DR. MUHAMMAD NURFAIZ BIN ABD. KHARIM (01878A)
PENSYARAH UNIVERSITI (TETAP)
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A. PERSONAL DETAILS

UMK JOIN DATE	02-Feb-2021
DATE OF APPOINTMENT FOR CURRENT POSITION	01-Jan-2025
DATE OF CONFIRMATION FOR CURRENT POSITION	
EDUCATION(S)	• **(2020) UNIVERSITI PUTRA MALAYSIA** IJAZAH DOKTOR FALSAFAH GEOSPATIAL ENGINEERING • **(2015) UNIVERSITI PUTRA MALAYSIA** IJAZAH SARJANA PENGURUSAN PERLADANGAN • **(2012) UNIVERSITI MALAYSIA KELANTAN** IJAZAH SARJANA MUDA SAINS GUNAAN KEUSAHAWANAN TEKNOLOGI PERTANIAN • **(2006) SMS SULTAN MOHAMAD JIWA** SPM
GROUP OF EXPERTISE	• Agriculture in Economic Development and Growth (F0711020401) • Agronomy (F0703020102) • Geospatial Technology and System (F0708090104) • Other Specialist Areas in Agriculture Sciences N.E.C (F0703020699) • Plant Nutrition (F0703020106) • Spatial Information Systems (F0708090102) • Start Up Entrepreneurship (F0711050204)
AWARD(S)	• Award Name: **Anugerah Perkhidmatan Cemerlang (APC) Tahun 2023 (2024)** Awarded by: Universiti Malaysia Kelantan
WORKING EXPERIENCE(S)	
PROFESSIONAL MEMBERSHIP(S)	

B. TEACHING-LEARNING ACTIVITIES

COURSES TAUGHT	• FAT20103 - BIOLOGY OF ECONOMIC CROPS • FAT20403 - FARM MANAGEMENT • FAT30203 - AGRICULTURE PRODUCTION TECHNOLOGY • FAT30302 - PRECISION FARMING • FAT3113 - RESEARCH PROJECT I • FAT4153 - RESEARCH PROJECT II • FFT1252 - COMPUTER APPLICATION IN DESIGN • FFT4082 - STUDENT IN ENTERPRISE PROGRAMME • FPE3203 - AGRICULTURE TECHNOLOGY UP SCALLING • FPE3223 - ENVIRONMENTAL IMPACT ASSESSMENT • FPT2084 - BIOLOGY OF ECONOMIC CROPS • FPT2103 - FARM MANAGEMENT • FPT3173 - AGRICULTURE PRODUCT TECHNOLOGY

	• FPT3213 - RESEARCH PROJECT I • FPT4223 - RESEARCH PROJECT II • FPT4248 - INDUSTRIAL TRAINING • FSE30103 - AGRICULTURE AND RESOURCE MANAGEMENT • FST10102 - INTRODUCTION TO AGRICULTURE • FTT2203 - LIVESTOCK ECONOMY AND MARKETING

