

Global Native Connect : Your Comprehensive Travel And Accommodation Advisor With AI Support

¹Abhijith S, ²Akshay G, ³J Srivishnu, ⁴Mathew Joshua , ⁵Sruthi A

¹Student, ²Student, ³Student, ⁴Student, ⁵Assistant Professor (CSE) Computer Science and Engineering Department, Nehru College of Engineering and Research Centre (NCERC), Thrissur, India ***

Abstract - The "Global Native Connect" project aims to create an innovative website that bridges the gap between travelers and expatriates from their home countries residing abroad. This platform will offer a unique advisory service, providing travelers with authentic, culturally relevant insights into their destinations from locals who understand their background and preferences. Users will benefit from personalized recommendations on must-visit places, local customs, and essential travel tips, ensuring a richer and more immersive travel experience. In addition to expert local advice, "Global Native Connect" will feature advanced booking facilities for apartments and house rentals, streamlining the accommodation process for users. The website will also include an AI-powered chatbot to provide real-time support and answer queries, enhancing the overall user experience. With its combination of local expertise, seamless booking options, and intelligent support, "Global Native Connect" is designed to be a comprehensive travel and accommodation advisor, making it easier for travelers to navigate foreign countries with confidence and ease.

Keywords: Advisory, Booking, Chatbot, Network

1. INTRODUCTION

A Global Native Connect is a groundbreaking travel platform designed to offer travelers a truly immersive and culturally enriching experience by connecting them with expatriates from their home countries. Unlike traditional travel guides, which provide generic information, this platform enables travelers to receive personalized recommendations and culturally relevant guidance from locals who understand their background, preferences, and expectations. Whether it's discovering hidden gems, understanding local customs, or receiving tailored advice on must-visit attractions, travelers gain insights that go beyond the surface level. By fostering these meaningful connections, Global Native Connect ensures that users not only explore new destinations but also experience them in a way that resonates with their cultural identity, making their journeys more fulfilling and memorable.

Beyond providing expert travel guidance, Global Native Connect simplifies the logistics of travel by offering advanced booking options for apartments and house rentals, ensuring a hassle-free accommodation process. Travelers can seamlessly find and book suitable lodging that meets their needs, whether they seek short-term stays or long-term rentals. To further enhance convenience, the platform incorporates an AI-powered chatbot that delivers real-time support, answering questions, offering travel tips, and assisting with navigation in foreign locations. By combining the wisdom of human expertise with cutting-edge digital assistance, Global Native Connect bridges cultural gaps, streamlines trip planning, and empowers modern explorers to travel with confidence, authenticity, and ease.

2. LITERATURE REVIEW

[1] The LCD-SN method is a novel approach for detecting communities in social networks using a local node-rankingbased strategy. The algorithm operates in three phases: first, it ranks network nodes based on a new criterion called IMP and forms initial local communities around highly ranked nodes. Next, overlapping nodes are assigned to a single community using the GLHN similarity measure. Finally, the communities are refined through post-processing, where small communities are removed, and weaker ones are merged with stronger ones. LCD-SN offers several advantages, including minimal dependency on input parameters, a localized approach that does not require full network information, and the ability to avoid the resolution limit problem, ensuring reliable results. This study focuses on single-layer and unsigned networks, with future work aimed at extending the method to multi-layer, signed, and weighted networks.

[2] This paper introduces a probabilistic community detection scheme that models clusters as networks of changing states, where each state represents the number of users with specific characteristics. The scheme calculates the probability of a class being homogeneous based on its current state and, using statistical metrics, determines the suitability of new users for a given cluster. Key advantages of this approach include its computational efficiency, as it operates linearly, and its independence from cluster topology. Experiments conducted ego-Facebook and ego-Twitter network using data demonstrated that the method effectively identifies robust and homogeneous clusters while achieving satisfactory accuracy in detecting the number of clusters, outperforming comparable schemes in execution speed. Future work aims to enhance parallelism by optimizing the strategy for both CPU and GPU processing, expanding experiments to larger networks, and adjusting system parameters to accommodate bigger communities while addressing memory storage requirements, particularly for GPU-based processing.

[3] This research highlights the effectiveness of the Rapid Application Development (RAD) method in designing an ecotourism information system and community database for destination development in North Halmahera Regency. RAD's iterative approach enables swift prototyping and continuous user involvement, ensuring the system meets the specific needs of the community. Its efficiency and adaptability make it wellsuited for the dynamic nature of ecotourism. However, a key challenge lies in the operational phase, requiring human resources with strong technological skills to manage and maintain the application effectively. To address this, efforts must be directed toward enhancing technological proficiency



among users. While RAD proves highly effective in the design phase, the long-term success of the system depends on investing in skilled human resources to ensure seamless functionality.

