



UNIVERSITI PUTRA MALAYSIA
CURRICULUM VITAE



NORHAYATI HUSSAIN
Faculty of Food Science and Technology
Universiti Putra Malaysia
43400 Serdang Selangor
MALAYSIA
email: aryatihussain@upm.edu.my

TABLE OF CONTENTS

A.	PERSONAL INFORMATION	4
B.	ACADEMIC QUALIFICATION	5
C.	PROFESSIONAL EXPERIENCE	5
C1.	Work Experience	5
C2.	Administrative Duties.....	6
D.	TEACHING EXPERIENCE (RECENT 2017>; ONLINE RECORD FROM HISTAF)	6
E.	SUPERVISION (POSTGRADUTE DATA FROM SGS RECORD)	7
E1.	PhD (As a main supervisor and co-supervisor)	8
E2.	Master (As a main supervisor and co-supervisor)	8
E3.	Master of Science (MSc)- by course work	9
E4.	Advisor Student Activities	10
F.	EXAMINER/ ASSESSOR/ REVIEWER EXPERIENCE	18
	Examiner- Masters and PhD student	
F1.	PhD Thesis Examination outside UPM.....	11
F2.	Master Thesis Examination outside UPM.....	12
F3.	Internal Examiner for PhD and MSc Thesis/ viva voce in UPM (Data from SGS).....	12
F4.	Reviewer of High Impact Scientific Journals	12
F5.	Other Assessor Appointments.....	13
G.	RESEARCH	14
G1.	Research project (As a Principal Investigator)	14
G2.	Research project (As a Co-Researcher)	16
H.	INTELLECTUAL PROPERTY RIGHTS (IPRs)- approved	17
H1.	Patent	17
H2.	Copyright	17
I.	CONSULTANCY	19
I1.	Principle Investigator and Co-researcher (Summary).....	19
I2.	Achievement/ Report	20
J.	INDUSTRIAL AND COMMUNITY NETWORK	20
J1.	Principle Investigator and Co-researcher (Summary).....	20
J2.	Achievement/ Report.....	21

K. PUBLICATION.....	22
K1. Journal Publication	22
K1.1. Corresponding author.....	22
K1.2. Co- author	26
K2. Books/Monographs	28
K3. Chapter in book.....	28
K4. Abstract/ Proceedings	28
K5. International Conference- Presenter	30
K6. Mass Media.....	31
L. INVITED SPEAKER/ GUEST LECTURER.....	32
L1. Outside UPM.....	32
L2. In UPM.....	32
M. AWARDS/ RECOGNITION	33
M1. Awards	33
Recognition (National and International)	34
M2. Appointment by institutions as expert panel.....	34
N. PROFESSIONAL ORGANIZATION/ COMMUNITY/ NON- OFFICIAL MEMBERSHIPS.....	34
O. PROFESSIONAL SERVICE/ ACTIVITY.....	35
01. National level.....	36
02. University Level.....	36
03. Non- Professional/ Community membership.....	37
P. DESK OFFICER OF NETWORKING (MOU/MOA/LOI)	37
P1. Other mutual research networking involvement.....	38
Q. ACADEMIC REFEREES.....	38

A. PERSONAL INFORMATION

1. Name	Norhayati Binti Hussain
2. Department	Department of Food Technology
3. Faculty	Faculty of Food Science and Technology (FSTM), Universiti Putra Malaysia (UPM) 43400 UPM Serdang, Selangor MALAYSIA
4. Area of Specialisation	Food Processing/ Cocoa and Chocolate processing/ Halal Products ORCID: orcid.org/0000-0002-0601-2454 Google Scholar: Norhayati Hussain Scopus ID: 55823816700 (H-14)

B. ACADEMIC QUALIFICATION

<i>Certificate/ Qualification obtained</i>	<i>Name of School / Institution</i>	<i>Year obtained</i>
Diploma in Microbiology	University of MARA Technology, Shah Alam, Selangor	1993
BSc (Food Science and Microbiology)	University of Strathclyde, Glasgow, United Kingdom	1996
MSc (Food Science)	Universiti Kebangsaan Malaysia	2005
Doctor of Philosophy (Food Science)	Universiti Kebangsaan Malaysia	2010

C. PROFESSIONAL EXPERIENCE

C1. Work Experience

<i>Employer</i>	<i>Designation</i>	<i>Department</i>	<i>Start Date</i>	<i>Date Ended</i>
Lembaga Koko Malaysia	Research Officer Secondary Cocoa Processing (Chocolate processing)	Biotechnology Department	2003	2011
Marie France Bodyline, Mahkota Parade, Melaka	Nutritionist	-	1999	2001
SBM Food Industries, Merlimau, Melaka	Food Technologist	QC Department	July 1997	December 1998
CPC/AJI (M) Sdn. Bhd., Segambut, Kuala Lumpur	Food Technologist	R&D Department	December 1996	June 1997
UPM	Senior Lecturer	Department of Food Technology, FSTM	2011	2016
UPM	Associate Professor	Department of Food Technology, FSTM	2017	Present
UPM	Deputy Dean	Postgraduate, Research and Innovation, FSTM	2020	2022
UPM	Head of Food Processing and Preservation Laboratory 1	Faculty of Food Science and Technology (FSTM)	2020	Present

