

Dr. Gary Raftery (New Zealand)

Department of Civil and Env Eng, The University of Auckland
Auckland, New Zealand

g.raftery@uuckland.ac.nz

COST FP1402, IPC Member, MC Observer, WG4 Member



<i>Personal</i>		<i>Organisation</i>		
Years of experience in relevant field: 10 Expertise: Glued laminated timber, Adhesive bonding, Numerical modelling, Experimental testing, Composite systems Degree: PhD. (01.06.2010)		Civil and Environmental Engineering (www.cee.auckland.ac.nz) Focus: theoretical and practical research / innovation, design of structures, education/training Facilities : Structures testing lab, 1000 kN Tension and Compression capacity, fabrication		
		No. of staff	PhD students	MSc/year
		4	6	2
<i>Research projects</i>				
1. development of the connection chapter for the New Zealand timber design standard (NZS 3603) 2. Development of design rules for small-dowel type fasteners with brittle behaviour (these results are to be incorporated in the next version of the NZS 3603 and the Canadian O86 "Design of Timber Structures" design standard) 3. development of design rules for timber moment connection that exhibit brittle failure 4. verification of design rules for self-tapping screws connections that exhibit brittle failure				
<i>Publications</i>				
<ul style="list-style-type: none"> • Raftery, G and Rodd, P. FRP reinforcement of low-grade glulam timber bonded with wood adhesive, Construction and Building Materials. 2015; Vol. 91, pp. 116-125. • Raftery, G., and Kelly, F. Basalt FRP rods for reinforcement and repair of timber, Composites Part B: Engineering. 2015; Vol 70, pp. 9-19. • Raftery, G. and Whelan, C. Low-grade glued laminated timber beams reinforced using improved arrangements of bonded-in GFRP rods. Construction and Building Materials, 2014; Vol 59, pp. 209-220. • Raftery, G. and Harte, A. Material characterization of fast-grown plantation spruce, Proceedings of the ICE: Structures and Buildings. 2014; Vol. 167, Issue SB6, pp. 380–386. • Raftery, G. and Harte, A. Nonlinear numerical modelling of FRP reinforced glued laminated timber, Composites Part B: Engineering, 2013; Vol. 52, pp. 40-50. • Raftery, G. and Harte, A. Low-grade glued laminated timber reinforced with FRP plate, Composites Part B: Engineering, 2011; Vol. 42, Issue 4, pp. 724-735. • Raftery, G., Harte, A. and Rodd, P., Bond quality at the FRP wood interface using wood laminating adhesives, International Journal of Adhesion and Adhesives, 2009; Vol. 29, Issue 2, pp.101-110. • Raftery, G., Harte, A. and Rodd, P., Bonding of FRP materials to wood using thin epoxy gluelines, International Journal of Adhesion and Adhesives, 2009; Vol. 29, Issue 5, pp.580-588. 				

