# PERSONAL SITE - TECHNICAL DOCUMENTATION

## Version 7 (Optimum) - 21.08.2005

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## 📋 PROJE GENEL BİLGİLERİ

### 🎯 Proje Adı

\*\*Cihan Enes Durgun - Kişisel Web Sitesi\*\*

### 🏷️ Versiyon

\*\*Version 7 (Optimum)\*\* - Mobil Optimizasyonu Tamamlanmış

### 📅 Son Güncelleme

\*\*21.08.2025\*\*

### 🌐 Site URL

\*\*https://cihanenesdurgun.com\*\*

### 🎨 Tema

\*\*Modern, Minimalist, Responsive Design\*\*

- Light/Dark tema desteği

- Montserrat + Inter font kombinasyonu

- Yeşil accent rengi (#84CC16)

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## 🏗️ TEKNİK MİMARİ

### 📁 Dosya Yapısı

```

personal-site/

├── index.html # Ana sayfa

├── blog.html # Blog listesi sayfası

├── post.html # Blog yazısı şablonu

├── styles.css # Ana stil dosyası

├── blogstyle.css # Blog sayfası stilleri

├── post.css # Blog yazısı stilleri

├── scripts.js # Ana JavaScript

├── blog.js # Blog sayfası JavaScript

├── post.js # Blog yazısı JavaScript

├── content/

│ ├── site.json # Site konfigürasyonu

│ ├── posts.json # Blog yazıları metadata

│ └── posts/ # Markdown blog yazıları

├── images/ # Görseller

├── rss.xml # RSS feed

├── sitemap.xml # Sitemap

├── README.md # Proje dokümantasyonu

└── TECHNICAL\_DOCUMENTATION\_V7.md # Bu dosya

```

### 🛠️ Teknolojiler

- \*\*HTML5\*\* - Semantic markup

- \*\*CSS3\*\* - Modern styling, CSS Grid, Flexbox

- \*\*Vanilla JavaScript\*\* - ES6+ features

- \*\*Markdown\*\* - Blog içerik formatı

- \*\*JSON\*\* - Veri yapılandırması

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## 🎨 TASARIM SİSTEMİ

### 🎨 Renk Paleti

```css

/\* Light Theme \*/

--bg: #fafafa

--panel: #ffffff

--ink: #0b0b0b

--muted: #6b7280

--line: #e5e7eb

--accent: #84CC16

/\* Dark Theme \*/

--bg: #0b0d0f

--panel: #14171a

--ink: #e8edf2

--muted: #9aa4b2

--line: #2a2f35

--accent: #84CC16

```

### 📝 Tipografi

- \*\*Ana Font\*\*: Inter (400, 500, 600, 700)

- \*\*Başlık Font\*\*: Montserrat (300, 400, 500, 600, 700)

- \*\*Hero Kicker\*\*: Montserrat, 1.1rem, 500 weight

- \*\*Responsive Font Sizes\*\*: clamp() fonksiyonu ile

### 📐 Layout Sistemi

- \*\*Container\*\*: max-width: 1100px

- \*\*Grid System\*\*: CSS Grid + Flexbox

- \*\*Spacing\*\*: 8px base unit system

- \*\*Border Radius\*\*: 16px (--radius)

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## 📱 RESPONSIVE TASARIM

### 📱 Breakpoint Sistemi

```css

/\* Mobile First Approach \*/

@media (max-width: 479.98px) /\* Çok küçük ekranlar \*/

@media (max-width: 679.98px) /\* Mobil \*/

@media (min-width: 680px) /\* Tablet \*/

@media (min-width: 1040px) /\* Desktop \*/

```

### 📱 Mobil Optimizasyonları

#### 🏠 Ana Sayfa Mobil

- \*\*Hero Section\*\*: Merkezi hizalama, avatar üstte

- \*\*Kartlar\*\*: Yatay düzen, kompakt tasarım

- \*\*Avatar\*\*: min(200px, 70%) boyut

- \*\*Font Sizes\*\*: Responsive clamp() değerleri

#### 📝 Blog Sayfası Mobil

- \*\*Kartlar\*\*: Yatay düzen, 120px thumbnail

- \*\*Search Bar\*\*: 48px touch target

- \*\*Filter Chips\*\*: 44px minimum yükseklik

- \*\*Grid\*\*: Tek kolon düzen

#### 📄 Blog Yazısı Mobil

- \*\*Header\*\*: 40px padding-top

- \*\*Content\*\*: 1rem font-size

- \*\*Hero Image\*\*: 100% genişlik

- \*\*Footer\*\*: Kompakt düzen

### 🎯 Touch Optimizasyonları

- \*\*Minimum Touch Target\*\*: 44px/48px

- \*\*Hover Effects\*\*: Touch cihazlarda devre dışı

- \*\*Active States\*\*: scale(0.98) transform

- \*\*iOS Safari\*\*: 16px input font-size

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## ⚡ PERFORMANS OPTİMİZASYONLARI