(C2). Administrative Duties/ Other Responsibilities

Designation	Department	Date started	Date Ended
Deputy Dean	Postgraduate, Research and Innovation, Faculty of Food Science and Technology (FSTM)	2020	2022
Head of Program Committee 2u1i- Bachelor of Science Program in Food Manufacturing Operations	FSTM	2018	2024
Head of Food Processing and Preservation Laboratory 1	FSTM	2020	On going
Chairman of Graduate Studies Committee	FSTM	2019	2021
Chairman of Research and Innovation Committee	FSTM	2019	2021
Chairman of Management Review Meeting Committee ISO 17025	FSTM	2019	2021
Coordinator of PTJ Innovation	Appointed by the Deputy Vice Chancellor's Office	2014	2017

Note: *Associate Professor service starts in year 2017

D. TEACHING EXPERIENCE (*2017 until recent; RECORD FROM HISTAF) (Teaching since 2011)

Course/ Code	Credit	Semester	Teaching Evaluation
FST 4829 Sensory evaluation of foods	3	I 2024/ 2025	5.00
FSM 3206 Technology in mass food production	3	II 2024/2025	4.90
FMO 4902 Operations in food manufacturing industry	6	I 2023/2024	4.76
FST 4832 Sensory evaluation of foods	3	I 2023/2024	4.74
FSM 3206 Technology in mass food production	3	II 2022/2023	4.37
FST 4832 Sensory evaluation of foods	3	I 2022/2023	4.78
FSM 4999B Final Year Project	3	II 2021/ 2022	NA
FST 4828 New Food Product Development	3	II 2020/2021	4.76
FSM 4999A Final Year Project	3	II 2019/ 2020	NA
FST 4830 Processing Technology of Plants products	3	I 2018/ 2019	4.67
FST4828 New Food Product Development	3	II 2018/ 2019	4.69
FST 4828 New Food Product Development	3	II 2017/ 2018	4.44
FST4826 Processing of Plant and Animal Products	4	I 2017/ 2018	4.72
Note: Taught at least 1 different course every year with TE score > 4/5			

E. SUPERVISION

Summary (Data from SGS record)

	Graduated (As a Main Supervisor)	Graduated (As a Co-Supervisor)	On-going (As a Main Supervisor)
PhD	2	3	2
Master	8	7	1
Master by coursework	10	-	1
Undergraduate	30	-	5

Postgraduate Student (Data from SGS except for outside UPM)

(E1) PhD (As a main supervisor and co-supervisor)

Name of Student/ Matric No./ title of thesis/ project	Year
Completed	
*Main Supervisor (Lestari Shanti Dwita/ GS58544/ Quality Profiles and Process Improvement of Malaysian Budu Based on Physicochemical, Volatile Compound, and Metagenomic Approach).	February 2024
*Main Supervisor (Izzreen Bin Ishak/ GS48591/ Chia seed oil extraction using supercritical carbon dioxide: optimisation, characterisation, oxidation and in vitro digestion).	June 2023
*Co-Supervisor (Rodhiah Mohd Hassan/ GS40474/ Functional properties of palmyra palm (<i>Borassus flabellifer</i> L.) exocarp and mesocarp and its potential application).	Jan 2021
*Co-Supervisor (Kam Wai Yee/ GS41721/ Extraction, fractionation & characterisation of durian leaf extract as potential source of natural antioxidant and its application in biodegradable film).	Feb 2019
*Co-Supervisor (Elham Momeny/ GS39893/ Process development & characterization of phytosterol nanoemulsion loaded with castor oil).	May 2017
On-going	
Main Supervisor (Nursabrina Binti Munawar/ GS55821/ Improvement of Process for Production of Selected Local Herbal Tea Based on The Presence of Bioactive Compounds, Contaminant and Toxicity Level). [Writing up thesis]	
Main Supervisor (Umar Nasiru Bilkisu/ GS62630/ Development of Soursop (<i>Annona muricata</i>) RTD (ready-to- drink) Herbal Drink). [Writing up thesis]	

(E2) Master (As a main supervisor and co-supervisor)

Name of Student/ Matric No./ title of thesis/ project	Year
Completed	
Co-Supervisor (Nor Arifah Mat Nor/ GS45972/ Developments of spray-dried kombucha tea beverage)	2016
Main Supervisor (Baizura Aya Putri Binti Agus/ GS38804/ Effect of Roasting Conditions on the Polycyclic Aromatic Hydrocarbons (PAH4) Content in Malaysian Cocoa Bean)	2014
Co-Supervisor (Anjar Ruspita Sari/ GS41057/ Process development of partially cooked corn grits by Response Surface Methodology)	2014
Main Supervisor (Ida Madiha Binti Yusoff/ GS38806/ Antibacterial activities of cinnamon leaves extract (<i>Cinnamomum zeylanicum</i> Blume) using ultrasonic assisted extraction)	2014
Co-Supervisor (Nurul Husna Binti Mahazar/ GS35562/ Fermentation of cocoa (<i>Theobroma cacao</i> L.) beans using <i>Candida</i> sp and <i>Blastobotrys</i> sp)	2013
Co-Supervisor (Siti Alyani Bt Mat/ GS39030/ Identification of antimicrobial compound isolated from fermented cacao bean).	2014

