p>Yes / No: No</p> <p>If yes, please provide details of the industry / institution and contact details:</p>
15.	<p>Can the product or process developed in the project be taken up for filing a Patent?</p> <p>Yes / No: No</p> <p>Prior Art search done?</p> <p>Yes/No: No</p>

16.	Budget details:	
	Budget	Amount
	a) Materials / Consumables (Filament & Android Tab)	9200.00
	b) Labor (3D Printing)	2500.00
	c) Software (API)	3000.00
	e) Miscellaneous (Please specify)	300.00
	Total	15000.00
17.	Any other technical details: 1. Frontend Frameworks : React for developing a user-friendly web and flutter for mobile application interface. 2. Backend Frameworks : Flask and Node js for handling data processing, model inference, and serving the backend of the application. 3. API's: Twilio APIs, Razorpay APIs for sending notification and payment verification respectively.	
18.	SPP Coordinator: Name: Mr. Praveen Kumar M Email id: kscst@sahyadri.edu.in Contact No.: 8147661237	

Name of the Project Guide: Ms. Amritha Mohan C K Email id: amritha.is@sahyadri.edu.in Contact No.: 9482712763	Name of the HOD: Dr. Rithesh Pakkala P. Email id: hod.is.engg@sahyadri.edu.in Contact No.: 9844916559
--	--



SAHYADRI
COLLEGE OF ENGINEERING & MANAGEMENT
An Autonomous Institution
(Affiliated to VTU Belagavi, Approved by AICTE & UGC, New Delhi)
NAAC Accredited with "A" Grade

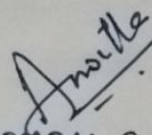
Sahyadri Campus, Adyar
MANGALURU - 575007
Karnataka, India

Ref. No. SCEM/ISE/2024-25/37(13)

Date: 12/11/2024

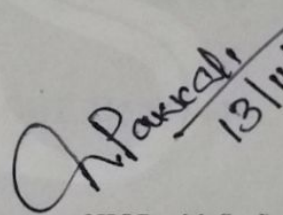
ENDORSEMENT

This is to certify that 1) Mr. Ashish Goswami, 2) Ms. K Rakshitha, 3) Ms. Anjali P Nambiar, 4) Mr. Varun A L, are bonafide students of Department of Information Science & Engineering, in the degree program of our institution. If the project proposal submitted by these students under the 48th series of Student Project Programme is selected by KSCST, we will provide the requisite laboratory / Computer / infrastructure support in our college / Institution. Further we also take necessary steps to see that the project team will exhibit / demonstrate their project in the mid-term evaluation of project and in the Annual State-Level Poster Presentation and Exhibition (if selected). If the student team fails to send the completed project report or fails to attend the evaluation in mid-term evaluation of sanctioned projects or fails to attend the Annual State-Level Poster Presentation and Exhibition (if selected), the supported project amount will be returned to KSCST.


AMRITHA. MODYAN. C.I.C.
(Name & Signature of Project Guide with Seal)

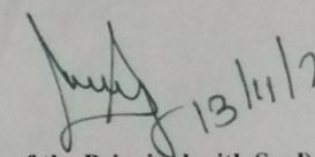
Email id: amirtha.is@sahyadri.edu.in

Contact No.: 9482712763


(Signature of HOD with Seal)
Head of the Department
Information Science & Engineering
Sahyadri College of Engineering & Management
An Autonomous Institution

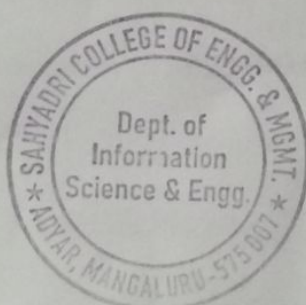
Email id: hod.is.engg@sahyadri.edu.in

Contact No.: 9844916559


(Signature of the Principal with Seal)

Email id: principal@sahyadri.edu.in

Contact No.: 9448100123



Principal
Sahyadri College of Engineering & Management
An Autonomous Institution
Mangaluru

DECLARATION

We, the project team hereby declare that the details enclosed in the project proposal (Title of the Project: CareLink : Revolutionizing Global Healthcare With AI-Powered Kiosk , College: Sahyadri College of Engineering & Management) are true and correct to the best of our knowledge and belief. We undertake to inform the Karnataka State Council for Science and Technology (KSCST) of any changes to the project title or team members' names immediately through our project guide or the SPP Coordinator of our institution.

Additionally, we declare that the project work is original and not a result of copying or purchasing. We are committed to completing the project independently, with support from our faculty and project guide, while utilizing the facilities provided by the college. We will not engage in plagiarism and pledge to be sincere and dedicated in executing and completing the project as proposed.

We understand that if any of the above information is found to be false, untrue, or misleading, we may be held liable. We authorize the sharing of the project information contained in this proposal with KSCST, Bengaluru.

We acknowledge that the project team must exhibit and demonstrate the project, participate in the mid-term evaluation of sanctioned projects, and engage with experts. Additionally, we must exhibit the project at the Annual State-Level Poster Presentation and Exhibition, if selected. Should our team fail to participate in the mid-term evaluation or the Annual Exhibition (if selected), we understand that the supported project funds will be returned to KSCST.

We also enclose the endorsement form for KSCST, Bengaluru.

Name of the students with USN

1. Anjali P Nambiar (4SF21IS009)
2. Ashish Goswami (4SF21IS015)
3. K Rakshitha (4SF21IS037)
4. Varun A L (4SF21IS121)

Amritha B. Amitha
(Name & Signature of Project Guide with Seal)
Email id: amritha.is@sahyadri.edu.in
Contact No.: 9482712763

Signature with date

Anjali P Nambiar
15/11/24

Ashish Parmar 15.11.24

Katkins
15/11/24

Vans
15/11/24

Dawkins
15/11/24

(Name & Signature of HOD with Seal)
Email id: hod.is.engg@sahyadri.edu.in
Contact No.: 9844916559
Head of the Department
Information Science & Engineering
Sahyadri College of Engineering & Management
An Autonomous Institution

DETAILS OF PROCESSING FEES MADE THROUGH NEFT / UPI PAYMENT

1. TITLE OF THE PROJECT	:	CareLink : Revolutionizing Global Healthcare With AI-Powered Kiosk
2. NAME OF THE TEAM LEADER	:	Ashish Goswami
3. EMAIL ID	:	ashishgoswami1013@gmail.com
4. CONTACT MOBILE NO.	:	8804339456

PAYMENT MADE DETAILS

5. BANK REF. NO. / UTR NO. / UPI No. (12 digits)	:	0683201000024@cnrb
6. TRANSACTION ID	:	468661553537
7. NAME OF THE SENDER / ACCOUNT HOLDER and CONTACT NUMBER	:	Ashish Goswami 8804339456
8. NAME OF THE BANK	:	Canara Bank
9. PROCESSING FEES	:	Rs. 1,180/- (Inclusive of 18% GST)
10. DATE OF PAYMENT MADE	:	15 November 2024
11. TIME	:	12:26 pm
12. MODE OF PAYMENT MADE (NEFT / UPI, PLEASE SPECIFY)	:	UPI

Ashish Goswami *Ashish Goswami*

(Name & Signature of
the team leader)

A. Pawale
15/11/24

(Name & Signature of
Project Guide or HOD with Seal)
Head of the Department
Information Science & Engineering
Sahyadri College of Engineering & Management
An Autonomous Institution



₹1,180.00

Paid to KARNATAKA STATE COUNCIL
FOR SCIENCE

UPI ID: 0683201000024@cnrb

15 November 2024, 12:26 pm
UPI transaction ID: 468661553537