

FINAL ASSIGNMENT

DESIGN UPPER STRUCTURE OF CABLE STAYED BRIDGE

**Proposed to Fulfill Academic Requirement for
Civil Engineering Degree in Faculty
of Engineering of UNISSULA**



Drafted by:

DEDI SETIYAWAN

30201403725

SUGIYANTORO

30201403924

**CIVIL ENGINEERING DEPARTEMENT
ENGINEERING FACULTY
UNIVERSITAS ISLAM SULTAN AGUNG SEMARANG
2018**



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

Jalan Raya Kaligawe KM. 4 Po. BOX 1054 Telp. (024) 6583584 Ext. 507 Semarang 50112

APPROVAL PAGE

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"DESIGN UPPER STRUCTURE OF CABLE STAYED BRIDGE"

By



DEDI SETIYAWAN

30201403725



SUGIYANTORO

30201403924

Have been agreed at, February 2018

Supervisor

Ir. Gatot Rusbiantardjo, M.R. Eng MSc., Ph.D

Co - Supervisor

Ir. H. Rahmat Mudivono, MT., Ph.D.

Approved By,
Head of Civil Engineering Department, Engineering Faculty, UNISSULA



Dr. Abdul Rochim, ST. MT

SURAT PERNYATAAN KEASLIAN

Yang bertanda tangan di bawah ini,

Nama Sugiyantoro

NIM 30201403924

Dengan ini saya nyatakan bahwa Karya Tulis Ilmiah yang berjudul,

DESIGN UPPERSTRUCTURE OF CABLE STAYED BRIDGE

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Semarang, 27 Maret 2018

A yellow rectangular stamp with a scalloped edge. It contains the text 'SEKOLAH TEKNIK SIPIL' at the top, 'NIM 30201403924' in the middle, and 'SUGIYANTORO' at the bottom. There is a small emblem on the right side of the stamp. A handwritten signature in black ink is written over the stamp.

Sugiyantoro

SURAT PERNYATAAN KEASLIAN

Yang bertanda tangan di bawah ini.

Nama Sugyantoro

NIM 30201403924

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UNPAPEL
SERIAL CAEF 20128172
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Sugyantoro

MOTTO

MOTTO:

أَلَمْ تَرَوْا أَنَّ اللَّهَ سَخَّرَ لَكُمْ مَّا فِي السَّمَوَاتِ وَمَا فِي الْأَرْضِ
وَأَسْبَغَ عَلَيْكُمْ نِعْمَهُ ظَهْرَةً وَبَاطِنَةً وَمِنَ النَّاسِ مَن يُجَادِلُ فِي اللَّهِ
بِغَيْرِ عِلْمٍ وَلَا هُدًى وَلَا كِتَابٍ مُّنبِئٍ ﴿٢٠﴾

20. Tidakkah kamu perhatikan sesungguhnya Allah telah menundukkan untuk (kepentingan)mu apa yang di langit dan apa yang di bumi dan menyempurnakan untukmu nikmat-Nya lahir dan batin. Dan di antara manusia ada yang membantah tentang (keesaan) Allah tanpa ilmu pengetahuan atau petunjuk dan tanpa Kitab yang memberi penerangan. (QS. Luqman: 20)

وَلِيَعْلَمَ الَّذِينَ أُوتُوا الْعِلْمَ أَنَّهُ الْحَقُّ مِن رَّبِّكَ فَيُؤْمِنُوا بِهِ
فَتُخَيِّتَ لَهُ قُلُوبَهُمْ وَإِنَّ اللَّهَ لَهَادٍ لِّلَّذِينَ ءَامَنُوا إِلَىٰ صِرَاطٍ مُّسْتَقِيمٍ
﴿٥٤﴾

54. dan agar orang-orang yang telah diberi ilmu, meyakini bahwasanya Al Quran itulah yang hak dari Tuhan-mu lalu mereka beriman dan tunduk hati mereka kepadanya dan sesungguhnya Allah adalah Pemberi Petunjuk bagi orang-orang yang beriman kepada jalan yang lurus. (QS. Al Hajj : 54)

"Harga kebaikan manusia adalah diukur menurut apa yang telah dilaksanakan atau diperbuatnya." (*Ali Bin Abi Thalib*)

“Sesuatu yang belum dikerjakan, seringkali tampak mustahil, kita baru yakin kalau kita telah berhasil melakukannya dengan baik.” (*Evelyn Underhill*)

DEDICATION

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

ACKNOWLEDGEMENTS

Alhamdulillahirabbil'alamin, upon *Ridho* and *Rahmat Allah Subhana Wa Ta'ala* this final assignment report with title “**Design of Upper Structure Cable Stayed Bridge**” can be completed.

Drafting of final assignment are one of academic requirements for college students of civil engineering UNISSULA to reach bachelor degree. By this final assignment, the college student can increase their knowledge and can practice their science.

On this opportunity let the drafter to thank to everyone who have helped drafter by power, thinking, costs, and advice. 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. H. Rahmat Mudiyo, M.T.,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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Semarang, January 2018

Dedi Setiyawan