Name of Student/ Matric No./ title of thesis/ project	Year
Completed	
Co-Supervisor (Ng Siew See/ GS37293/ Changes in physicochemical properties and flavor profiles of roasted tropical almond (<i>Terminalia catappa</i> L.))	2013
Co-Supervisor (Mohd Hafiz bin Abdul Aris/ GS35383/ The effects of different leaves on microflora, phytochemistry and its sensory acceptability of Gulai Tempoyak paste)	2013
Main Supervisor (Halimatun Sa'adiah Binti Abdul Halim/ GS37967/ Reduction of medium chain triglycerides in coconut oil (<i>Cocos Nucifera</i> L) by fractionation using supercritical fluid extraction (SFE) for development of cocoa butter substitute)	2013
Main Supervisor (Nur Sadrina Binti Mohamad/ GS35608/ Divergent effect of manual, chemical and enzymatic peeling methods towards malaysian mango (<i>mangifera indica</i> l. Cv. 'chok anan') puree properties)	2013
Co-Supervisor (Noor Jannah Firdouse binti Ismail@Khorl/ GS30724/ Pectin characterisation and factors affecting pectin extraction from Pomelo (<i>citrus grandis</i>) peel)	2012
Main Supervisor (Aisyah Zafirah Binti Md Dali/ GS34097/ Effects of fat content and grinding level in cocoa nibs on development of espresso cocoa drink)	2012
Main Supervisor (Raihana Binti Abdul Razak/ GS35029/ Improvement of chocolate filling containing mango puree and hydrocolloid)	2012
Main Supervisor (Roiani Binti Mohamad/ GS34224/ Effects of different solvent and extraction methods on phytosterols and antioxidant activity of cocoa butter and application of cocoa butter in salad dressing)	2012
On-going	
Main Supervisor (Komati AP Rajentran/ GS59664/ Characterisation of ultrasound-assisted alkaline extracted storage stable chia (<i>Salvia hispanica</i> L.) mucilage powder and its potential as food thickener)	

(E3) Master of Science (MSc)- by course work

Name of Student/ Matric No./ title of thesis/ project	Year
Completed	
*Honey Yahdillah/ GS71218/ Effects of raw and dehumidified kelulut honey (stingless bee honey) on milk stability	2025
*Siti Nurfifi binti Abdul Rahim/ GS67570/ Effects of different polypropylene (pp) packaging thickness on migration of microplastic into chocolates during microwave heating	2024
*Yip Chui Yi/ GS64782/ Investigating the impact of various packaging materials and storage conditions on the quality of raw stingless bee (kelulut) honey	2024
Nurul Syafizan binti Rosle/ GS44344/ Effects of par frying and calcium propionate on the physicochemical properties and sensory characteristics of frozen curry puff.	2016

Name of Student/ Matric No./ title of thesis/ project	Year
Completed	
Muhammad Aiman bin Ahmad Kamal/ GS43801/ Effects of vacuum infusion, pectinase concentration and soaking time on the physicochemical properties of key lime (<i>Citrus aurantifolia</i>) fruit.	2016
Anisah binti Abd Rauh @ Mansor/ GS40241/ Effects of different fruit acids on physicochemical characteristic of rock candy.	2015
Rafieh Fakhlaei/ GS40770/ Effects of different roasting temperatures on cocoa shell proximate composition and antioxidant capacity.	2015
How Wee Teng/ GS37583/ Determination of functional properties of cocoa waste in comparison to spent coffee ground.	2014
Nurul Jannah binti Othman/ GS38043 - Effects of pineapple filling formulations and chocolate shell thickness on filling migration.	2014
Kong Mieu Ling/ GS33974/ Optimum concentration of molasses and yeast extract for the growth of cocoa starter culture (<i>Blastobotrys sp.</i>).	2013

(E4) Advisor Student Activities

1. *Honey Yahdillah (MSc). Funded by The Hong Kong Polytechnic University in Hong Kong: International Research Summer School (IRSS) 2025- Outbound. 29 June to 10 July 2025.
2. *Izzreen Ishak (PhD). Best Thesis Award (PhD category). Organized by Malaysia Society of Agricultural and Food Engineers. 2024.
3. *Lestari Shanti Dwita (PhD). Funded by SEARCA on Student Mobility Grant (Outbound): "Practical bioinformatics skills for plant and animal whole genome sequencing data" at Centre for Agricultural Biotechnology, Kasetsart University, Thailand. 28 Aug to 1 Sept 2023
4. *Funded Workshop by SEARCA (Organised by International Institute of Halal Research and Training (INHART) International Islamic university Malaysia (IIUM) for Lestari Shanti Dwita (PhD) on 'Biomarkers Analysis by Gas Chromatography Mass Spectrometer & Chemometrics for Sources Authentication 2.0'. 24-25 Aug 2022.
5. *Funded Workshop by SEARCA (Organised by Institute of Systems Biology, Universiti Kebangsaan Malaysia) for Lestari Shanti Dwita (PhD) on 'INBIOSIS Workshop Series 2.0: Pathway Construction and Network Analysis Workshop'. 22-24 Nov 2022
6. *Competition Advisor: A total of 7 BSc Students (Aiza Nur Batrisya Zainal Abidin, Fatimah Mohd Hassan Bashari, Tsuwaibatul Aslamiyah Jamalullail, Ahmad Irfan Ahmad Zaidi, Nor Sharmin Sazali, Nurul Syazana Hanini Mohd Tarmizi and Muhammad Zakwan Mohamad Zakaria). Gold award. Melaka International

