

# CURRICULUM VITAE



## A. BUTIR-BUTIR PERIBADI (Personal Details)

Nama Penuh (Full Name)	H'NG PAIK SAN		Gelaran (Title): DR.
No. MyKad / No. Pasport (Mykad No. / Passport No.)	Warganegara (Citizenship)	Bangsa (Race)	Jantina (Gender)
751004-08-5441	MALAYSIA	CINA	LELAKI
Jawatan (Designation)	ASSOCIATE PROF.	Tarikh Lahir (Date of Birth)	4 OKTOBER 1975

Alamat Semasa (Current Address)	Jabatan / Fakulti (Department / Faculty)	E-meldan URL (E-mail Address and URL)
19, JALAN BERJAYA BARU, TAMAN BERJAYA BARU, 43000 SUNGAI CHUA, KAJANG. SELANGOR	JABATAN PENGELUARAN HUTAN, FAKULTI PERHUTANAN  Tel: 03-89467189 Fax: 03-89432514	E-mail: ngpaiksan@upm.edu.my  URL:  H/P: 016-2903919

## B. KELAYAKAN AKADEMIK (Academic Qualification)

Nama Sijil / Kelayakan (Certificate / Qualification obtained)	Nama Sekolah / Institusi (Name of School / Institution)	Tahun (Year obtained)	Bidang pengkhususan (Area of Specialization)
Ph.D.	Universiti Putra Malaysia	2003	Wood science, structure and design
Bachelor of Forestry Science	Universiti Putra Malaysia	1999	Wood Industry

## C. KEMAHIRAN BAHASA (Language Proficiency)

Bahasa / Language	Lemah Poor (1)	Sederhana Moderate (2)	Baik Good (3)	Amat Baik Very good (4)	Cemerlang Excellent (5)
English					5
Bahasa Melayu					5
Chinese					5
Lain-lain (other):					

## D. TUGAS-TUGAS PENTADBIRAN DAN TANGGUNGJAWAB LAIN

### (Administrative Work)

Organiser	Position	Date Appointed	Date Ended
Institute of Tropical Forestry and Forest Products	Head of Laboratory	15/04/2018	14/04/2021
The 1st International Conference on Sustainable	Coordinator	24/11/2015	11/08/2016

Forest Development in View Of Climate Change			
Institute of Tropical Forestry and Forest Products	Head of Laboratory	01/10/2014	31/08/2016
Faculty of Forestry	Coordinator	18/06/2012	
Faculty of Forestry	Coordinator	01/04/2012	31/03/2014
Faculty of Forestry	Coordinator	06/12/2010	
Jawatankuasa penentukuran/ penyelenggaraan alatan MS ISO, Jabatan Pengeluaran, Fakulti Perhutanan	Others	26/07/2010	25/07/2011
Jawatankuasa Jaminan Kualiti Fakulti Perhutanan	Others	05/02/2010	31/12/2012
Jawatankuasa Penyemakan Semula Program Bachelor Sains Teknologi Kayu	Others	01/02/2010	01/02/2012
Jabatan Pengeluaran Hutan Fakulti Perhutanan	Others	01/01/2010	31/12/2016
Unit Latihan Industri ULI	Coordinator	20/07/2009	20/07/2012
Kolokium Penyelidikan Fakulti	Others	13/06/2007	15/06/2007
Jawatankuasa Khidmat Profesional Fakulti Perhutanan	Others	25/01/2007	31/12/2009
Jawatankuasa Teknologi Maklumat dan Komunikasi Fakulti Perhutanan	Others	25/01/2007	31/12/2009
Faculty of Forestry	Coordinator	28/02/2006	31/12/2008
Institute of Tropical Forestry and Forest Products	Others	25/10/2005	
Faculty of Forestry	Others	28/06/2005	

## E. PROJEK PENYELIDIKAN TERDAHULU

*(Past Research Project)*

<i>Project No.</i>	<i>Project Title</i>	<i>Role</i>	<i>Year</i>	<i>Source of fund</i>	<i>Status</i>
01-01-07-077FR	Factors affecting lignocellulose glucose metabolism during saccharification process by saccharification cerevisiae.	Project leader	2006-2008	MOHE	Completed
03-01-04-SF0361	Development of bio-ethanol from lignocellulose materials for engine's fuel	Project Leader	2006-2009	MOSTI	Completed
03-01-09-0798RU	Development of	Project	2009-2011	RUGS/UPM	Completed

	ultra low formaldehyde emission from admixture of rubberwood and oil palm trunk particleboard	Leader			
02-04-10-817FR	Total sugars derived from oil palm trunk using extraction systems	Project Leader	2010-2012	MOHE	Completed
03-02-12-2063RU	Efficiency of wood eating termite for converting lignocellulosic materials into bioethanol	Project Leader	2012-2014	RUGS/UPM	Completed
FRGS/1/2013/SG06/UPM/02/3	Investigation of molten structure formation under high temperature combustion of fast growing timbers to manage deposits inside biomass furnace	Project Leader	2013-2015	MOHE	Completed
PRHQ-CT-14-002	Development of washing system for empty fruit bunches	Project Leader	10/07/2014-10/07/2016	Private funding (Private Company)	
	Composting of empty fruit bunches into compost at Keratong, Pahang	Project Leader	01/10/2013-30/11/2013		
	Development of compost using empty fruit bunches and activator	Project Leader	01/04/2014-01/04/2016		
	Research collaboration for green paulownia	Project Leader	01/10/2015-30/09/2020		
	Woodchem 2015 – taking wood industry to new heights	Project Leader	04/11/2015-05/11/2015		
	Invitation to visit shandong academy of agricultural	Project Leader	21/12/2015-24/12/2015		