### 🚀 JavaScript Performansı

```javascript

// Debounce & Throttle Functions

function debounce(func, wait) { /\* ... \*/ }

function throttle(func, limit) { /\* ... \*/ }

// Scroll Event Throttling

const onScroll = throttle(() => { /\* ... \*/ }, 16); // ~60fps

```

### 🖼️ Görsel Optimizasyonu

- \*\*Lazy Loading\*\*: `loading="lazy"` attribute

- \*\*Error Handling\*\*: Fallback görseller

- \*\*Aspect Ratio\*\*: CSS aspect-ratio property

- \*\*Object Fit\*\*: cover for thumbnails

### 📦 CSS Optimizasyonları

- \*\*CSS Variables\*\*: Tema değişkenleri

- \*\*Media Queries\*\*: Responsive breakpoints

- \*\*Specificity\*\*: !important kullanımı minimize

- \*\*Minification Ready\*\*: Clean CSS structure

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## 🔧 JAVASCRIPT MİMARİSİ

### 📜 Ana Modüller

#### 🎨 Theme Management

```javascript

function initTheme() {

// Local storage + system preference

// Dark/Light mode toggle

// Icon switching

}

```

#### 📜 Content Rendering

```javascript

function renderHero(site) { /\* Hero section \*/ }

function renderCardsLimited(posts, containerId) { /\* Blog cards \*/ }

function cardHTML(p, { coverUrl, readingMins }) { /\* Card template \*/ }

```

#### 📊 Reading Time Calculator

```javascript

async function getReadingTime(slug) {

// Markdown content analysis

// Word count calculation

// Cache system

}

```

#### 🎯 Navigation Tracking

```javascript

function initNavTracking() {

// Intersection Observer

// Active section detection

// Smooth scrolling

}

```

### 🔄 Asenkron İşlemler

- \*\*Promise.all()\*\*: Paralel veri yükleme

- \*\*Async/Await\*\*: Modern async handling

- \*\*Error Handling\*\*: Try-catch blocks

- \*\*Loading States\*\*: Skeleton loading

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## 📝 İÇERİK YÖNETİMİ

### 📄 Markdown Sistemi

- \*\*Content Files\*\*: `content/posts/\*.md`

- \*\*Metadata\*\*: Front matter desteği

- \*\*Rendering\*\*: marked.js library

- \*\*Syntax Highlighting\*\*: Code blocks

### 📊 JSON Veri Yapısı

#### Site Configuration (site.json)

```json

{

"owner": "Cihan Enes Durgun",

"hero": {

"name": "Cihan Enes Durgun",

"avatar": "images/avatar.jpg",

"headline": "İHA, kablosuz haberleşme ve gömülü sistemler üzerine notlar",

"bio": "Sensör verilerini işleyerek takip algoritmaları..."

},

"site": {

"title": "Cihan Enes Durgun - İHA, Kablosuz Haberleşme ve Gömülü Sistemler",

"description": "İHA, kablosuz haberleşme ve gömülü sistemler üzerine teknik notlar...",

"url": "https://cihanenesdurgun.com",

"language": "tr"

},

"links": {

"email": "cihan@cihanenesdurgun.com",

"github": "https://github.com/cihanenesdurgun",

"linkedin": "https://linkedin.com/in/cihanenesdurgun",

"twitter": "https://twitter.com/cihanenesdurgun",

"youtube": "https://youtube.com/@cihanenesdurgun"

}

}

```

#### Posts Metadata (posts.json)

```json

[

{

"slug": "esp-now-ile-rc-baglant-1",

"title": "ESP‑NOW ile RC Bağlantı – 1",

"excerpt": "ESP‑NOW ile düşük gecikmeli RC veri yolu...",

"date": "2025-08-01",

"cover": "images/espnow.jpg",

"tags": ["ESP32", "RC"],

"featured": true

}

]

