# DAFTAR ISI

**LEMBAR PERSETUJUAN** ..... Error! Bookmark not defined.
**LEMBAR PENGESAHAN** ..... Error! Bookmark not defined.
**LEMBAR PERNYATAAN** ..... Error! Bookmark not defined.
**KATA PENGANTAR** ..... Error! Bookmark not defined.
**ABSTRAK** ..... Error! Bookmark not defined.
**ABSTRACT** ..... Error! Bookmark not defined.
**DAFTAR ISI** ..... **vii**
**DAFTAR TABEL** ..... **ix**
**DAFTAR GAMBAR** ..... **x**
**DAFTAR LAMPIRAN** ..... **xi**
**BAB I PENDAHULUAN** ..... Error! Bookmark not defined.
1.1 Latar Belakang ..... **Error! Bookmark not defined.**
1.2 Rumusan Masalah ..... **Error! Bookmark not defined.**
1.3 Tujuan Penelitian ..... **Error! Bookmark not defined.**
1.4 Manfaat ..... **Error! Bookmark not defined.**
**BAB II TINJAUAN PUSTAKA** ..... Error! Bookmark not defined.
2.1 *Crowdfunding* ..... **Error! Bookmark not defined.**
2.2 Penggalang ..... **Error! Bookmark not defined.**
2.3 Donatur ..... **Error! Bookmark not defined.**
2.4 Blockchain ..... **Error! Bookmark not defined.**
2.5 Ethereum ..... **Error! Bookmark not defined.**
2.6 Smart Contract ..... **Error! Bookmark not defined.**
2.7 Solidity ..... **Error! Bookmark not defined.**
2.8 Keccak-256 ..... **Error! Bookmark not defined.**
2.9 Node.js ..... **Error! Bookmark not defined.**
2.10 Hardhat ..... **Error! Bookmark not defined.**
2.11 Svelte ..... **Error! Bookmark not defined.**
2.12 Express.js ..... **Error! Bookmark not defined.**
2.13 BlackBox Testing ..... **Error! Bookmark not defined.**
2.14 Penelitian Terkait ..... **Error! Bookmark not defined.**
**BAB III METODE PENELITIAN** ..... Error! Bookmark not defined.

3.1 Objek Penelitian .....**Error! Bookmark not defined.**
3.2 Prosedur Penelitian.....**Error! Bookmark not defined.**
3.2.1 Analisis Kebutuhan .....**Error! Bookmark not defined.**
3.2.2 Desain Sistem.....**Error! Bookmark not defined.**
3.2.3 Implementasi .....**Error! Bookmark not defined.**
3.2.4 Pengujian Sistem.....**Error! Bookmark not defined.**
**BAB IV HASIL DAN PEMBAHASAN .....**Error! Bookmark not defined.
4.1 Analisis Kebutuhan .....**Error! Bookmark not defined.**
4.2 Desain Sistem .....**Error! Bookmark not defined.**
4.2.1 Cryptocurrency.....**Error! Bookmark not defined.**
4.2.2 Detail Rancangan Sistem .....**Error! Bookmark not defined.**
4.3 Implementasi .....**Error! Bookmark not defined.**
4.3.1 Implementasi Frontend.....**Error! Bookmark not defined.**
4.3.2 Implementasi Backend.....**Error! Bookmark not defined.**
4.3.3 Implementasi Smart Contract.....**Error! Bookmark not defined.**
4.3.4 Peran Keccak-256 untuk Integritas Data..... **Error! Bookmark not defined.**
4.4 Pengujian Sistem .....**Error! Bookmark not defined.**
4.4.1 Blackbox Testing .....**Error! Bookmark not defined.**
4.4.2 Gas Fee setiap Transaksi.....**Error! Bookmark not defined.**
**BAB V KESIMPULAN DAN SARAN.....**Error! Bookmark not defined.
5.1 Kesimpulan.....**Error! Bookmark not defined.**
5.2 Saran.....**Error! Bookmark not defined.**
**DAFTAR PUSTAKA.....**Error! Bookmark not defined.
**LAMPIRAN.....**Error! Bookmark not defined.