[4] The study on digital nomads in Peniche highlights the strong link between professional flexibility, leisure activities, and community engagement, with surfing playing a key role in shaping their lifestyle and social interactions. Digital nomads in Peniche are largely newcomers, highly educated, and mainly from the Social Sciences and IT sectors, seeking both career fulfillment and recreational balance. Surfing fosters community integration, enhances well-being, and counters remote work isolation, while coworking spaces serve as essential hubs for productivity and networking. Despite Peniche's growing appeal, challenges like affordability need to be addressed to sustain a digital nomad-friendly environment. Future research should explore the long-term effects of digital nomadism on local economies, cultural landscapes, and environmental sustainability while optimizing coworking spaces to support both professional and social needs.

[5] This study presents an ensemble learning approach for detecting malicious nodes in IoT environments using trust management components such as knowledge, reputation, and experience. An artificial neural network (ANN) serves as the base model for classification, with Keras Tuner optimizing hyperparameters like hidden layers, neurons, activation functions, and learning rates. The architecture consists of three key modules: data acquisition, trust management, and decisionmaking. Data from IoT devices is preprocessed and analyzed using an ensemble learning approach to assess node behavior and determine trust levels. The decision-making module then takes appropriate actions, such as isolating threats or enhancing security measures. Future work will focus on evaluating scalability and robustness in real-world IoT settings with complex architectures and large-scale networks.

[6] This study introduces a new clustering method for time series data using link community detection, addressing the overlapping and hierarchical structures often found in realworld datasets. The approach involves creating a network from time series links and applying a link community detection algorithm to identify meaningful patterns. Synthetic data based on well-known time series was used for testing, and results analyzed with element-centric similarity measures showed improved accuracy, especially when combined with the Dynamic Time Warping (DTW) distance measure. The proposed algorithm effectively identifies and forms communities in both large and small time series, overcoming limitations of previous methods and enhancing time series analysis.

[7] As artificial intelligence advances, chatbot technology is set to significantly impact small and medium-sized enterprises (SMEs) by enhancing natural language processing, machine learning, and user experience. Future chatbots will better understand complex queries, provide more empathetic interactions through improved sentiment analysis, and expand usability with voice recognition and IoT integration. These innovations will help SMEs deliver seamless customer experiences, boosting engagement and satisfaction. Chatbots also offer long-term benefits, such as enhanced customer loyalty, operational efficiency, and cost savings, while generating valuable insights to refine marketing strategies and drive business growth. To maximize these benefits, SMEs should clearly define chatbot objectives, choose suitable platforms, prioritize user experience, integrate chatbots with existing systems, and continuously monitor performance for improvements. By leveraging chatbots effectively, SMEs can enhance customer relationships, streamline operations, and strengthen their competitive edge in the market.

[8] This study explored the impact of chatbot-human personality congruence in academic advising, finding that it influenced user behavior primarily among highly extroverted participants, while results for agreeable and conscientious individuals were inconclusive. The findings highlight the potential of personality-imbued chatbots to enhance user experiences, offering valuable insights for decision-makers in the education sector. Future research should examine the longterm effects of chatbot-human personality congruence across various domains and settings, as well as the influence of cultural factors on chatbot-human interactions to better understand and optimize chatbot engagement.

3. PROBLEM STATEMENT

The Global Native Connect addresses the challenge of bridging the gap between travelers and expatriates by providing a platform for authentic cultural exchange, personalized recommendations, and seamless accommodation booking. Travelers often struggle to find reliable local insights that align with their background and preferences, leading to generic or less immersive experiences. This platform leverages AI-driven recommendations, secure messaging, and real-time chat bot assistance to enhance travel planning and navigation. By fostering direct communication between travelers and expatriates, Global Native Connect ensures culturally relevant advice, a sense of community, and a smoother, more informed travel experience. With its integrated booking system, users can explore and reserve accommodations securely, eliminating the hassle of third-party services. A community-driven review and recommendation system enhances transparency, helping travelers make informed decisions. The secure verification process ensures safety and reliability in interactions between travelers and expatriates.

