

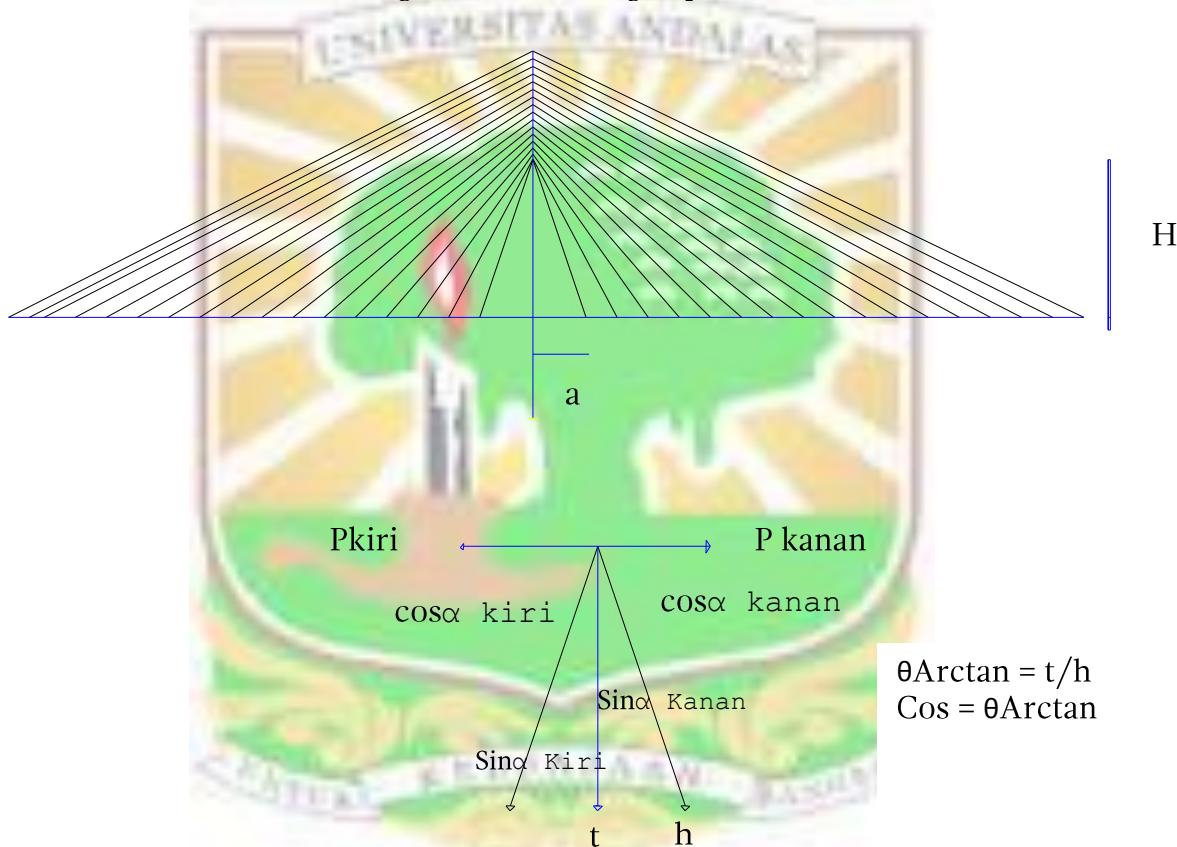
## DAFTAR PUSTAKA

- Aljami, Arif. (2015). Pengaruh Seismic Multi Support Excitation pada jembatan Integral. Universitas Andalas (skripsi).
- Bas, S., M. Apaydin, N., Harmandar, E. (2017). The Effect Multi – Support EratQuake Excitation On Seismic Performance of The Boshoporus Bridge. Conference on Earthquake Engineering, 16WCEE.
- Badan Meteorologi, Klimatologi dan Geofisika (2010). Gempa Bumi. Diakses 03 april 2017. <https://www.BMKG.go.id>
- Bambang, Dr.Ir. Supriyadi. (2007). Jembatan cetakan ke – IV. Yogyakarta. Penerbit Beta offset Jogjakarta 2007.
- CSI Bridge V15.00 (2015): Integrated 3D Bridge Design., Berkeley, CA, USA. [www.csiamerica.com](http://www.csiamerica.com).
- Hidayat, Irfan. (2011). Analisis Konstruksi Cable menggunakan Metode Cantilever (Studi Kasus Jembatan Suramadu). Universitas Indonesia (skripsi).
- Kartawijaya, Paulus. (2002): Synthetic Ground Motion Compatible With SNI:03:1726:2002
- Li, Jitao., Yang ,Qingshan. (2008). Seismic responses analysis of long continuous rigid-framed bridge subjected to multi-support excitations. *World Conference on Earthquake Engineering*
- NPTEL. Response Analysis for Multi Support Earthquake Excitation. <http://nptel.ac.in/courses/105101004/5> diakses: 03 April 2017 jam 12:00
- Masrilayanti, Masrilayanti., Kurniawan, Ruddy., Siregar, Zakpar. The Effects of Multi Support Excitation to Pylon of Cable Stayed Bridge (Case Study: Suramadu Bridge, Indonesia). ICDM 2018
- Masrilayanti. (2014). Pengaruh Multi Excitation Terhadap Jembatan Integral. Universitas Andalas 2014. (ACE Unand, 2014)