	sciences				
	Perbincangan mengenai project kerjasama penghasilan anak pokok Paulownia antara INTROP dengan Green Paulownia Sdn Bhd	Project Leader	15/04/2016-15/04/2016		
	Plantation project for cellulosic fibre crops	Project Leader	03/11/2015-03/11/2017		
	Lojing- koperasi jajahan kecil Lojing Gua Musang Berhad	Project Leader	04/01/2016-31/12/2016		
UPM/INTROP/100-13/9/3/HICOE(6369110)	Production of Activated Carbon from Palm Kernel Shell (PKS) and Coconut Shell (CS) using Incorporative Treatment of Chemical Activation and Two Step-Carbonization Procedures	Project Leader	01/01/2017-31/12/2019		
	Pilot Scale De-Ashing Machine To Remove Ash Forming Elements In EFB For Bio Oil Production	Project Leader	11/05/2017-10/07/2018		

## F. PENYELIAAN PELAJAR

(Supervision of Student)

### a. Bachelor

Name Of Student	Title Of Research Project	Area (Specialization)	Year Started	Status
1. Kong Wei Jern	The effect of environmental conditions on root rot and its biocontrol development	Wood Science and Technology	2014	Completed
2. Lau Poh Yap	co-composting of empty fruit bunch with other nitrogen source material for shorter	Wood Science and Technology	2013	Completed

	maturation time			
3. Ng Chew Yee	Particleboard produced from empty fruit bunch fibers filtered with acetic acid	Wood Science and Technology	2013	Completed
4. Nur Atikah Binti Mohd Nordin	Methane production of POME added with EFB	Wood Science and Technology	2013	Completed
5. Rasdianah Binti Dahali	Physical and mechanical properties of particleboard produced from EFB fibers treated with sodium hydroxide	Wood Science and Technology	2013	Completed
6. Chow May Jinn	Determination of termite and fungi resistance of rubberwood treated with pyroligneous acid	Wood Science and Technology	2010	Completed
7. Eng Hooi Kyin	Production of low formaldehyde emission particleboard using MUF resin	Wood Science and Technology	2010	Completed
8. Tay Pei Wen	Determination of starch and sugar content from OPT using continuous extraction method	Wood Science and Technology	2010	Completed
9. Chai Ee Wen	Determination of chemical composition and calorific value of fast growing tree species	Wood Science and Technology	2009	Completed
10. Moktar Bin Bakar	Effect of formaldehyde catcher on formaldehyde emission of particleboard	Wood Technology	2009	Completed
11. Nurliyana Binti Mohd Yaakob	Production of super E0 particleboard with different concentration of formaldehyde catcher	Wood Science and Technology	2009	Completed
12. Syahidatul Nadia Binti Ismail	Production of particleboard with super E0 resin under different dressing temperature and time	Wood Science and Technology	2009	Completed
13. Tan Shu Ei	Xylose content from oil palm trunk	Forest Production	2009	Completed
14. Tor Ee Sang	Starch content from oil palm trunk	Forest	2009	Completed

		Production		
15. Tunku Faisal Binti Tunku Fadzillah	Dimensional stability of three layer particleboard	Wood Technology	2009	Completed
16. Lim Chun Guan	Effect of oil palm trunk treatment on physical and mechanical properties of three layers engineered board from oil palm trunk	Wood Science	2008	Completed
17. Mahfuzah Binti Badian	Effect of Pressure variables on physical and mechanical properties of three layers engineered board from oil palm trunk	Wood Science	2008	Completed
18. Nurul Wahyu Binti Azizan	Effect of wax concentration on particleboard formaldehyde release	Wood Science	2008	Completed
19. Shahalina Shauradin	Effectiveness of pyroligneous acid against molds and white rot fungi under laboratory condition	Wood Treatment	2008	Completed
20. Wong Lih Jiun	Effect of hydrolysate pH and fermentation temperature on the ethanol yield during fermentation	Wood Science	2008	Completed
21. Chan Jia Ming	Durability of wood plastic composite against <i>Coptotermes curvignathus</i>	Wood Science and Technology	2007	Completed
22. Chang Chek Jun	Effect of kenaf variety on the mechanical and physical properties of particleboard	Wood Science and Technology	2007	Completed
23. Hii Yieng Yee	Durability of wood plastic composite against molds and fungi (White rot)	Wood Science and Technology	2007	Completed
24. Khor Bin Nee	Anatomical structure and fibre morphology of different kenaf variety	Wood Science and Technology	2007	Completed
25. Kok Pei Ek	Chemical Composition of Different Kenaf Variety	Wood Science and Technology	2007	Completed