4. PROPOSED SYSTEM

Global Native Connect is an innovative digital platform designed to connect travelers with expatriates from their home countries, offering a more immersive and culturally relevant travel experience. The platform features customized user profiles that allow travelers and expats to share their preferences, insights, and experiences, ensuring a more personalized interaction. Through advanced machine learning algorithms, it provides tailored travel recommendations and local experiences, making every trip unique and meaningful. Secure messaging enables seamless communication between travelers and expats, allowing them to exchange valuable local insights. Additionally, the platform offers a robust accommodation booking system with secure and hassle-free processing. An AI-powered chat bot provides 24/7 real-time assistance, helping travelers with bookings, navigation, and essential queries. Interactive features, such as community sharing, reviews, and recommendations, ensure transparency and trust within the platform. Cultural insights further enrich



the travel experience by offering valuable resources on local customs and traditions. A relational database efficiently stores user data and facilitates personalized recommendations, while security measures such as secure booking processing and user verification ensure safety and reliability, creating a trustworthy digital space for travelers and expatriates alike.

This paper includes 6 major modules. These modules show a detailed overview of our Global Native Connect : Your Comprehensive Travel and Accommodation Advisor with AI support. The modules are:

- 1. User Management Module: Facilitates user registration and profile management for travelers and expatriates, allowing for profile customization and enhanced security through verification. Users can update their preferences, manage interactions, and control privacy settings for a more personalized and secure experience. The module also ensures seamless authentication and account recovery options to enhance accessibility and user convenience..
- 2. Travel Recommendation Module: Provides personalized itineraries, highlighting local attractions and unique cultural experiences based on user preferences. The module utilizes machine learning algorithms to analyze user interests, past interactions, and location data to offer tailored recommendations. Additionally, it integrates user reviews and expatriate insights to ensure authentic and culturally immersive travel experiences.
- **3.** Expat Connection Module: Connects travellers with expatriates for secure communication and cultural exchange, fostering community interactions and sharing of local insights. This module includes a secure messaging system that enables real-time conversations, ensuring privacy and authenticity. Additionally, it offers discussion forums and group chats where travellers can seek advice, share experiences, and build meaningful connections with expatriates before and during their journey.
- 4. Accommodation Booking Module: Enables searching, comparing, and booking various accommodation options, ensuring flexibility for users. It also integrates secure payment gateways and real-time availability updates, providing a seamless and hassle-free booking experience.
- 5. AI-Powered Chat bot Module: Provides 24/7 assistance through a chat bot, addressing user queries related to bookings and local navigation. It leverages natural language processing (NLP) to offer instant, context-aware responses, enhancing user experience with real-time support.
- 6. Analytics and Feedback Module: Collects user feedback and tracks engagement metrics to continuously improve service offerings and user satisfaction. It also utilizes data analytics to identify trends, refine recommendations, and enhance platform features based on user behavior and preferences.



Fig 1: System Architecture

The block diagram illustrates the user interaction flow within the Global Native Connect platform. It begins with User 1 (Traveller) and User 2 (Host) registering and logging in to access various system functionalities. Once logged in, users can edit their profiles, send/accept connection requests, participate in activities/events, and exchange messages for seamless interaction. Hosts have similar functionalities but can also engage in hosting-related tasks. The admin holds higher control, managing users, posts, messages, and locations to ensure smooth operations. Red arrows represent user interactions, while blue arrows indicate administrative controls, showing the structured flow of data and accessibility. The login module acts as the central hub, ensuring authentication and seamless navigation across modules. Overall, this design fosters secure communication, effective content management, and an engaging travel experience for users.

This paper shows a detailed overview of global native connect : your comprehensive travel and accommodation advisor with AI support, by outlining the above modules such as user management module, travel recommendation module, expat connection module, accommodation booking module, AI-powered chat-bot module and analytics and feedback module and also the above given architecture.

5. RESULTS AND DISCUSSION

The Global Native Connect platform has successfully enhanced user engagement by connecting travelers with expatriates, fostering cultural exchange and personalized guidance. The AI-powered chat bot has efficiently addressed real-time queries, improving user satisfaction. Personalized travel recommendations have enriched user experiences by providing culturally relevant insights. Additionally, strong security measures and system optimizations ensure safe interactions and smooth performance, even with multiple concurrent users. The interactive community features have encouraged travelers to share experiences, further enhancing platform's credibility. Continuous updates the and improvements based on user feedback ensure the system remains relevant and user-friendly. Overall, the platform creates a seamless and immersive travel experience, making global exploration more accessible and culturally enriching.



