

Curriculum Vitae

1. PERSONAL BACKGROUNDS

- **Name:** Rafea Dakhil Hussein
- **Date of Birth:** 01/07/1981
- **Place of Birth:** Khider City, Al-Muthanna Province, Iraq
- **Marital Status:** Married
- **Blood Type:** O⁺
- **Present Position:** Lecturer, Chemical Engineering Department, College of Engineering, AL-Muthanna University, Iraq
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2. QUALIFICATIONS

- PhD in Mechanical Engineering, Swinburne University of Technology, Australia, 2017.
- MEng in Applied Mechanics, Kufa University, Iraq, 2007.
- BSc in Mechanical Engineering, Kufa University, Iraq, 2003.

3. RESEARCH INTERESTS

- Crashworthiness of materials and structures
- Impact mechanics
- Energy absorption of lightweight structures

4. EMPLOYMENT HISTORY

- **April 2006 - June 2006:** I worked as a project engineer in Al-Khider Reverse Osmosis water treatment plant, Al-Muthanna province, Iraq.
- **June 2006 - March 2008:** I worked as a manager of AL-Dragy water treatment office in Al-Muthanna province which was included seven water treatment plants and three Reverse Osmosis water treatment plants.
- A supervising engineer of supplying and installing water treatment plants in Azam Village, Al-Hueshely Village and Al-Dragy City in Iraq with water supply capacities of 50 m³/hr, 50 m³/hr and 100 m³/hr respectively.

- A supervising Engineer for maintenance water networks in Al-Khider and AL-Dragy cities.
- **April 2008 - September 2008:** I resigned from water treatment office to work as a lecturer in Faculty of Science at Al-Muthanna University, Iraq. I taught the material properties and computer programming subjects.
- **September 2008 – May 2012:** I worked as a department coordinator of Chemical Engineering Department, College of Engineering, Al-Muthanna University, Iraq. I taught the Strength of Materials, Mechanics (Statics), Fluid Mechanics and Computer Programming subjects. I also taught undergraduate students how to use workshop machines and do some workshop tasks.
- **June 2012 – October 2017:** I was a PhD student in Mechanical Engineering department, FSET, Swinburne University of Technology. I also worked during this period as a tutor and laboratory demonstrator of Structural Mechanics subject for five semesters with a feedback from student survey ranged between 8.2 - 8.7 out of 10.

5. ENGAGEMENT WITH PROFESSIONAL SOCIETIES

I have been invited by international professional societies to act as a manuscript reviewer for the following international journals:

- Thin-Walled Structures (Impact Factor: 2.881)
- Engineering Structures (Impact Factor: 2.755)

6. PUBLICATIONS

13 publications include 9 journal articles and 4 conference proceeding papers. The total citations are 84 and H-index is 5 according to Google Scholar:

(<https://scholar.google.com.au/citations?user=aaTSwJEAAAAJ&hl=en>)

Journal Papers

- [1] Hussain, IA, Lafta, HD & **Hussein, RD** 2008, 'Thermo elasto-plastic analysis of rotating axisymmetrical bodies using modified Von-Mises yield criterion', *Al-Khwarizmi Engineering Journal*, vol. 4, no. 4, pp. 71-81.
- [2] **Hussein, RD**, Ruan, D & Yoon, JW 2015, 'An Experimental study of square aluminium tubes with honeycomb core subjected to quasi-Static compressive loads', *Key Engineering Materials*, vol. 626, pp. 91-96.

- [3] **Hussein, RD**, Ruan, D, Lu, G & Sbarski, I 2016, 'Axial crushing behaviour of honeycomb-filled square carbon fibre reinforced plastic (CFRP) tubes', *Composite Structures*, vol. 140, pp. 166-179.
- [4] **Hussein, RD**, Ruan, D, Lu, G 2016, 'Comparative research on the crushing behaviour of aluminium sheet wrapped square carbon fibre reinforced plastic (CFRP) tubes', *Key Engineering Materials*, vol. 725, pp. 82-87.
- [5] **Hussein, RD**, Ruan, D, Lu, G, Guillow, S, Yoon, JW 2017, 'Crushing response of square aluminium tubes filled with polyurethane foam and aluminium honeycomb', *Thin-Walled Structures*, vol. 110, pp. 140-154.
- [6] **Hussein, RD**, Ruan, D, Lu, G 2017, 'Cutting and crushing of square aluminium/CFRP tubes', *Composite structures*, vol. 171, pp. 403-418.
- [7] **Hussein, RD**, Ruan, D, Lu, G, Thomson, R 2018, 'An energy dissipating mechanism for crushing square aluminium/CFRP tubes', *Composite Structures*, 183, pp. 643-653.
- [8] **Hussein, RD**, Ruan, D, Lu, G 2018, 'An analytical model of square CFRP tubes subjected to axial compression', *Composites Science and Technology*, vol. 168, pp. 170-178.

Best Paper Award

- [9] **Hussein, RD**, Ruan, D, Lu, G & Kumar, A 2017, 'Cutting deformation mechanisms of Square Aluminium/CFRP Tubes', *International Symposium on Material Science and Engineering (ISMSE2017)*, Kuala Lumpur, Malaysia, January 13-15, Awarded the best paper over 180 research papers from 25 countries, *Key Engineering Material*, vol. 744, pp. 317-321.

Conference Papers

- [10] Lu, G, **Hussein, RD** & Ruan, D 2015, 'Energy absorption in axial crushing of thin-walled tubes,' *Proceedings of the Eighteenth Conference of Automotive Safety Technology*, Suzhou, China, August 25-28, pp. 323-331.
- [11] **Hussein, RD**, Ruan, D & Lu, G 2016, 'Crushing behaviour of aluminium sheet wrapped square carbon fibre reinforced plastic (CFRP) tubes,' *Proceeding of the 1st International Conference on Impact Loading of Structures and Materials (ICILSM2016)*, Turin, Italy, May 22-26, pp. 453-456.
- [12] **Hussein, RD**, Ruan, D & Lu, G 2016, 'Improvement the crushing behaviour of aluminium sheets wrapped square carbon fibre reinforced plastic (CFRP) tubes by using cutting

blades', *Proceeding of the 19th International Conference on Composite Structures (ICCS19)*, Porto, Portugal, September 5-9, pp. 171-172.

- [13] **Hussein, RD**, Ruan, D & Lu, G 2017, 'A new trigger mechanism for crushing square CFRP tubes', *Proceeding of the 21st International Conference on Composite Materials (ICCM-21)*, Xi'an, China, August 20-25.

Conference Presentaion

- [14] **Hussein, RD**, Ruan, D & Lu, G 2016, 'Experimental and Theoretical Studies of Aluminium Sheets Wrapped Square CFRP Tubes', *3rd International Symposium on Frontiers in Applied Mechanics (ISFAM2016)*, Melbourne, Australia, December 1-4.