iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 14 **Issue:** IV **Month of publication:** April 2026

DOI: https://doi.org/10.22214/ijraset.2026.79876

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue IV Apr 2026- Available at www.ijraset.com

Automated Website Creation Platform for Non-Technical Entrepreneurs

Daniel Samraj I[1], Dharun Kumar V[2], Gnana Vasanth G[3], Prof. Euodial[4]
Computer Science Engineering (CSE), Francis Xavier Engineering College, Tirunelveli,Tamil Nadu, India

Abstract: ***The increasing demand for digital presence among businesses and entrepreneurs has created a need for simple and accessible website development solutions, especially for non-technical users who lack programming knowledge and design experience. Traditional website development methods require expertise in coding languages, frameworks, and UI/UX design, making the process time-consuming and complex for beginners. To address these challenges, this project proposes an Automated Website Creation Platform for Non-Technical Entrepreneurs that leverages artificial intelligence to automatically generate fully functional and responsive websites based on user inputs.***

The proposed system utilizes artificial intelligence models integrated with modern web technologies to generate website layouts, design structures, and content based on user prompts and template selections. Users can customize website elements such as text, images, layout, and themes in real-time through a user-friendly interface without requiring technical knowledge. The platform reduces website development time, improves accessibility, and enables entrepreneurs to establish their digital presence quickly and efficiently. The system also ensures responsive design compatibility for multiple devices, enhancing user experience and usability.

Index Terms: Artificial Intelligence, Automated Website Generation, Web Development, Responsive Design, User-Friendly Interface, Non-Technical Users, Website Automation, Digital Platforms.

I. INTRODUCTION

Website development has traditionally been a complex task that requires knowledge of HTML, CSS, JavaScript, and backend frameworks. For many non-technical entrepreneurs and small business owners, creating a professional website is a challenging process due to the lack of programming knowledge and technical expertise. As a result, individuals often depend on professional developers, which increases the cost and development time. This creates a gap between technical expertise and the growing need for website creation.However, the rapid advancement of Artificial Intelligence (AI) technologies has enabled automated solutions that can generate websites efficiently. AI-powered systems can analyze user inputs and automatically generate website layouts, design structures, and content, reducing the need for manual coding. These systems make website development faster, more cost-effective, and accessible to users without technical backgrounds

.The proposed Automated Website Creation Platform for Non-Technical Entrepreneurs is designed to bridge the gap between technical knowledge and website creation by leveraging artificial intelligence and a user-friendly interface. The system allows users to provide content prompts and automatically generates professional websites with instant previews and customization options. This project addresses the increasing demand for quick, cost-effective, and accessible website development, enabling non-technical users to create and manage websites easily without writing code.

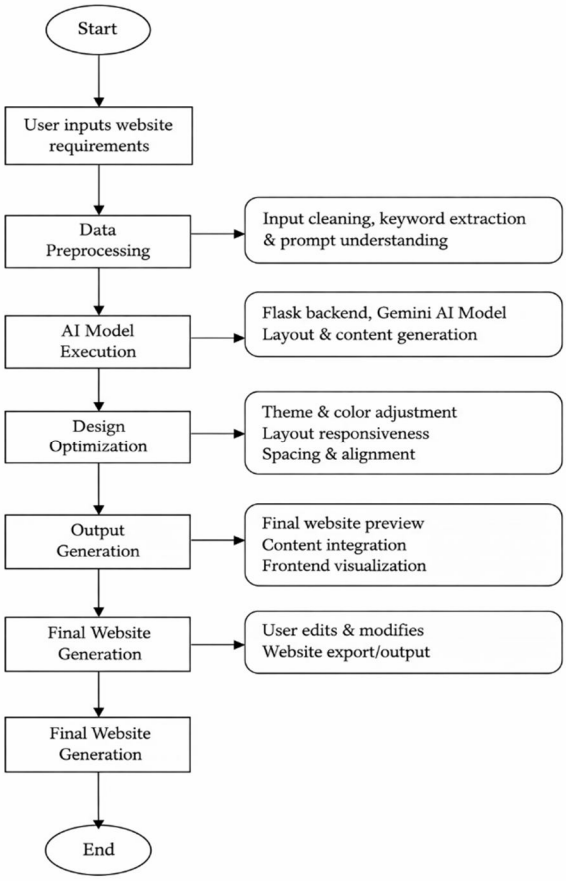
II. LITERATURE SURVEY

In recent years, artificial intelligence has gained significant attention in the field of web development due to its ability to automate design, content generation, and layout creation processes. Researchers and developers have explored various AI-based website generation tools to reduce the complexity of traditional web development and make website creation accessible to non-technical users. These systems aim to minimize manual coding efforts and reduce website development time.

