CURRICULUM VITAE

Dr. Nabilah bt. Abu Bakar
Department of Civil Engineering,
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Education

1. PhD Structural Engineering, 2015, National University of Singapore, Singapore
2. MSc Structural Engineering, 2008, Purdue University, USA
3. BEng (Hons) Civil Engineering, 2005, Universiti Teknologi Petronas, Malaysia

Areas of Interest

1. Seismic Hazard Analysis
2. Finite Element Analysis
3. Structural Analysis and Testing

ProfessionalQualification/Membership/Affiliation

1. Member, Board of Engineers Malaysia (BEM)
2. Member, Institution of Engineers Malaysia (IEM)

Appointments

Position	Duration
1. Senior Lecturer, Civil Engineering Department, Faculty of Eng., UPM	2015 to date
2. Tutor, Civil Engineering Department, Faculty of Engineering, UPM	2010 to 2015

Publications

Journals

1. Nadeem G., Safiee N.A., **Bakar N.A.**, Karim I.A., Nasir N.A.M. (2021). Connection design in modular steel construction: A review. Structures, V33, pp. 3239-3256. (https://doi.org/10.1016/j.istruc.2021.06.060)
2. Loqman N., Safiee N.A., Kah W.H., **Bakar N.A.** & Nasir N.A.M (2021). Behaviour of interlocking concrete slab and steel composite beam incorporated bolt shear connector. Australian Journal of Structural Engineering, V22(3). (https://doi.org/10.1080/13287982.2021.1957553)
3. Saleh Salem Beshr B., Abdul Mohaimen I.M., Noor Azline M.N., Nor Azizi S., **Nabilah A.B.**, and Farah Nora Aznieta A.A. (2021). Feasibility assessment on self-healing ability of cementitious composites with MgO. Journal of Building Engineering 34. (https://doi.org/10.1016/j.jobe.2020.101914)
4. Mohd Nasir N.A., **Abu Bakar N.**, Safiee N.A., and Abdul Aziz F.N.A. (2021). Permeation-durability properties of metakaolin blended concrete containing rubber. European Journal of Environmental and Civil Engineering, 1-16. (https://doi.org/10.1080/19648189.2021.1885499)
5. Midhin A.K., **Nabilah A.B.**, Nasir N.A.M., and Safiee N.A. (2020). Bond behaviour in rubberised concrete filled circular steel tubes. International Journal of Structural Engineering 10 (4), 293-306. (DOI: 10.1504/IJSTRUCTE.2020.109850)
6. **Nabilah A.B.**, Koh, C.G., Izian, A.K., and Abd. Aziz, F.N.A. (2020). Development of Finite Element Analysis for Intermediate Length Coupling Beams Considering Bond-Slip Interface. International Journal of Concrete Structures and Materials 14(1),33. (DOI: 10.1186/s40069-020-00409-w)
7. **Nabilah A.B.**, Koh, C.G., Safiee, N.A., and Mohd. Nasir, N.A. (2020). Analysis of conventionally reinforced coupling beams using non-linear strut and tie model. Proceedings of the Institution of Civil Engineers - Structures and Buildings, 173(6), pp. 429-439. (DOI: 10.1680/jstbu.18.00095)

8. **Nabilah A.B.**, Noaman N.M.R., Nasir N.A.M., and Safiee N.A. (2019). Experimental evaluation of flexural behaviour of rubberized concrete beam. Asian Journal of Civil Engineering, 20(7), 999-1005. (DOI: 10.1007/s42107-019-00159-5)
9. **Nabilah, A.B.**, Koh, C.G., Safiee N.A., and Nik Daud, N.N. (2019). Effect of Flexible Soil in Seismic Hazard Assessment for Structural Design in Kuala Lumpur. International Journal of Geotechnical Earthquake Engineering, 10(1), pp. 30-42. (DOI: 10.4018/IJGEE.2019010103)
10. Bida, S.M., Aziz, F.N.A.A., Jaafar, M.S., Hejazi, F., and **Nabilah, A.B.** (2019). Efficient structural sandwich wall panels devoid of thermal bridges. Lecture Notes in Civil Engineering. 9, pp. 59-67. (DOI: 10.1007/978-981-10-8016-6_6)
11. Safiee, N.A., Mohd Nasir, N.A., Ashour, A.F., and **Abu Bakar, N.** (2018). Behaviour of interlocking mortarless hollow block walls under in-plane loading. Australian Journal of Structural Engineering. 19(2), pp. 87-95. (DOI: 10.1080/13287982.2018.1433489)
12. **Nabilah, A.B.**, Koh, C.G., Safiee, N.A., and Nik Daud, N.N. (2017). Site specific seismic hazard assessment for Kuala Lumpur and vicinity from long distance earthquake. International Journal of Civil Engineering and Geo-Environmental (Special Publication for NCWE2017) (ISSN:21802742)
13. **Nabilah, A.B.**, and Koh, C.G. (2017). Experimental study of intermediate length coupling beams subjected to monotonic load. KSCE J Civ Eng, 21: 2807. (DOI: 10.1007/s12205-017-1185-6)
14. **Nabilah A.B.** and Balendra T. (2012) Seismic Hazard Analysis for Kuala Lumpur, Malaysia. Journal of Earthquake Engineering, 16, pp. 1076-1094. (DOI: 10.1080/13632469.2012.685208)

