

**FINAL ASSIGNMENT**

**BITUMEN MODIFICATION USING BUTON NATURAL  
ROCK ASPHALT**

**Submitted the requirements in completing undergraduate education on Civil  
Engineering of Sultan Agung Islamic University**



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SEMARANG  
2017**



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**APPROVAL PAGE**

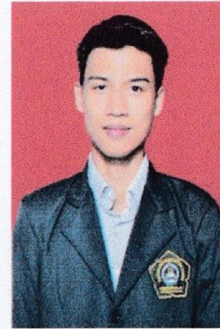
**FINAL ASSIGNMENT**

**Bitumen Modification Using Buton Natural Rock Asphalt**

**By:**



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Have been agreed at, September 07, 2017

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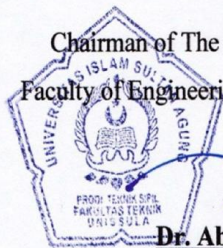
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**BERITA ACARA BIMBINGAN TUGAS AKHIR ATAU SKRIPSI**

**Nomor : 50 / A.2 / SA – T / III / 2017**

Pada hari ini, tanggal 1 Agustus 2017 berdasarkan Surat Keputusan Rektor Universitas Islam Sultan Agung (UNISSULA) Semarang perihal penunjukan Dosen Pembimbing I dan Dosen Pembimbing II:

1. Nama : Ir. H. Gatot Rusbintardjo, M.R.Eng.M.Sc.,Ph.D  
Jabatan Akademik : Dosen Fakultas Teknik Unissula  
Jabatan : Dosen Pembimbing I
2. Nama : Ir. H. Abdul Rochim, ST. MT  
Jabatan Akademik : Kepala Jurusan Teknik Sipil  
Jabatan : Dosen Pembimbing II

Dengan ini menyatakan bahwa Mahasiswa yang tersebut dibawah ini telah menyelesaikan bimbingan Tugas Akhir atau Skripsi:

1. Nama : Ayu Fitrianti  
Nim : 30201203429
2. Nama : Rizal Palefi Hidayat  
Nim : 30201203590  
Jurusan : Teknik Sipil  
Judul : *"Bitumen Modification using Buton Natural Rock Asphalt"*

Dengan tahapan sebagai berikut:

No.	Tahapan	Tanggal	Keterangan
1	Penunjukan Dosen Pembimbing	15 Maret 2017	-
2	Pengumpulan Data	20 Maret 2017	-
3	Penyusunan Laporan	20 Mei 2017	-
4	Selesai Laporan	2 Agustus 2017	-
5	Seminar Tugas Akhir	23 Agustus 2017	ACC

Demikian Berita Acara Bimbingan Tugas Akhir atau Skripsi ini dibuat untuk diketahui dan dipergunakan seperlunya oleh pihak-pihak yang berkepentingan.

Dosen Pembimbing I

**(Ir. H. Gatot Rusbintardjo, M.R.Eng.M.Sc.,Ph.D)**

Dosen Pembimbing II

**(Dr. Abdul Rochim, ST. MT)**

Mengetahui,

Ketua Program Studi Teknik Sipil  
Fakultas Teknik UNISSULA



**(Dr. Abdul Rochim, ST. MT)**

## SURAT PERNYATAAN KEASLIAN

Yang bertanda tangan di bawah ini :

Nama : Rizal Rafiqi Hidayat

Nim : 30201303590 .

Dengan ini saya nyatakan bahwa Karya Tulis Ilmiah yang berjudul :

BITUMEN MODIFICATION USING BUTON NATURAL  
ROCK ASPALT.

Adalah benar hasil karya saya dan penuh kesadaran bahwa saya tidak melakukan tindakan plagiasi atau mengambil alih seluruh atau sebagian besar karya tulis orang lain tanpa menyebutkan sumbernya. Jika saya terbukti melakukan tindakan plagiasi, saya bersedia menerima sanksi sesuai dengan aturan yang berlaku.

Semarang, 08 Sept 2017



Rizal Rafiqi Hidayat



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Yang bertanda tangan di bawah ini :

Nama : Ayu Fitrianti  
Nim : 30201303429

Dengan ini saya nyatakan bahwa Karya Tulis Ilmiah yang berjudul :

Bitumen Modification Using Buton Natural  
Rock Asphalt

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Semarang, 8 September 20



Ayu Fitrianti



## **MOTTO**

In Allah's help to victory. He helpeth to victory whom He will. He is the Mighty,  
the Merciful.

(QS Ar Rum : 5)

The characteristic of highly knowledgeable people is humbling to humans and  
fear God.

(Ayu Fitrianti)

Reach for science, and to gain knowledge learn to calm and patient.

(Rizal Palefi Hidayat)

## **DEDICATION**

*“I dedicated this final assignment to the knowledge of highway engineering as my  
worship to Allah Subhana wa Ta’ala”*

## ACKNOWLEDGEMENTS

*Alhamdulillahirabbil'alamiin, Innalhamdulillah nahmaduhu wa nasta'iyuhu.* Upon *Ridho* and *Rahmat Allah Subhana wa Ta'ala* this research and final assignment report can be completed.

In preparing this report, I was in contact with many people, researchers, academicians, and practitioners. They have contributed towards my understanding and thoughts. In particular, I wish to express my sincere appreciation to my main research and thesis supervisor, Ir. Gatot Rusbintardjo, M.R.Eng.Sc., Ph.D., for his encourages, guidance, criticism, and friendship. I am also very thankful to my co-supervisor Dr. Abdul rochim, S.T., M.T. for his guidance, advice and motivation. Without their continued support and interest, this final assignment report would not have been the same as presented here.

My special thanks are addressed to Dean of the engineering Faculty of UNISSULA Mr. Ir. H. Prabowo Setyawan, M.T., Ph.D. and Head of Department of Civil Engineering, Faculty of Engineering UNISSULA Mr. Dr. Abdul Rochim, S.T., M.T., for permission, to take final assignment as the requirement for reaching Bachelor Degree in Civil Engineering in Faculty of Engineering UNISSULA.

I would also like to thank to all technicians in Road Research Laboratory of Faculty of Engineering of UNISSULA for their help and cooperation.

Very special thanks are given to my beloved parents Imam Wahyu Sutrisno and Nurul Kistianti, My sister Septia Putri Trisnianti, My Support system Arif Mujiyono, My partner final assignment Rizal Palefi Hidayat, My best friends Banik Yoandanny, Ayu Wahyu, Nurul, Anissatur, Anggoro, Aldion, Rochim, Ogam, Hafidz, Mahendra, Ravendra, Lely R, Nastiti, Kurnia a.k.a Superman, Ony, Listiyono, Afandi, Fikri, and all those who have helped in the completion of this final assignment that we can't mention one by one. Their patience, prayers and understanding during this study were always a blessing.



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