```

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## 🔍 SEO OPTİMİZASYONU

### 📋 Meta Tags

```html

<!-- Basic SEO -->

<title>Cihan Enes Durgun - İHA, Kablosuz Haberleşme ve Gömülü Sistemler</title>

<meta name="description" content="İHA, kablosuz haberleşme ve gömülü sistemler üzerine teknik notlar...">

<meta name="keywords" content="İHA, UAV, ESP32, RC, kablosuz haberleşme, gömülü sistemler, IMU, LoRa">

<meta name="author" content="Cihan Enes Durgun">

<!-- Open Graph -->

<meta property="og:title" content="...">

<meta property="og:description" content="...">

<meta property="og:type" content="website">

<meta property="og:url" content="https://cihanenesdurgun.com">

<meta property="og:image" content="images/avatar.jpg">

<!-- Twitter Cards -->

<meta name="twitter:card" content="summary\_large\_image">

<meta name="twitter:title" content="...">

<meta name="twitter:description" content="...">

<meta name="twitter:image" content="images/avatar.jpg">

```

### 🗺️ Sitemap & RSS

- \*\*sitemap.xml\*\*: Search engine indexing

- \*\*rss.xml\*\*: RSS 2.0 feed

- \*\*robots.txt\*\*: Crawler directives

- \*\*Structured Data\*\*: JSON-LD schema

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## ♿ ERİŞİLEBİLİRLİK (A11Y)

### 🎯 Keyboard Navigation

- \*\*Focus Management\*\*: Visible focus indicators

- \*\*Skip Links\*\*: "Ana içeriğe geç" link

- \*\*Tab Order\*\*: Logical navigation flow

- \*\*ARIA Labels\*\*: Screen reader support

### 🎨 Visual Accessibility

```css

/\* High Contrast Mode \*/

@media (prefers-contrast: high) {

:root {

--line: #000000;

--muted: #666666;

}

}

/\* Reduced Motion \*/

@media (prefers-reduced-motion: reduce) {

\*, \*::before, \*::after {

animation-duration: 0.01ms !important;

transition-duration: 0.01ms !important;

}

}

```

### 📱 Touch Accessibility

- \*\*Touch Targets\*\*: Minimum 44px/48px

- \*\*Tap Highlight\*\*: -webkit-tap-highlight-color

- \*\*iOS Optimization\*\*: 16px input font-size

- \*\*Android Optimization\*\*: Touch-friendly interactions

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## 🔒 GÜVENLİK

### 🛡️ Content Security

- \*\*XSS Prevention\*\*: Input sanitization

- \*\*CSP Ready\*\*: Content Security Policy compatible

- \*\*HTTPS Ready\*\*: Secure connection support

- \*\*Data Validation\*\*: JSON schema validation

### 🔐 Privacy

- \*\*No Tracking\*\*: Privacy-first approach

- \*\*Plausible Analytics\*\*: GDPR compliant

- \*\*Local Storage\*\*: Theme preference only

- \*\*No Cookies\*\*: Cookie-free design

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## 📊 ANALYTICS & MONITORING

### 📈 Analytics Options

```html

<!-- Plausible Analytics (Privacy-friendly) -->

<script defer data-domain="yoursite.com" src="https://plausible.io/js/script.js"></script>

<!-- Google Analytics 4 (Alternative) -->

<script async src="https://www.googletagmanager.com/gtag/js?id=GA\_MEASUREMENT\_ID"></script>

```

### 🐛 Error Tracking

- \*\*Console Logging\*\*: Development debugging

- \*\*Error Boundaries\*\*: Graceful error handling

- \*\*Performance Monitoring\*\*: Core Web Vitals ready

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## 🚀 DEPLOYMENT

### 🌐 Hosting Options

- \*\*Netlify\*\*: Static site hosting

- \*\*Vercel\*\*: Edge deployment

- \*\*GitHub Pages\*\*: Free hosting

- \*\*Cloudflare Pages\*\*: Global CDN

### 📦 Build Process

- \*\*Static Generation\*\*: No build step required

- \*\*Asset Optimization\*\*: Image compression ready

- \*\*Cache Strategy\*\*: Browser caching headers

- \*\*CDN Ready\*\*: Global content delivery

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## 🔧 BAKIM & GELİŞTİRME

### 📝 Content Updates

1. \*\*Blog Yazısı Ekleme\*\*:

- `content/posts/` klasörüne `.md` dosyası

- `content/posts.json`'a metadata ekleme

- Görsel ekleme (images/ klasörü)

2. \*\*Site Bilgileri Güncelleme\*\*:

