

CURRICULUM VITAE



A. BUTIR-BUTIR PERIBADI <i>(Personal Details)</i>			
Nama Penuh <i>(Full Name)</i>	Lee Seng Hua		Gelaran <i>(Title)</i> : Dr.
No. MyKad / No. Pasport <i>(Mykad No. / Passport No.)</i>	Warganegara <i>(Citizenship)</i>	Bangsa <i>(Race)</i>	Jantina <i>(Gender)</i>
871210-56-5071	Malaysia	Cina	Lelaki
Jawatan <i>(Designation)</i>	Post-doctoral fellow	Tarikh Lahir <i>(Date of Birth)</i>	10 Dec 1987

Alamat Semasa <i>(Current Address)</i>	Jabatan/Fakulti <i>(Department/Faculty)</i>	E-mel dan URL <i>(E-mail Address and URL)</i>
171, Taman Bintang Cheroh, 27620 Raub, Pahang Tel:	Department of Forest Production, Faculty of Forestry Universiti Putra Malaysia Tel: Fax:	E-mail: leesenghua@hotmail.com URL: H/P: 017-9625131

B. KELAYAKAN AKADEMIK <i>(Academic Qualification)</i>			
Nama Sijil / Kelayakan <i>(Certificate / Qualification obtained)</i>	Nama Sekolah Institusi <i>(Name of School / Institution)</i>	Tahun <i>(Year obtained)</i>	Bidang pengkhususan <i>(Area of Specialization)</i>
Bachelor degree	Universiti Putra Malaysia	2009	Forestry
PhD	Universiti Putra Malaysia	2013	Wood Science and Technology

C. KEMAHIRAN BAHASA <i>(Language Proficiency)</i>					
Bahasa / Language	Lemah Poor (1)	Sederhana Moderate (2)	Baik Good (3)	Amat Baik Very good (4)	Cemerlang Excellent (5)
English				✓	
Bahasa Melayu				✓	
Chinese					✓
Lain-lain <i>(other)</i> :					

D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN (<i>Scientific experience and Specialisation</i>)				
Organization	Position	Start Date	End Date	Expertise

E. PEKERJAAN (<i>Employment</i>)				
Majikan / Employer	Jawatan / Designation	Jabatan / Department	Tarikh lantikan / Start Date	Tarikh tamat / Date Ended
Universiti Putra Malaysia	Post-doctoral fellow	Department of Forest Production	7 July 2014	31 December 2017
Universiti Putra Malaysia	Research Fellow	Lab of Biopolymer dan Derivatives, INTROP	1 Jan 2018	Current

F. ANUGERAH DAN HADIAH (<i>Honours and Awards</i>)				
Name of awards	Title	Award Authority	Award Type	Year
Academic Awards				
Non-Academic Awards				
Awards of Merit				

G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) (<i>List of publications – author (s), title, journal, volume, page and year published</i>)	
Journal	<ol style="list-style-type: none"> Properties of Particleboard Produced from Admixture of Rubberwood and Mahang Species. Asian Journal of Applied Science 3(5): 310-316 Production of Low Formaldehyde Emission Particleboard by Using New Formulated Formaldehyde Based Resin. Asian Journal of Scientific Research 4(3): 264-270. Effect of Post Heat Treatment on Dimensional Stability of UF Bonded Particleboard. Asian Journal of Applied Science 5(5): 299-306. Response of <i>Coptotermes curvignathus</i> (Isoptera: Rhinotermitidae) to formaldehyde catcher-treated particleboard. Pakistan Journal of Biological Sciences 16(21): 1415-1418. Morphological re-description of <i>Cochlochila bullita</i> (Stål) (Heteroptera: Tingidae), a potential pest of <i>Orthosiphon aristatus</i> Blume Miq. (Lamiales: Lamiaceae) in Malaysia. Pakistan Journal of Biological Sciences 16(23): 1786-1790. Effects of Formaldehyde Catcher on Some Properties of Particleboard with Different Ratio of Surface to Core Layer. Asian Journal of Applied Science. Asian Journal of Applied Science 7(1): 22-29. Termites digestomes as a potential source of symbiotic microbiota for lignocelluloses degradation: A review. Pakistan Journal of Biological Sciences. Pakistan Journal of Biological Sciences 17(8): 956-963. Mechanical and physical properties of oil palm trunk core particleboard bonded with

