List of publications – Professor J Toby Mottram

Publications

Professor J. Toby MOTTRAM
Civil Research Group
School of Engineering, University of Warwick, UK
Date: 1 January 2017

Warwick Research Archive Portal (WRAP)): http://wrap.warwick.ac.uk/view/author_id/5743.html. When the “Author Accepted Manuscript” is in the University of Warwick’s open access depository the web link for downloading is given after the publication’s details.


Edited Books:


Chapter or contribution to a Book:


Refereed Journal:


   http://link.springer.com/article/10.1007%2FBF01501175#page-1

34. J. E. Hall, and J. T. MOTTRAM, 'Fiber-reinforced plastic (FRP) concrete members having combined tensile reinforcement and permanent form-work: Short-term behavior', *Journal of Composites for Construction*, 2 2, (1998), 78-86. ISSN 1090-0268


   http://jcm.sagepub.com/content/35/7/577.abstract

   http://www.icevirtuallibrary.com/content/article/10.1680/stbu.2002.152.1.87

   http://www.icevirtuallibrary.com/content/article/10.1680/stbu.2002.152.1.31

   http://pil.sagepub.com/content/216/2/133.abstract

   http://www.icevirtuallibrary.com/content/article/10.1680/stbu.2003.156.2.205


http://inderscience.metapress.com/content/1wuj56ld76qjkbxw/  


47. J. T. MOTTRAM, ‘Shear modulus of standard pultruded FRP material,’ *Journal of Composites for Construction*, 8 2, (2004), 141-147. ISSN 1090-0268  

http://pid.sagepub.com/content/218/12/1393.abstract  


http://ascelibrary.org/doi/abs/10.1061/%28ASCE%290733-9445%282005%29131%3A5%28851%29?journalCode=jsendh  

http://ascelibrary.org/doi/abs/10.1061/%28ASCE%290899-1561%282006%2918%3A5%28700%29  
http://wrap.warwick.ac.uk/32991/  

http://www.icevirtuallibrary.com/content/article/10.1680/mpal.2007.160.3.129  
http://wrap.warwick.ac.uk/46615/  

http://ascelibrary.org/doi/abs/10.1061/(ASCE)CC.1943-5614.0000043  
http://wrap.warwick.ac.uk/16590/  

54. J. T. MOTTRAM, ‘Does performance based design with fibre reinforced polymer

58. M. C. Evernden and J. T. MOTTRAM, ‘Closed-form equations for flange force and maximum deflection of box-beams of fiber reinforced polymer with partial shear interaction between webs and flanges,’ *Advances in Structural Engineering, 14* 6, (2011), 991-1004. ISSN 1369-4332  

http://www.icevirtuallibrary.com/content/article/10.1680/coma.2012.165.1.3

doi:10.1016/j.compstruc.2011.10.005
http://wrap.warwick.ac.uk/40689/

http://wrap.warwick.ac.uk/40690/

   [http://wrap.warwick.ac.uk/57223/](http://wrap.warwick.ac.uk/57223/)

   [http://wrap.warwick.ac.uk/54473/](http://wrap.warwick.ac.uk/54473/)

65. A. Gand, T-M. Chan and J. T. MOTTRAM, ‘Civil and structural engineering applications, recent trends, research and developments on pultruded fibre reinforced polymer closed sections: a review,’ *Frontiers of Structural and Civil Engineering*, 73, (2013), 227–244. ISSN: 2095-2430

   [http://wrap.warwick.ac.uk/56528/](http://wrap.warwick.ac.uk/56528/)

   [http://wrap.warwick.ac.uk/65668/](http://wrap.warwick.ac.uk/65668/)

   [http://wrap.warwick.ac.uk/60119/](http://wrap.warwick.ac.uk/60119/)

   [http://wrap.warwick.ac.uk/58216/](http://wrap.warwick.ac.uk/58216/)

   [http://wrap.warwick.ac.uk/63934/](http://wrap.warwick.ac.uk/63934/)