<b>b. Master</b>				
1. Iskandar Muhammad bin Masrukin	Development of cross laminated timber using sapium spp for structural application	Wood Science and Technology	2015	Co-supervisor
2. Raja Nazrin Bin Raja Ahmad	Analysis of bamboo fuels characteristic dependent on the culm from <i>bambusa vulgaris</i> and <i>gigantochloa scorthezinii</i>	Biopolymer and Derivatives	2015	
3. Siti Nurul Ashikin binti Rosli	Effectiveness of oil palm wood treated with 1,3-dimethylol-4,5-dihydroxyethyleneurea (DMDHEU)	Wood Science and Technology	2015	
4. Ahmad Rafeeq Mohamed Razali	Engineering design of empty fruit bunch fibre washing system	Biopolymer and Derivatives	2014	
5. Chin Yin Yee	Effect of de-ashing of empty fruit bunch (EFB) on the quality of bio-oil	Biopolymer and Derivatives	2014	
6. Pang Suet Kum	Life cycle analysis of Malaysia Wood Based Industry	Wood Industry Management	2014	Completed
7. Siti Nur Amalina Shuhaimy	Effect of de-ashing on EFB for potassium recovery	Biopolymer and Derivatives	2014	
8. William Foo Saik Cheng	Technical and environmental feasibility of bio-oil production using RTP	Biopolymer and Derivatives	2014	
9. Peng Shih Hao	Co-composting of empty fruit bunch and lignocellulosic materials using new microbes isolated by All Cosmo industries Sdn Bhd	Wood Science and Technology	2012 (converted to PhD)	
10. Wan Azha Bin Wan Mustapha	Co-composting of lignocellulosic materials using different ration of fungi and bacteria	Wood Science and Technology	2012	
11. Eng Hooi Kyin	Biofuel Produce from wood Liquefaction process	Wood Science and Technology	2011	Completed
12. Tay Pei Wen	Continuous extraction process of	Wood Science and	2011	Completed

	starch and sugars from oil palm trunk	Technology		
13. Wong Sin-Yee	Termites for Bio-ethanol Production	Wood Science and Technology	2011	Completed
14. Song Fei	(i) Performance compression of MUF resin and mixture of UF/MF resin (ii) Effect of methanol on stability of MUF resin	Wood Science and Technology	2010	Co-supervisor
15. Sun Yulai	(i) Performance compression of MUF resin and mixture of UF/MF resin (ii) Effect of methanol on stability of MUF resin	Wood Science and Technology	2010	Co-supervisor
16. Zhang Jun	(i) Performance compression of MUF resin and mixture of UF/MF resin (ii) Effect of methanol on stability of MUF resin	Wood Science and Technology	2010	Co-supervisor
17. Loh Yang Way	Development of ultra low formaldehyde release (Super E0) particleboard by using new formulation of melamine urea formaldehyde	Wood Science and Technology	2009	Completed 2011
18. Wong Lih Jiun	Production of Starch, Glucose and Xylose from Oil Palm Trunk Lumber	Wood Science and Technology	2009	Completed 2011
19. Geetha a/p Ramasamy	The machining characteristic of oil palm particleboard	Wood Technology Industry	2008	Completed 2010 Co-supervisor
20. Norani Binti Abd. Karim	Utilisation of kenaf is partial replacement for rubberwood in MDF industries and Product Acceptance Analysis	Wood Design and Analysis	2008	Completed 2010
21. Wu Ping	Life cycle assessment of palm-derived biomass energy in Malaysia	Tekno Ekonomi Dalam Biokomposit	2008	Completed 2010 Co-supervisor



22. Chai Lai Yee	Development of Three Layer Engineered Board from Oil Palm Trunk	Wood Composite	2007	Completed 2010
23. Chin Kit Ling	Development of bio-ethanol from wood waste and lignocellulosic materials	Wood Science and Technology	2007	Completed 2009
24. Hang Jit Meng	Performance of wood plastic composite produced using injection method	Wood Composite	2006	Completed 2010
<b>c. PhD</b>				
1. Khoo Pui San	Effect of rotary peeling parameters on the yield and quality of rubberwood veneer	Biopolymer and Derivatives	2015 (PhD conversion on 2017)	
2. Lee Chuan Li	The effect of reaction time and temperature on the properties of carbon black from palm kernel shell and coconut shell	Biopolymer and Derivatives	2015 (PhD conversion on 2017)	
3. Lee See Teck	Perception change of working adult towards forestry as a tool for prevention of climate change	Forestry	2016	
4. Chai Lai Yee	Properties of laminated wood timber	Wood Science and Technology	2013	
5. Go Wen Ze	Biological controls towards white root rot disease ( <i>Rigidoporus lignosus</i> ) in <i>Hevea brasiliensis</i>	Wood Science and Technology	2013	
6. Norul Izani Binti Md. Allwi	Effects of treatments on residual oil content in oil palm empty fruit bunch and its performances on medium density fiberboard	Wood Science and Technology	2012	Co-supervisor
7. Wong Lih Jiun	Extraction of starch, xylose and glucose from oil palm stem for bio-ethanol production	Wood Science and Technology	2012	
8. Wong Wan Zhen	Biological control of	Wood Science	2012	Completed

