

# RESUME



## CONTACT INFORMATION:

NAME: : ASST. PROF. DR. WORATHEP SAE-LONG  
ADDRESS: : 18 CHANNIWATE 3 SOI 1  
HAT-YAI, HAT-YAI, SONGKHLA, THAILAND 90110  
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## PERSONAL DATA:

GENDER : MALE  
AGE : 34 YEARS OLD  
DATE OF BIRTH : OCTOBER 12, 1989  
PLACE OF BIRTH : HAT-YAI, SONGKHLA, THAILAND  
NATIONALITY : THAI  
RACE : THAI  
RELIGION : BUDDHISM  
HEIGHT : 174 cm  
WEIGHT : 63 kg  
MARITAL STATUS : SINGLE

## SPECIAL SKILLS:

LANGUAGES : **THAI** : Fluent In Speaking, Writing And Reading  
**ENGLISH** : Intermediate In Speaking, Writing And Reading

COMPUTING SKILLS : **MICROSOFT OFFICE**  
- Intermediate in Excel, Words and PowerPoint

**ADOBE**  
- Intermediate in Adobe Photoshop

**PROGRAMMING LANGUAGE**  
- Fortran90 and C++

**ENGINEERING SOFTWARES**  
- SAP 2000  
- AutoCAD  
- Midas Set  
- Mathematica  
- Winbeam

### **FINAL YEAR PROJECT**

- Precision of Compressive Strength of Concrete

### **FINAL YEAR THESIS**

- Finite Beam Element on Non-linear Two-parameter Foundation Model
- Reinforced Concrete Frame Element with Axial-Shear-Flexural Interaction under Cyclic Loading

### **RESEARCHER DATA:**

SCOPUS AUTHOR IDENTIFIER	:	55869577000
WEB OF SCIENCE RESEARCHER ID	:	ABG-6016-2020
ORCID	:	<a href="https://orcid.org/0000-0001-8149-4409">https://orcid.org/0000-0001-8149-4409</a>
H-INDEX	:	7 (2023)
CITATIONS	:	162 (SCOPUS, 2022)
WORLD SCIENTIST AND UNIVERSITY RANKINGS	:	61 (OF UNIVERSITY OF PHAYAO, 2023)
	:	3,495 (OF COUNTRY, 2023)
	:	228,461 (OF REGION, 2023)
	:	1,012,758 (OF WORLD, 2023)

### **NATIONAL**

#### **CONFERENCE:**

- **Sae-Long, W.**, Limkatanyu, S., Prachasaree, W., Damrongwiriyanupap, N., Kuntiyawichai, K. (2013). Natural stiffness matrix for bar with lateral interfaces: exact force-based derivation, Proceedings of the Eighteenth National Convention on Civil Engineering, 1, STR110-116.

### **INTERNATIONAL**

#### **CONFERENCES:**

- **Sae-Long, W.** (2013). Finite beam element on nonlinear Winkler-Pasternak foundation model. The 6<sup>th</sup> ASEAN Civil Engineering Conference and The 6<sup>th</sup> ASEAN Environmental Engineering Conference. Pathumwan Princess Hotel, Bangkok, Thailand, November 21-22, 2013.
- **Sae-Long, W.**, Limkatanyu, S. (2018). Shear model with shear-flexure interaction for non-linear analysis of reinforced concrete frame element. The 4<sup>th</sup> International Conference on Engineering, Applied Sciences and Technology (ICEAST 2018). Swissôtel Resort Phuket Patong Beach, Phuket, Thailand, July 4-7, 2018.
- **Sae-Long, W.**, Limkatanyu, S., Damrongwiriyanupap, N. (2021). Shear-flexure-interaction frame element inclusion of bond-slip effect for seismic analysis of non-ductile RC columns. 21<sup>st</sup> International Union of Materials Research Societies- International Conference in Asia (IUMRS-ICA 2020) & MRS-Thailand 2021. Faculty of Science, Chiang Mai University, Chiang Mai, Thailand, February 23-26, 2021 (Online).
- **Sae-Long, W.**, Limkatanyu, S., Damrongwiriyanupap, N. (2022). Shear-flexure interaction frame model on Kerr-type foundation for analysis of non-ductile RC members on foundation. The 3<sup>rd</sup> International Symposium on Construction Innovation Research & PhD Symposium (ISCIR 2022).

