

CURRICULUM VITAE

A. **BUTIR-BUTIR PERIBADI** *(Personal Details)*			
Nama Penuh *(Full Name)*	SHAIRUL IZAN BINTI RAMLEE		Gelaran *(Title):* Dr
No. MyKad / No. Pasport *(Mykad No. / Passport No.)*	Warganegara *(Citizenship)* MALAYSIA	Bangsa *(Race)* MELAYU	Jantina *(Gender)* PEREMPUAN
Jawatan *(Designation)*	PENSYARAH KANAN	Tarikh Lahir *(Date of Birth)*	12 SEPT 1984

Alamat Semasa *(Current Address)*	Jabatan/Fakulti *(Department/Faculty)*	E-mel dan URL *(E-mail Address and URL)*
	DEPARTMENT OF CROP SCIENCE FACULTY OF AGRICULTURE	shairul@upm.edu.my

B. KELAYAKAN AKADEMIK *(Academic Qualification)*			
Nama Sijil / Kelayakan *(Certificate / Qualification obtained)*	Nama Sekolah Institusi *(Name of School / Institution)*	Tahun *(Year obtained)*	Bidang pengkhusususan *(Area of Specialization)*
Bachelor of Horticultural Science	Universiti Putra Malaysia, Serdang	2007	Horticulture Science
Master of Plant Science	Wageningen University, Netherlands	2010	Plant Breeding and Genetics Resources

PhD in Plant Science	Wageningen University, Netherlands	2016	Plant Breeding and Genetics

C. PENGALAMAN SAINTIFIK/PENGKHUSUSAN/KURSUS/SANGKUTAN
(Scientific experience/Specialization/Training/Attachment)

Organization	*Position*	*Start Date*	*End Date*	*Expertise*
TIADA				

D. **SENARAI PENERBITAN** (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) *(List of publications – author (s), title, journal, volume, page, and year published)* ** Sekurang-kurangnya 3 penerbitan dari mana-mana kategori dibawah yang berkaitan dengan bidang yang dipilih (*Shall include at least 3 of publications from the listed categories which is applicable to the selected field)*

Journal

1. Izan, S., Esselink, D., Visser, R., Smulders, M., & Borm, T. (2017). De novo assembly of complete chloroplast genomes from non-model species based on a k-mer frequency-based selection of chloroplast reads from total DNA sequences. Frontiers in Plant Science, 8, 1271.
2. Ramlee, S. (2016). Utilization of complete chloroplast genomes for phylogenetic studies. (Doctoral dissertation, Wageningen University and Research).
3. Haperen, P., Thoen, M., Hong, T., Berhe, K., Lin, S., Mungall, V., & Ramlee, S. (2010). TOMATO GENOME: NATURALNESS AND PUBLIC FORUM.
4. Lee, Y.I., Yap, J., Izan, S., Leitch, I., Fay, M., Lee, Y.C., Hidalgo, O., Dodsworth, S., Smulders, M., Gravendeel, B., & others (2018). Satellite DNA in Paphiopedilum subgenus Parvisepalum as revealed by high-throughput sequencing and fluorescent in situ hybridization. Bmc Genomics, 19, 1–14.
5. Lee YungI, L., Yap JingWei, Y., Izan, S., Leitch, IJ., Fay, M., Lee YiChing, L., Hidalgo, O., Dodsworth, S., Smulders, M., Gravendeel, B., & others (2018). Satellite DNA in Paphiopedilum subgenus Parvisepalum as revealed by high-throughput sequencing and fluorescent in situ hybridization. BMC Genomics
6. Nurhazwani, M., Yahya, A., & Shairul Izan, R. (2018). Growth Performance of Ruellia brittoniana as Affected by Daminozide Concentrations. Plant Productivity and Environmental Conservation, 25, 93–97.
7. Chukwu, S., Rafii, M., Ramlee, S., Ismail, S., Oladosu, Y., Okporie, E., Onyishi, G., Utobo, E., Ekwu, L., Swaray, S., & others (2019). Marker-assisted selection and gene pyramiding for resistance to bacterial leaf blight disease of rice (Oryza sativa L.). Biotechnology & Biotechnological Equipment, 33(1), 440–455.