Early website development methods primarily focused on manual coding using HTML, CSS, JavaScript, and backend frameworks. While these technologies provided flexibility and customization, they required significant technical knowledge and development experience. To overcome this challenge, website builders and content management systems (CMS) such as drag-and-drop platforms were introduced. These platforms simplified website creation to some extent, but they still required users to manually design layouts and manage website structure.

©IJRASET: All Rights are Reserved

Recent research focuses on AI-powered website generation systems that can automatically create website layouts and content based on user input prompts. These systems use machine learning algorithms, natural language processing, and template-based design techniques to generate responsive websites. AI-based website builders can analyze user requirements and generate design elements such as navigation bars, content sections, images, and themes automatically.



Several studies have shown that AI-based website generation platforms can significantly reduce development time, cost, and technical barriers for non-technical entrepreneurs. These systems also provide real-time preview and customization features, allowing users to modify the generated website according to their requirements. The literature indicates that integrating artificial intelligence with modern web technologies can improve accessibility, usability, and efficiency in website development, making it easier for individuals and small businesses to establish their online presence

III. METHODOLOGY

The methodology of the Automated Website Creation Platform for Non-Technical Entrepreneurs describes the systematic approach followed to design, develop, and implement an AI-based website generation system. The proposed system integrates artificial intelligence models, modern web technologies, and a user-friendly interface to automate the process of website creation, customization, and deployment. The system is designed to simplify website development for users without programming knowledge.

A. User Input Collection

The first step in the system involves collecting user inputs required for website creation. Users provide a text prompt describing the type of website they want, such as business website, portfolio, blog, or e-commerce website. Users also select preferences including colour theme, number of pages, layout style, and design requirements. The system collects and organizes this information through a user-friendly interface designed for non-technical users. The collected data is then prepared for further processing by the artificial intelligence system.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

B. Prompt Analysis and Processing

After collecting user input, the system processes the text prompt using Natural Language Processing (NLP) techniques. The system analyzes the input and extracts important information such as website category, layout structure, design preferences, and content type. The extracted information is converted into structured data format so that it can be used by the AI system for automated website generation. This step ensures that the system clearly understands user requirements before generating the website.

.

C. Content and Layout Generation

Once the user input is processed, the system generates website content and layout automatically using artificial intelligence techniques. The system generates headings, paragraphs, navigation menus, and button content based on the website type. It also selects appropriate images, icons, and font styles to match the design theme. The layout structure such as homepage, about page, services page, and contact page is also generated automatically. This step reduces manual effort and simplifies website creation.

D. Website Customization

After the website layout and content are generated, users can customize the website according to their preferences. Users can edit text, change images, modify colors, adjust fonts, and rearrange layout components using simple editing tools. The system also provides design suggestions to improve the website appearance. This customization process allows users to personalize their website without requiring programming knowledge.

E. Preview and Rendering

The system provides a live preview of the generated website so that users can view the website before deployment. The preview is available in different device formats such as desktop, tablet, and mobile view to ensure responsive design. The rendering process ensures that the website layout, design, and content are displayed correctly and consistently across different devices.

.

IV. PROPOSED METHODOLOGY

The proposed methodology focuses on designing and implementing an Automated Website Creation Platform for Non-Technical Entrepreneurs using Artificial Intelligence, Natural Language Processing (NLP), and modern web development technologies. The system enables users to generate fully functional websites automatically based on text prompts and design preferences without requiring programming knowledge. The methodology integrates AI-based content generation, automated layout design, real-time customization, and website deployment into a single platform to simplify the website development process.

A. Requirement Acquisition and User Input

The process begins with collecting user requirements through a user-friendly interface. Users provide a text prompt describing the type of website they want to create, such as a business website, portfolio, blog, or e-commerce website. Users also specify preferences such as color theme, number of pages, layout style, and design requirements. The system collects and organizes this input data and prepares it for further processing. This step ensures that the platform clearly understands user requirements before generating the website.

B. Prompt Interpretation using Natural Language Processing

Once the user input is collected, the system processes the text prompt using Natural Language Processing (NLP) techniques. The system analyzes the prompt and extracts important information such as website category, layout structure, design preferences, and content type. The extracted information is then converted into structured data format, which is used by the AI system for automated website generation. This step helps the system to transform unstructured user input into meaningful structured data.

