ABSTRAK

PERANCANGAN *RESORT* HOTEL DENGAN KONSEP *ECHO-TECH* ARCHITECTURE DI LAMPUNG SELATAN

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Sektor pariwisata Provinsi Lampung, khususnya di Kabupaten Lampung Selatan, menunjukkan tren pemulihan dan peningkatan kunjungan wisatawan pascapandemi Covid-19. Potensi wisata alam pesisir pantai yang melimpah belum sepenuhnya didukung oleh ketersediaan fasilitas akomodasi penginapan dan relaksasi yang representatif sekaligus tanggap terhadap isu degradasi lingkungan serta perubahan iklim global. Penelitian skripsi ini bertujuan untuk merancang sebuah *Resort Hotel* di Kabupaten Lampung Selatan yang mampu memfasilitasi kebutuhan rekreasi wisatawan melalui penerapan prinsip-prinsip pendekatan *Eco-Tech Architecture* demi mewujudkan bangunan yang berkelanjutan (*sustainable*).

Metode perancangan yang digunakan dalam penelitian ini meliputi pengumpulan data sekunder melalui studi literatur, dokumentasi, serta studi preseden komparatif terhadap objek sejenis. Analisis tapak dilakukan secara mendalam menggunakan matriks SWOT guna mengevaluasi aspek fisik, klimatologi, sirkulasi, vegetasi, hingga potensi visual (*view*) lokal. Lahan terpilih berada di wilayah pesisir Kecamatan Kalianda yang secara geografis memiliki karakteristik topografi berupa pantai berbentang panjang dengan latar belakang tebing, tingkat kebisingan rendah, serta paparan angin laut yang dominan dari arah barat daya dan selatan.

Hasil perancangan menghasilkan gubahan massa organik yang adaptif terhadap aerodinamika sirkulasi angin lokal guna meminimalisir beban struktur dan mengoptimalkan penghawaan alami. Pendekatan *Eco-Tech Architecture* diintegrasikan melalui enam pola utama, yaitu: (1) *Structural Expression* dengan

mengekspos struktur utama berupa kolom baja bercabang berbentuk pohon (*V-Columns*); (2) *Sculpting with Light* melalui pembuatan lubang atap melingkar (*oculus/skylight*) berbahan kaca *smart-tinting* untuk memaksimalkan pencahayaan alami tanpa deformasi panas; (3) *Energy Matters* yang menerapkan prinsip *energy harvesting* berbasis *Building Integrated Photovoltaics* (BIPV); (4) *Urban Response* berupa penyediaan *roof garden* dan *wall garden* sebagai dinding termal alami; (5) *Making Connection* melalui pengaturan alur sirkulasi pedestrian linier (*the wave flow*) yang menghubungkan zona publik dan privat ; serta (6) *Civic Symbolism* melalui stilasi kearifan lokal berupa bentuk ombak pantai, filosofi Pohon Hayat, dan visualisasi ornamen hias Tapis Lampung pada elemen fasad serta interior bangunan. Melalui perancangan ini, diharapkan *Resort Hotel* tidak hanya berfungsi sebagai sarana komersial, melainkan juga menjadi *landmark* ikonik yang ramah lingkungan dan merepresentasikan identitas budaya setempat.

Kata Kunci: *Resort Hotel, Eco-Tech Architecture, Berkelanjutan, Kalianda, Tapis Lampung.*

ABSRACT

Design of a Resort Hotel with an Eco-Tech Architecture Concept in South Lampung

By

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The tourism sector in Lampung Province, particularly in South Lampung Regency, has shown a trend of recovery and increasing tourist arrivals following the COVID-19 pandemic. The abundant potential of coastal tourism has not yet been fully supported by the availability of representative accommodation and relaxation facilities that are also responsive to issues of environmental degradation and global climate change. This undergraduate thesis aims to design a Resort Hotel in South Lampung Regency that can accommodate the recreational needs of tourists through the application of Eco-Tech Architecture principles in order to create a sustainable building.

The design method employed in this study includes the collection of secondary data through literature reviews, documentation, and comparative precedent studies of similar projects. Site analysis was conducted comprehensively using a SWOT matrix to evaluate physical aspects, climatology, circulation, vegetation, and local visual potential (views). The selected site is located in the coastal area of Kalianda District, which geographically features a long stretch of beach backed by cliffs, low noise levels, and dominant sea winds coming from the southwest and south.

The design results in an organic mass composition that is adaptive to the aerodynamics of local wind circulation in order to minimize structural loads and optimize natural ventilation. The Eco-Tech Architecture approach is integrated through six main patterns: (1) Structural Expression by exposing the primary structure in the form of tree-shaped branching steel columns (V-

Columns); (2) Sculpting with Light through the creation of circular roof openings (oculus/skylight) made of smart-tinting glass to maximize natural lighting without excessive heat gain; (3) Energy Matters by implementing energy harvesting principles based on Building Integrated Photovoltaics (BIPV); (4) Urban Response through the provision of roof gardens and wall gardens as natural thermal barriers; (5) Making Connection through the arrangement of a linear pedestrian circulation system (the wave flow) that connects public and private zones; and (6) Civic Symbolism through the stylization of local wisdom, including ocean wave forms, the philosophy of the Tree of Life, and the visualization of Tapis Lampung decorative motifs on the building's façade and interior elements.

Through this design, the Resort Hotel is expected not only to function as a commercial facility but also to become an environmentally friendly iconic landmark that represents the local cultural identity.

Keywords: *Resort Hotel, Eco-Tech Architecture, Sustainability, Kalianda, Tapis Lampung.*