Intellectual Exhibition (MIIEEx). 7-8 Aug 2019

7. *Competition Advisor (undergraduate and postgraduate): MIFT 11th National Food Science and Technology Competition (undergraduate and postgraduate), Universiti Tuanku Abdul Rahman, Kampus Kampar, Perak. 2019
8. *Izzreen Ishak (PhD). Program Mobiliti Pelajar IPPH (Outbound) dan Universiti Islam Sultan Sharif Ali (UN ISSA), Brunei Darussalam. 2018
9. Competition Advisor (undergraduate and postgraduate): 8th Food Science and Technology Seminar, UNISZA, Terengganu. 2014

F. EXAMINER/ ASSESSOR/ REVIEWER EXPERIENCE

Examiner- Masters and PhD student
(F1). PhD Thesis Examination outside UPM

No.	Name of Student/ Matric No.	Institution	Thesis Title	Year
1.	*Norzulaiha binti Abd. Karim	Universiti Malaysia Sabah	Effects of Different Fermentation Durations on Quality Development and Storage Protein Changes in Selected Malaysian Cocoa Clones	2026
2.	*Nur Amirah Binti Yusoff	Universiti Malaysia Terengganu	The physico-chemical quality, antioxidant and antimicrobial activities in roselle (hibiscus sabdariffa l.) decoction residues, and its effect as edible coating in retaining quality of wax apple	2025

(F2) Master Thesis Examination outside UPM

No.	Name of Student/ Matric No.	Institution	Thesis Title	Year
1.	*Abdul Hakim Ramli (P79452)	Universiti Kebangsaan Malaysia	Kesan parameter pemprosesan terhadap ciri-ciri fizikomia kanji ubi kayu	2019

No.	Name of Student/ Matric No.	Institution	Thesis Title	Year
2.	*Rahmat bin Mohamed	Universiti Kebangsaan Malaysia	Kesan pra perlakuan nib koko dan pemanggangan terkawal ke atas pembentukan profil perisa	2019

(F3) Internal Examiner for PhD and MSc Thesis/ viva voce in UPM (Data from SGS)

Program	Name of Student/ Thesis title	Year
PhD	*Mardiana Ahamad Zabidi (GS45346)/ Fabrication, characterisation, and applications of double emulsions encapsulating polyphenols and anthocyanins of ripe karonda (carissa carandas) fruit extract	2025
PhD	*Cui Mingyang (GS61321)/ Preparation, characterization and application of palm-based tocotrienol- carotenoid emulsion stabilized by hemp protein isolate-ginsenoside complexes	2025
Master	Liu Xiao Yu (GS21238)/ The development of wheat rice wet noodle	2012
Master	*Tan Peh Fen (GS44145)/ Effect of High Pressure Processing on Physicochemical Characteristics, Microbiological and Enzymatic Properties of Durian Paste and Pulp	2018
Master	*Nur Adibah Latip (GS40519)/ Effect of different drying treatments on functional properties of okara and extrusion processing of okara extrudates	2020

(F4) Reviewer of High Impact Scientific Journals

No.	Journal Title (RECORD FROM PRIMS)	Years Appointed
1	*Scientific Reports	2025
2	*Journal of Food Composition and Analysis	2025
3	*International Food Research Journal	2024
4	*GRASAS Y ACEITES	2024
5	*Food Bioscience (Elsevier)	2024
6	*Journal of the Science of Food and Agriculture (Wiley)	2024
7	*Current Research in Nutrition and Food Science Journal	2024
8	*Journal of Food Composition and Analysis	2024
9	*Process Biochemistry (Elsevier)	2023
10	*Food Research International (Elsevier)	2022
11	*Trends in Food Science and Technology (Elsevier)	2022

No.	Journal Title (RECORD FROM PRIMS)	Years Appointed
12	*Food Chemistry	2021
13	*Food Research International (Elsevier)	2021
14	*Industrial and Engineering Chemistry Research (acs.org)	2020
15	*Journal of Food Processing and Preservation (Wiley)	2020
16	*Food Research International	2019
17	*Journal of Oleo Science (Japan Oil Chemists' Society)	2019
18	*Journal of the American Oil's Chemists' Society (Wiley)	2019
19	*Malaysian Applied Biology	2019
20	*Food Chemistry (Elsevier)	2018
21	*Trends in Food Science and Technology (Elsevier)	2018
22	International Food Research Journal	2016
23	Journal of Food Quality	2016
24	Food Chemistry (Elsevier)	2015
25	International Food Research Journal	2015
26	Drying Technology	2014
27	International Food Research Journal	2014
28	ASM Science Journal	2012

