DAFTAR ISI

HALAMAN JUDUL ........................................................................... i
HALAMAN PENGESAHAN ................................................................. ii
BERITA ACARA BIMBINGAN TUGAS AKHIR ................................ iii
PERNYATAAN BEBAS PLAGIASI ..................................................... iv
PERNYATAAN KEASLIAN ................................................................ v
MOTTO DAN PERSEMBHAN ........................................................ vi
KATA PENGANTAR ................................................................ ix
DAFTAR ISI ................................................................................. xi
DAFTAR TABEL ........................................................................ xiv
DAFTAR GAMBAR ..................................................................... xvi
ABSTRAK .................................................................................. xvii
ABSTRACT ............................................................................... xviii
BAB I PENDAHULUAN ................................................................. 1
  1.1 Latar Belakang ................................................................. 1
  1.2 Rumusan Masalah .......................................................... 2
  1.3 Tujuan Penelitian ........................................................... 3
  1.4 Batasan Masalah ............................................................. 3
  1.5 Manfaat Penelitian .......................................................... 3
  1.6 Sitematika Penulisan ....................................................... 4
BAB II TINJAUAN PUSTAKA ......................................................... 5
  2.1 Proyek Konstruksi ............................................................. 5
  2.1.1 Bangunan Gedung ....................................................... 5
  2.1.2 Rumah Gedung Kampus .............................................. 5
  2.2 Pengertian Rekayasa Nilai ................................................. 6
  2.3 Konsep Value Engineering ............................................... 7
  2.3.1 Nilai (Value) .............................................................. 7
  2.3.2 Fungsi ........................................................................ 8
  2.3.3 Biaya ......................................................................... 8
  2.4 Pembengkakan Biaya (Cost Overrun) ................................. 9
  2.5 Faktor – factor Penggunaan Value Engineering ................. 10
2.6 Karakteristik Value Engineering ........................................ 11
2.7 Tahapan – tahapan Value Engineering .............................. 11
   2.7.1 Tahap Informasi ..................................................... 12
   2.7.2 Tahap Kreatif ....................................................... 16
   2.7.3 Tahap Analisis ...................................................... 17
   2.7.4 Tahap Pengembangan ........................................... 18
   2.7.5 Tahap Rekomendasi .............................................. 19
2.8 Bagian Gedung Yang di Analisa ...................................... 19
2.9 Penelitian Terdahulu .................................................. 20

BAB III METODE PENELITIAN ........................................ 23
   3.1 Tinjauan Umum ....................................................... 23
   3.2 Objek Penelitian ..................................................... 23
   3.3 Metode Pengumpulan Data ......................................... 23
   3.4 Metode Pengolahan Data .......................................... 24
      3.4.1 Tahap Informasi .................................................. 24
      3.4.2 Tahap Kreatif .................................................... 25
      3.4.3 Tahap Analisis .................................................. 25
      3.4.4 Tahap Rekomendasi ........................................... 25
   3.5 Metode Analisis Data ................................................ 25
   3.6 Bagan Alur ............................................................ 27

BAB IV HASIL DAN PEMBAHASAN .................................. 28
   4.1 Data Proyek ............................................................ 28
   4.2 Rekapitulasi Rencana Anggaran Biaya (RAB) .................. 29
   4.3 Analisis Value Engineering ........................................ 30
      4.3.1 Tahap Informasi .................................................. 31
      4.3.2 Tahap Kreatif .................................................... 54
      4.3.3 Tahap Analisis .................................................. 61
   4.4 Tahap Rekomendasi .................................................. 77
   4.5 Perbandingan Rekapitulasi Biaya Sebelum dan Sesudah
      Value Engineering .................................................... 81

BAB V PENUTUP .............................................................. 82
   5.1 Kesimpulan ............................................................. 82
5.2 Saran................................................................................................................. 83

DAFTAR PUSTAKA ................................................................................................ xx

LAMPIRAN .............................................................................................................. xxiii
DAFTAR TABEL