Walailak University, Nakorn Si Thammarat, Thailand, January 14-15, 2022 (Online).

**NATIONAL**  
**JOURNAL**  
**PUBLICATON:**

- **Sae-Long, W.**, Panedpojaman, P. (2015). Design strength comparison of cellular beam based on EN1993-1-1 and ANSI/AISC 360-10 codes. *UBU Engineering Journal*, **8**(2), 14-25.
- **Sae-Long, W.**, Panedpojaman, P., Damrongwiriyanupap, N., Limkatanyu, S., Chaimahawan, P., Janwaen, W., Buakla, A. (2021). A study of the increase in in-plane flexural capacity of cellular steel sections based on EN1993-1-1 and ANSI/AISC 360-10 codes. *RMUTI JOURNAL Science and Technology*, **14**(3), 1-17.

**INTERNATIONAL**  
**JOURNAL**  
**PUBLICATON:**

- Limkatanyu, S., Damrongwiriyanupap, N., Prachasaree, W., **Sae-Long, W.** (2013). Modeling of axially loaded nanowires embedded in elastic substrate media with inclusion of nonlocal and surface effects. *Journal of Nanomaterials*, Article ID 635428.
- Limkatanyu, S., **Sae-Long, W.**, Prachasaree, W., Kwon, M. (2015). Improved nonlinear displacement-based beam element on a two-parameter foundation. *European Journal of Environmental and Civil Engineering*, **19**(6), 649-671.
- Panedpojaman, P., **Sae-Long, W.**, Chub-Uppakarn, T. (2016). Cellular beam design for resistance to inelastic lateral-torsional buckling. *Thin-Walled Structures*, **99**, 182-194.
- **Sae-Long, W.**, Limkatanyu, S. (2018). Shear model with shear-flexure interaction for non-linear analysis of reinforced concrete frame element, *MATEC Web of Conferences*, 192, 02003.
- Limkatanyu, S., **Sae-Long, W.**, Horpibulsuk, S., Prachasaree, W., Damrongwiriyanupap, N. (2018). Flexural responses of nanobeams with coupled effects of nonlocality and surface energy. *ZAMM Zeitschrift fur Angewandte Mathematik und Mechanik*, **98**(10), 1771-1793.
- **Sae-Long, W.**, Limkatanyu, S., Prachasaree, W., Horpibulsuk, S., Panedpojaman, P. (2019). Nonlinear frame element with shear-flexure interaction for seismic analysis of non-ductile reinforced concrete columns. *International Journal of Concrete Structures and Materials*, **13**(1), Article No. 32.
- **Sae-Long, W.**, Limkatanyu, S., Prachasaree, W., Rungamornrat, J., Sukontasukkul, P. (2020). A Thermodynamics-based nonlocal bar-elastic substrate model with inclusion of surface-energy effect. *Journal of Nanomaterials*, Article ID 8276745.
- **Sae-Long, W.**, Limkatanyu, S., Horpibulsuk, S., Imjai, T., Kwon, M. (2020). Forced-based shear-flexure-interaction frame element for nonlinear analysis of non-ductile reinforced concrete columns. *Journal of Applied and Computational Mechanics*, **6**, 1151-1167.
- **Sae-Long, W.**, Limkatanyu, S., Rungamornrat, J., Prachasaree, W., Sukontasukkul, P., Sedighi, H.M. (2021). A rational beam-elastic substrate model with incorporation of beam-bulk nonlocality and surface-free energy. *European Physical Journal Plus*, **136**(1), Article No. 80.
- Damrongwiriyanupap, N., **Sae-Long, W.**, Limkatanyu, S., Xi, Y. (2021). Influence of associated cations on chloride ingress into concrete structures.

Engineering Journal, **25**(3), 51-60.

- **Sae-Long, W.**, Limkatanyu, S., Horpibulsuk, S., Prachasaree, W., Rungamornrat, J., Kwon, M. (2021). Nonlinear flexibility based beam element on Winkler Pasternak foundation. *Geomechanics and Engineering*, **24**(4), 371-388.