	subterranean termite, <i>Coptotermes curvignathus</i> (Isoptera: Rhinotermitidae) using indigenous bacteria from its gut and foraging pathway	and Technology		2016
9. Nurliyana binti Mohd Yaakob	Enhancement of methane production from Palm Oil Mill Effluent (POME) through co-digestion and bio-augmentation treatment	Wood Science and Technology	2011	Completed 2016
10. Chai Ee Wen	Effective composting process for lignocellulosic materials from agro-industrial waste in Malaysia	Wood Science and Technology	2011	Completed 2015
11. Chow May Jinn	Chemical composition and challenges of EFB as biomass	Wood Science and Technology	2011	
12. Chin Kit Ling	Production of biomass solid biofuel for green energy power plant	Biopolymer and Derivatives	2010	Completed 2014 Co-supervisor
13. Lee Seng Hua	Development of ultra low formaldehyde release (Super E0) particleboard by using new formulation urea formaldehyde	Wood Science and Technology	2009	Completed 2013
14. Lum Wei Chen	Particleboard made from rubberwood treated with formaldehyde catcher	Wood Science and Technology	2009	Completed 2014
15. Amel Basher Ahmed Basher	Utilization of Kenaf fibre in cement bonded fibre bonded	Wood Science and Technology	2008	Completed 2014 Co-supervisor
16. Lee Soon Heng	Development of wood bio preservatives from wood by-products using distillation method	Wood Science and Technology	2007	Completed 2016
17. Lee Ai Nee	Development of wood plastic composite for structural use	Wood Composite	2006	

## G. SENARAI PENERBITAN

(List of publications – author (s), title, journal, volume, page and year published)

Journal	Impact Factor Journal
	<p>Khoo P.S., H'ng P.S., Chin K.L, Edi Suhaimi B., Maminski M., Raja-Nazrin R.A., Lee C.L., Ashikin S.N., and Mohd-Hizami S. 2018. Peeling of small diameter rubber log using spindleless lathe technology: evaluation of veneer properties from outer to inner radial section of log at different veneer thicknesses. <i>European Journal of Wood and Wood Products</i>, 76(4), 1335-1346.</p>
	<p>H'ng P.S., Chin K.L., Chai E.W., Peng S.H., Wan-Azha W.M., Halimatuna I., Go W.Z., Khoo P.S., Lee C.L., Raja-Nazrin R.A. and Ashikin S.N. 2018. Evolution of organic matter within sixty days of composting of lignocellulosic food industry waste in Malaysia. <i>Compost Science and Utilization</i>, 26, 16-26.</p>
	<p>Chin K.L., Shamsudin I., Hakeem K.R., H'ng P.S., Lee S.H., Mohd Azmi M.L.. 2017. Bioenergy Production from Bamboo: Potential Source from Malaysia's Perspective. <i>Bioresources</i>, 12(3), 6844-6867.</p>
	<p>Lee C.L, H'ng P.S., Paridah M.T., Chin K.L., Khoo P.S., Raja Nazrin R.A., Asyikin S.N. and Maminski M.. 2017. Effect of Reaction Time and Temperature on the Properties of Carbon Black Made from Palm Kernel and Coconut Shell. <i>Asian Journal of Scientific Research</i>, 10, 24-33.</p>
	<p>H'ng, P. S., Li, K. L., Cheng, Z. Z., Tang, C. H., Wong, Y. S., Foo, S. L., Aw, T. H., Wan, K. Fong. 2016. Anatomical Features, Fiber Morphological, Physical and Mechanical Properties of Three Years Old New Hybrid <i>Paulownia</i>: Green <i>Paulownia</i>. <i>Research Journal of Forestry</i>, 10, 30-35.</p>
	<p>Maminski, M., Kozakiewicz, P., Jaskołowski, W., Chin, K. L., H'ng, P. K., Toczyłowska-Maminska, R. 2016. Enhancement of technical value of oil palm (<i>Elaeis guineensis</i> Jacq.) waste trunk through modification with 1,3-dimethylol-4,5-dihydroxyethyleneurea (DMDHEU). <i>European Journal of Wood and Wood Products</i>, 74, 837–844.</p>
	<p>Go, W. Z., H'ng, P. S., Wong, M. Y., Tan, G. H., Luqman Chuah, A., Salmiah, U., Toczyłowska-Mamińska, R., Soni, O., Wong, W. Z., Chin, K. L., Chai, E. W. 2015. Occurrence and characterisation of mycoflora in soil of different health conditions associated with white root rot disease in Malaysia rubber plantation. <i>Journal of Rubber Research</i>, 18(3), 159-170.</p>
	<p>Wong, W. Z., H'ng, P. S., Chin, K. L., Ahmad Said Sajap, Tan, G. H., Paridah, M. T., Soni Othman, Chai, E. W., &amp; Go, W. Z. 2015. Preferential Use of Carbon Sources in Culturable Aerobic Mesophilic Bacteria of <i>Coptotermes curvignathus</i>'s (Isoptera: Rhinotermitidae) Gut and Its Foraging Area. <i>Environmental Entomology</i>, 44(5), 1367-1374.</p>
	<p>Chin, K. L., H'ng, P. S., Paridah, M. T., Szymona, K., Maminski, M., Lee, S. H., Lum, W. C., Nurliyana, M. Y., Chow, M. J., Go, W. Z. 2015. Reducing ash related operation problems of fast growing timber species and oil palm biomass for combustion applications using leaching techniques. <i>Energy</i>, 9(1), 622-630.</p>
	<p>Lee, S. H., Zaidon, A., Lum, W. C., H'ng, P. S., Tan, L. P., Chow, M. J., Chai, E. W., Chin, K. L. 2015. Properties of Particleboard with Oil Palm Trunk as Core Layer in Comparison to Three-Layer Rubberwood Particleboard. <i>Journal of Oil Palm Research</i>,</p>