- `content/site.json` düzenleme

- Meta tags güncelleme

### 🎨 Tema Güncellemeleri

- \*\*CSS Variables\*\*: Tema değişkenleri

- \*\*Color Palette\*\*: Renk paleti değişimi

- \*\*Typography\*\*: Font ailesi güncelleme

- \*\*Layout\*\*: Grid sistem değişiklikleri

### 📱 Responsive Test

- \*\*Mobile\*\*: 320px - 679px

- \*\*Tablet\*\*: 680px - 1023px

- \*\*Desktop\*\*: 1040px+

- \*\*Touch Devices\*\*: Hover/active state test

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## 📋 VERSİYON GEÇMİŞİ

### 🔄 Version 7 (Optimum) - 21.08.2005

- ✅ \*\*Mobil Optimizasyonu\*\*: Tamamlandı

- ✅ \*\*Hero Font\*\*: Montserrat eklendi

- ✅ \*\*Touch Targets\*\*: 44px/48px minimum

- ✅ \*\*Responsive Grid\*\*: Mobil kart tasarımı

- ✅ \*\*Header Alignment\*\*: Tema butonu hizalama

- ✅ \*\*Blog Layout\*\*: Mobil section-head düzenleme

### 🔄 Version 6 - 20.08.2005

- ✅ \*\*Post Page Redesign\*\*: Modern layout

- ✅ \*\*Mobile Optimization\*\*: Post sayfası mobil

- ✅ \*\*Header Consistency\*\*: Ana sayfa ile uyum

### 🔄 Version 5 - 19.08.2005

- ✅ \*\*Blog Cards Fix\*\*: CSS conflict resolution

- ✅ \*\*Search Enhancement\*\*: Full content search

- ✅ \*\*Reading Time\*\*: ⌚ emoji eklendi

- ✅ \*\*Date Sorting\*\*: Newest first

### 🔄 Version 4 - 18.08.2005

- ✅ \*\*SEO Implementation\*\*: Meta tags, Open Graph

- ✅ \*\*RSS Feed\*\*: RSS 2.0 implementation

- ✅ \*\*Sitemap\*\*: XML sitemap generation

- ✅ \*\*Analytics\*\*: Plausible integration

### 🔄 Version 3 - 17.08.2005

- ✅ \*\*Accessibility\*\*: A11y improvements

- ✅ \*\*Performance\*\*: Debounce/throttle functions

- ✅ \*\*Error Handling\*\*: Graceful fallbacks

### 🔄 Version 2 - 16.08.2005

- ✅ \*\*Content Management\*\*: JSON + Markdown

- ✅ \*\*Theme System\*\*: Dark/Light mode

- ✅ \*\*Responsive Design\*\*: Mobile-first approach

### 🔄 Version 1 - 15.08.2005

- ✅ \*\*Initial Setup\*\*: Basic HTML/CSS/JS

- ✅ \*\*Hero Section\*\*: Personal introduction

- ✅ \*\*Blog Grid\*\*: Card-based layout

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## 🎯 GELECEK GELİŞTİRMELER

### 🚀 Planlanan Özellikler

- \*\*Comments System\*\*: Disqus/utterances integration

- \*\*Search Enhancement\*\*: Algolia search

- \*\*Code Highlighting\*\*: Prism.js integration

- \*\*Math Equations\*\*: KaTeX support

- \*\*Image Gallery\*\*: Lightbox implementation

- \*\*PWA Support\*\*: Service worker

- \*\*Internationalization\*\*: Multi-language support

### 🔧 Teknik İyileştirmeler

- \*\*Performance\*\*: Image optimization

- \*\*SEO\*\*: Structured data enhancement

- \*\*Accessibility\*\*: ARIA improvements

- \*\*Security\*\*: CSP implementation

- \*\*Analytics\*\*: Enhanced tracking

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## 📞 İLETİŞİM & DESTEK

### 👨‍💻 Geliştirici

\*\*Cihan Enes Durgun\*\*

- \*\*Email\*\*: cihan@cihanenesdurgun.com

- \*\*GitHub\*\*: https://github.com/cihanenesdurgun

- \*\*LinkedIn\*\*: https://linkedin.com/in/cihanenesdurgun

- \*\*Twitter\*\*: https://twitter.com/cihanenesdurgun

- \*\*YouTube\*\*: https://youtube.com/@cihanenesdurgun

### 📚 Dokümantasyon

- \*\*README.md\*\*: Proje genel bilgileri

- \*\*TECHNICAL\_DOCUMENTATION\_V7.md\*\*: Bu dosya

- \*\*Code Comments\*\*: Inline documentation

- \*\*Git History\*\*: Version tracking

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## 📄 LİSANS

Bu proje kişisel kullanım için geliştirilmiştir. Tüm hakları saklıdır.

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\*Bu dokümantasyon Version 7 (Optimum) için hazırlanmıştır ve 21.08.2005 tarihinde güncellenmiştir.\*