C. RESEARCH AND DEVELOPMENT

JOURNAL(S)	1. Hafizan W.N.A.A.W.M., Mohd Fauzie Jusoh, Muhammad Nurfaiz Abd Kharim, Mohd Mahmud, Syed Muhammad Al-Amsyar Syed Abd Kadir. (2026). Recycling agricultural waste into controlled-release fertilizer: Integrating rice husk biochar with NPK fertilizer for efficient okra growth. Journal of Tropical Resources and Sustainable Science , Vol. 14(2) , pp. 257-265. https://doi.org/10.47253/jtrss.v14i2.1770 2. Mohd Fauzie Jusoh, Muhammad Nurfaiz Abd Kharim, Fatimah Kayat, Tengku Halimatun Sa¿adiah T Abu Bakar, Akmal Adilah Idris, Abdul Muttalib M.F., Abdullah F.A., Löytty T.. (2025-05). Discovering Research Landscape and Emerging Trends of Compost Implementation with the Internet of Things via Bibliometric Analysis. Journal of Advanced Research Design , Vol. 128(1) , pp. 100 - 115. https://doi.org/10.37934/ard.128.1.100115 3. Abd. Kharim M.N., Wayayok A., Abdullah A.F., Mohamed Shariff A.R.. (2023). Variable rate inorganic foliar fertilization effect on paddy leaves chlorosis, plant growth and yield performance. Journal of Plant Nutrition , Vol. 46(6) , pp. 877 - 887. https://doi.org/10.1080/01904167.2022.2144363 4. Muhammad Nurfaiz Abd Kharim, Aimrun Wayayok, Ahmad Fikri Abdullah, Abdul Rashid Mohamed Shariff, Ezrin Mohd Husin,, Muhammad Razif Mahadi. (2022-08). Predictive zoning of pest and disease infestations in rice field based on UAV aerial imagery. Egyptian Journal of Remote Sensing and Space Sciences , Vol. 25(3) , pp. 831 - 840. https://doi.org/10.1016/j.ejrs.2022.08.001 5. Mohd Fauzie Jusoh, Muhammad Firdaus Abdul Muttalib, Muhammad Nurfaiz Abd Kharim. (2024-12-23). The farmer in the Dell: Hi-Ho, the Derry-O, the current status of worldwide science mapping on precision irrigation. , Vol. 13(2) , pp. 130-140. https://doi.org/10.47253/jtrss.v13i2.1487 6. Abd. Kharim M.N., Mahmud, M., Mokhtar, S. I., Kayat, F., Ywih, C.H., Wahab, I.R.A., Redwan R. M., Al-Amsyar, S. M., Mat, K., Zain, N.M., Rusli, N.D., Harun H.C., Abu Bakar, T.H.S.T., Nor, M.M., Zakaria S.. (2024-06). Agrotechnology Students¿ Acceptance on Agriculture Drones Spraying as Practical Tool in Class Using the Knowledge, Attitude and Practice (KAP) Model. International Journal of Advanced Research in Food Science and Agriculture Technology , Vol. 1(3) , pp. 31-44. https://doi.org/10.37934/fsat.1.1.3144