- different UF resins. *Journal of Oil Palm Research* 26(2): 163-169.
9. Properties of particleboard with oil palm trunk as core layer in comparison to three-layer rubberwood particleboard. *Journal of Oil Palm Research* 27(1): 67-74.
 10. Durability of phenolic-resin-treated sesenduk (*Endospermum diadenum*) and jelutong (*Dyera Costulata*) wood against white rot fungus. *European Journal of Wood and Wood Products*. *European journal of wood and wood products* 73: 553-555.
 11. Effects of ammonium carbonate post treatment on phenolic resin treated Sesenduk (*Endospermum diadenum*) wood. *Sains Malaysiana*. *Sains Malaysiana* 44(7): 987-994.
 12. Microstructural, mechanical and physical properties of post heat-treated melamine-fortified urea formaldehyde bonded particleboard. *European Journal of Wood and Wood Products*. *European journal of wood and wood products* 73: 607-616.
 13. Effects of extended heating time and post-urea treatment on formaldehyde emission and properties of phenolic compreg rubberwood. *Pertanika* 38(4): 481-497.
 14. Yield and Calorific Value of Bio Oil Pyrolysed from Oil Palm Biomass and its Relation with Solid Residence Time and Process Temperature. *Asian Journal of Scientific Research* 8(3): 351-358.
 15. Treatability of oil palm frond and rubber wood chips with urea for the development of slow release fertilizer. *Journal of oil palm research* 27(3): 220-228.
 16. Characterisation of phenolic resin and nanoclay admixture and its effect on impreg wood. *Wood Science and Technology* 49(6): 1209-1224.
 17. Antimicrobial Activities of Stembark and Wood Extracts from *Nauclea subdita* against Pathogenic Microorganisms. *Malaysian Journal of Microbiology* 11(4): 364-371.
 18. Effect of C/N ratio in methane productivity and biodegradability during facultative co-digestion of palm oil mill effluent and empty fruit bunch. *Industrial Crops and Products* 76: 409-415.
 19. Value added productivity performance of the Peninsular Malaysian wood sawmilling industry. *Bioresources* 10(4): 7324-7338.
 20. Reducing ash related operation problems of fast growing timber species and oil palm biomass for combustion applications using leaching techniques. *Energy* 90: 622-630.
 21. Life Table of *Cochlochila bullita* Stål (Hemiptera: Tingidae) on *Orthosiphon aristatus* (Blume) Miq. and *Ocimum basilicum* L. in Laboratory Conditions. *Pertanika* 38(4): 499-508.
 22. Strength improvement of Jelutong (*Dyera costulata*) wood via phenolic resin treatments. *Journal of The Indian Academy of Wood Science* 12(2): 132-136.
 23. Addition of ammonium hydroxide as formaldehyde scavenger for sesenduk (*Endospermum diadenum*) wood compregnated using phenolic resins. *European journal of wood and wood products* 74 (2): 277-280.
 24. Oil-heat treatment of rubberwood for optimum changes in chemical constituents and decay resistance. *Journal of Tropical Forest Science* 28 (1): 88-96.
 25. Impregnation of sesenduk (*Endospermum diadenum*) wood with phenol formaldehyde and nanoclay admixture: Effect on fungal decay and termites attack. *Sains Malaysiana* 45(2): 255-262.
 26. Performance of compreg laminated bamboo/wood hybrid using phenolic-resin-treated strips as core layer (2016). *European Journal of wood and wood products*. *European Journal of Wood and Wood Products* 71:621-624
 27. Development of *pteroma pendula* Joannis (Lepidoptera: Psychidae) feeding on selected landscape trees in Peninsular Malaysia. *The Malaysian Forester* 78(1&2): 87-96.
 28. Effect of accelerated and outdoor ageing on leachability and properties of compreg laminated sesenduk (*Endospermum diadenum*) wood. *Journal of Tropical Forestry* 29(2): 198-207.
 29. Effect of post-thermal compression treatment on the density profile of rubberwood particleboard and its relation to mechanical properties. Submitted to *Journal of Tropical Forest Science* 29(1): 93-104.
 30. Hydrothermal treatment of oil palm wood: effect of treatment variables on dimensional stability using Response Surface Methodology. *Journal of Oil Palm Research* 29(1): 130-135.
 31. Dimensional stability of heat oil-cured particleboard made with oil palm trunk and rubberwood (2017). *European Journal of Wood and Wood Products* 75(2): 285-288.

