

# Curriculum Vitae

**NAME:** Lau Hieng Ho

## **CURRENT POSITION AND LEVEL OF ACADEMIC APPOINTMENT:**

<b>Dec 2013- present</b>	<b>Deputy Dean</b> <b>School of Engineering &amp; Science</b> Curtin University Sarawak Malaysia Miri, Sarawak, Malaysia
<b>Jan 2013- Sept 2013</b>	<b>Acting Dean</b> <b>School of Engineering &amp; Science</b> Curtin University Sarawak Malaysia Miri, Sarawak, Malaysia
<b>Jan 2010- present</b>	<b>Associate Professor</b> Curtin University Sarawak Malaysia Miri, Sarawak, Malaysia
<b>July 2005- Dec 2011</b>	<b>Head of Department</b> <b>Civil &amp; Construction Engineering</b> Curtin University Sarawak Malaysia Miri, Sarawak, Malaysia

## **QUALIFICATIONS**

Graduate Certificate in Tertiary Teaching, Curtin University of Technology, 2005  
Doctorate of Philosophy, Oxford Brookes University, UK, 2002  
BEng (Hons) in Civil Engineering, Oxford Brookes University, 1998

## **MEMBERSHIP OF PROFESSIONAL BODIES**

**Professional Engineer**, Board of Engineers Malaysia (BEM)  
**Corporate Member**, Institution of Engineers, Malaysia (IEM)  
Graduate Member of Institute of Structural Engineers (IStructE), UK

## **PREVIOUS INDUSTRY APPOINTMENTS:**

<b>June 2002-Dec 2002</b>	<b>Civil &amp; Structure Engineer</b> KTA (Sarawak) Sdn Bhd Kuching, Sarawak, Malaysia
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## **ACADEMIC APPOINTMENT RECORD:**

<b>Jan 2005-Dec 2009</b>	<b>Senior Lecturer</b> Curtin University Sarawak Malaysia Miri, Sarawak, Malaysia
<b>Feb 2003-Dec 2004</b>	<b>Lecturer</b> Curtin University Sarawak Malaysia Miri, Sarawak, Malaysia
<b>Oct 1998-May 2002</b>	<b>Part-time Lecturer</b> Department of Civil Engineering & Construction Management School of Architecture Oxford Brookes University, UK

#### **HDR SUPERVISION AND RESEARCH DEVELOPMENT:**

- Supervisor for Ms Tina Ting Chui Huon, PhD candidate, “Behaviours of Cold Formed Steel Built-up I Sections”. **Completed March 2014**
- Supervisor for Ms Sharon Yee, PhD candidate, “Experimental study of effectiveness of electro-osmotic consolidation in the stabilization of Sarawak Peat and Organic Soils”. **Expected date of Completion October 2014**
- Supervisor for Ms Siti Fairuz, MPhil candidate, “Investigation on Connection Strength for Self-Drilling Screw of Cold Formed Thin-Gauge Steel Construction”. **Completed April 2014**
- Co-Supervisor for Ms Ting Sim Nee, PhD candidate, “A Modular Standard Form of Contract with Flexibility for Various Procurement Routes for Local Construction Industry”. **Completed November 2013**
- External Co-Supervisor for Mr Haidar Adbullatif, PhD Candidate, “A Phase Separator with Inclined Parallel ARC Coalescing Plate (IPACP) for Removal of Mechanically E,ulsified and Free Oil from Wastewaters” University Malaysia Sarawak, 2005-2008. **Completed**

#### **HDR EXAMINATIONS:**

- External Examiner for Mr Kee Hon Hiew, Master Thesis, Curtin University Bentley Campus, **April 2012**
- External Examiner for Mr Raghupati Laxmipati Shukla, Master Thesis, Curtin University Bentley Campus, **April 2012**
- Viva Examiner for Mr Hu Wei Kiat, Master Thesis, University Malaysia Sarawak, 15 March 2008
- External Examiner for Mr Hu Wei Kiat, Master Thesis, University Malaysia Sarawak, 10 May 2007
- External Examiner for Ms Wong Woan Juan, Master Thesis, University Malaysia Sarawak, 16 Nov 2005
- External Examiner for Ms Lelly Marini, Master Thesis, University Malaysia Sarawak, 26 Jun 2005

## ENGINEERING RESEARCH FIELD AND PUBLICATION

### RESEARCH INTERESTS AND EXPERTISE

- Cold-formed Steel
- Connections
- Corrosion
- Construction Waste Management & Sustainable Development