- Panedpojaman, P., **Sae-Long, W.**, Thepchatri, T. (2021). Design of cellular beam-columns about the major axis. *Engineering Structures*, **236**, Article No. 112060.

- **Sae-Long, W.**, Limkatanyu, S., Panedpojaman, P., Prachasaree, W., Damrongwiriyanupap, N., Kwon, M., Horpibulsuk, S. (2021). Nonlinear Winkler-based frame element with inclusion of shear-flexure interaction effect for analysis of non-ductile RC members on foundation. *Journal of Applied and Computational Mechanics*, **7**(1), 148-164.

- **Sae-Long, W.**, Limkatanyu, S., Sukontasukkul, P., Damrongwiriyanupap, N., Rungamornrat, J., Prachasaree, W. (2021). Fourth-order strain gradient bar-substrate model with nonlocal and surface effects for the analysis of nanowires embedded in substrate media. *Facta Universitatis, Series: Mechanical Engineering*, **19**(4), 657-680.

- Imjai, T., Setkit, M., Figueiredo, F.P., Garcia, R., **Sae-Long, W.**, Limkatanyu, S. (2022). Experimental and numerical investigation on low-strength RC beams strengthened with side or bottom near surface mounted FRP rods. *Structure and Infrastructure Engineering*.

- **Sae-Long, W.**, Limkatanyu, S., Damrongwiriyanupap, N. (2022). Shear-flexure-interaction frame element inclusion of bond-slip effect for seismic analysis of non-ductile RC columns. *Chiang Mai Journal of Science*, **49**(1), 14-26.

- Limkatanyu, S., **Sae-Long, W.**, Damrongwiriyanupap, N., Imjai, T., Chaimahawan, P., Sukontasukkul, P. (2022). Shear-flexure interaction frame model on Kerr-type foundation for analysis of non-ductile RC members on foundation. *Journal of Applied and Computational Mechanics*, **8**(3), 1076-1090.

- Limkatanyu, S., **Sae-Long, W.**, Sedighi, H.M., Rungamornrat, J., Sukontasukkul, P., Prachasaree, W., Imjai, T. (2022). Strain-gradient bar-elastic substrate model with surface-energy effect: Virtual-force approach. *Nanomaterials*, **12**(3), Article No. 375.

- Limkatanyu, S., **Sae-Long, W.**, Sedighi, H.M., Rungamornrat, J., Sukontasukkul, P., Imjai, T., Zhang, H. (2022). Static and free vibration analyses of single-walled carbon nanotube (SWCNT)–substrate medium systems. *Nanomaterials*, **12**(10), Article No. 1740.

- Damrongwiriyanupap, N., Srikkhama, T., Plongkrathok, C., Phoongernkham, T., **Sae-Long, W.**, Hanjitsuwan, S., Sukontasukkul, P., Li, L.-Y., Chindaprasirt, P. (2022). Assessment of equivalent substrate stiffness and mechanical properties of sustainable alkali-activated concrete containing recycled concrete aggregate. *Case Studies in Construction Materials*, **16**, Article No. e00982.

- **Sae-Long, W.**, Limkatanyu, S., Damrongwiriyanupap, N., Imjai, T., Sukontasukkul, P., Kwon, M., Horpibulsuk, S. (2022). Finite beam element

based on the strain-driven model for analyses of nanobeams on substrate media. Suranaree Journal of Science and Technology, **29**(5), 010162.

- Lai, V.Q., Sangjinda, K., Keawsawasvong, S., Eskandarinejad, A., Chauhan, V.B., **Sae-Long, W.**, Limkatanyu, S. (2022). A machine learning regression approach for predicting the bearing capacity of a strip footing on rock mass under inclined and eccentric load. *Frontiers in Built Environment*, **8**, Article No. 962331.

- Sukontasukkul, P., Maho, B., Khomkum, S., Pianfuengfoo, S., Zhang, H., Yoo, D., Tangchirapat, W., **Sae-Long, W.**, Limkatanyu, S. (2022). New technique to determine initial printable time of 3d printing fiber cement mortar. *SSRN Electronic Journal (Preprints)*.