PROCEEDING(S)	1. Tengku Halimatun Sa¿adiah T Abu Bakar, Maryana Mohamad Nor, Suhana Zakaria, Zuharlida Tuan Harith, Mohd Mahmud, Norhafizah Md. Zain, Noorhazira Sidek, Muhammad Nurfaiz Abd Kharim, Mohd Fauzie Jusoh, Mardawani Mohamad. (2026). D-PenSIMA: Raising food waste management awareness through interactive gameplay. In e-Proceedings of the International University Carnival on ELearning 2025 (IUCEL2025), , pp. 529-532. Universiti Teknikal Malaysia Melaka. 2. Muhammad Iqbal Mohamed Rashidi, Muhammad Yusri Md Shafi'i, Muhammad Nurfaiz Abd Kharim, Akmal Adilah Idris, Raimi Mohamed Redwan, Fatimah Kayat. (2026). Effect of Different Types of Planting Media and Monosodium Glutamate (MSG) on the Growth Performance of Eggplants Using Fertigation System. In IOP Conference Series: Earth and Environmental Science . Institute of Physics. https://doi.org/10.1088/1755-1315/1592/1/012002 3. Muhammad Nurfaiz Abd Kharim, Aimrun Wayayok, Abdul Rashid Mohamed Shariff, Ahmad Fikri Abdullah, Ezrin Mohd Husin, Muhammad Razif Mahadi. (2024-12). Comparative Cost-Benefit Analysis of Precision Farming & Drone-Based Management, and Conventional Methods in Malaysian Rice Cultivation. In The 23rd MIICEMA 2024 Proceeding Malaysia Indonesia International Conference on Economics, Management and Accounting (MIICEMA) , pp. 288 - 297. Program Studi Pendidikan Dokter, Fakultas Kedokteran Universitas Islam Al-Azhar Jl. Unizar No.20, Turida, Kecamatan Sandubaya, Kota Mataram, Nusa Tenggara Barat.. 4. Muhammad Nurfaiz Abd Kharim, Fatimah Kayat, Raimi Mohamed Redwan, Akmal Adilah Idris. (2024). Predictive assessment of pineapple chlorophyll content using proximal sensing and visible bands through ground & UAV inspection. In IOP Conference Series: Earth and Environmental Science . https://doi.org/10.1088/1755-1315/1426/1/012001 5. Abd. Kharim M.N., Aimrun Wayayok. (2024). Market Survey, Perception and Acceptance of Farmers on SRI-Tray Technology for Rice Farming. In AIP Conference Proceedings . American Institute of Physics. https://doi.org/10.1063/5.0181837 6. Abd. Kharim M.N., Wayayok, A., Shariff, A. R. M., Abdullah, A. F., Husin, E. M., Mahadi, M. (2023). Study on Field Capacity and UAV Operation Time During Aerial Fertilizer Spraying in Rice Field. In AIP Conference Proceedings . American Institute of Physics Inc.. https://doi.org/10.1063/5.0127790
BOOK(S)	1. Fatimah Kayat, Muhammad Nurfaiz Abd Kharim, Akmal Adilah Idris, Kumara Thevan Krishnan. (2023). Field Manual Biology of Economic Crops. Smart Research and Marketing (IP0565590-T).
CHAPTER(S)	1. Palsan Sannasi Abdullah, Siti Nuurul Huda Mohammad Azmin, Zul Ariff Abdul Latiff, Ch'ng Huck Ywih, Ahmad Saufi Mohd Nawi, Muhammad Nurfaiz Abd Kharim, Akmal Adilah Idris. (2024). Socio-Economic Empowerment of a Poor Community through Biochar: A Social Enterprise Initiative in Jeli, Kelantan, Malaysia. In Building Inclusive Communities Through SDGs and SSE Initiatives (pp. 98-112). Persatuan Promosi Matlamat Pembangunan Lestari (Society for Promotion of Sustainable Development Goals).

