

Bidang Unggulan : Energi Terbarukan  
Kode>Nama Rumpun Ilmu : 426/ Arsitektur

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HIBAH DOKTOR NON LEKTOR KEPALA**



**MODEL TAMAN VERTIKAL BIOKLIMATIK-BIOPILIK  
KAMPUNG KOTA**

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Dibiayai oleh:  
Lembaga Penelitian dan Pengabdian kepada Masyarakat  
Melalui Dana Penerimaan Negara Bukan Pajak (PNBP) Universitas Brawijaya  
Sesuai dengan Daftar Isian Pelaksanaan Anggaran (DIPA) Universitas Brawijaya  
Nomor : 42/UN10.F07/PN/2021

**FAKULTAS TEKNIK  
UNIVERSITAS BRAWIJAYA  
2021**

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Biaya Tahun Berjalan : Rp 25,000,000.00  
Biaya Keseluruhan : Rp 25,000,000.00

Malang, 09 November 2021

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## RINGKASAN

Model Taman Vertikal Bioklimatik-Biopilik (TVBB) merupakan salah satu solusi untuk meningkatkan tingkat kenyamanan lingkungan termal seiring berkurangnya area hijau perkotaan. Penelitian ini bertujuan mengkaji pengaruh TVBB terhadap kenyamanan lingkungan termal pada kasus pemukiman kota. Tahapan penelitian mencakup pengamatan visual, pengukuran lapangan dan penilaian kualitas lingkungan termal. Data dan analisis penelitian terdiri dari tipe dan sebaran TVBB, jenis tanaman, suhu udara, kelembapan udara, nilai kesesuaian dan nilai perbaikan lingkungan termal pada studi kasus Kampung Glintung, Malang. Hasil pengamatan visual menunjukkan 61,4% jumlah rumah menggunakan model TVBB tipe modular tray dengan jenis tanaman utama *chlorophytum comosum*. Pengaruh TVBB terhadap penurunan suhu dan kelembapan udara sebesar 1,7°C dan 32,6% dengan rerata suhu udara 25,9°C. Prosentase terbesar nilai kesesuaian lingkungan termal dan nilai perbaikan terdapat pada bagian lingkungan luar untuk suhu udara sebesar 63% dan bagian teras rumah untuk kesesuaian kelembapan udara (58%) dan aliran udara (62%). Harapan perbaikan sebagian besar terdapat pada bagian teras rumah dengan rincian untuk penurunan suhu udara sebesar 58%, penurunan kelembapan udara (57%) dan peningkatan aliran udara (59%). Usulan pengembangan model TVBB yang terpilih adalah model dengan tanaman berdaun gelap di bagian atas (*Amaranthus Gangeticus*), berstomata lebar (*Aloe Vera*) di bagian bawah serta beraroma segar (*Lavandula*) di bagian tengah.

*Kata kunci : taman vertikal bioklimatik biopilik; penurunan suhu udara; lingkungan termal*

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