(F5). Other Assessor Appointments

Name of Institution	Role	Year
*Evaluation Panel Committee, Research Grant Scheme Application	Assessor	2023-2024
*Malaysia Palm Oil Board, Programme Advisory Committee (PAC): Focus Area of Value Addition	Assessor	2022-2023
*Employees Provident Fund, Healthy Bento Cheff Competition	Assessor	2023
*Malaysia Cocoa Board, Malaysian Cocoa Industry Awards Ceremony, Malaysian National Cocoa Conference	Assessor/ Innovation category	2021
8th Food Science and Technology Seminar, Unisza, Terengganu	Assessor	2014
Evaluation Committee of the Knowledge Transfer Programme (KTP) Grant Scheme Applications KTP	Assessor	2014-2015
Evaluation Committee, Putra Grant Progress Reports	Assessor	2015
Associate Expert, Centre for Extension, Entrepreneurship and Professional Advancement, UPM (APEEC)	Assessor	2012-2014

G. RESEARCH

(G1.) Research project (As a Principal Investigator)

Project No. (Year)	Project title	Amount (RM)	Source	Status
*2024-2025	Projek penternakan kelulut APPGM	RM40,000	APPGM-SDG Grant, Community Farm	Completed
*9747400 (2023-2025)	Malaysian budu: quality profiles, microbiota and flavor formation	RM20,000	IPS, UPM	Completed
*FRGS/1/2019/TK10/UPM/02/3 (2019-2022)	Enhancement of functional and bioactive compound of selected local plantain banana peels (<i>Musa paradisiaca</i> L.) extracted using high hydrostatic pressure	RM95,000	Fundamental Research Grant Scheme, Ministry of Higher Education	Completed
*9643600 (2018-2022)	Characterization and tocopherols bioavailability of chia seed oil extract from green technology supercritical fluid	RM50,000	Putra Grant, UPM	Completed
*9541800 (2017-2019)	Effect of Different Roasting Conditions on Polycyclic Aromatic Hydrocarbons (PAH4) Content In Cocoa Bean	RM88,000	IPB, UPM	Completed
*9537200 (2017 – 2022)	Characterisation and in vitro bioavailability of chia seed oil in omega 3 and 6 fatty acids fractionated by supercritical fluid extraction	RM20,000	IPS, UPM	Completed
2016	Improvement of frozen curry puff skin	RM27,300	Public-Private Research Network	Completed

Project No. (Year)	Project title	Amount (RM)	Source	Status
			(PPRN) Ministry of Higher Education	
GP/IPS/2013 /9399840 (2014 – 2015)	Improvement of Peeling Methods for Mango Puree Production	RM15,000	IPS, UPM	Completed
GP/IPS/2013 /9399841 (2014 – 2015)	Development of Salad Dressing Containing Optimum Phytosterols from Cocoa Butter Using Supercritical Fluid Extraction (SFE)	RM15,000	IPS, UPM	Completed
03-01-04- SF1822 (2014 – 2015)	Recovery of Lauric Free Fractions from Palm Kernel Stearin and its Application as Cocoa Butter Substitute	RM40,000	Sciencefund, Ministry of Science, Technology and Innovation	Completed
I-eco/68 (UPM-12) (2012 – 2014)	Improvement and shelf-life extension of fresh creams chocolate filling for Tolaal Enterprise	RM113,775	Ministry of Higher Education	Completed
TF0310F095 (2011-2012)	Pilot Manufacturing of “Halal” Prebiotic Chocolate.	RM800,000	Technofund, Ministry of Science, Technology and Innovation	Completed
UPMCS2012 - 56 (2012-2013)	Optimization of Yeast Starter Culture for Cocoa Fermentation	RM79,200	Barry Callebaut Services Asia Pacific Sdn. Bhd.	Completed
02-05-11- 1588RU (2011 – 2013)	Production of low-fat cocoa granules for cocoa bean espresso beverage	RM30,000	RUGS 5, UPM	Completed

(G2.) Research project (As a Co-Researcher)