27(1), 67-74.

Nurliyana, M. Y., H'ng, P. S., Rasmina, H., Umi Kalsom, M. S., Chin, K. L., Lee, S. H., Lum, W. C., Khoo, G. D. 2015. 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.

Toczyłowska-Maminska, R., Szymona, K., Madej, H., Wong, W. Z., Bala, A., Brutkowski, W., Krajewski, K., H'ng, P. S., Maminski, M. 2015. Cellulolytic and electrogenic activity of *Enterobacter cloacae* in mediatorless microbial fuel cell. *Applied Energy*, 160, 88–93.

Pang, S. K., H'ng, P. S., Chai, L. Y., Lee, S. H., Paridah, M. T. 2015. Value added productivity performance of the Peninsular Malaysian Wood Sawmilling Industry. *BioResource*, 10(4), 7324-7338.

Szymona K, Borysiuk P, H'ng P.S., Chin K.L., Mamiński M, 2014. Valorization of waste oil palm (*Elaeisguineensis*Jacq.) biomass through furfuralization. *Materials & Design*. 53 (January 2014):425–429.

Lee, S. H.; H'ng, P. S.; Lum, W. C.; Zaidon, A.; Bakar, E. S.; Nurliyana, M. Y.; Chai, E. W.; Chin, K. L. 2014. Mechanical and physical properties of oil palm trunk core particleboard bonded with different UF resins. *Journal of Oil Palm Research*. 26 (2): 163-169

E. W. Chai, P. S. H'ng, S. H. Peng, W. M. Wan-Azha, K. L. Chin, M. J. Chow & W. Z. Wong. 2013. Compost feedstock characteristics and ratio modelling for organic waste materials co-composting in Malaysia, *Environmental Technology*, 34(20):2859-2866.

P.S. H'ng, L.Y. Chai, K.L. Chin, P.W. Tay, H.K. Eng, S.Y. Wong, W.Z. Wong, M.J. Chow, E.W. Chai. 2013. Urea formaldehyde impregnated oil palm trunk as the core layer for three-layered board. *Materials & Design*, 50(September 2013):457–462.

Chin, K. L., H'ng, P. S., Go, W. Z., Wong, W. Z., Lim, T. W., Maminski, M., Luqman C. 2013. Optimization of torrefaction conditions for high energy density solid biofuel from oil palm biomass and fast growing species available in Malaysia. *Industrial Crops and Products*, 49, 768–774.

Norullzani, M. A., Paridah, M. T., Anwar, U. M. K., Mohd Nor, M. Y., & H'ng, P. S. 2013. Effects of fiber treatment on morphology, tensile and thermogravimetric analysis of oil palm empty fruit bunches fibers. *Composites Part B: Engineering*, 45(1), 1251–1257.

Tay, P. W., H'ng, P. S., Chin, K. L., Wong, L. J., & Luqman, A. C. 2013. Effects of steeping variables and substrate mesh size on starch yield extracted from oil palm trunk. *Industrial Crops and Products*, 44, 240–245.

K.L. Chin, P. S. H'ng, E. W. Chai, B. T. Tey, M. J. Chin, M. T. Paridah, A. C. Luqman, M. Maminski. 2012. Fuel Characteristics of Solid Biofuel Derived from Oil Palm Biomass and Fast Growing Timber Species in Malaysia. *BioEnergyResearch*. 6(1) : 1-8.

K.L. Chin, P.S. H'ng, L.J. Wong, B.T. Tey and M.T. Paridah. 2011. Production of glucose from oil palm trunk and sawdust of rubberwood and mixed hardwood. *Applied Energy*88 (11): 4222-4228

L.Y. Chai, P.S. H'ng, C.G. Lim, K.L. Chin, M.Z. Jusoh and E.S. Bakar. 2011. Production

of Oil Palm Trunk Core Board with Wood Veneer Laminations. *Journal of Oil Palm Research* 23 December: 1167-1172.

K.L. Chin, P.S. H'ng, L.J. Wong, B.T. Tey, M.T. Paridah. 2010. Optimization study of ethanolic fermentation from oil palm trunk, rubberwood and mixed hardwood hydrolysates using *Saccharomyces cerevisiae*. *Bioresource Technology*. 101(9): 3287-3291.