8. Akos, I., Yusop, M., Ismail, M., Ramlee, S., Shamsudin, N., Ramli, A., Haliru, B., Ismai'la, M., & Chukwu, S. (2019). A review on gene pyramiding of agronomic, biotic and abiotic traits in rice variety development. International Journal of Applied Biology, 3(2), 65–96.

9. Samuel, C., Rafii, M., Shairul, I., Oladosu, Y., Okporie, E., Onyishi, G., Utobo, E., Ekwu, L., Senesie, S., Momodu, J., & others (2019). Marker-assisted selection and gene pyramiding for resistance to bacterial leaf blight disease of rice (Oryza sativa L.).. Biotechnology & Biotechnological Equipment, 33(1), 440–455.

10. Chukwu, S., Rafii, M., Ramlee, S., Ismail, S., Hasan, M., Oladosu, Y., Magaji, U., Akos, I., & Olalekan, K. (2019). Bacterial leaf blight resistance in rice: a review of conventional breeding to molecular approach. Molecular biology reports, 46, 1519–1532.

11. Myint, K., Amiruddin, M., Rafii, M., Abd Samad, M., Ramlee, S., Yaakub, Z., & Oladosu, Y. (2019). Genetic diversity and selection criteria of MPOB-Senegal oil palm (Elaeis guineensis Jacq.) germplasm by quantitative traits. Industrial Crops and Products, 139, 111558.

12. Syahmi, H., Yih, L., Ng, W., Izan, R., Udie, L., & Rozi, M. (2020). Comparison of eight complete chloroplast genomes of the endangered Aquilaria tree species (Thymelaeaceae) and their phylogenetic relationships. Scientific Reports (Nature Publisher Group), 10(1).

13. Musa, I., Rafii, M., Ahmad, K., Ramlee, S., Md Hatta, M., Oladosu, Y., Muhammad, I., Chukwu, S., Mat Sulaiman, N., Ayanda, A., & others (2020). Effects of grafting on morphophysiological and yield characteristic of eggplant (Solanum melongena L.) grafted onto wild relative rootstocks. Plants, 9(11), 1583.

14. Sani Haliru, B., Rafii, M., Mazlan, N., Ramlee, S., Muhammad, I., Silas Akos, I., Halidu, J., Swaray, S., & Rini Bashir, Y. (2020). Recent strategies for detection and improvement of brown planthopper resistance genes in rice: A review. Plants, 9(9), 1202.

15. Chukwu, S., Rafii, M., Ramlee, S., Ismail, S., Oladosu, Y., Muhammad, I., Ubi, B., & Nwokwu, G. (2020). Genetic analysis of microsatellites associated with resistance against bacterial leaf blight and blast diseases of rice (Oryza sativa L.). Biotechnology & Biotechnological Equipment, 34(1), 898–904.

16. Chukwu, S., Rafii, M., Ramlee, S., Ismail, S., Oladosu, Y., Muhammad, I., Musa, I., Ahmed, M., Jatto, M., & Yusuf, B. (2020). Recovery of recurrent parent genome in a marker-assisted backcrossing against rice blast and blight infections using functional markers and SSRs. Plants, 9(11), 1411.

17. Nur Nadzirah, M., Rafii, M., Duangjit, J., Ramlee, S., Chalermpol, P., Oladosu, Y., Datta, D., & Musa, I. (2020). Genetic variability of eggplant germplasm evaluated under open field and glasshouse cropping conditions. Agronomy.

18. Mst Farhana, N., Yusop, M., Ismail, S., Ramlee, S., Oladosu, Y., Hosen, M., & Miah, G. (2020). Development of anthracnose disease resistance and heat tolerance chili through conventional breeding and molecular approaches: a review. Biocell.

19. Mat Sulaiman, N., Rafii, M., Duangjit, J., Ramlee, S., Phumichai, C., Oladosu, Y., Datta, D., & Musa, I. (2020). Genetic variability of eggplant germplasm evaluated under open field and glasshouse cropping conditions. Agronomy, 10(3), 436.

20. Md Mahmudul, H., Rafii, M., Ramlee, S., Jusoh, M., & Mamun, A. (2020). Genetic variability, heritability, and clustering pattern exploration of bambara groundnut (Vigna subterranea L. Verdc) accessions for the perfection of yield and yield-related traits. BioMed Research International.

