



# Mohammad SHALBY

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📍 K. Hussein St. , Ma'an, Jordan

📅 38 years old

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🏠 Jordanian

🚗 Personal vehicle

☎ +962776919609

👪 Married



## A Languages

English

Arabic

## 👥 Interests

Research interests: I'm interested in renewable energy applications

## ★ ORCID

<https://orcid.org/0000-0003-0177-5986>

## ★ Honors and Awards

- 1-Scholarship for PhD in Mechanical Engineering (2015)
- 2- UTS Vice-Chancellor's Postgraduate Research Student Fund (2016) and (2018).
- 3-School of Mechanical and Mechatronic Engineering fund at UTS (Travel Fund) (2016),(2017) and (2018).

## 🌍 Travel

Taiwan, Singapore, Portugal, South Korea, and Turkey,

## About me

I have a Ph.D. in mechanical engineering from the University of Technology Sydney, Ultimo, NSW, Australia. I am currently working as an assistant professor at Al-Hussein Bin Talal University, Ma'an, where he also worked in designing and implementing engineering laboratories and workshops and as the Director of the Engineering workshop Department. My primary research interests include the design and development oscillating water column device that use to harvest the ocean wave energy.

## Education

- From March 2015 to February 2019 **PhD Mechanical Engineering**  
[University of Technology Sydney](#) Sydney, Australia
- From August 2000 to January 2005 **B.Sc. Degree in Mechanical Engineering**  
[Jordan University of Science and Technology](#) Irbid – Jordan
- From August 2006 to January 2011 **M.Sc. Degree in Engineering Management**  
[Mu'tah University](#) Karak -Jordan

## Work experience

- Since July 2019 **Assistant professor**  
[Al-Hussein Bin Talal University](#) Maan, Jordan  
Mechanical Engineering Department
- From March 2019 to June 2019 **Teacher Assistant**  
[University of Technology Sydney](#) Sydney, Australia
- 1-Mechanical Design.
  - 2-Material Handling.
  - 3-Advanced Manufacturing.
  - 4-Fundamentals of Mechanical Engineering.
- From February 2006 to June 2015 **Technical Support Engineer**  
[Al-Hussein Bin Talal University](#) Maan, Jordan
- 1- Carry out regular inspections for the laboratory equipment performance. Moreover, ensure that all devices are working well, and maintain the suitability to conduct scientific experiments.
  - 2- Calibration the tools and the equipment according to the manufacturer's recommendations.
- From June 2010 to January 2015 **Director of Engineering Workshops Department**  
[Al-Hussein Bin Talal University](#) Maan, Jordan
- I am one of the founding members of the university's engineering workshops. I led the production team at the workshops to fabricate all kinds of furniture needed by the university. I improved the production plans to cover the local market by furniture with competitive prices and high qualities. I encouraged local industries and corporations to present their industrial problem as engineering graduation project and subsidize them. I managed this department according to the recent management and quality standards such as ISO.
- From January 2011 to December 2012 **Associate Lecturer**  
[Al-Hussein Bin Talal University](#) Maan, Jordan
- 1- Teaching a project management topic
  - 2- Teaching a statics topic
  - 3- Teaching an Engineering drawing topic
  - 4- Thermodynamic and Heat Transfer laboratory supervisor
  - 5- Fluid Mechanics Laboratory supervisor

## Computer skills

### Software and Engineering toolbox

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- 1- Microsoft Office™ tools,
  - 2-CADs,
  - 3-MATLAB,
  - 4-Primavera, and MS-project
  - 5- SOILWORKS
  - 6-ANSYS-CFX
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## ★ References

1- **Paul Walker** School of Mechanical, and Mechatronic Systems  
University of Technology Sydney  
Sydney, NSW 2007, Australia  
[Paul.Walker@uts.edu.au](mailto:Paul.Walker@uts.edu.au)

2-**David G. Dorrell**  
School of Engineering, Howard  
College Campus  
University of KwaZulu-Natal  
Durban 4041, South Africa  
[dorrelld@ukzn.ac.za](mailto:dorrelld@ukzn.ac.za)

3-**Ahmed Elhanafi**  
National Centre for Maritime  
Engineering and Hydrodynamics  
Australian Maritime College  
University of Tasmania,  
Launceston Tasmania, Australia  
[Ahmed.Elhanafi@utas.edu.au](mailto:Ahmed.Elhanafi@utas.edu.au)

## Communication skills

### I was a key speaker for the following conferences:

- 1- 3rd Asian Wave and Tidal Energy Conference – AWTEC 2016, 24-28 October, Singapore.
- 2- 4th International Conference on Energy and Environment Research ICEER 2017, ISEP (Polytechnic of Porto, Portugal), in Porto, Portugal, July 17-20, 2017.
- 3- The 13 Pacific-Asia Offshore Mechanics Symposium, October 14-17, Jeju, Korea; 2018.
- 4- IEEE-ECCE 2019, CONFERENCE & EXPO, Baltimore, MD | Sept. 29 – Oct. 3, 2019.

### Skills

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- 1- Good communication skills gained through my experience as director of the engineering workshop.
  - 2- Senior management certificate from Center for Studies, Consultations, and Community Development
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## Publications

### Journal Papers

- [1] **Shalby M**, Elhanafi A, Walker P, Dorrell DG. Experimental investigation of the small-scale fixed multi-chamber OWC device. *Applied Ocean Research*. Under Review.
- [2] Gomaa, M.R., Al-Dmour, N., AL-Rawashdeh, H.A. and **Shalby, M.**, 2020. Theoretical model of a fluidized bed solar reactor design with the aid of MCRT method and synthesis gas production. *Renewable Energy*, 148, pp.91-102.
- [3] **Shalby M**, Elhanafi A, Walker P, Dorrell DG. CFD modelling of a small-scale fixed multi-chamber OWC device. *Applied Ocean Research*. 2019;88:37-47.
- [4] **Shalby M**, Dorrell DG, Walker P. Multi-chamber oscillating water column wave energy converters and air turbines: A review. *Int J Energy Res*. 2018;1-16. <https://doi.org/10.1002/er.4222>.

### Conference Proceeding

- [5] **Shalby, M.**, Dorrell, D.G., Walker, P. and Elhanafi, A., An Experimental Investigation into the Wave Power Extraction of a Small-Scale Fixed Multi-Chamber OWC Device. In *2019 IEEE Energy Conversion Congress and Exposition (ECCE)* (pp. 4982-4987). IEEE.
- [6] **Shalby M**, Walker P, Dorrell DG, Elhanafi A. Validation of a Numerical Model for a SmallScale Fixed Multi-Chamber OWC Device. In: *Proceedings of the Thirteenth Pacific-Asia Offshore Mechanics Symposium, October 14-17, Jeju, Korea; 2018.*
- [7] **Shalby M**, Walker P, Dorrell DG. Modelling of the multi-chamber oscillating water column in regular waves at model scale. In: *Proceedings of the 4th International Conference of Energy and Environmental Research, Energy Procedia*, July 17-20, Porto, Portugal; 2017.
- [8] **Shalby M**, Walker P, Dorrell DG. The investigation of a segment multi-chamber oscillating water column in physical scale model. In: *Proceedings of the 5th International Conference on Renewable Energy Research and Applications*, November 20-23 Birmingham, UK; 2016.
- [9] **Shalby M**, Walker P, Dorrell DG. The Characteristics of the Small Segment Multi-Chamber Oscillating Water Column. In: *Proceedings of the 3rd Asian Wave and Tidal Energy Conference, October 24-28 Singapore; 2016.*