Lee S.H., H'ng P.S., Lee A.N., Tey B.T. 2010. Effect of pyrolysis temperature on the production of pyroligneous acid from oil palm trunk sawdust. *Int Forest Rev*. 12(5): 271

Wong L.J., H'ng P.S., Chin K.L. 2010. Fermentation efficiency of bioethanol using oil palm trunk hydrolysate. *Int Forest Rev*. 12(5): 271

Loh Y.W., H'ng P.S., Lee S.H., Lum W.C. Bakar M. 2010. Effects of formaldehyde catcher on formaldehyde emission of particleboard. *Int Forest Rev*. 12(5): 282.

Lum W.C., Lee S.H. Loh Y.W., H'ng P.S. 2010. Effect of wax concentration on formaldehyde emission of F\*\* Type 8 Particleboard. *Int Forest Rev*. 12(5):285.

#### CI Journal

H'ng, P. S., Kaljeet Singh, A. S., Ahmad Zairin, I., Kiranjeet Kaur, A. S., Pang, S. K. 2015. Initiatives and Efforts towards Greening Malaysian Furniture Industry. *Asian Journal of Scientific Research*, 8(2), 122-133.

L.J. Wong, P.S. H'ng, S.Y. Wong, S.H. Lee, W.C. Lum, E.W. Chai, W.Z. Wong and K.L. Chin, 2014. Termite Digestomes as a Potential Source of Symbiotic Microbiota for Lignocelluloses Degradation: A Review. *Pakistan Journal of Biological Sciences*, 17: 956-963.

W.C. Lum, S.H. Lee and P.S. H'ng, 2014. Effects of Formaldehyde Catcher on Some Properties of Particleboard with Different Ratio of Surface to Core Layer. *Asian Journal of Applied Sciences*, 7: 22-29.

S.H. Lee, P.S. H'ng, T.L. Peng and W.C. Lum, 2013. Response of *Coptotermes curvignathus* (Isoptera: Rhinotermitidae) to Formaldehyde Catcher-treated Particleboard. *Pakistan Journal of Biological Sciences*, 16: 1415-1418.

S.H. Peng, W.M. Wan-Azha, W.Z. Wong, W.Z. Go, E.W. Chai, K.L. Chin and P.S. H'ng, 2013. Effect of Using Agro-fertilizers and N-fixing *Azotobacter* Enhanced Biofertilizers on the Growth and Yield of Corn. *Journal of Applied Sciences*, 13: 508-512.

H'ng, P. S., Lee, S. H., Lum, W. C. 2012. Effect of Post Heat Treatment on Dimensional Stability of UF Bonded Particleboard. *Asian Journal of Applied Sciences*, 5(5), 299-306.

Lee, S. H., H'ng, P. S., Chow, M. J., Sajap, A. S., Tey, B. T., Salmiah, U., Sun, Y. L. 2011. Effectiveness of Pyroligneous Acids from Vapour Released in Charcoal Industry against Biodegradable Agent under Laboratory Condition. *Journal of Applied Sciences*, 11(24), 3848-3853.

H'ng, P. S., Wong, L. J., Chin, K. L., Tor, E. S., Tan, S. E., Tey, B. T., Maminski, M. 2011. Oil palm (*Elaeis guineensis*) trunk as a resource of starch and other sugars. *Journal of Applied Sciences*, 11(16), 3053-3057.

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<i>Books/Monographs</i>	<p>H'ng Paik San, Paridah Md Tahir and Zakiah Ahmad.2012.Laminated Veneer Lumber from Malaysian Tropical Timber, Manufacturing and Design. UiTM Press.</p>
<i>Chapter in book</i>	<p>MJ Chow, PS H'ng, KL Chin, EW Chai, MT Paridah, SH Lee, WC Lum, A Luqman Chuah, M Maminski. 2015. Empty Fruit Bunches in the Race for Energy, Biochemical, and Material Industry.K. R. Hakeem Et Al. (Eds.). <i>Agricultural Biomass Based Potential Materials</i>, DOI: 10.1007/978-3319-13847- 3_17, Springer International Publishing, Switzerland, <i>Agricultural Biomass Based Potential Materials</i>, 375-389.</p> <p>KL Chin, PS H'ng, MT Paridah.2014. Unlocking the Destructive Powers of Wood-Eating Termites: From Pest to Biopolymer Derivatives Extractor. In: Khaleed et al., (Eds) <i>Biomass and Bioenergy</i>. Springer International Publishing. German.</p>