### LIST OF PUBLICATIONS

#### Books/Proceedings

1. **Lau, H.H.** (2011) *Advances in Steel and Aluminium Structures*, Research Publishing Services, Singapore. ISBN 978-891-08-9247-0
2. **Lau, H.H.** (2012) *Cold-formed Steel Innovations*, Sarawak: Curtin University Sarawak Malaysia. ISBN 978-983-44176-4-2

#### Journal and Conference Papers

1. SAPIEE, Siti Fairuz and **LAU, Hieng Ho.**(2013), "Influence of Screw Spacing on the Strength of Self Drilling Screw Connection for the High Strength Cold-Formed Steel". *Advanced Materials Research*, Vols 712-715, pp1054-1057. **ISI & SCOPUS INDEXED**
2. T. C. H. Ting and **H. H. Lau**, "EFFECTS OF THE PLATE SLENDERNESS RATIO ON BUILT-UP BACK-TO-BACK CHANNELS STUB COLUMNS". *Research, Development, and Practice in Structural Engineering and Construction* Vimonsatit, V., Singh, A., Yazdani, S. (eds.) ASEA-SEC-1, Perth, November 28–December 2, 2012 Pg 349-354.
3. **H. H. Lau** and S. Y. Tang, "GROUP EFFECTS OF THE MULTIPLE SELF-DRILLING SCREWS ON THE CONNECTION SHEAR STRENGTH FOR THE HIGH STRENGTH COLD-FORMED STEEL". 11<sup>th</sup> International Conference on Steel, Space and Composite Structures 12-14 December 2012, Qingdao, China
4. **H. H. Lau**, "A Review of Cold-formed Steel Built-up Columns Research at Curtin University". *Proceeding of 2012 the Borneo Engineering Symposium on Cold-formed Steel Innovations*, July 16, 2012, Kuching, Sarawak, Malaysia. Pg43-68
5. **H. H. Lau** and T. C. H. Ting., "A Parametric Study on The Modified Slenderness Ratio for Cold-formed Steel Built-up Back-to-Back Channel Stub Column". *Proceeding of the 7<sup>th</sup> International Conference on Advances in Steel Structures*, April 14-16, 2012, Nanjing, China. Pg263-271
6. Ting, Chui Huon Tina and **LAU, Hieng Ho.**(2011), "Compression Test on Cold-Formed Steel Built-Up Back-to-Back Channels Stub Columns". *Advanced Materials Research* (Vol 201 – 203),. pg2900-2903 **ISI INDEXED**
7. T. C. H. Ting and **H. H. Lau**, "A Numerical Investigation on Cold-formed Steel Built-up Back-to-back Channel Stub Columns". *Proceeding of the 7<sup>th</sup> International Conference on Steel & Aluminium Structures*, ICASAS, July 13-15, 2011, Kuching, Malaysia. pg440-445
8. **H. H. Lau** and T. C. H. Ting., "LOAD CARRYING CAPACITY OF HIGH STRENGTH COLD-FORMED STEEL BUILT-UP BOX SECTIONS". *Proceeding of the 4<sup>th</sup> International Conference on Steel & Composite Structures*, ICSCS, July 21-23, 2010, Sydney, Australia. pg494-499