C. Automated Content and Website Structure Generation

After processing the user input, the system automatically generates website content and layout using artificial intelligence techniques. The system generates headings, paragraphs, navigation menus, and button content based on the website type. It also selects appropriate images, icons, and font styles to match the selected theme and design preferences. The website structure, including homepage, about page, services page, and contact page, is generated automatically. This step reduces manual effort and speeds up the website development process.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue IV Apr 2026- Available at www.ijraset.com

D. Interactive Website Customization

Once the website structure is generated, users can customize the website according to their requirements. Users can edit text content, change images, modify colours, adjust fonts, and rearrange layout components. The system provides a real-time editing environment where users can see the changes instantly. The platform may also provide AI-based suggestions to improve the design and layout. This step ensures flexibility and personalization in website design.

E. Real-Time Preview and Responsive Rendering

The system provides a live preview of the generated website so that users can view the website before deployment. The preview is available in multiple device formats such as desktop, tablet, and mobile view to ensure responsive design. The rendering process ensures that the website layout, design, and content appear correctly and consistently across different devices. This step helps users verify the website before final deployment.

F. Code Generation and Website Deployment

In the final step, the system converts the generated website into functional website code using web technologies such as HTML, CSS, JavaScript, or modern frameworks such as React or Next.js. Users can export the website, download the source code, or deploy the website using cloud hosting services or GitHub integration. Once deployed, the website becomes accessible online. This step completes the automated website creation process.

V. IMPLEMENTATION RESULT

The implementation of the Automated Website Creation Platform for Non-Technical Entrepreneurs was carried out to evaluate the system's effectiveness in automatically generating fully functional websites based on user input prompts. The system was developed by integrating artificial intelligence techniques, Natural Language Processing (NLP), automated content generation, and modern web development technologies along with a web-based user interface. The platform was tested in a controlled environment where users could enter website requirements and generate websites in real-time

During implementation, users provided text prompts describing their website requirements such as business type, number of pages, layout style, and color theme. The system processed the input using Natural Language Processing techniques and converted the input into structured data.

Based on this processed data, the AI system generated website layout, content, navigation structure, images, and design elements automatically. The generated website was displayed through a live preview interface, allowing users to customize the website content, images, colors, and layout in real-time.

The real-time preview and rendering module was tested on multiple devices including desktop, tablet, and mobile view to ensure responsive design and compatibility. The system successfully rendered the website layout consistently across different screen sizes. The customization module allowed users to modify website elements easily without any programming knowledge, which improved usability and user experience.

The export and deployment module was tested by generating website code in HTML, CSS, and JavaScript formats and deploying the website through local hosting and cloud hosting platforms. The system successfully generated functional website code and allowed users to download or deploy their websites.

The implementation results showed that the system significantly reduced website development time and eliminated the need for manual coding for basic website creation.

Performance testing indicated that the AI-based website generation system was capable of generating a basic website within a short period based on user input. The system improved accessibility for non-technical users, reduced development cost, and simplified the website creation process.

Overall, the implementation results confirmed that the proposed system provides an efficient, user-friendly, and automated solution for website development, enabling non-technical entrepreneurs to create and deploy professional websites quickly and efficiently.

©IJRASET: All Rights are Reserved

A. Output

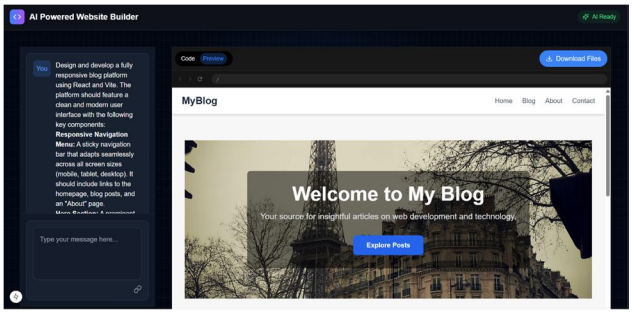


Fig: 5.1 Output screen showing the Final preview of the website generated.

