CURRICULUM VITAE

Dr. Raa Khimi
School of Materials & Mineral Resources Engineering
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ACADEMIC QUALIFICATION

Doctor of Philosophy (PhD), 2015, University of Waikato, New Zealand
Research :Development of Elastomeric Composites from Iron Sand and Natural Rubber for Vibration Damping

Bachelor of Engineering (Hons.) in Polymer Engineering, 2007, Universiti Sains Malaysia, Malaysia

AREA OF SPECIALIZATION

Magnetorheological Elastomer (MRE)
Dynamic mechanical analysis of composites
Composites damping
Polymeric materials and processing
Rubber engineering
Design of experiment

EXPERIENCE

Universiti Sains Malaysia
Position: Lecturer (Polymer Engineering)
Department: School of Materials and Mineral Resources
Date: 2015 to present

University of Waikato
Position: Doctoral Researcher
Department: Faculty of Science and Engineering
Date: 2011 until 2015

SilTerra Malaysia Sdn. Bhd
Position : Senior Process Engineer
Department: Fab Integration – Defect Reduction
Date: 2007 until 2011

JOURNAL PUBLICATIONS

Raa Khimi, S and K. L. Pickering. " *Effect of Carbon Black on the Dynamic Mechanical Properties of Magnetorheological Elastomers*." International Journal of Innovative Research in Science, Engineering and Technology,2016. **12(5)**: p. 221-223

Raa Khimi, S and K. L. Pickering. "*The effect of silane coupling agent on the dynamic mechanical properties of iron sand/natural rubber magnetorheological elastomers*." Composites Part B: Engineering ,2016. **90**: p. 115-125

Raa Khimi, S and K. L. Pickering. "*Investigation and modelling of damping mechanisms of magnetorheological elastomers*." Journal of Applied Polymer Science, 2016, 133.13.

Raa Khimi, S and K. L. Pickering. " *Effect of Carbon Black on the Dynamic Properties of Anisotropic Magnetorheological Elastomer*." Journal of Engineering Science, 2016.

Pickering, K.L., **Raa Khimi, S.**, and S. Ilanko, *The effect of silane coupling agent on iron sand for use in magnetorheological elastomers part 1: Surface chemical modification and characterization.* Composites Part A: Applied Science and Manufacturing, 2015. **68**: p. 377-386.

Raa Khimi, S. and K.L. Pickering, *Comparison of dynamic properties of magnetorheological elastomers with existing antivibration rubbers.* Composites Part B: Engineering, 2015. **83**: p. 175-183.

Raa Khimi, S., and K.L. Pickering, *A new method to predict optimum cure time of rubber compound using dynamic mechanical analysis.* Journal of Applied Polymer Science, 2014. **131**(6)

Raa Khimi, S., K.L. Pickering, and B.R. Mace, *Dynamic properties of magnetorheological elastomers based on iron sand and natural rubber.* Journal of Applied Polymer Science, 2014. **132**

BOOK CHAPTERS

Title : Damping Materials: Magnetorheology, applications and challenges
Authors: S. Raa Khimi, K.L. Pickering, B.R. Mace and S, Ilanko
Parent Document: Diversity of Research for a Sustainable Challenging World: A Compilation of Research by Malaysian Postgraduates in New Zealand
Year Published: 2013
ISBN : 0475124030, 9780475124036

REVIEWER

Title : Fabrication of Continous Ultrathin Fibers by a Facile Magneto-mechanical drawing
Editors: Subramanian Iyer
Publisher/Journal: Wiley, Journal of Applied Polymer Science

Title : Maillard reaction in natural rubber latex: improvement of concentration process
Editors: Subramanian Iyer
Publisher/Journal: Wiley, Journal of Applied Polymer Science

Title : Combined experimental and numerical kinetic characterization of NR vulcanized with sulphur, N terbutyl, 2 benzothiazylsulphenamide and N,N diphenyl guanidine
Editors: Subramanian Iyer
Publisher/Journal: Wiley, Journal of Applied Polymer Science

Title : Stabilization of fly ash and lime sludge composites: Assessment of its performance as base course material
Editors: Wojciech Glabisz
Publisher/Journal: Elsevier, Archives of Civil and Mechanical Engineering

Title : Dynamic mechanical properties of magnetorheological elastomers in the linear viscoelastic region: effect of the synthesis
Editors: Dr.-Ing. habil. h. c. J. Karger-Kocsis
Publisher/Journal: eXPRESS Polymer Letter

Title : Thermally Stable Bromobutyl Rubber with High Crosslinking Density Based on the 4, 4'-Bis(maleimido) Diphenylmethane Curing Agent
Editors: Sergei Nazarenko
Publisher/Journal: Wiley, Journal of Applied Polymer Science

Title : Performance of Glass Woven Fabric Composites with Admicellar-Coated Thin Elastomeric Interphase
Editors: Hatsuo Ishida
Publisher/Journal: Taylor & Francis, Composite Interfaces

Title : Test setup for examination of magneto-mechanical properties of magnetorheological elastomers with use of a novel approach

Editors: Zbigniew Gronostajski
Publisher/Journal: Elsevier, Archives of Civil and Mechanical Engineering

Title: Proceedings of the 3rd International Conference of Global Network for Innovative Technology (IGNITE-2016), 27th-29th January 2016, Penang
Publisher/Journal: Universiti Sains Malaysia

Title: Proceeding of the 5th International Conference on Recent Advances in Materials, Minerals and Environment (RAMM), 4th August 2015, Penang
Publisher/Journal: Universiti Sains Malaysia

AWARDS

Elsevier, Outstanding Reviewer Award, 2016
Member of New Zealand Golden Key International Honour Society 2012
Champion – Silterra Continous Improvement Cost Reduction Project 2010
Gold Medal Awards in National Research and Inovation Competition 2007