21. Myint, K., Yaakub, Z., Rafii, M., Oladosu, Y., Samad, M., Ramlee, S., Mustaffa, S., Arolu, F., Abdullah, N., Marjuni, M., & others (2021). Genetic diversity assessment of MPOB-Senegal oil palm germplasm using microsatellite markers. BioMed research international.

22. Herath, H., Rafii, M., Ismail, S., JJ, N., & Ramlee, S. (2021). Improvement of important economic traits in chilli through heterosis breeding: a review. The Journal of Horticultural Science and Biotechnology, 96(1), 14–23.

23. Hishamuddin, M., Lee, S., Ng, W., Ramlee, S., Lamasudin, D., & Mohamed, R. (2021). Comparison of eight complete chloroplast genomes of the endangered Aquilaria tree species (Thymelaeaceae) and their phylogenetic relationships (vol 10, 13034, 2020). SCIENTIFIC REPORTS, 11(1).

24. Thushari Amarasinghe, R., Sakimin, S., Megat Wahab, P., Ramlee, S., & Jaafar, J. (2021). Growth, physiology and yield responses of four rock melon (Cucumis melo var. Cantaloupensis)

cultivars in elevated temperature. Plant Archives

25. Khan, M., Rafii, M., Ramlee, S., Jusoh, M., & Al Mamun, M. (2022). Path-coefficient and correlation analysis in Bambara groundnut (Vigna subterranea [L.] Verdc.) accessions over environments. Scientific reports, 12(1), 245.

26. Herath, H., Rafii, M., Ismail, S., Jaafar, J., & Ramlee, S. (2022). Genetic diversity of inbred lines in chilli based on phenotypic and genotypic responses against Colletotrichum truncatum. Archives of Phytopathology and Plant Protection, 55(5), 583–596.

27. Khan, M., Rafii, M., Ramlee, S., Jusoh, M., & Al Mamun, M. (2022). Author Correction: AMMI and GGE biplot analysis for yield performance and stability assessment of selected Bambara groundnut (Vigna subterranea L. Verdc.) genotypes under the multi-environmental trials (METs). Scientific Reports, 12.

28. Anisuzzaman, M., Rafii, M., Ramlee, S., Jaafar, N., Ikbal, M., & Haque, M. (2022). The Nutrient Content, Growth, Yield, and Yield Attribute Traits of Rice (Oryza sativa L.) Genotypes as Influenced by Organic Fertilizer in Malaysia. Sustainability, 14(9), 5692.

29. Herath Mudiyanselage, S., Rafii, M., Ismail, S., Jaafar, J., & Ramlee, S. (2022). Genetic diversity of inbred lines in chilli based on phenotypic and genotypic responses against Colletotrichum truncatum. Archives of Phytopathology and Plant Protection.

30. Khan, M., Rafii, M., Ramlee, S., Jusoh, M., & Al Mamun, M. (2022). AMMI and GGE biplot analysis for yield performance and stability assessment of selected Bambara groundnut (Vigna subterranea L. Verdc.) genotypes under the multi-environmental trials (METs)(vol 11, 22791, 2021). SCIENTIFIC REPORTS, 12(1).

31. Chowdhury, M., Rafii, M., Ismail, S., Ramlee, S., Hosen, M., Karim, K., Ikbal, M., Halidu, J., & Sahmat, S. (2023). Growth and yield performances, pathogenicity, heat tolerance, antioxidant activity, and pungency level of anthracnose resistant and heat tolerant inbreed lines and their F1 hybrids of chili (Capsicum annuum L.). Scientia Horticulturae, 309, 111606.

32. Chowdhury, M., Nazneen, F., Rafii, M., Ismail, S., Ramlee, S., Hosen, M., Rezaul Karim, K., Yusuff, O., & Ridzuan, R. (2023). Genetic analysis of anthracnose resistant and heat tolerant chili inbreed lines based on morpho-physiological characteristics. Chilean journal of agricultural research, 83(2), 168–180.

33. Hishamuddin, M., Lee, S., Syazwan, S., Ramlee, S., Lamasudin, D., & Mohamed, R. (2023). Highly divergent regions in the complete plastome sequences of Aquilaria are suitable for DNA barcoding applications including identifying species origin of agarwood products. 3 Biotech, 13(3), 78.

