

FINAL ASSIGNMENT

**DESIGN UPPER STRUCTURE OF CANTILEVER SPAR
CABLE-STAYED BRIDGE**

**Proposed to Fulfill Academic Requirement for
Civil Engineering Degree in Faculty of Engineering
Sultan Agung Islamic University**



Author:

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SULTAN AGUNG ISLAMIC UNIVERSITY
2018**



**YAYASAN BADAN BAKAF SULTAN AGUNG
UNIVERSITAS ISLAM SULTAN AGUNG (UNISSULA)
FAKULTAS TEKNIK**

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APPROVAL PAGE

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Have been approved at, September, 6 2018

Supervisor

Ir. Gatot Rusbintardjo, M.R.Eng, M.Sc, Ph.D

Co - Supervisor

Ir. M. Faiqun Ni'am, MT., Ph.D

Approved by,

Head of Civil Department, Engineering Faculty, UNISSULA



Apri Sentani, ST., M.Sc



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BERITA ACARA BIMBINGAN TUGAS AKHIR

Nomor: 10 / A.2 / SA – T / III / 2018

Pada hari ini, Kamis tanggal February 2018 berdasarkan Surat Keputusan Rektor Universitas Islam Sultan Agung (UNISSULA) Semarang perihal penunjukan Dosen Pembimbing I dan Dosen Pembimbing II:

1. Nama : Ir. Gatot Rusbintardjo, M.R.Eng, M.Sc, Ph.D
Jabatan : Lektor
2. Nama : Ir. M. Faiqun Ni'am, MT., Ph.D
Jabatan : Lektor

Dengan ini menyatakan bahwa mahasiswa yang tersebut dibawah ini:

1. Nama : Arshad Yahya H
Nim : 30201403707
Jurusan : Teknik Sipil
2. Nama : Jamaludin Ibnu S
Nim : 30201403807
Jurusan : Teknik Sipil

Telah menyelesaikan Tugas Akhir dengan judul: Design Upper Structure of Cantilever Spar Cable-Stayed Bridge. Dengan tahapan sebagai berikut:

No.	Tahapan	Tanggal
1	Penunjukan Dosen Pembimbing	12 Maret 2018
2	Pengajuan TA	12 Maret 2018
3	Penelitian/Pengumpulan Data	19 Maret 2018
5	Penyusunan Laporan	6 April – 14 Agustus 2018
6	Selesai Laporan	16 Agustus 2018

Demikian Berita Acara Tugas Akhir ini dibuat untuk diketahui dan dipergunakan seperti halnya oleh pihak – pihak yang berkepentingan.

Dosen Pembimbing I

Ir. Gatot Rusbintardjo, M.R.Eng, M.Sc, Ph.D

Dosen Pembimbing II

Ir. M. Faiqun Ni'am, MT., Ph.D

Mengetahui,
Kepala Program Studi Teknik Sipil UNISSULA



Sentani, ST., M.Sc

MOTTO

“Don’t compare yourself with anyone in this world. If you do so, you are insulting yourself.”

(Bill Gates)

“A journey of thousand miles begins with a single step.”

(Lou Tzu)

“Orang yang terlalu memikirkan akibat dari sesuatu keputusan atau tindakan, sampai kapan pun dia tidak akan menjadi orang pemberani.”

(Ali bin Abi Thalib)

كُتِبَ عَلَيْكُمُ الْقِتَالُ وَهُوَ كُرْهُ لَكُمْ وَعَسَىٰ أَنْ تَكْرَهُوا شَيْئًا
وَهُوَ خَيْرٌ لَّكُمْ وَعَسَىٰ أَنْ تُحِبُّوا شَيْئًا وَهُوَ شَرٌّ لَّكُمْ وَاللَّهُ يَعْلَمُ
وَأَنْتُمْ لَا تَعْلَمُونَ ﴿٢١٦﴾

“Boleh jadi kamu membenci sesuatu, padahal ia amat baik bagimu, dan boleh jadi (pula) kamu menyukai sesuatu, padahal ia amat buruk bagimu, Allah mengetahui, sedangkan kamu tidak mengetahui.”

(QS. Al-Baqarah : 216)

DEDICATION

I dedicated this final assignment to the knowledge of civil engineering in general and bridge engineering in particular as my worship to Allah Subhana Wa Ta'ala

DECLARATION

The undersigned below :

Name : 1. Arshad Yahya H (30201403707)
2. Jamaludin Ibnu Sanjaya (30201403807)

Department : Civil Engineering

Hereby declare this our Final Assignment is entitled : **DESIGN UPPER STRUCTURE OF CANTILEVER SPAR CABLE STAYED BRIDGE** is a scholarly work free from plagiarism. If later there is proven plagiarism from this final assignment, then I am willing to accept sanction in accordance with applicable legislation.

Semarang, September 2018

By :

Editor I



Arshad Yahya H

Editor II



Jamaludin Ibnu Sanjaya

Approved :

Supervisor



Ir. Gatot Rusbintarjo, M.R.Eng.Sc., Ph.D

Co - Supervisor



Ir. M. Faiqun Ni'am, MT., Ph.D

ACKNOWLEDGEMENTS

لاسلأ مكيلعم الله محرو بهتاكربو

Alhamdulillah Robbil `Alamin, Praise be grateful always poured into the presence of Allah SWT, who gave His mercy and guidance so that this Final Assignment Report can be completed with title "Design of Superstructure Cantilever Spar Cable-Stayed Bridge".

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On this opportunity, the author would like to thank all those who have helped to complete this final assignment report. In particular, I wish to express my sincere appreciation to my main final assignment supervisor, Ir. Gatot Rusbiantardjo, M.R.Eng.Sc.,Ph.D., for his encourage, guidance, criticism, and friendship. I am also very thankful to my co-supervisor Ir. M. Faiqun Ni'am, MT., Ph.D., 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.

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لاسلأو مكيلعم محرواللههتاكربو

Semarang, September 2018

Arshad Yahya H / 3.02.014.03707
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