	<p>K.L. Chin and P.S. H'ng. 2013. A Real Story of Bioethanol from Biomass:Malaysia Perspective. In: Biomass Now-Sustainable Growth and Use, Matovic, MD (Ed.). InTech Publisher, Rijeka, Croatia. Pp 329-346.</p> <p>Mohd. HamamiSahri, H'ng Paik San and Edi SuhaimiBakar. 2008. Chapter 7: Anatomical Characteristics and Wood Quality of Fast Growing Plantation Trees In Malaysia. In: Mohd. HamamiSahri and Tadashi Nobouchi (Eds). The Formation of Wood in Tropical Forest trees: A Challenge from the Perspective of Functional Wood Anatomy. UPM Press.</p> <p>Edi SuhaimiBakar, Mohd. HamamiSahri and H'ng Paik San. 2008. Chapter 12: Anatomical Characteristics and and Utilization of Oil Palm Wood. In: Mohd. HamamiSahri and Tadashi Nobouchi (Eds). The Formation of Wood in Tropical Forest trees: A Challenge from the Perspective of Functional Wood Anatomy. UPM Press.</p>
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## H. KERJA PERUNDINGAN

### (Consultation Work)

Title	Position	Company	Date
Determination of Microorganism from Soils, Water and Plants	Lead Consultant	Green Miracle Organic Sdn. Bhd.	01/11/2011
The cause of damage to kitchen and wardrobe cabinets	Lead Consultant	Cunningham Lindsey Adjusters (M) Sdn. Bhd.	28/11/2011
Technical expert	Subject matter expert	Green Tech Malaysia	03/08/2012
Project leader	Lead Consultant	All Cosmo Bio-Tech Holding Corporation	21/11/2012
Greentech Baseline Study	Lead Consultation	Malaysian Green Technology Corporation	25/02/2014

## I. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN

### (Scientific Experience and Specialization)

Organization	Position	Start Date	End Date	Expertise
American Chemical Society	Associate member	28 January 2009	28 January 2016	Wood, biomass and chemistry
Malaysia Timber Industry Board	Chairman of Flooring Working Group	2006	-	Wood flooring
Malaysia Timber Industry Board	Timber Sub-committee Timber Structures	2008	-	Timber for structural used
Malaysia Timber Industry Board	Kumpulan Kerja Pembangunan Standard MS 544	2008	-	Timber
National Timber Policy	Committee	2011		NATIP 4: Human capital

				Development
Malaysia Timber Industry Board	Timber Sub-committee Timber Non-Structures	2010	-	Wood based composite
International Standard Organization (ISO)	Committee of TC 218	2014	-	Timber

## J. ANUGERAH DAN HADIAH

*(Honours and Awards)*

<i>Title</i>	<i>Award Authority</i>	<i>Award Type</i>	<i>Year</i>
Perkhidmatan Cemerlang	Faculty of Forestry	Faculty	2007
Perkhidmatan Cemerlang	Universiti Putra Malaysia	University	2007
Young Academy Award 2008	Universiti Putra Malaysia	University	2008
Anugerah Khidmat Cemerlang 2008	Faculty of Forestry	Faculty	2009
Anugerah Pengajaran Putra 2008 APP08	Universiti Putra Malaysia	University	2009
BioInno Award 2010	BioMalaysia	International	2010
PECIPTA	Universiti Teknologi MARA	National	2011
Best Book Category (Science, Technology and Medicine)	Academic Publication Council of Malaysia (MAPIM) Award Ceremony 2012	National	2013
Anugerah Jaringan Industry dan Komuniti Berimpak Tinggi 2015	Universiti Putra Malaysia	University	2015
Anugerah Penyelidikan Universiti	Universiti Putra Malaysia	University	2015
Anugerah Perkhidmatan Cemerlang	Universiti Putra Malaysia	University	2015
University Research Award Category: Publication of Journal 2015	Universiti Putra Malaysia	University	2016
Anugerah Perkhidmatan Cemerlang	Universiti Putra Malaysia	University	2017

## K. PERSIDANGAN DAN SEMINAR YANG DIHADIRI

*(Seminar presented and attended)*

### a. Seminar presented

<i>Title of Article</i>	<i>Name of Seminar</i>	<i>Organiser</i>	<i>Level</i>	<i>Date</i>
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Innovative processing of oil palm trunk veneer for fabricate structural laminated veneer lumber	Kolokium penyelidikan pensyarah lantikan baru	Universiti Putra Malaysia	University	17/04/2007
Laminated veneer lumber fabricate from oil palm trunk veneer	Kolokium penyelidikan Fakulti Perhutanan	Universiti Putra Malaysia	University	26-28/06/2007
The fingerprints of Malaysian hardwood	Malaysia International Furniture Fair (MIFF) 2008 Industry Seminar Series	Malaysian Furniture Industry Council	International	05-09/03/2017
Effectiveness of pyrolyneous acids pyrolysed from lignocellulosic materials against mold, fungi and termites	National Conference on Forest Products 2008	UiTM, FRIM and Malaysian Forest Products Society	National	29-31/10/2008
Effect of sulfuric acid concentration and hydrolysis time on the glucose yield hydrolysed from lignocellulosic materials in Malaysia	Wacana Perhutanan	Faculty of Forestry	Faculty	08/05/2009
Urea formaldehyde type super E0 for rubber wood particleboard	Wood Adhesives Conference	WIZ-Biz	International	16-17/10/2014
MS 544: Part 12:2006: Code of practice of structural use of timber-laminated veneer lumber (LVL) for structural application	Seminar on Malaysian Standard on Timber Structure	Department of Standards Malaysia	National	16/06/2015
Formaldehyde free, MDI and Bio based wood adhesive technology	WOODCHEM 2015 taking Wood Industry to New Heights		International	04/11/2015
MS 2619:2015 Timber flooring-board and strip, laminated flooring-specification	Johor Wood and Lifestyle Fair	Jabatan Standard Malaysia	National	10/08/2015
<b>b. Seminar attended</b>				
<i>Name of seminar</i>	<i>Organiser</i>	<i>Level</i>	<i>Date</i>	
Seminar on MS 2619	MTIB	National	10/08/2016	
ISO/TC 218 Meeting	The Standard Council of	International	19/07/2016	