34. Zanetta, C., Y. Rafii, M., Jaafar, J., Warkentin, T., Waluyo, B., & Ramlee, S. (2023). Variability and assessment of interrelationships among yield and yield-related characters of pea accessions under the influence of high temperature. New Zealand Journal of Crop and Horticultural Science, 1–19.

35. Amarasinghe, R., Sakimin, S., Megat Wahab, P., Ramlee, S., & Nakasha, J. (2023). Frequency of application of 24-epibrassinolide on plant growth, physiology and postharvest fruit quality of Cantaloupe grown at elevated temperature. International Journal of Vegetable Science, 29(5), 358–374.

36. Chowdhury, F., Rafii, M., Ismail, S., Ramlee, S., Hosen, M., Karim, K., Yusuff, O., & Ridzuan, R. (2023). Genetic analysis of anthracnose resistant and heat tolerant chili (Capsicum annuum) inbreed lines based on morpho-physiological characteristics. Chilean journal of agricultural research

37. Khan, M., Rafii, M., Ramlee, S., Jusoh, M., Al Mamun, M., & Kundu, B. (2023). Molecular insight into genetic differentiation, population structure and banding pattern analysis of Bambara groundnut (Vigna subterranea [L.] Verdc.) linked with inter simple sequence repeats (ISSR). Molecular biology reports, 50(9), 7619–7637.

38. Arhin, L., Abdullah, S., Jaafar, J., & Izan Ramlee, S. (2023). Conventional and modern breeding technologies for improving dwarf coconut cultivars: A review. The Journal of Horticultural Science and Biotechnology, 1–12.

39. Zanetta, C., Gali, K., Rafii, M., Jaafar, J., Waluyo, B., Warkentin, T., & Ramlee, S. (2024). Dissecting genetic variation and association mapping for agro-morphological traits under high temperature stress in pea (Pisum sativum L.). Euphytica, 220(2), 1–22.

40. Herath, H., Rafii, M., Ismail, S., Jaafar, J., & Ramlee, S. (2024). Exploiting phenotypic and genotypic diversity against Colletotrichum truncatum in chilli hybrids developed using resistant

	breeding lines. Plant Genetic Resources, 22(1), 37–44. 41. Zanetta, C. U., Y. Rafii, M., Jaafar, J. N., Warkentin, T. D., Waluyo, B., & Ramlee, S. I. (2025). Variability and assessment of interrelationships among yield and yield-related characters of pea accessions under the influence of high temperature. New Zealand Journal of Crop and Horticultural Science, 53(4), 870–888. https://doi.org/10.1080/01140671.2023.2180760 42. Samsudin, A.I., Vetaryan, S., Ahmad Mohktar, M.A. et al. Genome-wide association study for compactness traits in oil palm (Elaeis guineensis Jacq.). Euphytica 221, 57 (2025). https://doi.org/10.1007/s10681-025-03502-x 43. Mohd Azhan, M.I.H., Zulperi, D., Ramlee, S.I., Ismail, M.R., Abdullah, S.N.A., and Md Hatta, M.A. (2025). Characterization of the wild rice Oryza rufipogon transcriptomes associated with susceptibility to Burkholderia glumae. Chilean Journal of Agricultural Research, 85(4), 549-564 44. Chowdhury, M.F.N., Rafii, M.Y., Ismail, S.I. et al. Pyramiding of disease resistant and heat shock protein genes of chili revealed through tightly linked SSRs for sustainable yield under biotic and abiotic stresses. Euphytica 221, 165 (2025). https://doi.org/10.1007/s10681-025-03545-0 45. Arhin L, Abdullah SNA, Jaafar JN, Arumugam T, Ramlee SI (2026). Genetic variability and parent selection in Malaysian dwarf coconuts using REML, BLUP, and multi-trait indices. SABRAO J. Breed. Genet. 58 (3) 1126-1138. http://doi.org/10.54910/sabrao2026.58.3.17.
Books/Monographs	Shairul Izan, et al. (2016) Utilization of Complete Chloroplast Genomes for Phylogenetics Studies. Wageningen University.
Computer software	De Novo assembly of complete chloroplast genome (http://secure.plantbreeding.nl/chloroplast/software/)

E. **PROJEK PENYELIDIKAN** *(Research Project)*
**Hanya berkaitan dengan bidang yang dipilih *(which ONLY applicable to the selected field)*

