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**RANNLAB**

# PROJECT REPORT

Empowering Your Enterprise  
for Success

Prepared for

**Green IP Core**

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# 1. INTRODUCTION

Green IP Core is a comprehensive semiconductor solutions provider specializing in low-power design, verification, and FPGA solutions. It sought a dynamic platform to showcase its services, manage content, and engage with its audience. The goal was to create a user-friendly platform aligned with industry-specific needs.

## 2. RESEARCH & ANALYSIS

The foundation of this project was thorough research and analysis to ensure the platform would meet user requirements and excel in the competitive semiconductor industry.



### UNDERSTANDING REQUIREMENTS

Project overviews are the initial touchpoint for potential users visiting your platform. They help showcase why Green IP Core stands out and the value it delivers to its clients.



### COMPETITOR ANALYSIS

Researched similar platforms in the semiconductor industry to identify trends, strengths, and areas of improvement.



### MARKET DEMAND

Analyzed industry requirements and technological trends, ensuring the content and functionality would meet semiconductor industry expectations.

**This phase ensured our approach was data-driven & aligned with project requirements and goals.**

## 3. UI DESIGNING

The next step was to translate our research into a user-friendly design: After designing, Green IP Core's team will approve the design after multiple iterations, paving the way for the development phase.

1

### WIREFRAMES & PROTOTYPES

Created initial wireframes to outline the platform's structure, ensuring intuitive navigation.

2

### CLIENT COLLABORATION

Engaged with the client to enhance the platform, integrating their feedback to align their vision requirements.

2

### RESPONSIVE DESIGN

Ensured the design was mobile-friendly and visually appealing across all devices.

## 4. PROBLEM STATEMENT

Building a scalable Green IP Core platform required overcoming challenges such as integrating specialized semiconductor solutions, ensuring seamless functionality, optimizing system performance, and maintaining efficient project management.

### 1. SCALABILITY

The platform needed to support diverse semiconductor design and verification solutions.

### 2. USER EXPERIENCE

Green IP Core required an intuitive interface to navigate and explore content effectively.

### 3. CONTENT MANAGEMENT

The client needed a CMS that enabled non-technical staff to easily update & manage the web.

## 5. PROPOSED SOLUTION

To address the client's challenges, we implemented:



### Custom Post Types

Created tailored post types for low-power designs, ASIC, FPGA, and verification services.



### Dynamic Search and Filtering

Integrated advanced filters to improve search functionality and enhance the user experience semiconductor service seekers.



### CMS Optimization

Optimized the platform dashboard, enabling non-technical users to efficiently update manage content on Green IP Core



### Performance Enhancements

Improved loading speed with caching solutions content optimization & adaptive streaming for seamless performance.

## 6. RESULTS

The newly developed platform enabled Green IP Core to:

- Streamline service management and offerings.
- Enhance engagement with both clients & industry partners.
- Improve brand visibility through SEO-optimized content.