Husam Alsanat

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PROFESSIONAL EXPERIENCE

March 2025 – Present	 Associate Professor in Structural Engineering (Full-time). Department of Civil Engineering, School of Engineering, Al-Hussein Bin Talal (AHU) University, Ma'an, Jordan.
Sep. 2021 – Sep. 2023	Dean Assistant for Quality Assurance (Full-time).
	 College of Engineering, Al-Hussein Bin Talal University. Member of the Higher Committee for Qualifications Placement, Al-Hussein Bin Talal University, under the National Qualifications Framework.
March 2020 – March 2025	 Assistant Professor in Structural Engineering (Full-time). Department of Civil Engineering, School of Engineering, Al-Hussein Bin Talal (AHU) University, Ma'an, Jordan.
May 2013 - March 2014	Structural Engineer (Full-time). Consolidated Consultant Group, Jordan.
	• Worked with the technical/engineering staff on reviewing plans, specifications and schedules, under the supervision of a Licensed Professional Engineer
	• Prepared technical writing reports, assisted with reviewing submittals, shop drawings and technical reports received from various projects, under the supervision of a Licensed Professional Engineer
	• Assisted with reviewing various engineering concepts/ safety regulations pertaining to specific projects and construction activities, under the supervision of a Licensed Professional Engineer
	• Participated in actual field progress and coordination; as well as in coordination meetings with various utility companies,

railroad companies, City representatives and services on various projects

EDUCATION

Sep. 2016 – Sep. 2019	Doctoral of Philosophy in Structural Engineering Griffith University, Gold Coast, Australia.
	<u>Thesis Title</u> Bearing Behaviour of Aluminium Lipped Channel Sections This project is supported by Permalite Building Components Pty Ltd.
June 2014 - June 2016	Master of Engineering with Advanced Studies (Structural & Geotechnical Engineering) Griffith University, Australia
	GPA: 6.1 (scale of 1-7, 7 highest) Griffith Award for Academic Excellence in 2015/16
	Key Projects
	• <i>Punching Shear Study on reinforced concrete slab with</i> <i>Opening</i> – Final thesis (25% credit points of the degree and a high distinction grade (7/7)was received)
	• <i>Steel Structure Design Project</i> – Worked effectively with other students to design a steel structure according to the Australian Standards, receiving the distinction grade.
	• <i>Concrete Structure Design Project</i> – Designed a concrete structure with prestressed concrete slabs according to the Australian Standards, receiving a high distinction grade.
March 2008 -May 2012	Bachelor of Civil Engineering Al-hussein Bin Talal University, Jordan
	GPA: 84.7% (scale of 1-100, 100 highest) Distinction grade
	<u>Key Project</u>
	• Joint Design Project – Worked effectively within an interdisciplinary team, architecture and civil engineering students, presenting a design that was shortlisted to win the course prize
PUBLICATIONS	

• Albdour, M. S., Alhomaidat, F., Alrsai, M., **Alsanat, H.**, & Al-Zaidyeen, S. M. (2024). Proposal for zero energy housing

designs in Jordan. Energy, Sustainability and Society, 14(1), 53.