- Limkatanyu, S., **Sae-Long, W.**, Rungamornrat, J., Buachart, C., Sukontasukkul, P., Keawsawasvong, S., Chindaprasirt, P. (2022). Bending, buckling and free vibration analyses of nanobeam-substrate medium systems. *Facta Universitatis, Series: Mechanical Engineering*, **20**(3), 561-587.

- Limkatanyu, S., **Sae-Long, W.**, Damrongwiriyapap, N., Sukontasukkul, P., Imjai, T., Chompoorat, T., Hansapinyo, C. (2023). Nonlinear shear-flexure-interaction RC frame element on Winkler-Pasternak foundation. *Geomechanics and Engineering*, **32**(1), 69-84.

- Limkatanyu, S., **Sae-Long, W.**, Sedighi, H.M., Rungamornrat, J., Sukontasukkul, P., Zhang, H., Chindaprasirt, P. (2023). Flexibility-based stress-driven nonlocal frame element: formulation and applications. *Engineering with Computers*, **39**(1), 399-417.

- Lai, V.Q., Jitchaijaroen, W., Keawsawasvong, S., Chavda, J.T., **Sae-Long, W.**, Limkatanyu, S. (2023). Application of ANN and FELA for predicting bearing capacity of shell foundations on sand. *International Journal of Geosynthetics and Ground Engineering*, **9**(2), Article No. 18.

**BOOK CHAPTER:**

- Panedpojaman, P., **Sae-Long, W.** (2015). Accuracy of available methods to evaluate Vierendeel failure load. In book: *Transactions on Engineering Technologies*.

- **Sae-Long, W.**, Limkatanyu, S. (2023). Shear and mathematical models for structural analysis based on finite element method. In book: *Recent Development for Designing Concrete Structures in Shear*, Thailand Concrete Association.

### **EMPLOYMENT HISTORY: (TRAINING)**

MAR. 2011 – MAY. 2011 : **FEDERAL CONSULTING ENGINEER (THAILAND) CO., LTD.**  
11/10, SUKONTHACHAT SOI, SUKHUMVIT ROAD., BANG CHAK.,  
PHRA KHANONG, BANGKOK, 10260

POSITION : **CONSULT ENGINEER**

RESPONSIBILITY : **IN THE AREA OF OFFSHORE SERVICES**

- Check mistake in the site and suggest the correct method to worker
- Estimate plan
- Contract and coordinate site engineering
- Surveying

### **EMPLOYMENT HISTORY:**

FEB. 2015 – MAY. 2015 : **TEAM GROUP (THAILAND) CO., LTD.**  
TEAM BUILDING, 151 NUAN CHAN ROAD, NUAN CHAN,  
BUENG KUM, BANGKOK, 10230

POSITION : **DESIGN ENGINEER**

RESPONSIBILITY : **IN THE AREA OF DESIGN SERVICES**

- Design bridge structures
- Estimate plan

JUL. 2020 – PRESENT : **SCHOOL OF ENGINEERING, UNIVERSITY OF PHAYAO**  
19, MAE KA, MUEANG PHAYAO DISTRICT,  
PHAYAO, 56000

POSITION : **LECTURER**

RESPONSIBILITY : **IN THE AREA OF ACADEMIC**

- Lecturer of Engineering Statics (Bachelor's degree)
- Lecturer of Concrete Technology (Bachelor's degree)
- Lecturer of Strength of Materials (Bachelor's degree)
- Lecturer of Applied Mathematics in Civil Engineering (Bachelor's degree)
- Lecturer of Structural Analysis I (Bachelor's degree)
- Lecturer of Structural Analysis II (Bachelor's degree)
- Lecturer of Advanced Mathematics for Civil Engineers (Master's degree)

**IN THE AREA OF RESEARCH**

- Chief Editor of The 27<sup>th</sup> National Convention on Civil Engineering (NCCE27)
- Reviewer of RMUTI JOURNAL Science and Technology
- Reviewer of Construction and Building Materials
- Reviewer of Arab Journal of Basic and Applied Sciences

### **BOOK AND LECTURE NOTE:**

- Sae-Long, W. (2023). Advanced Mathematics for Civil Engineers: Lecture Note 263710. Civil Engineering Program, School of Engineering, University of Phayao.
- Sae-Long, W. (2023). Structure analysis I: Lecture Note 263213. Civil Engineering Program, School of Engineering, University of Phayao.