32. Physico-mechanical properties of particleboard made from heat-treated rubberwood particles. *European Journal of Wood and Wood Products* 75(4): 655-658.
33. Addition of propylamine as formaldehyde scavenger for urea formaldehyde-bonded particleboard (2017). *Wood Research* 62(2): 329-334.
34. Preliminary study on properties evaluation of cement added gypsum board reinforced with kenaf (*Hibiscus cannabinus*) bast fibres (2017). *Journal of The Indian Academy of Wood Science* 14(1): 46-48.
35. Mechanical properties of finger jointed beams fabricated from eight Malaysian hardwood species (2017). *Construction and Building Materials* 145: 467-473.
36. Response surface methodology model of hydrothermal treatment parameters on decay resistance of oil palm wood. *Journal of Tropical Forest Science* 29(3): 318-324.
37. Comparison of three processing methods in flattening bamboo culm for laminated bamboo timber production (2017). *Journal of Forestry Research*. Accepted.
38. Bioenergy Production from Bamboo: Potential Source From Malaysian's Perspective (2017). *Bioresources* 12(3): 6944-6867.
39. Evaluation on the Virulence of Entomopathogenic Fungus, *Isaria fumosorosea* Isolates against Subterranean Termites *Coptotermes* spp. (Isoptera: Rhinotermitidae). *Journal of Forestry Research*. Accepted.
40. Assessment of oil palm wood quality improvement through integrated treatment process as function of sawing pattern and slab thickness. *Journal of Oil Palm Research* 29(3): 366-372.
41. A comparison between the properties of low and medium molecular weight phenol formaldehyde resin-treated laminated compreg oil palm wood. *International Forestry Review* 19(S3): 1-11.
42. Machining properties of natural regeneration and planted *Acacia mangium* Willd. x *Acacia auriculiformis* A. Cunn. ex Benth. Hybrid. *Journal of Tropical Forest Science*. Accepted.
43. Effects of pressing cycles and durations on the properties of compreg oil palm wood. *Wood Material Science and Engineering*, Published online.
44. Chemical and physico-mechanical properties and biological durability of rubberwood particleboards after post heat-treatment in palm oil. *Holzforschung* 72(2): 159-167.
45. Physico-mechanical properties of laminates made from Sematan bamboo and Sesenduk wood derived from Malaysia's secondary forest. *International Forestry Review* 19(S3): 12-19.
46. Effects of superheated steam treatment on the physical and mechanical properties of light red meranti and kedondong wood (2018). *Journal of Tropical Forest Science*. Accepted.
47. Physico-mechanical properties of laminates made from Sematan bamboo and Sesenduk wood derived from Malaysia's secondary forest (2017). *International Forestry Review*.
48. Nitrogen deposition and release pattern of slow release fertiliser made from urea-impregnated oil palm frond and rubberwood chips (2018) *Journal of Forestry Research*.
49. Effects of two-step post heat-treatment in palm oil on the properties of oil palm trunk particleboard (2018) *Industrial Crops and Products*.
50. Physico-mechanical properties of light red meranti (*Shorea* spp.) and kedondong (*Canarium* spp.) wood heat treated in convection oven (2018) *Journal of The Indian Academy of Wood Science*.
51. Behaviour of walls constructed using kelempayan (*Neolamarckia cadamba*) wood wool reinforced cement board (2018). *Sains Malaysiana*
52. 53. Resistance of laminated veneer lumber (LVL) produced from rubberwood, radiata pine and larch against subterranean termites and white rot fungi. *Current Investigations in Agriculture and Current Research* 3(1): 1-3.
53. Thermal treatment of wood using vegetable oils: A review (2018). *Construction & Building Materials* 118: 408-419.
54. Reducing formaldehyde emission of urea formaldehyde-bonded particleboard by addition of amines as formaldehyde scavenger. *Building and Environment* 142: 188-194.

<i>Books/Monographs</i>	
<i>Chapter in book</i>	<ol style="list-style-type: none"> 1. Empty Fruit Bunches in the Race for Energy, Biochemical, and Material Industry. Springer International Publishing Switzerland. 2. Development and characterization of wood and non-wood particle based green composites. In: Green Biocomposites: Manufacturing and Properties. Springer International Publishing Switzerland. 3. Kenaf Fiber: Structure and Properties. In: Kenaf Fibers and Composites. CRC press, Taylor and Francis Group.
<i>Proceedings</i>	<ol style="list-style-type: none"> 1. Phenolic resin-compressed laminated bamboo: it's performance as function of compression ratio and curing time (2016). Proceedings of the International Conference on Sustainable Forest Development in view of Climate Change: 110-112. 2. Effects of ammonium and aluminium-based hardener on formaldehyde emission and properties of UF-bonded particleboard (2016). Proceedings of the International Conference on Sustainable Forest Development in view of Climate Change: 113-115.
<i>Other publications</i>	<ol style="list-style-type: none"> 1. DMDHEU resin as a potential adhesive for woody materials bonding. Annals of Warsaw University of Life Sciences – SGGW. Forestry and Wood Technology No 81, 2013: 143-148. 2. Occurrence of <i>Cochlochila bullita</i> Stål in Malaysia. Serangga 19(2): 67-76.
<i>Computer software</i>	

H. PROJEK PENYELIDIKAN TERDAHULU (<i>Past Research Project</i>)					
<i>Project No.</i>	<i>Project Title</i>	<i>Role</i>	<i>Year</i>	<i>Source of fund</i>	<i>Status</i>
FRGS/2/2014/STWN02/UPM/01/2	Characteristics and morphological properties of thermal treated wood particles and its relation to performance of particleboard	Member	2014-2017	FRGS, KPT	On-going
GP-IPM/2014/9444600	Development of suitable treatment to reduce formaldehyde emission from urea formaldehyde bonded particleboard	Member	2015-2017	RUGS, UPM	Completed
	A study on formaldehyde emission awareness among public and plywood mills in Malaysia	Member	2016-2017	MTIB	Completed
	Finishing of Acacia wood for medium- and high-ends markets	Member	2016-2017	PPRN, KPT	Completed
GP/2017/9575200	Modification methods for high performance particleboard	Member	2017-2019	UPM	On-going
GP/2017/9575500	An assessment of dimensional stability and biological durability	Member	2017-2019	UPM	On-going

	of particleboard made from oil treated particles				
	Survey on formaldehyde emission level from plywood products throughout Malaysia Phase 2.	Member	2017-2019	MTIB	On-going