Project ID. Year	Project title	Amount (RM)	Source	Status
GP/IPS/2014/9438738 (2014 –2016)	Identifying Quality Sensory Characteristics and Consumer Preferences of Halal and Non-Halal Chicken among Non-Muslim in Malaysia	RM12,400	Putra IPS 2014	Completed
Public-Private Research Network (PPRN) 2016	Development of vegetable and black seed-enriched noodles	RM30,000	Public-Private Research Network (PPRN)	Completed
Public-Private Research Network (PPRN) 2016	Development of instant and shelf stable crab noodle paste	RM30,000	Public-Private Research Network (PPRN)	Completed
Public-Private Research Network (PPRN) 2016	Extension shelf life of sagu berkrım, dadih, muruku and jelly kelapa	RM30,000	Public-Private Research Network (PPRN)	Completed
UPMCS2016 (2015 –2017)	Development of three functional food products from virgin oil	RM90,000	Tropica Beauty Sdn. Bhd.	Completed
GP-IPS/2014/9446800 (2015-2016)	Determination of antibacterial compounds in fractionations of fermented cacao extracts with different starter cultures	RM15,000	Putra IPS 2015	Completed
*2017-2018	Halal Food and Certification Comparison Turkey-Malaysia	TL41,360 (=RM5,280)	Mevlana Grant Project (Kirikkale University, Turkey and University Putra Malaysia)	Completed
*DIP-2018-036 (2018-2020)	Identification and encapsulation of Antioxidative Peptides Derived from Defatted Chia Flour	RM100, 000	Premier Impact Fund, UKM	Completed
*GUP-2018-018 (2018-2020)	Characterization and Bioavailability of Tocopherols from Chia Seed Oil Extracted using Green Technology Supercritical Fluid	RM80,000	Research University Grant, UKM	Completed

H. INTELLECTUAL PROPERTY RIGHTS (IPRs)- approved

(H1). Patent

Project	Reference Number	Role	Year
Patented: Prebiotic chocolate and method for producing the same	Patent (MY-139020-A)	Principal investigator	2007

(H2). Copyright*

1. *Pemfailan Hak Cipta - 'Dried Cendol Jelly' (2016). Norhayati Hussain, Muhammad Izzatdin Bin Ismail, Nor Hafizah Binti Abdul Hamid, Hasliezawani Binti Mohd Nordin, Nurul Fazira Binti Razaly, Nurain Wahida Binti Mohamad Nayan, Nur Hafizah Binti Mustaffer, Nur Hanania Binti Muhamad, Aisyah Binti Muhammad Mazlan Hoo, and Syamim Syamira Binti Abdul Rahman
2. *Pemfailan Hak Cipta - 'SCRUMPTIOUS' Frozen Mushroom Finger' (2016). Norhayati Hussain, Amir Abd Aziz, Muhammad Zulfahmi Zuraimi, Siti Haryani Mohd Sapahi, Ateefa Husna Hamidah Mohd Johar, Nur Amirah Ayob, Nabilah Hanis Ishak, Nur Fazira Abu Zarin, Nur Najihah Mohamad Zali, and Nur Athirah Alias.
3. *Pemfailan Hak Cipta - 'Jellysea Toppers' (2016). Norhayati Hussain, Huily Woon Huier, Nur Hamizah Binti Azman, Nursyafiqah Bt Abdul Rahim, Siti Farhanah Bt Mohd Razali, Nurul Atiqah Binti Agos, Lim Jia Yun, Tong Ann Chie, Aina Syairah Binti Ahmad Mazlan, and Noor Suhaili Binti Ma'mor
4. *Pemfailan Hak Cipta - 'Percik Dipping Sauce' (2016). Norhayati Hussain, Nor Ainin Shahirah Muhamad Azam, Nur Hanis Salim, Nur Syafiqah Mohd Fauzi, Ummul Izzatul Izzah Yahya, Cheok Hui Jen, Nur Syafiqah Mohd Rydzuan, Siti Aisyah Abd Kadir, Nurul Sakinah Din, and Raditia Najmi Fathurrahman, Indonesian.
5. *Pemfailan Hak Cipta - 'POCKETRice' (2016). Norhayati Hussain, Nurul Hazirah Abdul Malik, Siti Nur Syahirah Ahmad, Nuraqilah Hamid, Sareh Muhammad Akmal Sareh Yusooof, Nur Hidayatul Nabilah Mohamd Rozaiman, Najwa Shamila Murad, Nur Raimi Hadzwani Radzali, Adibah Ayuni Sulaiman, and Nur Atirah Safawanah Abd Jan
6. *Pemfailan Hak Cipta - 'Sandwicheetz Patty' (2016). Norhayati Hussain, Abidatul Aqilah Abdullah, Sai Gayatri Sundara Rajoo, Nur Hadana Ibrahim, Nurfatim Azma Ramle, Athiah Nabihah Laizani, Tang Xing Long, Nabilah Asyiqin Suhaimi, Mohd Hamdani Elvis Syefrizal, and Siti Salwa Suandi
7. *Pemfailan Hak Cipta - "Semi-Instant Premix Liquid Sago Pancake" (2016). Norhayati Hussain, Nur Fazhilah Hanim Halim, Ling Sheen, Amiratul Aisyah Tajuddin, Norliyana Abdul Razak, Nurul Hafiza Abd Aziz, Siti Safinah Hamdan, Fitriani Dahlan, Nur Najibah Rosidan and Muhammad Afiq Jaafar Siddek.