- Alrsai, M., Karampour, H., **Alsanat, H**., Guan, H., & Lin, H. (2024). Experimental and analytical evaluation of the performance of hybrid steel-CFRP pipelines at high external pressures. Engineering Structures, 304, 117669.
- Thirunavukkarasu, K., Alsanat, H., Poologanathan, K., Gunalan, S., Gatheeshgar, P., Kanthasamy, E., & Higgins, C. (2024, January). Web crippling behaviour of sigma sections under end two flange loading–Numerical investigation. In Structures (Vol. 59, p. 105765). Elsevier.
- Alsanat, H., Gunalan, S., Gatheeshgar, P., Alrsai, M., & Poologanathan, K. (2023). Web crippling investigation of perforated aluminium lipped channels under interior-two-flange loading condition. Thin-Walled Structures, 192, 111153.
- Thirunavukkarasu, K., Alsanat, H., Poologanathan, K., Shanmuganathan, G., Perampalam, G., Kanthsamy, E., ... & Higgins, C. (2023). Web crippling behaviour and design of aluminium SupaCee sections. ce/papers, 6(3-4), 930-935.
- Kanthasamy, E., Alsanat, H., Poologanathan, K., Gatheeshgar, P., Corradi, M., Thirunavukkarasu, K., & Dissanayake, M. (2022). Web crippling behaviour of coldformed high strength steel unlipped channel beams. Buildings, 12(3), 291.
- Thirunavukkarasu, K., Alsanat, H., Poologanathan, K., Shanmuganathan, G., Perampalam, G., Kanthsamy, E., & Higgins, C. (2023). Design of aluminium Sigma sections for web crippling behaviour under Interior Two Flange (ITF) load case. ce/papers, 6(3-4), 627-632.
- Kanthasamy, E., b., Poologanathan, K., Gatheeshgar, P., Corradi, M., Rahman, M., & Thirunavukkarasu, K. (2023). Web Crippling Behaviour of Cold-Formed High-Strength Steel Unlipped Channel Beams Under Interior-Two-Flange Load Case. International Journal of Steel Structures, 23(4), 914-928.
- Alrsai, M., Karampour, H., & **Alsanat, H**. (2022). Collapse failure of textured subsea pipeline under external pressure; numerical and parametric study. Ocean Engineering, 266, 112993.
- Alrsai, M., Karampour, H., & Alsanat, H. (2022, June). Experimental observations on collapse mechanisms of faceted subsea pipeline. In ISOPE International Ocean and Polar Engineering Conference (pp. ISOPE-I). ISOPE.

- Alsanat, H., Gunalan, S., Gatheeshgar, P., Poologanathan, K., & Thabet, A. M. (2022). Design of roll-formed aluminium lipped channel sections with web opening subjected to web crippling under end-two-flange load case. Journal of Building Engineering, 48, 103887.
- Kanthasamy, E., Alsanat, H., Poologanathan, K., Gatheeshgar, P., Corradi, M., Thirunavukkarasu, K., & Dissanayake, M. (2022). Web crippling behaviour of coldformed high strength steel unlipped channel beams. Buildings, 12(3), 291.
- Gatheeshgar, P., **Alsanat, H**., Poologanathan, K., Gunalan, S., Degtyareva, N., & Hajirasouliha, I. (2022). Web crippling behaviour of slotted perforated cold-formed steel channels: IOF load case. Journal of Constructional Steel Research, 188, 106974.
- Gatheeshgar, P., **Alsanat, H**., Poologanathan, K., Gunalan, S., Degtyareva, N., Wanniarachchi, S., & Fareed, I. (2021). Web crippling of slotted perforated Cold-Formed Steel channels under EOF load case: Simulation and design. Journal of Building Engineering, 44, 103306.
- Alsanat, H., Gunalan, S., Poologanathan, K., & Guan, H. (2021, October). Web crippling capacities of fastened aluminium lipped channel sections subjected to one-flange loading conditions. In Structures (Vol. 33, pp. 1754-1763). Elsevier.
- Alsanat, H., Gunalan, S., Poologanathan, K., & Guan, H. (2021). Web crippling investigations of aluminium lipped channel sections under one-flange loading conditions. Thin-Walled Structures, 166, 108025.
- Mostafa, A., Sanchez, D. G. S., Sirach, N., Padilla, R. V., & Alsanat, H. (2021, August). Analytical, numerical and experimental analysis of the creep behaviour of polyethylene polymers. In International Conference on Numerical Modelling in Engineering (pp. 49-80). Singapore: Springer Singapore.
- Alsanat, H. Gunalan, S. Guan, H. Keerthan, P. and Bull J. (2019), Experimental study of aluminium lipped channel sections subjected to web crippling under two flange load cases, Thin-Walled Structures, Vol. 141, pp. 460-476.
- Alsanat, H. Gunalan, S. Keerthan, P. Guan, H. and Tsavdaridis, KD. (2019), Web crippling behaviour and design of aluminium lipped channel sections under two flange loading conditions, Thin-Walled Structures, Vol. 144, pp.106265.
- Alsanat, H. Gunalan, S. Keerthan, P. Guan, H. and Baniotopoulos, C. (2019), Fastened Aluminium Lipped