9. **H. H. Lau** T. C. H. Ting., F. E. Tang and C. C. Mei “Application of cold-formed steel built-up sections in building construction”. Proceeding of the 3<sup>rd</sup> International Symposium on Cold-formed Metal Structures, July 26, 2010, Hong Kong, China. pg69-91
10. S.P. Chiew, C. C. Mei and **H. H. Lau** “Use of thin-gauge galvanized C-purlin sections in long-span roof truss construction”. Proceeding of the 3<sup>rd</sup> International Symposium on Cold-formed Metal Structures, , July 26, 2010, Hong Kong, China, pg 47-68
11. T.C.H. Ting, **H.H. Lau**, M.C. Law “COMPRESSION TESTS ON COLD FORMED STEEL LIPPED C-CHANNEL COLUMNS –SHORT COLUMN” pg 306-311 Conference on Buildings and Infrastructure Technology, World Engineering Congress 2010, 2<sup>nd</sup> – 5<sup>th</sup> August 2010, Kuching, Sarawak, Malaysia, pg 306-311
12. **Lau, H.H.**, and Ting T.C.H. (2009). “An Investigation of the Compressive Strength of Cold-formed Steel Built-up I Sections.” *Proceedings of the Sixth International Conference on Advances in Steel Structures, ICASS’09*, 16-19<sup>th</sup> December 2009, Hong Kong, China, pp. 441-449.
13. Mei, C.C., Ng, A.L.Y., **Lau, H.H.**, Toh S.L. (2009). “Applications of Built-up Sections in Lightweight Steel Trusses.” *Proceedings of the Sixth International Conference on Advances in Steel Structures, ICASS’09*, 16-19<sup>th</sup> December 2009, Hong Kong, China, pp. 857-864.
14. **Lau, H.H.**, and Kadir A.T. (2009). “Joint Accreditation on Engineering Education for a Foreign University Campus in Malaysia.” *Proceedings of the International Conference on Engineering Education, ICEED’09*, 6-8<sup>th</sup> December 2009, Kuala Lumpur, Malaysia.
15. **Lau, H.H.**, Whyte, A. and Law, P.L. (2008). “Composition and characteristics of Construction Waste Generated by Residential Housing Project.” *International Journal of Environmental Research*, Vol. 2 No. 3. pp.261-268 **ISI INDEXED Citation:3**
16. Law, P.L., Law, I.N., **Lau, H.H.** and Kho, F.W.L. (2007), “Impacts of Barrage Flushing and Flooding-in Operations on Total Suspended Solids Upstream”, *International Journal of Environmental Science & Technology*, Vol. 4, No. 1, pp. 75-83. **ISI INDEXED Citation:2**
17. Almarouf, H. S., Ling L. P., **Ho L. H.** and Baharun A. (2007) “Optimum Coalescence Plate Arch Length for Removal of Oil Droplets from Wastewaters.” *Journal of Engineering Science and Technology*, vol. 2, No. 3 pp. 247- 259
18. **Lau H. H.**, Beale R G, Godley, M H R, (2007). “The Effects of Column Base Connectivity on the stability of Slender Frame Structures.”. *Progress in Steel Building Structures*, 9(3), pp.33-40.
19. **Lau, H.H.** and Whyte, A. (2007). “A Construction Waste Study for Residential Projects in Miri Sarawak.”, *International Conference on Sustainable Building South-East Asia, SB07SEA*, 5<sup>th</sup>-7<sup>th</sup> November 2007, Kuala Lumpur.
20. **Lau, H.H.**, Beale, R.G and Godley M H R (2007). “The influence of column base connectivity on the stability of columns and frames.” *Proceedings of the Sixth International Conference on Steel and Aluminium Structures, ICSAS’07*, Oxford, UK, Oxford Brookes University.
21. **Lau, H.H.**, Beale, R.G and Godley M H R (2007). “The influence of column base connectivity on the stability of columns and frames.” *Proceedings of the Sixth International Conference on Steel and Aluminium Structures, ICSAS’07*, Oxford, UK, Oxford Brookes University.
22. **Lau, H.H.**, Godley, M.H.R. and Beale, R.G. (2007). “The Effects of Column Base Behaviours on the Load Carrying Capacity of Columns and Frames.” *Proceedings of the 9<sup>th</sup> International Conference on Steel, Space & Composite Structures*, 10-15<sup>th</sup> October 2007, Yantai & Beijing, China. **SCOPUS**
23. Mei, C.C., **Lau, H.H.**, Choo A.H. (2007). “Construction and Detailing of Cold Formed Steel Space Truss.” *Proceedings of the 9<sup>th</sup> International Conference on Steel, Space & Composite Structures*, 10-15<sup>th</sup> October 2007, Yantai & Beijing, China, pp. 293-299. **SCOPUS**