Tabel 2.1 Identifikasi fungsi menurut kata kerja dan kata benda........... 8
Tabel 2.2 Komponen-Komponen Total Biaya................................. 9
Tabel 2.3 Breakdown ................................................................... 14
Tabel 2.4 Analisis Fungsi............................................................... 16
Tabel 2.5 Pembobotan Kriteria dengan Metode Perangkingan.......... 18
Tabel 2.6 Penelitian Terdahulu .................................................... 20
Tabel 4.1 Rekapitulasi RAB existing Pembangunan Gedung Kuliah Bersama Politeknik Negeri Cilacap .................................................. 30
Tabel 4.2 Identifikasi Item Pekerjaan Berbiaya Tinggi ...................... 31
Tabel 4.3 Rekapitulasi Pekerjaan Arsitektur .................................... 32
Tabel 4.4 Rencana Biaya Pekerjaan Dinding dan Beton Praktis .......... 34
Tabel 4.5 Rencana Anggaran Biaya (RAB) Pekerjaan Lantai .......... 37
Tabel 4.6 Rencana Anggaran Biaya (RAB) Pekerjaan Plafond ......... 42
Tabel 4.7 Rencana Biaya Pekerjaan Kusen, Pintu, Dan Jendela.......... 47
Tabel 4.8 Tabel Analisis Fungsi Dinding ........................................ 51
Tabel 4.9 Tabel Analisis Fungsi Lantai ........................................... 51
Tabel 4.10 Tabel Analisis Fungsi Plafond ........................................ 52
Tabel 4.11 Tabel Analisis Fungsi Pekerjaan Pintu Panel Aluminium ..... 52
Tabel 4.12 Pengumpulan Alternatif Pada Pekerjaan Dinding .......... 54
Tabel 4.13 Pengumpulan Alternatif Pada Pekerjaan Lantai ............ 54
Tabel 4.14 Pengumpulan Alternatif Pada Pekerjaan Plafond .......... 55
Tabel 4.15 Pengumpulan Alternatif Pekerjaan Pintu, Kusen, Jendela .... 55
Tabel 4.16 Analisis Kelebihan dan Kekurangan Alternatif Desain ...... 57
Tabel 4.17 Analisis Kelebihan dan Kekurangan Alternatif Desain ..... 58
Tabel 4.18 Analisis Kelebihan dan Kekurangan Alternatif Desain ...... 59
Tabel 4.19 Analisis Kelebihan dan Kekurangan Alternatif Desain ...... 59
Tabel 4.20 AHSP 1M² Pekerjaan Pasangan Dinding Bata Ringan 10x20x60 cm ................................................................. 60
Tabel 4.21 AHSP 1M² Pekerjaan Pasangan Ecolite Panel 2400x600x60 mm ............................................................... 62
Tabel 4.22 AHSP 1M² Pekerjaan Pasangan Dinding Bata.................. 63
Tabel 4.23 RAB Pekerjaan Dinding Existing ............................ 64
Tabel 4.24 AHSP 1M² Pekerjaan Lantai Keramik 60 x 60 Lantai Homogenous Merk Niro Granit .............................................. 65
Tabel 4.25 AHSP 1M² Pekerjaan Lantai Keramik 60 x 60 Lantai Homogenous Merk Engress ................................................. 66
Tabel 4.26 AHSP 1M² Pekerjaan Lantai Keramik 50 x 50 Lantai Keramik Merk Garuda .............................................................. 67
Tabel 4.27 RAB Pekerjaan Lantai Keramik .................................. 68
Tabel 4.28 AHSP 1M² Pekerjaan Plafond Gypsum tebal 9 mm ....... 69
Tabel 4.29 AHSP 1M² Pekerjaan Plafond Kalsiboard 3,5 mm ........ 70
Tabel 4.30 AHSP 1M² Pekerjaan Plafond GRC Aplus 4 mm ......... 71
Tabel 4.31 RAB Pekerjaan Plafond ............................................. 72
Tabel 4.32 AHSP 1M² Pekerjaan Panel Pintu dan Kusen YKK ....... 73
Tabel 4.33 AHSP 1M² Pekerjaan Panel Pintu dan Kusen Alexindo ... 74
Tabel 4.34 AHSP 1M² Pekerjaan Panel Pintu dan Kusen Dacon ...... 75
Tabel 4.35 RAB Pekerjaan Kusen, Pintu dan Jendela ..................... 76
Tabel 4.36 Tabel Rekomendasi Pekerjaan Pasangan Dinding ......... 77
Tabel 4.37 Tabel Rekomendasi Pekerjaan Lantai .......................... 78
Tabel 4.38 Tabel Rekomendasi Pekerjaan Plafond .......................... 79
Tabel 4.39 Tabel Rekomendasi Pekerjaan Kusen, Pintu, dan Jendela.... 80
Tabel 4.40 Perbandingan Rekapitulasi Biaya Sebelum dan Sesudah Value Engineering ................................................................. 81
DAFTAR GAMBAR

Gambar 2.1 Langkah-Langkah Value Engineering................................. 12
Gambar 3.1 Bagan Alur Penelitian .................................................. 27
Gambar 4.1 Tampak depan Rumah Susun Sewa MBR ....................... 28
Gambar 4.2 Lokasi Proyek............................................................... 29
Gambar 4.3 Grafik Pareto ............................................................... 32