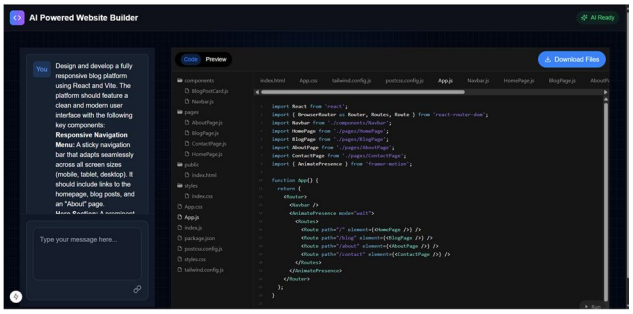


Fig 5. 2 .Code generated automatically by AI

VI. CHALLENGES FACED

During the development and implementation of the Automated Website Creation Platform for Non-Technical Entrepreneurs, several technical and practical challenges were encountered. Since the system integrates Artificial Intelligence, Natural Language Processing (NLP), automated content generation, real-time rendering, and website deployment technologies, careful planning and system optimization were required to ensure smooth and efficient operation.

One of the major challenges faced was processing and interpreting user prompts accurately using Natural Language Processing techniques. Users often provide unstructured and incomplete text inputs, which made it difficult for the system to correctly understand user requirements such as website layout, content type, and design preferences. To address this issue, the system was trained to identify keywords and categorize website requirements properly to generate relevant website structures.

Another significant challenge involved generating meaningful and relevant website content automatically. The AI system had to generate headings, paragraphs, navigation menus, and design elements that match the selected website category. Ensuring that the generated content was relevant, properly structured, and visually suitable for different types of websites required multiple testing and content filtering mechanisms.

Real-time preview and rendering across multiple devices was also a technical challenge. The system needed to ensure that the generated website was responsive and compatible with desktop, tablet, and mobile screens. Maintaining consistent layout, font size, and image alignment across different screen sizes required responsive design techniques and repeated testing.

Website customization functionality also required careful implementation. The platform needed to allow users to edit text, change images, modify colors, adjust fonts, and rearrange layout components without affecting the overall website structure. Implementing drag-and-drop features and real-time editing without performance lag was a challenging task during development.

Another challenge was converting AI-generated website layouts into functional website code such as HTML, CSS, and JavaScript. Ensuring that the generated code was clean, structured, and deployable required additional code optimization and testing. The deployment process, including exporting the website and hosting it on cloud platforms or GitHub, also required proper configuration and integration.

System performance and response time were also important considerations. Since AI processing and real-time rendering require computational resources, optimizing system performance to reduce delay during website generation and preview was necessary.

Through continuous testing, debugging, and optimization, these challenges were addressed and resolved. The final system was able

to generate responsive and functional websites efficiently, providing a simple and effective website creation platform for non-technical users.