# DAFTAR TABEL

Tabel 2. 1 Penelitian Terkait .....**Error! Bookmark not defined.**
Tabel 3. 2 Desain Smart Contract .....**Error! Bookmark not defined.**
Tabel 4. 1 Rekap Analisis Kebutuhan.....**Error! Bookmark not defined.**
Tabel 4. 2 Pengujian Verifikasi Smart Contract ....**Error! Bookmark not defined.**
Tabel 4. 3 Pengujian Keamanan dan Keaslian Data ..... **Error! Bookmark not defined.**
Tabel 4. 4 Pengujian Transparasi Data .....**Error! Bookmark not defined.**
Tabel 4. 5 Estimasi Gas Fee pada setiap transkasi.**Error! Bookmark not defined.**

# DAFTAR GAMBAR

Gambar 2. 1 The sponge construction.....**Error! Bookmark not defined.**
Gambar 3. 1 Prosedur Penelitian.....**Error! Bookmark not defined.**
Gambar 3. 2 Gambaran Umum Sistem .....**Error! Bookmark not defined.**
Gambar 3. 3 Usecase Diagram Sistem Crowdfunding ..... **Error! Bookmark not defined.**
Gambar 3. 4 Activity Diagram Buat Kampanye....**Error! Bookmark not defined.**
Gambar 3. 5 Activity Diagram Deposit Kampanye..... **Error! Bookmark not defined.**
Gambar 3. 6 Activity Diagram Withdraw Kampanye ..... **Error! Bookmark not defined.**
Gambar 3. 7 Activity Diagram Set Fraud Kampanye..... **Error! Bookmark not defined.**
Gambar 3. 8 Activity Diagram Connect Wallet.....**Error! Bookmark not defined.**
Gambar 3. 9 UI Buat Penggalangan Dana .....**Error! Bookmark not defined.**
Gambar 3. 10 UI List Kampanye .....**Error! Bookmark not defined.**
Gambar 3. 11 UI Detail Kampanye.....**Error! Bookmark not defined.**
Gambar 4. 1 Alur Diagram Cryptocurrency .....**Error! Bookmark not defined.**
Gambar 4. 2 Diagram Detail Rancangan Sistem ...**Error! Bookmark not defined.**
Gambar 4. 3 Tampilan Aplikasi Tambah Galang Dana..... **Error! Bookmark not defined.**
Gambar 4. 4 Tampilan Aplikasi List Penggalang..**Error! Bookmark not defined.**
Gambar 4. 5 Tampilan Aplikasi Detail Penggalangan Dana **Error! Bookmark not defined.**
Gambar 4. 6 Tampilan Detail Kampanye dari Donatur..... **Error! Bookmark not defined.**
Gambar 4. 7 Tampilan Detail Kampanye dari Pembuat Kampanye..... **Error! Bookmark not defined.**
Gambar 4. 8 Tampilan Detail kampanye dari Owner ..... **Error! Bookmark not defined.**

Gambar 4. 9 Proses Upload Gambar melalui Endpoint /api/upload ..... **Error! Bookmark not defined.**
Gambar 4. 10 Tampilan Gambar Statis yang Diakses Melalui Browser ..... **Error! Bookmark not defined.**
Gambar 4. 11 Kode Fungsi Solidity createGalang.**Error! Bookmark not defined.**
Gambar 4. 12 Kode Fungsi Solidity deposit .....**Error! Bookmark not defined.**
Gambar 4. 13 Kode Fungsi Solidity withdraw.....**Error! Bookmark not defined.**
Gambar 4. 14 Kode Fungsi Solidity FraudDonation ..... **Error! Bookmark not defined.**
Gambar 4. 15 Proses generate ID dengan Keccak-256..... **Error! Bookmark not defined.**
Gambar 4. 16 Proses Ambil Data di Smart Contract ..... **Error! Bookmark not defined.**
Gambar 4. 17 Hash Kecakk-256 sebagai endpoint URL ..... **Error! Bookmark not defined.**

## DAFTAR LAMPIRAN

Lampiran 1 Formulir Bimbingan Tugas Akhir .....**Error! Bookmark not defined.**
Lampiran 2 Hasil Turnitin.....**Error! Bookmark not defined.**
Lampiran 3 Lembar Perbaikan Ketua Penguji .....**Error! Bookmark not defined.**
Lampiran 4 Lembar Perbaikan Anggota Penguji 1**Error! Bookmark not defined.**
Lampiran 5 Lembar Perbaikan Anggota Penguji 2**Error! Bookmark not defined.**