OTHER(S)	1. Abd. Kharim M.N., Wan Nurul Atiqah Rosdi. (2024). Extension Case Study: Why Paddy Farmers Are Not Inclined to Use a Drone as Part of Mechanisation for Paddy Cultivation. ISP Management (M) Sdn Bhd. https://doi.org/10.56333/tp.2024.004 2. Nor Sayzwani Sukri, Nor Hizami Hassin, Muhammad Nurfaiz Abd Kharim, Kharul Azmi Mu'azzam Abdul Rahman. (2023). Pendedahan Aktiviti Persampelan dan Sesi Temubual Bersama Komuniti Tasik Banding Bagi Laporan Penilaian Impak Alam Sekitar (EIA). Fakulti Sains Bumi. 3. Muhammad Nurfaiz Abd Kharim, kumara thevan krishnan. (2022-01). Recent methods and technologies for an early detection of red palm weevil infestation: A review. The Planter. 4. Abd Kharim, Muhammad Nurfaiz, Aimrun Wayayok. (2021-12-30). Precise Fertilization With Drone-Based Technology.
RESEARCH(S)	1. MEMBUDAYAKAN PEMASARAN DIGITAL DI KALANGAN KOMUNITI PETANI LUAR BANDAR | MEMBER | GRANT(I/A) | 2021 2. MEMBUDAYAKAN PEMASARAN DIGITAL DI KALANGAN KOMUNITI PETANI LUAR BANDAR | MEMBER | KERAJAAN | 2021 3. PENGGUNAAN LADANG PINTAR IR4.0 (SISTEM IOT FERTIGASI) UNTUK MAKMAL LATIHAN PENGURUSAN LADANG & PROJEK USAHAWAN SISWA | HEAD | UMK | 2022 4. PINEAPPLE YIELD PREDICTION AND ESTIMATION THROUGH UAV AERIAL MAPPING BASED ON SPECIFIC MULTISPECTRAL COLOR DIFFERENCES AND CHLOROPHYLL CONTENT OF FRUITS AND LEAVES. | HEAD | UMK-FUND | 2021 5. PENGGUNAAN LADANG PINTAR IR4.0 (SISTEM IOT FERTIGASI) UNTUK MAKMAL LATIHAN PENGURUSAN LADANG & PROJEK USAHAWAN SISWA | HEAD | UMK-TELRIC | 2022 6. PENINGKATAN SKALA PENGHASILAN PRODUK TERBITAN BIOARANG KE ARAH PEMERKASAAN EKONOMI KOMUNITI SETEMPAT SECARA MAMPAN BAGI MENGURUS KEMISKINAN MELALUI PERUSAHAAN SOSIAL | MEMBER | MOF | 2022 7. PENINGKATAN SKALA PENGHASILAN PRODUK TERBITAN BIORANG KE ARAH PEMERKASAAN EKONOMI KOMUNITI SETEMPAT SECARA MAMPAN BAGI MENGURUS KEMISKINAN MELALUI PERUSAHAAN SOSIAL | MEMBER | KERAJAAN | 2022 8. PROJEK JELI FOOD FARM VALLEY (JFFV): TANAMAN SAYUR-SAYURAN SERTA TANAMAN KONTAN SECARA FERTIGASI & INTEGRASI | MEMBER | UMK | 2021 9. PROJEK TANAMAN BIJIRIN SEKOI (SORGHUM BICOLOR) DAN POTENSINYA DALAM PENGHASILAN PRODUK HILIRAN | MEMBER | MOF | 2022 10. SKIM GERAN PENYELIDIKAN SEPADAN MALAYSIA-JORDAN | MEMBER | US EMBASSY | 2023 11. USAHAWAN DRONE PERTANIAN | HEAD | GRANT(I/A) | 2023 12. USAHAWAN DRONE PERTANIAN | HEAD | KPT | 2023
SUPERVISION	
RESEARCH AWARD (S)	• Product Name: Precise Fertilization with UAV application in Rice Farming Award: GOLD Role: Head Exhibition Name: International Agro Revolution & Innovation Challenge 2023 AgroRIC • Product Name: USE OF SMART FARM IR4.0 (FERTIGATION IOT SYSTEM) FOR FARM MANAGEMENT FIELD PRACTICAL AND STUDENT COMPANY PROJECT Award: GOLD Role: Head Exhibition Name: International Teaching Enhancement and Learning Innovation Carnival 2023 • Product Name: Study of field capacity and variables of UAV operation time during aerial fertilizer spraying in rice field Award: SPECIAL Role: Head Exhibition Name: The 1st International Conference on Computing, Engineering and Applied Sciences (ICCEAS) 2021 • Product Name: Precise Fertilization with Drone-Based Technology Award: SILVER Role: Head Exhibition Name: Carnival Research and Innovation 2021 • Product Name: Fertilizer Algorithm for Drone-Based Technology Award: SILVER Role: Head Exhibition Name: 2nd China-Malaysia Youth Innovation and Entrepreneurship Competition • Product Name: IPCA-RGB Fertilization Algorithm Award: SILVER Role: Head Exhibition Name: Persidangan Dan Ekspo Ciptaan Institusi Pengajian Tinggi Antarabangsa • Product Name: Tropical Microbe (TM) Agriculture Soil Enhancer Award: SILVER Role: Head Exhibition Name: Carnival of Research and Innovation (CRI 2022) Special Edition • Product Name: GANO-ER-SCANNER Award: NONE Role: Head Exhibition Name: Swiss Innovation Challenge ASEAN 2021/22

D. CONSULTATION

CONSULTATION(S)	1. PROGRAM PENGURUSAN TANAH (SOIL PROFILING) DI LEMBAGA KEMAJUAN PERTANIAN KEMUBU (KADA) TAHUN 2020-2021 | MEMBER | 2021 2. PROJEK PEMBANGUNAN LADANG DURIAN DI LADANG HUTAN ULU SEDILI, JOHOR & PROJEK MASA DEPAN KONSESI DURIAN DI NEGERI LAIN (PAHANG) | MEMBER | 2021 3. KERJASAMA SEBAGAI RAKAN INDUSTRI MELIBATKAN FAKULTI INDUSTRI ASAS TANI , UNIVERSITI MALAYSIA KELANTAN DAN SYARIKAT GLOBE RESOURCES SDN BHD | HEAD | 2022 4. PELANTIKAN SEBAGAI PERUNDING BAGI LATIHAN KURSUS PENDEK KOLEJ KOMUNITI TANJONG KARANG | MEMBER | 2022

E. COMMUNITY SERVICES

COMMUNITY SERVICES	