	Canada (SCC)		
WOODCHEM 2015		International	04-05/12/2015
International Year of Soil Seminar	Universiti Teknologi Malaysia	International	14/09/2015
Seminar on Malaysian Standard (MS) on Timber Structure	Department of Standard Malaysia	National	16/06/2015
Malaysian Standards on 1787:2005-Wood Based Panels	MTIB	National	04/12/2014
Wood Adhesive	WIZ-Biz Company LTD	International	17/10/2014
26 <sup>th</sup> International Scientific Conference of Wood technology Faculty (Wood-Material of the XXI-st Century)	Warsaw University of Life Sciences	International	19/11/2012
Regional Workshop on Towards Inclusive Biofuel Innovation	Bandung Institute of Technology, Indonesia	International	08/11/2012
Agricultural Scientific information Workshop	Research Management Centre (UPM)	National	15/11/2011
MICCOS 2011		International	28-30/10/2011
PECIPTA 2011 Malaysia	Universiti Teknologi MARA	National	13/09/2011
Malaysia Exhibition of Agriculture, Horticulture and Agro Tourism International Show	MARDI	National	26/11-05/12/2010
BioMalaysia 2011	Malaysian Biotechnology Corporation	International	02-04/11/2010
Invention, Research and Innovation Exhibition	UPM	University	20-22/07/2010
MTC Talk Series-Protecting Timber	Malaysian Timber Council	National	08/12/2009
International Conference on Kenaf 2009	INTROP	International	01-03/12/2009
Bioenergy 2009	FINBIO The Bioenergy Association of Finland	International	31/08-04/09/2009
MOSTI/TPM/MDEC Product Commercialisation Prospecting Session	MOSTI	National	25/08/2009
MTC Timber Talk-The beauty of Malaysian Timbers	Malaysian Timber Council	National	14/08/2009
Pacific Regional Wood Anatomy Conference	UPM	International	03-05/08/2009

Festival Sains Teknologi Inovasi Selangor 09	Exco Kerajaan Negeri Selangor	National	12-14/06/2009
Timber for IBS	MTIB	National	26/05/2009
New Development on Materials Use in the Furniture Industry	Malaysian Furniture Industry Council	International	04/03/2009
Industrial Automation & Mechanisation in Timber Industry	Lembaga Perindustrian Kayu Malaysia	International	04/11/2008
National Conference on Forest Products 2008 (NCFP 2008)	UiTM, FRIM and Malaysian Forest Products Society	National	29-31/10/2008
3 <sup>rd</sup> International Conference and Exhibition on Environmentally-Compatible Forest Products	Universidade Fernando Pessoa	International	10-12/09/2008
2008 International Furniture Conference	UiTM	International	28-30/07/2008
Alternative Raw Materials for the Panel Board Industry	UPM	National	28/07/2008
Innovative 3D solution in Furniture Design	Malaysia Furniture Industry Council	National	27/05/2008
Seminar Industri Mengenai Pembangunan Penjenamaan	Lembaga Perindustrian Kayu Malaysia	National	07/05/2008
Seminar Bioteknologi	Faculty of Biotechnology and Science Molecule	University	30/04/2008
Annual Timber Research and Industry Briefing	Lembaga Perindustrian Kayu Malaysia	National	10/04/2008
Malaysia International Furniture Fair 2008	Malaysian Furniture Industry Council	International	05/03/2008
Persidangan Pengajaran dan Pembelajaran di Peringkat Pengajian Tinggi 2007	UPM, Kementerian Pengajian Tinggi Malaysia and Majlis Ketua Pusat Pengajaran dan Pembelajaran IPTA	National	12-14/12/2007
AHEC-MFIC Seminar	MFIC	National	11/12/2007
AHEC-MFIC Design Seminar	MFIC	National	28/11/2007
Possible Effects of Fungal Networks on the Distribution Patterns of <i>Shorea leprosula</i> in a	INTROP	University	05/11/2007

Lowland Dipterocarp Forest			
Syaraham Awam Yayasan Pak Rashid	UPM	University	05/11/2007
IUFRO All Division 5 Conference	IUFRO	International	29/10/2007
Konferens Kebangsaan Penggunaan Pokok kelapa sawit ke-7	INTROP	National	13-15/10/2007
Seminar Akedemik	Faculty of Forestry	Faculty	30/06/2007
Kolokium Penyelidikan Fakulti Perhutanan	Faculty of Forestry	University	26-28/06/2007
Kolokium Penyelidikan Pensyarah Lantikan Baru	UPM	University	17/04/2007