- Masrilayanti. (2013). The Behaviour of Integral Bridges under Vertical and Horizontal Earthquake Ground Motion. (Disertasi)
- Patel, Vivek ka., Panchal,R. Dr. V., Soni, P. Dr. D. (2017). Effect Of Multi Excitation on Seismic Behavior of TFPS – Isolated Cable Styed Bridge. Scientific Journal of Impact Factor (SJIF): 4.72
- Quan, W., Li , H.N., Liu, X.Z. (2008). Seismic Respon Of Large - Span Cable – Stayed Bridge Under Multi – Component Multi Support Eartquake Excitation. *World Conference on Earthquake Engineering*
- SAP 2000 V14.00 (2014): Integrated structural finite element analysis and design of structures. Computers and Structures Inc., Berkeley, CA, USA. [www.csiamerica.com](http://www.csiamerica.com).
- Seismosignal (2016). Seismosoft Earth Quake Engineering Sofware, Itali
- Setiawan, Herry. (2017). Jenis-jenis Jembatan  
<https://www.academia.edu/6332626/Jenis - jenis Jembatan HERRY SETIAWAN JAM 17>. Diakses pada 11- 04 -2017 jam 14:00
- SNI 1726:2012. (2012). Tata cara perencanaan ketahanan gempa untuk struktur bangunan gedung dan non gedung.
- SNI 2833-2008 (2008). Standar Perencanaan Gempa untuk Jembatan. Jakarta : Badan Standarisasi Nasional
- W. R. Clough., J. Penzien. (2003). Dynamics of Structures. ACI Structural Journal, Third Edition, Computers and Structures,Inc., Berkeley, pp. 598-603.
- Zamad, Kadri, Muhammad. (2017). Pengaruh Jembatan Kabel Pengantung terhadap Desain Elemen Kabel Jembatan Cable - Stayed (Study Kasus: Jembatan Suramadu). ITS surabaya (skripsi).

## LAMPIRAN 1

Perhitungan momen dengan pendekatan



1. Contoh titik 17

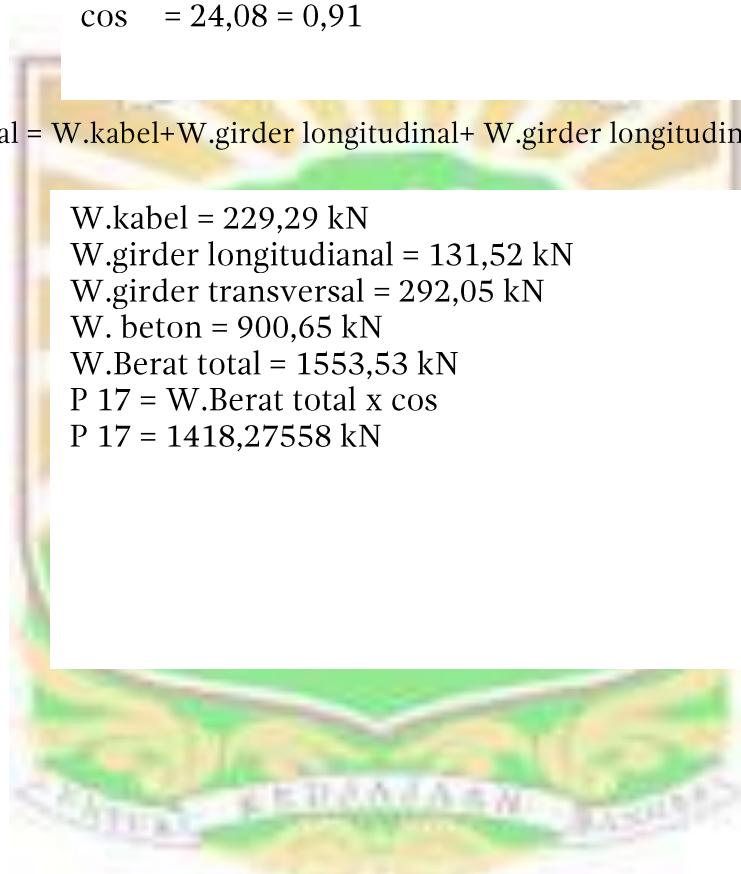
$$h = 226,6091 \text{ m}$$

$$t = 101,3 \text{ m}$$

$$\theta \operatorname{Arctan} = 101,3 / 226,6091$$

$$\theta \operatorname{Arctan} = 24,08$$

$$\cos = 24,08 = 0,91$$


$$W.\text{Berat total} = W.\text{kabel} + W.\text{girder longitudinal} + W.\text{girder longitudinal} + W.\text{Beton}$$

$$W.\text{kabel} = 229,29 \text{ kN}$$

$$W.\text{girder longitudanal} = 131,52 \text{ kN}$$

$$W.\text{girder transversal} = 292,05 \text{ kN}$$

$$W.\text{beton} = 900,65 \text{ kN}$$

$$W.\text{Berat total} = 1553,53 \text{ kN}$$

$$P_{17} = W.\text{Berat total} \times \cos$$

$$P_{17} = 1418,27558 \text{ kN}$$







#### Komparasi SAP 2000 dengan Manual

Frame	Momen (kNm)	Momen (kNm)	Persentasi Perbedaan %
-------	----------------	----------------	------------------------------

	Berat sendiri (SAP 2000 V14)		Berat sendiri Manual		Max	Min
	Max	Min	Max	Min		
71	77.637,71	-99.377,40	-103.165,04	79.311,9	10	10