Channel Sections Subjected to Web Crippling under Two-Flange Loading Conditions - Experimental Study, Journal of Structural Engineering. (Accepted on August 9th 2019, in press)

- Alsanat, H. Gunalan, S. Keerthan, P. Guan, H., Tsavdaridis KD. Numerical investigation of web crippling in fastened aluminium lipped channel sections under two-flange loading conditions, Structures. (Accepted on October 20th 2019, in press)
- Alsanat, H. Gunalan, S. Keerthan, P. Guan, H., Tsavdaridis KD. (2019), Web crippling investigations for unfastened aluminium lipped channel sections under one-flange loading conditions, Thin-walled Structures. (Submitted in October 3th 2019).
- Alsanat, H. Gunalan, S. Keerthan, P. Guan, H., Tsavdaridis KD. (2020), bearing behaviour and design for fastened aluminium lipped channel sections under one-flange loading conditions, Engineering Structures. (under preparation, will be submitted early 2020).
- Alsanat, H. Gunalan, S. Keerthan, P. Guan, H. and Baniotopoulos, C. (2019), Web crippling behaviour of fastened aluminium lipped channel sections. 9th International Conference on Steel and Aluminium Structures (ICSAS19), Bradford, UK, ID 187.
- Alsanat, H. Gunalan, S. and Guan, H. (2018), Numerical study on aluminium lipped channel sections subjected two web crippling under two-flange loading conditions, 25th Australasian Conference on Mechanics of Structures and Materials, Brisbane, Australia, ID P108.
- Alsanat, H., Gunalan, S. and Guan, H. (2018), Web crippling behaviour and design of aluminium lipped channel sections under two flange loading conditions, Eighth International Conference on Thin-Walled Structures ICTWS18, Lisbon, Portugal, ID 26.

TEACHING & TUTORING EXPERIENCE

- Mechanics of materials course (Outstanding Contribution to Teaching Award (2019) was gained)
- Structural analyses
- Steel structures
- Engineering Mathematics, Engineering science and concrete design courses

PROFESSIONAL & TECHNICAL SKILLS

- Excellent networking, teamwork and leadership skills; gained through working with Consolidated Consultant Group -Jordan
- Excellent Project management skills developed throughout my work and university studies
- Highly developed analytical, research and problem-solving skills; developed throughout university research projects.
- Proficient in the use of structural analysis programs (SPACE GASS, and ETABS), modelling (ABAQUS) and AutoCAD (high skills in both 2D and 3D)

PROFESSIONAL CONFERENCES & TRAINING

- The Second Inaugural Australian Young Researchers' Conference, Queensland University of Technology, Australia - December 11, 2018 (presenting)
- The Inaugural Australian Young Researchers' Conference, University of Queensland, Australia - December 8, 2017 (presenting)
- The Thirteen Creative Students Conference, Arab Students and Modern Global Scene by (A.C.T.S.A.U)", win the second prize-2009 (presenting)
- The Twelve Creative Students Conference, Arab Students and Modern Global Scene by (A.C.T.S.A.U), win the second prize-2008 (presenting)
- The queen Alia competition for community work "Design a Creative Green Building with (GTZ)"

MEMBERSHIPS

- Cities Research Institute– Australia, 2016 present
- JEA, Jordan Engineers Association, 2012 Present
- EWB, Engineers Without Borders Griffith University, 2014 - Present

REFEREES

- **Professor Hong Guan** Head of Civil Engineering School of Engineering and Built Environment Griffith University Gold Coast, Australia Email: h.guan@griffith.edu.au Phone: +617555 28708
- Dr Shanmuganathan Gunalan Senior Lecturer School of Engineering and Built Environment Griffith University Gold Coast, Australia Email: s.gunalan@griffith.edu. Phone: +617373 57530