24. **Lau H. H.**, Beale R G, Godley, M H R, (2006). "A Parametric Study of the Effect of Column Base Connectivity on The carrying Capacity of Storage Racks.". *Proceedings of the 4<sup>th</sup> International Symposium on Steel Structures*, Seoul, 16-18 November 2006, Seoul.
25. **Lau, H.H.**, Godley, M.H.R. and Beale, R.G. (2006). Column Base Connectivity Effects on The Load Carrying Capacity of Slender Multi-bay Frame Structures. *Proceedings of the 8<sup>th</sup> International Conference on Steel, Space & Composite Structures*, 15-17<sup>th</sup> May 2006 Kuala Lumpur.
26. **Lau, H.H.**, Godley, M.H.R. and Beale, R.G. (2005). The Influence of Column Base Connections on the Stability of Slender Multi-bay Frame Structures. *Proceedings of the International Conference on Advances in Steel Structures*, pp.1421-1426, 13-15 June 2005, Shanghai
27. Law, P.L., Ng, C.K., Ha, H.U and **Lau H.H.** (2004) Analysis and Design of Jobs for Control of Cumulative Trauma Disorders for a Typical Plastic Forks & Spoons Manufacturing Facility, *Journal of the Institution of Engineers, Malaysia (IEM)*. pp.27-32 Vol.66 No.3 September 2005.
28. **Lau, H.H.**, Godley, M.H.R. and Beale, R.G. (2003). The Influence of Column Base Connectivity on the ultimate load of Columns. *Computers & Structures*. Vol 81/18-19 pp.1827-1849. **ISI INDEXED Citation:1**
29. **Lau, H.H.**, Godley, M.H.R. and Beale, R.G. (2003). The influence of column base connections on the stability of slender frame structures. *Proceedings Advances in Structures Steel, Concrete, Composite and Aluminium Conference*, pp.527-533 Sydney, 23-25 June 2003. **ISI INDEXED Citation:1**
30. **Lau, H.H.**, Godley, M.H.R. and Beale, R.G. (2001). The Influence of Column Base Connectivity on the Carrying Capacity of Columns. *Proceedings 8<sup>th</sup> International Conference on Civil and Structural Engineering Computing*, Paper 25.
31. Pu, Y, Godley M.H.R., Beale, R.G. and **Lau, H.H.** (1999). Prediction of Ultimate Capacity of Perforated Lipped Channels. *Journal of Structural Engineering*, Vol.125, No.5.10 **ISI INDEXED Citation:12**
32. **Lau, H.H.**, Godley, M.H.R. and Beale, R.G. (1999). The Effect of Column Base Connectivity on the Carrying Capacity of Slender Columns. *Proceedings 6<sup>th</sup> International Conference on Steel & Space Structures*, Singapore, pp.397-404.

## RESEARCH GRANT REVIEWED

1. Research Grant Council (RGC) of Hong Kong (2013)" " Local Web Buckling Strength and Behaviour of Double-Coped Beams with and without Web Stiffening ",
2. Research Grant Council (RGC) of Hong Kong (2013)" " A PopTube Technology-Enabled New Fiber Reinforced Inorganic Polymer (FRiP) System for Strengthening of Concrete Structures"
3. Research Grant Council (RGC) of Hong Kong (2012)" " A novel Bayesian framework for ambient modal identification incorporating multiple setups ",
4. Research Grant Council (RGC) of Hong Kong (2012)" " Enhanced Fatigue Evaluation of Complex Steel Structures Using Innovative Sensing Technology "
5. Research Grant Council (RGC) of Hong Kong (2012)" " Numerical analysis and field monitoring of temperature actions on supertall structures during the construction stage "

## RESEARCH GRANTS

Position	Project Title	Total Amount No of years	Funding Source
<i>Chief Investigator</i>	<i>New Approach of Multiple Self-drilling screws Connection Design on High Strength Cold-formed Steel (2013)</i>	<i>RM 298,000 Three years</i>	<i>Submitted to Ministry of Higher Education (MoHE) ERGS fund</i>
<i>Chief Investigator</i>	<i>A Study on the Performance of Cold Formed Steel Built-Up I Sections (2012)</i>	<i>RM 137,000 Two years</i>	<i>EcoSteel Sdn Bhd</i>
<i>Chief Investigator</i>	<i>Performance of the Screw Connection for Cold-formed Steel Structure Elevated Temperature. (2012)</i>	<i>RM 11,900 One year</i>	<i>Curtin Sarawak Research Cluster Fund (CSRC)</i>
Chief Investigator	An Investigation on the Sustainability and Adaptability of Light Steel House in Local Industry: Design & Construction Phase	RM 50,000 Three year	Curtin Sarawak Collaborative Research Fund (CSCR)
Chief Investigator	Construction Waste Minimisation: A Sarawak Experience	RM 10,000 One year	Curtin Sarawak Research Fund
<i>Co-Investigator</i>	<i>Innovative Vibration Isolation Systems for Equipments &amp; Structures. (2012)</i>	<i>RM50,000</i>	<i>Ministry of Higher Education (MoHE) ERGS fund</i>
Co-Investigator	Electro-osmosis and Electro-stabilization Experiments on Soft Soils of North Sarawak.	RM234,860	Ministry of Science, Technology and Innovation (MOSTI) e-science fund
Co-Investigator	A Trickling Filter with Spherical Hollow Perforated Plastic Medium in Hexagonal Closest Packed (HCP) Arrangement	RM227,800	Ministry of Science, Technology and Innovation (MOSTI) e-science fund
Co-Investigator	Development and Performance Evaluation of a Phase Separator with Inclined Multiple Angles Parallel Arc Coalescence Plates	RM233,200	Ministry of Science, Technology and Innovation (MOSTI) e-science fund