Project No.	*Project Title*	*Role*	*Year*	*Source of fund*	*Status*
9827800	Determination of True-to-Type Palms in the Malaysian Coconut Variety Sungai Gulang-Gulang (SGG) Using SSR Markers and Artificial Intelligence Approaches	Project Member	2025–2028	GP-IPS – Geran Putra Inisiatif Siswazah	Ongoing
9820400	Molecular Characterization of Oryza rufipogon for Enhancing Bacterial Leaf Blight Resistance in Rice	Project Member	2025–2027	GP-IPS – Geran Putra Inisiatif Siswazah	Ongoing
6380251	Genetic Dissection of Drought Tolerance in Rice and Its Wild Relative	Project Member	2025–2028	Geran Swasta / Antarabangsa	Ongoing
6380267	Development of High Yielding and Drought Tolerant Kenaf Hybrids through Diallel Crosses	Project Leader	2025–2028	Geran Swasta / Antarabangsa	Ongoing

6380268	Genetic Analysis and Development of High Yielding Less Seeded Watermelon (Citrullus lanatus L.) Hybrids through Diallel Cross and Molecular Approaches	Project Leader	2025–2028	Geran Swasta / Antarabangsa	Ongoing
Not provided	Molecular Characterization of Oryza rufipogon for Enhancing Bacterial Leaf Blight Resistance in Rice	Project Member	2025–2027	GP-IPS – Geran Putra Inisiatif Siswazah	Ongoing
6380277	Optimizing Micropropagation, Acclimatization and Genetic Fidelity of Onion (Allium cepa L.) and Its Quality Assessment after Gamma Irradiation and Maleic Hydrazide Treatment	Project Member	2024–2028	Geran Swasta / Antarabangsa	Ongoing
6380276	Improvement of Micropropagation Protocol and Fidelity Assessment of Mango (Mangifera indica L.) Using Nucellus Culture and Quality Assessment through Gamma Irradiation	Project Member	2024–2028	Geran Swasta / Antarabangsa	Ongoing
9797400	Confirmation of High-Yield Characters in Selected Dwarf Coconut and Their Hybrids Using Microsatellite Markers	Project Leader	2024–2025	GPI – Geran Putra Inisiatif (KMD)	Ongoing*
9724600	Pembangunan Bank Gen Tanaman Makanan dan Sayuran bagi Pemuliharaan dan Penggunaan Koleksi Germplasma untuk Menghasilkan Varieti Baharu	Project Member	2022–2026	GPB – Geran Putra Berimpak	Ongoing*
5545201	Development and Applications of Genome Wide Gene-Based Markers in Producing Potential Superior Hybrid Coconuts	Project Member	2020–2026	LRGS 2020	Ongoing
6300242	SMART Farming for High Value and Efficient Quality Food Production	Project Member	2019–2024	LRGS 2020	Ongoing*

5545001	Sustainable Short and Medium to Long-Term Strategies for Managing Bacterial Panicle Blight (BPB) under Climate-Resilience Rice Production	Project Member	2019–2025	LRGS 2020	Completed
9724600	Pembangunan Bank Gen Tanaman Makanan dan Sayuran bagi Pemuliharaan dan Penggunaan Koleksi Germplasma untuk Menghasilkan Varieti Baharu	Project Member	2022–2026	GPB – Geran Putra Berimpak	Ongoing*
5545000**	Development of High Yielding, Drought and High Temperature Tolerance Rice Varieties and Mitigating Drought Effects in Rice Cultivation	Project Member	2019–2025	LRGS 2020	Completed
55402	Unveiling the Diversity of Virus Population in the DNA Viromes of Tomato Plants and Their Prevalence in Adjacent Weeds and Whitefly through Viral Metagenomics	Project Member	2019–2022	FRGS – Fundamental Research Grant Scheme	Completed*
5540092	Effects on Different Rootstock and Scion Combinations to Enhance Resistance against Phytophthora palmivora in Seedlings of Durian	Project Leader	2019–2022	FRGS – Fundamental Research Grant Scheme	Completed*
9638600	Development of Carotenoid Biosynthesis Enhancement in Tomato through CRISPR-Cas System	Project Leader	2018–2022	GP-IPM – Geran Putra Inisiatif Putra Muda	Completed*