8. *Pemfailan Hak Cipta – ‘Vegetable Pretzel’ (2016). Norhayati Hussain, Ching Shing Yee, Nurhadaina Binti Zainuddin, Muhammad Azhar Bin Hasanuddin, Chan Soon Li, Maizatul Farhana Binti Mohd Azni, Nur Asma Binti Muhamad Radzuan, Nurul Aqilah Binti Hasnan, Nur Kamariah Binti Rosni, and Nur Farhanah Nabila Binti Mt Jais
9. *Pemfailan Hak Cipta – ‘WaRiMee’ (2016). Norhayati Hussain, Nor Wana Azmi, Chiew Hui Lian, Nurul Fatin Amalia Romli, Siti Khadijah Khalid, Siti Nur Asiyah Zulkefli, Nurhayati Mokhtar, Siti Norashikin Alias, Nur Azyan Zahirah Mohd Noor and Soo Yuen Num
10. *Pemfailan Hak Cipta – “D’ Oryza’ Rice Drinks with Fruit Bites” (2016). Norhayati Hussain, Marina Mohd Tamsir, Azirah Hanim Ahmad Fauzi, Nor Syahida Amalin Bahrnor, Nor Amirah Roslan, Shardana Aiga Salis, Noramirah Rossuhaimi, Noor Fatini Aini Nor Fadzil, Insyirah Zulkipli, Muhammad Syukri Ramli, and Arif Fakhori Tajul Ariff
11. Pemfailan Hak Cipta - "Tasea Roll" (2015). Norhayati Binti Hussain, Janette Anak Kenser, Siti Samahah Binti Moh Hanaffi, Nor Balkhis Binti Mohd Shafir, Nurhatikha Bte. Mohd. Yunus, Shamala Jeanne Chandran, Nur Awatif Bt. Khamis, Nur Ain Binti Abdul Latip and Hildah Jaupis
12. Pemfailan Hak Cipta - "Oatreats, Oat Milk Caramel Spread" (2015). Norhayati Binti Hussain, Siti Sarah Binti Zahari, Nurul Nabila Bt. Hashim, Nuraina Nazira Bt. Abdul Jalil, Nur Izzati Bt. Mohd Noor, Logeswary A/P Selvakumaran, Ain Najlaa Bt. Mohd Rosdan, Raja Maisarah Bt. Raja Lawang and Nor Farhana Bt Mokhtar
13. Pemfailan Hak Cipta - "NALES Pudding" (2015). Norhayati bt Hussain, Chan Lin Chong, Hew Khai Shin, Goh Eng Hui, Siti Raihanah bt Mohd Saleh, Raja Nurul Masitah bt Raja Yacob, Malaysian, Farah Zahira bt Mohd Nadzri, Nor Afifah bt Mat Johir, and Nur Wahidah bt Mohd Zamri,
14. Pemfailan Hak Cipta - "RIZZO" (2015). Norhayati Binti Hussain, Amalina Hanan Binti Amir Hamzah, Indah Sriwahyuni, Nur Izzah Arifah Binti Zarul Anuar, Nor Asyiqin Binti Hassan, Nurzulaiikha Sabrina Binti Khairul Patah, Malaysian, Syalyia Erma Binti Sazali, Nurul Nabiha Binti Mohd Ahkar Nawawi and Hazwani Binti Malek
15. Pemfailan Hak Cipta - "Frozen Yogurt with Honey Dew and Bitter Gourd" (2015). Norhayati Bt Hussain, Rabiatal Adwiyyah Bt Md Harita, Tan Eng Leong, Nurul Irwanie Bt Abdullah Aziz, Nurfazwin Binti Zulkafli, Nadhirah Bt Mat Tajuddin, Nurfarah Atilia Bt Musa, Veronica Lai Ke Nie and Foo Su Yi
16. Pemfailan Hak Cipta - "Breakfast Go" (2015). Norhayati Bt. Hussain, Abdul Halim Bin Abrar, Tan Hui Yi, Kuek Su Lee, Nur Fatin Najiha Bt. Abdul Hamid, Shahira Farahani Bt. Jaafar, Ng Mei Hua, Yasmin Bt. Ahmad and Ahna Ien Bt. Mohd. Ali
17. Pemfailan Hak Cipta - "Ana Sambal Telur Puyuh" (2015). Norhayati Binti Hussain, Fatin Nur Raihana Binti Md Said, Ubaidah Binti Abdullah Suhaimin, Norsyafiqah Binti Othman, Ili Zafirah Binti Md Isa, Anis Sabrina Binti Mohd Nasir, Nur Atikah Binti Sallehuddin, Yoheshni Balakrishnaa, Nur Basyirah Binti Yahaya and Nurshila Binti Mohd Hashim

18. Pemfailan Hak Cipta - "Kurfee Premix 2 in 1" (2015). Norhayati Binti Hussain, Lim Li Yi, Nur Afifah Binti Shukril Naaim, Norliyana Binti Mat Noh, Mohamad Afifi Bin Ismail, Rohaila Binti Ariffin, Syafikah Ayuni Binti Mohd Sani and Jew Li Ying

I. CONSULTANCY

(I1). Principle Investigator and Co-researcher (Summary)