75. J. Qureshi, J. T. MOTTRAM and B. Zafari, ‘Robustness of simple joints in pultruded frames,’ *Structures*, **3**, (2015), 120-129. ISSN: 2352-0124 Gold Access [http://dx.doi.org/10.1016/j.istruc.2015.03.007](http://dx.doi.org/10.1016/j.istruc.2015.03.007)


   http://wrap.warwick.ac.uk/77093/

82. B. Zafari, J. Qureshi, J. T. MOTTRAM and R. Rusev, 'Static and fatigue performance of resin injected bolts for a slip and fatigue resistant connection in FRP bridge engineering,' Structures, 7, (2016), 71-84. ISSN: 2352-0124
   http://wrap.warwick.ac.uk/78996/


Non-refereed Journal articles:
84. J. T. MOTTRAM, 'Fibre reinforced polymers in construction,' Research Update article, The Structural Engineer, 82 14, (2004), 13-14. ISSN 0039-2553
85. J. T. MOTTRAM, 'University research in the West Midland Counties Branch,' Research Update article, The Structural Engineer, 82 10, (2006), 19-20. ISSN 0039-2553

Internal Report Series:
89. J. T. MOTTRAM, ‘Connection tests for pultruded frames,’ Civil Engineering Group, Research Report CE47, Dept. of Engineering, WU, (July 1994), pp 62. (As part of the EUREKA project EU468:EUROCOMP.)
90. ‘Department of engineering higher degrees by research student handbook,’ Postgraduate Degrees Committee, Department of Engineering, WU, Versions I-II (1996-1999), pp. 70. Prepared and maintained by J. T. MOTTRAM.

**Book Articles (Conferences, CPD courses and Workshops):**


117. J. T. MOTTRAM, ‘Chapter 5: Bonded Connections’, In ‘State-of-the-art review on


148. M. C. Evernden and J. T. MOTTRAM, ‘A case for houses in the UK to be constructed of

   http://www.iifc-hq.org/proceedings/CICE_2010/for+pub/Vol%201/03%20All%20FRP%20Structures/033_05_14.pdf

   http://wrap.warwick.ac.uk/46611/


Presentations with no written paper. Invitations to address conferences, Universities, companies and learned societies:


168. (Invited and expenses paid) J. T. MOTTRAM, ‘Structural properties of pultruded I-


183. J. T. MOTTRAM, ‘Design manuals for pultruded structural: Why Warwick University’s research is relevant and timely,’ 2nd CoSACNet Workshop (EPSRC Network for


191. (Invited) J. T. MOTTRAM, ‘Forensic engineering: Learning from failure, with an emphasis of its Impact to the marine sector,’ Seminar to the Fluid Structure Interactions Research Group and MSc Students in the School of Engineering at University of Southampton, 2 March 2006.

192. (Key note address) J. T. MOTTRAM, “Challenges for the design of connections and joints in all-FRP construction,” IUAV-AICO Seminar on Costruzioni in Materiale Composito – All FRP Constructions, (IUAV) University of Venice, 18 September 2007.

193. (Chairman’s Address) J. T. MOTTRAM, ‘New build with fibre reinforced polymer shapes,’ To members of the Midland Counties Branch to the Institution of Structural Engineers, 12 February 2009.


198. (Invited and expenses paid) J. T. MOTTRAM, ‘Innovative composites and nano ideas,’
Opening talk to breakout session at 1st meeting of EPSRC Network LIMES.NET (Network for Low Impact Materials and innovative Engineering Solutions for the Built Environment), University of Bath, 15 September 2011.

199. *(Visiting Professor)* J. T. MOTTRAM, *'New build with fibre reinforced polymer shapes and systems,'* to students and staff at Iuav Venezia, Italy, 8 November 2012.


201. J. T. MOTTRAM, *'New build with fibre reinforced polymer shapes and systems,'* to students and staff in the Department Civil Engineering at Coventry University, 23 January 2013.

202. *(Visiting Professor)* J. T. MOTTRAM, *'Simple design approaches and new ways for composite materials,'* Talk for architects and Engineers in a CDP two-day workshop, Laboratorio di Scienza delle Costruzioni (LabSCo), Università IUAV di Venezia, Venice, Italy, 7 February 2013.