Conference Proceedings (30 recent Conference Proceedings)

1. Al-Gabri, B.N.A., **Nabilah, A.B.**, Abdul Aziz, F.N.A., and Karim, I.A. (2019). Numerical analysis of out-of-plane deformation of shear wall. IOP Conference Series: Earth and Environmental Science, 357(1),012001.
2. Abuzaid, O., **Nabilah, A.B.**, Safiee, N.A., and Noor Azline, M.N. (2019) Rubberized concrete filled steel tube. IOP Conference Series: Earth and Environmental Science. 357(1),012014
3. Nazari, S.A.A., **Nabilah, A.B.** and Abd Aziz, F.N.A. (2018). Appraisal of existing lateral load resisting mechanisms for medium rise building in non-seismic region. IOP Conference Series: Materials Science and Engineering 431(12),122004.
4. Bida S.M., Aziz F.N.A.A., Jaafar M.S., Hejazi F., **Bakar N.A.** (2017). Efficient structural sandwich panels devoid of thermal bridges. Global Civil Engineering Conference. 25-28th July 2017, Kuala Lumpur, Malaysia.
5. **Nabilah A.B.**, Koh C.G., Safiee N.A. and Nik Daud N.N. (2017). Site specific seismic hazard assessment for Kuala Lumpur and Selangor areas. 1st National Colloquium on Wind and Earthquake Engineering. January 13-14th, Pahang, Malaysia.
6. Koh C.G., **Nabilah A.B.**, Tay C.G. and Balendra T. (2015). Consideration of Sumatra Earthquakes for Seismic Design in Singapore. 2-Day International Seminar and Workshop on Presentation and Reviewing of the Draft Malaysian N.A. for EC8. 9-10th February 2015, Kuala Lumpur, Malaysia.
7. **Nabilah A.B.** and Koh C.G. (2013). Non-linear Strut and Tie Model for Short and Intermediate Length Link Beams. The 26th KKHTCNN Symposium on Civil Engineering. November 18-20th, 2013, Singapore.
8. Bokharey, S.K.B.S.A., Vallyutham, K., Potty, N.S. and **Bakar, N.A.** (2010). Risks and mitigation measures in build-operate-transfer projects. World Academy of Science, Engineering and Technology 63, pp. 217-223.
9. **Bakar N.**, Wahab M.M., Kamarudin N. and Vallyutham K. (2010). Comparative Study on Behavior of Self Compacting Concrete under Static Load at Different Loading Rate. International Conference on Sustainable Building & Infrastructure 2010.
10. Vallyutham K., Kurian V.J., Narayanan S.P., Liew M.S. and **Bakar N.** (2010). Prediction of Buckling Load of Steel Racking Frame Using Non Destructive Method. 4th International Conference on Steel & Composite Structures, Sidney, Australia, ICSCS '10.
11. **Bakar N.**, Fa L.W., Saiedi S. and Shafiq N. (2009). Parametric Study of the Impacts of Service Core in High Rise Building, AWAM 2009.
12. Saiedi S. and **Bakar, N.** (2009), Statistical River Flood Estimation for the Wettest State of Peninsular Malaysia, ICWR 2009.
13. Behnam P., **Bakar N.**, Choon G. and Saiedi S. (2008). Response of a Tall Building to Wind Loadings; A Malaysian Case Study, CONCET 2008.

Research Grants				
No	**Project Title**	**Amount (RM)**	**Year**	**Source**
1.	Feasibility study and formulation of blended geopolymer based binder for alternative mortar material (Co-researcher)	97,500	2020-2022	FRGS
2.	Numerical and experimental evaluation of thin fibre reinforced concrete as shell element based on bond slip interaction (Leader)	89,500	2019-2021	FRGS
3.	Ultimate Strength of Ductile Engineered Cementitious Concrete-filled Double Skin Steel Tubular (CFDT) Elements Subject to Loading and Chloride Corrosion (Co-researcher)	86,000	2019-2020	FRGS
4.	Investigation on the fundamental behavior through stress flow mitigation of a new proposed flexible socket steel connection for modular steel building (Co-researcher)	82,000	2019-2021	FRGS
5.	Investigation of Out-Of-Plane Buckling of Slender Reinforced Concrete Shear Wall Designed in Non-Seismic Region (Leader)	60,000	2016-2019	Geran Putra, UPM
6.	Mooring Line Responses for Semi-Submersible type Floating Platforms in Deepwater	20,000	2009-2010	STIRF, UTP
7.	Seismic Performance of Lightly Reinforced Low Rise Concrete Building Subjected to a Far Field Earthquakes	20,000	2008-2009	STIRF, UTP

Professional Services/Consultation				
No	**Year**	**Title**	**Authority**	**Amount (** RM)
1.	2006	Pergau Dam Project, Kelantan, Malaysia - Conducting physical modeling of eroded re-regulating pond located at the downstream section of the dam	TNB	345,000