- Sae-Long, W. (2022). Strength of Materials. 1<sup>st</sup> Ed., Hadyai, Songkla, Thailand, 90110: Faculty of Engineering (In Thai).

### **THE PREVIOUS ACADEMIC WORKS AND ACADEMIC SERVICES:**

- Teacher assistant and tutor in structure analysis, engineering mechanics, and matrix analysis
- Creator the computer software for cellular beam design of Siam Yamato Steel Company Limited
- Structural design
  - Design of prefabricated water tank, April 2014
  - Prelimdesign roof, December 2014
  - Beam design for the factory in Hatyai, December 2014
  - Roof design of soccer field in Hatyai, January 2016
  - Roof design, October 2016
  - Redesign steel structure of bridge, December 2016
  - Design of steel structures for thermal oil main supply, August 2017
  - Fish pond design for ManA CP, November 2018
  - Flat slab design for Prince of Songkla hospital, June 2019
  - Redesign joint of structures, November 2019
  - Retaining wall design, December 2019
  - Redesign 7 Floor building in Hatyai, February 2020
- Building evaluations
  - Residences in Hatyai, April 2014
  - Market in Phatthalung, November 2014
  - Hotal in Phuket, November 2015
  - Recheck footing, November 2017
  - Harbor at Phangnga, May 2018
  - Multi-purpose building for Thaksin University, August 2018
  - Harbor at Songkhla, May 2019
  - Power plant at Sadao, December 2019
  - College building in Thaksin University, February 2020
  - Wind turbine structures, February 2020
- Evaluation of the burned building structures
  - Store in Hatyai, February 2014

- Department store in Hatyai, March 2014
- Commercial building in Hatyai, May 2016
- Residences in Hatyai, June 2016
- Book store in Hatyai, February 2020

**EDUCATION BACKGROUND:**

- AUG. 2015 – JUN. 2019 : **PRINCE OF SONGKLA UNIVERSITY**  
DOCTOR'S DEGREE OF STRUCTURAL CIVIL ENGINEERING
- JUN. 2012 – MAR. 2014 : **PRINCE OF SONGKLA UNIVERSITY**  
MASTER OF STRUCTURAL CIVIL ENGINEERING
- JUN. 2009 – MAR. 2012 : **PRINCE OF SONGKLA UNIVERSITY**  
BACHELOR OF CIVIL ENGINEERING
- OCT. 2006 – FEB. 2009 : **SAENGTHONG VITTHAYA**  
HIGH SCHOOL

**REWARD:**

- 2014 : **FACULTY OF ENGINEERING, PRINCE OF SONGKLA UNIVERSITY**  
- The Best Master Thesis

**ACTIVITIES AND ORGANIZATIONS:**

- JAN. 2009 – OCT. 2011 : **SCG HIGH STRENGTH CONCRETE CONTEST**  
- A head member to join proceedings of the eleven and twelve target strength of concrete contest SCG 2009&2011
- OCT. 2008 – APR. 2009 : **THE MEMBER OF STUDENTS**  
- Participate in organizing Christmas carol 2008  
- A member of committee students 2008

**HOBBIES AND INTERESTS:**

Individual and groups sports (e.g. table tennis, football, badminton, and jogging), Playing music, Online social networking and gaming.

**REFERENCES:**

- NAME : PROF. DR. SUCHART LIMKATANYU  
POSITION : LECTURER OF PRINCE OF SONGKLA UNIVERSITY  
E-MAIL : suchart.l@psu.ac.th  
CONTACT NUMBER : 089-876-3556
- NAME : ASSOC. PROF. DR. PATTAMAD PANEDPOJAMAN  
POSITION : LECTURER OF PRINCE OF SONGKLA UNIVERSITY  
E-MAIL : p.pattamad@yahoo.com  
CONTACT NUMBER : 086-597-1834