Volume: 09 Issue: 03 | March - 2025

SJIF Rating: 8.586

ISSN: 2582-3930



Fig 1: Home Page

The above screenshot shows our home page. It includes two logins they are:- admin login, user login. Users can register and login through the user login page. Admin can register and login using the admin login page. And there is a back to home page button for returning back to the index page.

C O O O O O O	🖉 🛛 Global Native Convect Legin 🛛 🛪 🛛 🦀 locathost / 127.0	0.1/gnc/ev: X 🔯 User Legin	× +.	÷ 0.	×
User Login Welcome Sign In Login Black to Home	← → Ø @ 127.0.0.1/gncwebsite/user_login.php			 A ⇒ D ▲ 	1
User Login Welcome Sign In Login Back to Home					
User Login Welcome Sign In Login Back to Home					
Welcome Sign In Login Back to Home		User L	.ogin		
Welcome Sign In Login Back to Home					
Sign In Login Back to Home		Welco	ome		
Sign In Login Back to Home					
		Sign In Login	Back to Home		
	m			C BN 734	PM
		р зекст		∧ to to in (0 10 3/2/2	5025

Fig 2: User Login Page

The above screenshot shows our user login page. It includes user registration for new users and user login for existing users. And there is a back to home button for returning back to the index page.



Fig 3: User Dashboard Page

The above screenshot show a user dashboard page for the users who completed the registration and login process. In this page users can see notifications, find natives, activities/events planning or participanting, manage feedback. It also includes AI chat bot for any enquirers related to cities, countries, accommodation centers, places nearby for visits etc, if there is an unavailability of native users And there is a back to user login button for returning back to the index page.

Select Country:	
saudi arabia	
Select City	
Back to user dashboard	

Fig 4: Find Native Page

The above screenshot shows the find native page for the users for selecting the country in which they are planning to visit for finding their natives. It also includes the select city button to selecting the city.And there is a back to user dashboard for returning back to the user dashboard page.

Welcome to ri	yadh, saudi arabia!
People in riyadh	
J Srivishnu atudent Mother Tongue: malayalam Years in City: 2 Skillis: programmer Interests: traveiling	
allu arjun <i>Il profession</i> Mother Tongue: malayalam Years in City: 5 Skillis: programmer Interests: travelling	
qwert it profession Mother Tongue; malavalam	Chat with Natives
Years in City: 5 Skills: ahflwj;fw;f Interests: japwpripwirk	City Details
wart	Book My Stay
student Mother Tongue: malayalam	Back to Select City

Fig 5: Native Users Details Page

The above screenshot shows the native users details page. It includes native users details for a user who selects the selects the country and city for finding the natives. It also includes chat with natives, city details, book my stay for booking of nearby accommodation centers. And there is a back to select city button for returning back to the select city page.

Users in riyadh	Welcome to riyadh Chat	
 J Srivishnu allu arjun qwert user1 user2 	0 helio 	
• 30	hal on to rea	
	0 how are you	
	0 hai 00.24 MM	
	0 how are you 10:52 PM	
	e can you help me	
	Type a message	Send

Fig 6: Users Chat Page



Volume: 09 Issue: 03 | March - 2025

SJIF Rating: 8.586

ISSN: 2582-3930

The above screenshot shows the users chat page. It includes users communicating each other in specific city selected by any user to find his/her natives. Users can communicate through this messages in this chat box.

 	gnc pt; × 🔲 Book: 2.0.1/gncwebsite/book_st	Nay ay php?city=riyad	X O Global Netwe	ConnectLogin X +			- 0 X () 1 () () () () () () () () () () () () ()
			Hotels A	vailable in riyad	ĥ		
	Hotel Name	City	Luxury Level	Room Type	No. of People	Action	
	taj riyadh	riyadh	5 Star 👻	Single Bed 🛛 👻	3 \$	Book Now	
		۾ 📕	Search 📲	. 0 2 0 8	× 🖾 🧿	^ @ @ 86 1	한 석: 180 <u>8:05 PM</u> 0 3/10/2025

Fig 7: Book my Stay Page

The above screenshot shows the book my stay page or a page in which users can select their accommodation centers according to their choice. Several features are also available in this page such as room type, luxury level, no of peoples etc..