## CONSULTANCY RECORDS:

- Flexural Testing of Concrete Beam in accordance to ASTM C 78 – 09, Technicorps Sdn Bhd, 2011.
- Tensile Test for Reinforcing Steel Bar, Rekayasa Industri Malaysia Sdn Bhd, Miri, Sarawak, 2008
- Shear Test for Single Point fastener Connections, Ecosteel Sdn Bhd, Kuching Sarawak, 2007
- EIA study for Mobile Asphalt Pre-Mixed Plant in Desa Senadin (Phase I) Industrial Estate, Miri, Sarawak.
- Feasibility study for the proposed construction of 50-metre wide drainage canal for Lutong, Kuala Baram area, Miri, Sarawak.

## **OTHER SCHOLAR ACTIVITIES:**

### ***Conference/Symposium/Seminar Organisation***

- **Organising Chairman** of the 2<sup>nd</sup> Borneo Engineering Symposium of Cold-formed Steel Innovations : Steel Structures Design to Euro Codes 17<sup>th</sup> December 2013
- **Secretary** of Curtin University Technology Science & Engineering Conference (CUTSE), 6-7<sup>th</sup> November 2012, Miri Sarawak
- **Organising Chairman** of the 3<sup>rd</sup> Steel Lecture Series, 2011 / Borneo Engineering Symposium of Cold-formed Steel Innovations
- **Organising Chairman** of the 7<sup>th</sup> International Conference on Steel and Aluminium Structures, 2011 on 13<sup>th</sup> -15<sup>th</sup> July 2011, Kuching Sarawak Malaysia
- **Organising Chairman** of the 2<sup>nd</sup> Steel Lecture Series, Kuching, 2010
- **Organising Chairman** of the 1<sup>st</sup> Steel Lecture Series, Kuching, 2009
- **Organising Chairperson** of the One-day Oil & Gas Colloquium, 25<sup>th</sup> November 2008, Miri Sarawak
- **Organising Chairman** of 1<sup>st</sup> Curtin University of Technology Sarawak Engineering Conference (CUTSE), 27<sup>th</sup>-28<sup>th</sup> November 2006, Miri Sarawak
- **Organising Chairman** of Institution of Engineers Malaysia, Miri Branch 2005 Annual Dinner, 9<sup>th</sup> April 2005
- **Organising Committee** member of IEM &UPM, National Conference on Affordable Quality Housing, 24<sup>th</sup>-26<sup>th</sup> November 2004, Miri Sarawak

### ***Invited Speakers***

- Invited Speaker for Shell Global Project Directors Forum, Sarawak Shell Berhad, Miri, 16<sup>th</sup> March 2011.
- Invited Speaker for Symposium Cold-formed Metal Structures, Hong Kong Polytechnic University, Hong Kong, 26<sup>th</sup> July 2010.
- Invited Speaker for 2003 Steel Building Solution Seminar, Malaysian Institute of Architects (PAM), Kuching, 25<sup>th</sup> October 2003.
- Invited Speaker for Workshop on Environmental Impact Assessment, Curtin University of Technology, 4<sup>th</sup> September 2003

### ***Professional Activities***

- **Honorary Secretary** of Malaysia Cold-formed Metal Institute (MyCSI), 2012-2013
- **Honorary Secretary** of Institution of Engineers Malaysia Miri Branch, 2010-2011 & 2011-2012
- **Executive Committee member** of Institution of Engineers Malaysia Miri Branch, 2009-2010
- **Committee Member** of Graduate & Student Committee, IEM Miri Branch 2004-2006
- **Committee Member** of Miri Treasure Hunt, IEM Miri Branch 2005-2007

### ***International Scientific Committee Members***

- 7<sup>th</sup> International Conference on Advances in Steel Structures, Nanjing, China, April 14-16, 2012.

- 10<sup>th</sup> International Conference on Advances in Steel, Concrete, Composite and Hybrid Structures, Singapore, 2012.
- International Conference on Civil Engineering, Architecture and Building Materials (CEABM 2011), Haikou, PR of China, 2011
- 3<sup>rd</sup> Curtin University of Technology Sarawak Engineering Conference (CUTSE), Miri Sarawak, 2008
- 6<sup>th</sup> International Conference on Steel and Aluminium Structures, Oxford, UK 2007

***Others***

- Manpower Requirement Training for Sarawak Corridor of Renewable Energy (SCORE), 2009. Trainer for Environmental Engineering and Transportation Engineering for three batch of participants in August, October and November 2009
- Construction Waste Management, joint community research with Institution of Engineers, IEM Miri Branch 2006-2007