VII. CONCLUSION

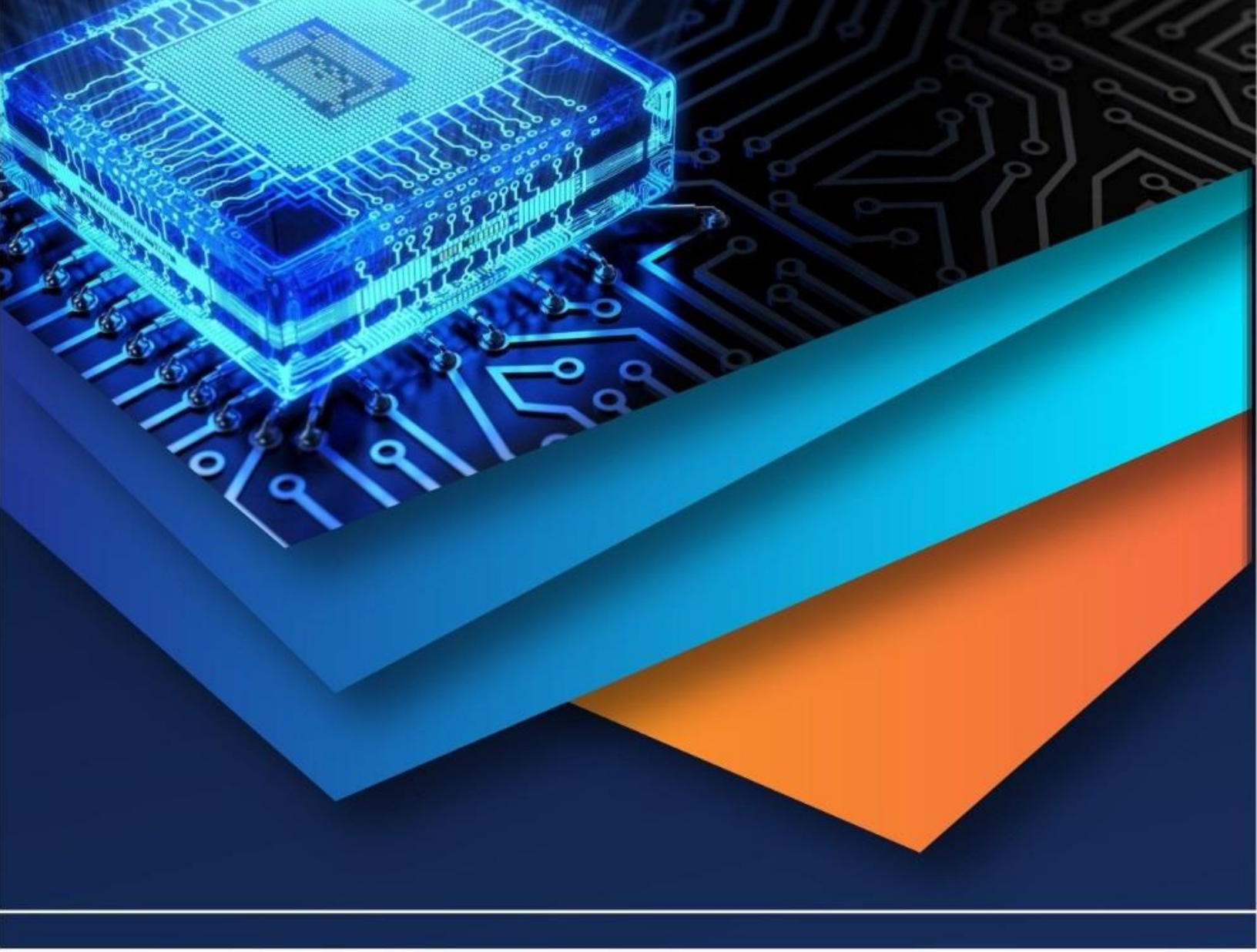
The testing and evaluation of the Automated Website Creation Platform for Non-Technical Entrepreneurs demonstrated that the system can successfully generate fully functional and responsive websites based on user input prompts. The platform was able to process user requirements using Natural Language Processing techniques and automatically generate website layout, content, navigation structure, and design elements without requiring manual coding. The real-time preview and customization features allowed users to modify website content and design easily, improving usability and user experience.The system also successfully converted the generated website into functional code using web technologies such as HTML, CSS, and JavaScript, and allowed users to export and deploy their websites through local hosting, cloud platforms, and GitHub integration. The implementation results showed that the system significantly reduced website development time, minimized technical barriers, and provided an accessible solution for non-technical users to create professional websites.

Although some challenges such as prompt interpretation accuracy, responsive design rendering, and code generation optimization were encountered during development, continuous testing and system improvements helped to enhance the overall performance and reliability of the platform.In conclusion, the proposed Automated Website Creation Platform provides an efficient, user-friendly, and time-saving solution for website development. The system helps non-technical entrepreneurs create and deploy websites easily, reducing dependency on professional developers and lowering development costs. The platform also provides a strong foundation for future improvements such as advanced AI design suggestions, automatic SEO optimization, and integration with e-commerce and digital marketing tools.

REFERENCES

[1] J.-K. Lee, Y. Kim, E. Shin, S. Choo, and S. H. Cha, “An AI-assisted approach for creating and archiving interior design references using 360-degree panoramic images,” Architectural Science Review, 2024.
[2] A. Varol, N. H. Motlagh, M. Leino, S. Tarkoma, and J. Virkki, “AI-driven smart spaces: A survey on automated and personalized environments,” arXiv, 2024.
[3] R. A. Patil, V. Wankhede, and B. Patil, “Comparative study of generative AI models for interior design,” International Journal of Research in Applied Science and Engineering Technology (IJRASET), 2024.
[4] K. Zhou and T. Wang, “AI-driven diffusion models for interior design,” Scientific Reports, 2023.
[5] Y. Yang, J. Wang, T. Geng, W. Qiang, C. Zheng, and F. Sun, “DiffDesign: A controllable diffusion model for interior design generation,” arXiv, 2024.
[6] Y. Liu and H. Wang, “Mental-Gen: AI-driven brain-computer interface for interior space generative design,” arXiv, 2024.
[7] H. Zhang et al., “Interactive interior design recommendation using multimodal reinforcement learning,” arXiv, 2023.
[8] “AI-based interior designing application,” International Journal of Innovative Research in Engineering, 2024.
[9] “AI-driven interior design innovations,” Journal of Interior Design Research, 2024.
[10] “Leveraging machine learning for personalized interior space design,” International Journal of AI in Design, 2024.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)