Ali Rajabipour

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Visa: Australian Citizen

Current job

Lecturer and Program Coordinator – The University of Newcastle -Singapore

Research interests: Natural Composites, Fracture Mechanics and Service Life Prediction

Member of board of directors, Singapore Concrete Institute.
Member of Centre for Infrastructure and Performance, Uni of Newcastle.

I have:

- Extensive teaching experience
- Led two research projects
- Industry experience in and out of Australia and have thorough knowledge of Structural Design

Education

2011- 2015 **PhD:**
Civil Engineering, University of Newcastle, Australia.
Thesis: **Service Life Prediction of Corrosion Pitted Pipes**
Supervisor: *Professor Robert. E. Melchers*; Co-supervisor: *Professor Mark G. Stewart*

2004 –2007 **Master:**
Earthquake Engineering, Isfahan University of Technology (IUT), Iran.
Thesis: Probabilistic Assessment for Enhancing Seismic Safety of Buried Pipes, Case Study on City Gas System
Supervisor: *Dr. Farhad Behnamfar,* Advisor: Dr. Namat Hassani

2000 –2004 **Bachelor:**
Civil Engineering, Isfahan University of Technology (IUT), Isfahan, Iran.

Awards & Grants

2017 **Faculty strategic Research Grant of $28,400 for researching on Bamboo Composite**

2011 The University Of Newcastle International Postgraduate Research Scholarship (**UNIPRS**) and the University Of Newcastle Postgraduate Research Scholarship Central (**UNRSC**).

2004 Awarded governmental free education for Master of Science, Iran

2000 Awarded governmental free education for Bachelor of Science, Iran

Teaching Experience

2018 **Theory of Structures 1 (CIVL2130) and Theory of Structures 2 (CIVL3180), Lecturer**
The University of Newcastle

2017 **Eng Computations & Prob (CIVL2050), Lecturer**
The University of Newcastle

2017 **Introduction to Eng Computations (ENGG1002), Lecturer**
The University of Newcastle

2017 **Introduction to Professional Engineering (ENGG1500), Lecturer**
The University of Newcastle

2017 **Fundamentals of Engineering Mechanics (CIVL1100), Lecturer**
The University of Newcastle

2012-2015 **Theory of structures III, Tutor.**
The University of Newcastle

2014-2015 **Introduction to Engineering Mechanics (GENG 1001), Tutor.**
The University of Newcastle

2009 –2010 **Earthquake Engineering, Sessional Lecturer.**
Daneshpazhoohan High Education Institute.

2008 - 2008 **Earthquake Engineering, Sessional Lecturer.**
Azad University Khorasgan Branch, Iran

2007-2008 **Soil Mechanics, Sessional Lecturer.**
Azad University Khorasgan Branch, Iran.

2007-2008 **Soil Mechanics, Sessional Lecturer.**
Daneshpajohan Higher Education Institute, Iran.

2005 **Structural Analysis I, Tutor.**
Isfahan University of Technology (IUT), Iran.

Research Experience

At the moment I am researching on developing new bio-based structural materials. This is in collaboration with ETH.

2017- Now Structural Application of Bamboo Composite (**Lead Investigator)**

2011 - 2015 PhD Study

2010 –2011 Designing a Multi-Goals Decision Making Model for Prioritizing Isfahan Municipality Urban Projects **(Project manager)**

2008 - 2009 Study and Preparing Master Plan of Seismic Vulnerability Zoning of Kashan, Research engineer.

2008 Seismic Hazard Assessment of Kashan, Golpayegan, Shahreza and Naien, Research engineer.

2004 - 2005 Assessing Seismic Vulnerability of Isfahan Gas Network, Research engineer.

Academic Career

Feb 2017-Now **Lecturer and Program Coordinator**

Lecturing Civil Engineering courses- Structural Courses

- Coordinating Civil Engineering Program in Singapore

2015-2016 **Structural Engineer- I was conjoint lecturer at UON at the same time**
Positive Fix Consulting Engineers, Australia: (www.positivefix.com.au/)

- Numerical simulation of car crash
- Designing residential and commercial buildings
- Forensic engineering
- Bridge design
- Building condition assessment

Publications

a. Refereed Journal Articles

Rajabipour, A., & Melchers, R. E. (2013). A numerical study of damage caused by combined pitting corrosion and axial stress in steel pipes. *Corrosion Science, 76*(0), 292-301.

Rajabipour, A., & Melchers, R. E. (2015a). Application of Paris' law for estimation of hydrogen-assisted fatigue crack growth. *International Journal of Fatigue, 80*, 357-363. doi:https://doi.org/10.1016/j.ijfatigue.2015.06.027

Rajabipour, A., & Melchers, R. E. (2015b). Capacity of pitting corroded pipes under hydrogen assisted cracking. International *Journal of Hydrogen Energy, 40*(30), 9388-9399. doi:https://doi.org/10.1016/j.ijhydene.2015.05.077

Rajabipour, A., & Behnamfar, F. (2016). A fire ignition model and its application for estimating loss due to damage of the urban gas network in an earthquake. *International Journal of Engineering, Transactions B: Applications, 29*(11), 1507-1519. doi:http://dx.doi.org/10.1016/j.corsci.2013.07.002

Rajabipour, A., & Melchers, R. E. (2018). Service life of corrosion pitted pipes subject to fatigue loading and hydrogen embrittlement. *International Journal of Hydrogen Energy*. doi:10.1016/j.ijhydene.2018.03.063

Writing of two papers is in process on creep and structural application of bamboo Composite.

b. Refereed Conference Papers

Rajabipour, A., Melchers, R. E., "Service life prediction of corrosion pitted pipes subject to pressure fluctuations and hydrogen embrittlement", Corrosion and Prevention, ACA, Adelaide, Australia, 15-18 November, 2015.

Rajabipour, A., Melchers, R. E., "Failure prediction of pitted brittle metal pipes", 23rd Australasian Conference on the Mechanics of Structures and Materials, ACMSM23, Byron Bay, 9-12 December, 2014.

Rajabipour, A., Melchers, R. E., "Structural and containment failure analysis of ductile steel pipes", Structural Engineering in Australasia – World Standard, ASEC 2014, New Zealand, 9-11 July, 2014.

Rajabipour, A., Mostajeran, A., "Comparative Assessment of Various Methods of Modeling the Fire Spreading in Urban Areas" (in Farsi), First International Conference on HSE, University of Isfahan, Iran, 2008.

Malekipour, E., **Rajabipour**, A., Amoushahi, M., "Risk Reduction of Embankment Dams Against Man-made Loads, Case Study of Ardak Dam – Iran" TIEMS 15th Annual Conference: Global Cooperation in Emergency and Disaster Management, Prague, 2008.

Behnamfar, F., **Rajabipour**, A., "Probabilistic Estimation of Fire Spreading Following an Earthquake Due to Gas Pipeline Damage" 14WCEE, Beijing, China, Oct. 2008.

Behnamfar, F., **Rajabipour**, A., "Development of Probabilistic Fragility Curves for City Gas Pipeline" (in Farsi), 5th International Conference on Seismology and Earthquake Engineering, SEE 5, Iran, 2007.

Skills

Language **Farsi (Persian)**: Native**, English:** Professional

Computer Mathematica, VB, SAP, ETABS, SAFE, ABAQUS and Auto Cad.