204. Boscato, G., Casalegno, C., MOTTRAM, J.T. and Russo, S., *'Time-dependent effects on critical buckling load of pultruded column,'* Session 7: Composite structures in civil engineering, in Proc. 17th Inter. J. Conf. on Composite Structures (ICCS17), Porto, 17-21 June 2013. (Extended Abstract No. 3053)

205. J. T. MOTTRAM, *'New build with fibre reinforced polymer shapes and systems,'* to students and staff in the Department Civil Engineering at Imperial College, London, 11 July 2013.


211. *(Invited)* J. T. MOTTRAM, *'Toward designing pultruded structures with a design standard.’* in session on Composites in Construction at Composite Engineering Show, NEC, Birmingham, 12 November 2014.
212. **(Invited)** J. T. Mottram, ‘Structural engineering research at Warwick University for design guidance,’ NGCC Industry Showcase, NCC, Bristol, 23 April 2015.


214. S. A. Grammatikos, R. J. Ball, M. C. Evernden, B. Zafari, and J. T. MOTTRAM, ‘Structural deformation assessment of glass fibre reinforced polymers subjected to hygrothermal aging,’ in Session 8.1 to Proceedings of 18th Inter. Conf. on Composite Structures (ICCS18), Lisbon, 15-18 June 2015.


216. J. T. MOTTRAM, ‘Simple design approaches and new ways for composite materials,’ School of Engineering Seminar Programme, Warwick University, 20 November 2015. [http://www2.warwick.ac.uk/fac/sci/eng/research/seminars/](http://www2.warwick.ac.uk/fac/sci/eng/research/seminars/)

**Other output:**


**Book reviews:**


**Letters and publicity items:**


Philatelic Studies:


External and Internal Reports:


2. Distributed to Research Council, delegates at Workshop and other interested organisations.


247. J. T. MOTTRAM, ‘Crane load testing of a GRP bridge for National Grid,’ Final Report to Redman Fisher Composite Division, Warwick University, (May 2004), pp. 17. (Confidential)


252. J. T. MOTTRAM, ‘Factual report on MIG brazed connections with galvanised steel cold formed thin gauge sections,’ Report to Henley Steel Systems Ltd., Warwick University, (Nov. 2007), pp. 30. (Confidential)

253. J. T. MOTTRAM, L. C. Bank, R. J. Gentry and C. K. Shield, ‘Mandatory and non-mandatory commentary for Chapter 8 on Bolted Connections to the prestandard of Load and Resistance Factor Design (LRFD) of Pultruded Fiber-Reinforced Polymer (FRP) Structures,’ Current version to American Society of Civil Engineers on 1
September 2010. Mandatory part is 18 pages and the commentary part is 28 pages.


255. B. Zafari and J. T. MOTTRAM, ‘First test report on the determination of the strengths for dowels of a tube and square section,’ Work Packages 3 and 8, 9 & 10: Manufacture & Characterisation verification of the pultruded profiles and materials for the SLBS house, TSB Project No: TP11/LIB/6/I/AM082F: Startlink Lightweight Building System, School of Engineering, Warwick University, 2 November 2010, pp. 56. (Confidential)


257. B. Zafari and J. T. MOTTRAM, ‘First report on the determination of the dowel bearing strengths of the stud-column section,’ Work Packages 3 and 8, 9 & 10: Manufacture & Characterisation verification of the pultruded profiles and materials for the SLBS house, TSB Project No: TP11/LIB/6/I/AM082F: Startlink Lightweight Building System, School of Engineering, Warwick University, 22 August 2011, pp. 11. (Confidential)

**National (American) Design Standard**

258. ‘Pre-Standard for load and resistance factor design (LRFD) of pultruded fiber polymer (FRP) structures (Final),’ submitted to American Composites Manufacturer Association (ACMA)), 9 November 2010, ACSE, p. 216.

Primarily responsible as a drafter of Chapter 8 for the design of Bolted Connections. As member of drafting project team I assisted with the preparation of the other seven chapters in the pre-standard.

**DSc Commentary (available from Personal Web page)**


**Local media**

Five minutes radio interview on ‘Bridge failures’ following the sudden collapse of the I-35W road bridge in Minneapolis, USA. Broadcasted at 17:30 on Thursday 2 August 2007 as a contribution to the Jane Vickers show on Coventry and Warwickshire BBC local radio.