 Global Native Connect Login C Q 127.0.0.1/gnox 	X Jag kashedi (22.031 jaya/a). X Feebaak X +	- 3 × ((() () () () () () () () ()
	Feedback Form	
	Name:	
	user1	
	Email:	
	user1@gmail.com	
	Feedback:	
	wat very useful.	
	Rate Us:	
	★★★★ ★ Submit Feedback	
	📕 🖉 Search 🛛 🐜 🖬 💭 🐂 😨 🗃 💐 🔯 🧔	∧ G G ^{1N6} ⊗ Φ D ^{338 M}

Fig 8: Feedback Form Page

The above screenshot shows the feedback form page. In this user can rate and explain their experience while using our website. This also includes us to improve our website according to our users recommendations



Fig 9: Chatbot Page

The above screenshot shows the Chatbot Page. In this page we includes an AI-Powered Chatbot which can answer our users queries at any time.

Gobal Native Connect Login X A localhost / 127.0.	1/grc/eX Admin Registration X +	- • ×
e o O O 127.000.1/growebsite/adminingsiter.php		
	Admin Registration	
	Admin Name:	
	admin Admin Pasesuordi	
	Admin Password.	
	Admin Number:	
	Register	
		0 0 /2 ENG (0 m) 7.26 FB

Fig 10: Admin Registration Page

The above screenshot shows the admin registration page. Through this page an admin can register by providing his/her details. Later admin can login using the admin login page.

Edit Users Users Add User Delete User Edit User Profile			
Ubers Add Uber Dickle Uber Edit Uber Profile			
Add Uber Delete Uber Edit Uber Profile			
Delete User Edit User Profile			
Edit User Profile			
The second s			
Back to Manage Users			

Fig 11: Edit Users Page

The above screenshot shows the edit users page. It includes view users, add users, delete users, edit user profile options. Admins can manage this page by login into the page. And there is a back to manage users button for returning back to the manage users page.

Add New User	
Username	
Password	
Email	
Location	
Languages	
Suls	
Interests	
Bio	

Fig 12: Add New User Page

The above screenshot includes the add new user page. This can be done by the admin by entering the details of the users. The



International Journal of Scientific Research in Engineering and Management (IJSREM)

Volume: 09 Issue: 03 | March - 2025

SJIF Rating: 8.586

ISSN: 2582-3930

details such as username, password, email, location, languages, skills, interests, bio etc is required for adding a new user.



Fig 13: Event Adding Page

The above screenshot shows the event adding page. It includes any specific events which was going to be conducted in a city by the admin or the native users, so that any new users or existing users can participate in it.It includes a verification followed by the details of the event such as name, date, time, location of the events.

6. CONCLUSION

In Global Native Connect revolutionizes travel by connecting travelers with expatriates, enhancing both accommodation booking and local experiences. The platform offers personalized recommendations and real-time AI support, fostering community engagement and deeper cultural understanding. By integrating social interaction with travel resources, it empowers users to explore new destinations confidently while receiving authentic local insights. Ultimately, Global Native Connect transforms travel into a meaningful journey, catering to the diverse needs of modern explorers and ensuring seamless, stress-free experiences. This innovative approach guarantees that every trip is enriched with valuable knowledge, genuine connections, and a strong sense of belonging. As a result, travelers can immerse themselves in new cultures with confidence, making each journey more fulfilling and memorable.

REFERENCES

- [1] Sheykhzadeh, Jafar, Bagher Zarei, and Farhad Soleimanian Gharehchopogh. "Community detection in social networks using a local approach based on node ranking." IEEE Access (2024).
- [2] Souravlas, Stavros, et al. "Probabilistic community detection in social networks." IEEE Access 11 (2023): 25629-25641.
- [3] Singgalen, Yerik Afrianto. "Implementation of Rapid Application Development (RAD) for communitybased ecotourism monitoring system." J. Inf. Syst. Res 5.2 (2024): 520-530.
- [4] Baptista, Rui Gonçalo Timóteo. Digital Nomads in Peniche: Exploring the Relation between Remote

Work and Surfing. MS thesis. Instituto Politecnico de Leiria (Portugal), 2024.

- [5] Awan, Kamran Ahmad, et al. "Securing IoT with deep federated learning: A trust-based malicious node identification approach." IEEE Access 11 (2023): 58901-58914.
- [6] Ghahremani, Yasamin, and Babak Amiri. "Time Series Overlapping Clustering Based on Link Community Detection." IEEE Access 12 (2024): 41102-41124.
- [7] Kedi, Wagobera Edgar, et al. "AI Chatbot integration in SME marketing platforms: Improving customer interaction and service efficiency." International Journal of Management & Entrepreneurship Research 6.7 (2024): 2332-2341.
- [8] Kuhail, Mohammad Amin, et al. "Assessing the Impact of Chatbot-Human Personality Congruence on User Behavior: A Chatbot-Based Advising System Case." IEEE Access (2024).