

# 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<sup>+</sup>
- **Present Position:** Assistant Dean of Administrative Affairs, College of Engineering, AL-Muthanna University, Iraq
- **E-Mail:** [rafea.dakhil@mu.edu.iq](mailto:rafea.dakhil@mu.edu.iq) ; [rafaa.dakhil@yahoo.com](mailto:rafaa.dakhil@yahoo.com)
- **Citations:** 292
- **H-index:** 6
- **Researchgate Score:** 14.17



## 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
- Armour

## 4. EMPLOYMENT HISTORY

- **April 2006 - June 2006:** A project engineer in Al-Khider Reverse Osmosis water treatment plant, Al-Muthanna province, Iraq.

- **June 2006 - March 2008:** Manger 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 m<sup>3</sup>/hr, 50 m<sup>3</sup>/hr and 100 m<sup>3</sup>/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.
- **March 2010 – May 2012:** I established my own business which was a Reverse Osmosis water plant with a capacity of 240 m<sup>3</sup>/day. I sold it to complete my PhD study.
- **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.
- **January 2018 – till now:** I am a lecturer at Muthanna University/College of Engineering. I am teaching Heat transfer, Mathematics I and Mathematics II

## **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: 4.442)
- Engineering Structures (Impact Factor: 4.471)
- Steel and Composite Structures, An International Journal (Impact Factor (SJR): 1.05)
- Materials and Design (Impact Factor: 7.991 )

## **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/citations?user=oH\\_BuxwAAAAJ&hl=en](https://scholar.google.com/citations?user=oH_BuxwAAAAJ&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.
- [9] **Hussein, RD**, Ruan, D, Lu, G, Yoon, JW, Gao, Z 2019, 'Dynamic axial compression of square CFRP/Aluminium tubes', *Key Engineering Materials*, vol. 794, pp. 202-207.

### **Best Paper Award**

- [10] **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**

- [11] 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.
- [12] **Hussein, RD**, Ruan, D & Lu, G 2016, 'Crushing behaviour of aluminium sheet wrapped square carbon fibre reinforced plastic (CFRP) tubes,' *Proceeding of the 1<sup>st</sup> International Conference on Impact Loading of Structures and Materials (ICILSM2016)*, Turin, Italy, May 22-26, pp. 453-456.
- [13] **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 19<sup>th</sup> International Conference on Composite Structures (ICCS19)*, Porto, Portugal, September 5-9, pp. 171-172.
- [14] **Hussein, RD**, Ruan, D & Lu, G 2017, 'A new trigger mechanism for crushing square CFRP tubes', *Proceeding of the 21<sup>st</sup> International Conference on Composite Materials (ICCM-21)*, Xi'an, China, August 20-25.

### **Conference Presentaion**

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