## \*\*\* Free Seminar \*\*\*

## "Recommendations for Finite Element Analysis of Bridges"

13 November 2012 at 3pm Graduate House, 220 Leicester Street, Carlton, Melbourne

LUSAS is pleased to announce that a free seminar covering "Recommendations for Finite Element Analysis of Bridges" will take place on 13 November 2012 at Graduate House adjacent to the University of Melbourne, Australia.

This event will give engineers, scientists, researchers and students a broad insight into the latest techniques and methods available to model and analyse a range of bridge types with particular reference to LUSAS Bridge analysis software.

#### **Organisation**

This seminar is organised by:

- Mr Stewart Morrison, Australia and New Zealand Regional Manager, LUSAS
- Mr Julian Moses, Principal Bridge Engineer, LUSAS.

With the kind assistance of Dr David Morris, Principal, David Morris Consulting.

Time	Topics
15.00 - 15.30	Registration and coffee
15.30- 16:00	Welcome and Introduction
15.30- 16:30	Overview of modelling and analysis techniques including:  • Finite Element Modelling - Element types, Selection, Meshing/refinement, Material models, Modelling details/singularities, Support conditions, Static:/Mobile/Combining Loads and Model Checking  • Structural Idealisation - 3D modelling, CAD import, accuracy of FE analysis, interpolation and mesh refinement, element shapes, mesh patterns, surface and volume meshing, linear buckling analysis, basic checklist, plate girder modelling,  • Bridge loading - Wheel loads, Traffic load optimisation to AS 5100 and NZ Trannsit Manual, and others  • Nonlinear analysis, advanced analysis control, geometric nonlinear analysis, nonlinear materials, plate girder buckling  • Staged construction modelling - techniques available  • Dynamics analysis, Modal Dynamics and Time History  • Soil structure interaction  • Case studies
16:30 - 17.30	Demonstration of modelling and analysis of a lightweight footbridge to investigate pedestrian loading and dynamic effects
17.30	Questions and close of event.

### To register your interest in attending...

The event is FREE to attend but a reservation must be made beforehand. Please register your interest in attending using the online booking form available at: http://www.lusas.com/events/melbourne 2012.html

We hope you will be able to attend what will be an informative seminar on the benefits of using LUSAS finite element modelling for bridge analysis, design and assessment.

Yours sincerely,

**The Event Organisers** 

Please see overpage for event location maps

#### Mr Stewart Morrison

Australian and New Zealand Regional Manager, **LUSAS** 

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Web: www.lusas.com



#### Mr Julian Moses

Principal Bridge Engineer, **LUSAS** 

Email: julian.moses@lusas.com Web: www.lusas.com





### **David Morris**

Principal, David Morris Consulting

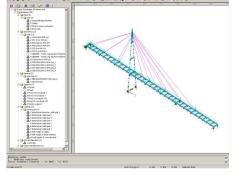
Email: dr@davidmorrisconsulting.com Web: www.davidmorrisconsulting.com







**Agenda** 

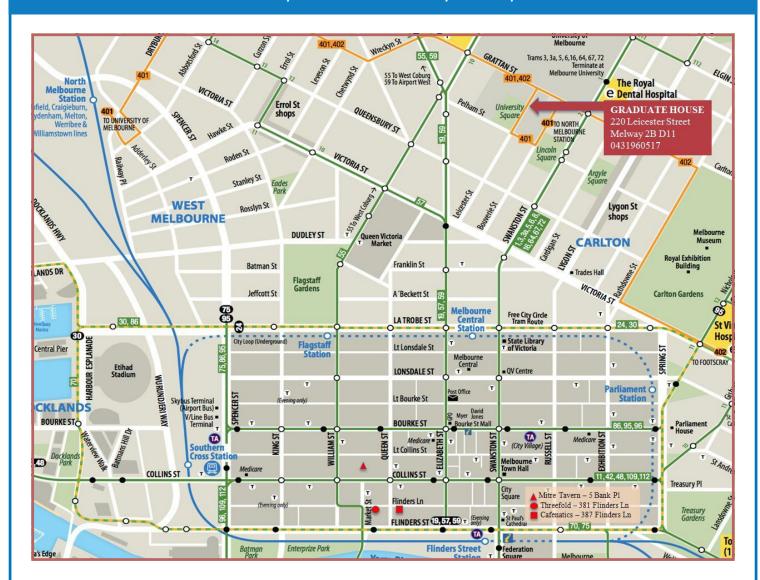




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### **GRADUATE HOUSE**

220 Leicester Street, Carlton VIC 3053

Phone: (03) 9347 3428

(Phone number is provided for general information and not for registering your interest in attending)