Project ID	Project Title	Role	Year	Status
UPMCS2012-56 (Barry Callebaut Services Asia Pacific Sdn. Bhd.)	Optimization of Yeast Starter Culture for Cocoa Fermentation	Principal investigator	2012-2013	Completed
I-eco/68 (UPM-12)	Improvement & Shelf Life Extension of Fresh Cream Chocolate Filling for Tolaal Enterprise.	Principal investigator	2012-2015	Completed
UPMCS2016	Development of three functional food products from virgin oil.	Co-researcher	2015-2017	Completed

(I2). Achievement/ Report

Project Title	Achievement
Optimization of Yeast Starter Culture for Cocoa Fermentation	<p>1. S.A. Mat, I.S. Mohd Daud, M.H. Mohamad Rojje, N. Hussain and Y. Rukayadi. 2016. Effects of <i>Candida</i> sp. and <i>Blastobotrys</i> sp. Starter on Fermentation of Cocoa (<i>Theobroma cacao</i> L.) Beans and Its Antibacterial Activity. <i>Journal of Pure and Applied Microbiology</i>. Vol. 10(4), p. 2501-2510. Q4</p> <p>2. Mahazar, N. H., Sufian, N. F., Meor Hussin, A. S., Norhayati, H., Mathawan, M. and Rukayadi, Y. 2015. <i>Candida</i> sp. as a starter culture for cocoa (<i>Theobroma cacao</i> L.) beans fermentation. <i>International Food Research Journal</i> 22(5): 1783-1787. Q4</p>
Improvement & Shelf Life Extension of Fresh Cream Chocolate Filling for Tolaal Enterprise.	<p>*1. Top 5-Star Rated/ High impact project</p> <p>*2. Razak, R. A., Karim, R., Sulaiman, R. and Hussain, N. 2018. Effects of different types and concentration of hydrocolloids on mango filling. <i>International Food Research Journal</i> 25(3): 1109-1119. Q4</p> <p>3. Nur Sadrina Mohamed, Raihana Abdul Razak, Norhayati Hussain, and Roselina Karim. 2014. Improvement and shelf life extension of fresh creams chocolate filling for Tolaal Enterprise. <i>Persidangan</i></p>

Project Title	Achievement
	Kebangsaan Kedua Program Pemindahan Ilmu (KTP 02). Hotel Marriott, Putrajaya, Malaysia.

J. INDUSTRIAL AND COMMUNITY NETWORK

(J1). Principle Investigator and Co-researcher (Summary)

Project ID	Project Title	Role	Year	Status
*Collaboration with Mak Lang Kelubee (Grant Source: APPGM-SDG Grant, Community)	Projek penternakan kelulut APPGM Farm (Stingless Bee Farming Project)	Principal investigator	2024-2025	Completed
*Collaboration with Nizam Power Sdn Bhd on Kelulut Honey	1. Development of Pasteurised Kelulut Stingless Bee Honey Beverage from Heterotrigona Itama 2. Effect of Different Dehumidification and Storage Conditions on the Physicochemical, Antioxidant and Hydroxymethyl furfural Content of Mono and Multifloral Kelulut Honey	Principal investigator	2022	On going
KPT 600-6/2/18 Jld 7: Public-Private Research Network (PPRN)	Improvement of frozen curry puff skin	Principal investigator	2015	Completed
Public-Private Research Network (PPRN)	Development of vegetable and black seed-enriched noodles.	Co-researcher	2016	Completed
Public-Private Research Network (PPRN)	Development of instant and shelf stable crab noodle paste.	Co-researcher	2016	Completed
Public-Private Research Network (PPRN)	Extension shelf life of sagu berkrim, dadih, muruku and jelly kelapa.	Co-researcher	2016	Completed

(J2) Achievement/ Report

Project Title	Achievement
Projek penternakan kelulut APPGM Farm (Stingless Bee Farming Project). Collaboration with Mak Lang Kelubee	*1. Top 5-Star Rated/ High impact project
Collaboration with Nizam Power Sdn Bhd on Kelulut Honey and Mak Lang Kelubee	1. 4 undergraduates- Final year project *2. Norhayati Hussain and Siti Razwani Narazi. 2024. Effects of Pasteurisation on Antioxidant Activities and Microbiological Properties of Stingless Bee Honey Beverage During Storage. Journal of Biochemistry, Microbiology and Biotechnology, 2024, Vol 12, No 1 SP1, 50-53. My Cite
Improvement of frozen curry puff skin	1. 1 MSc *2. Norhayati Hussain, Izzreen Ishak, Nurul Syafizan Rosle, Nurul Husna Mohamed, Maaruf Abd Ghani. 2018. Effects of par-frying and calcium propionate on the quality of frozen curry puff. International Journal of Engineering & Technology. 7 (4.14) (2018) 283-287. Scopus

K. PUBLICATION

(K1) Journal Publication

(K1.1) Corresponding author

No.	Journal title (Corresponding author)
1.	Norhayati Hussain, Engku Ahmad Imran Engku Ahmad Zaki, Afiah Mohamed Ghazali and Siti Fatimah Mohamad. 2026. Consumer knowledge and consumption pattern of chocolate in Malaysia. Journal of Food Processing & Technology 14 (1): 1-11.
2.	Izzreen Ishak, Ranil Coorey, Maaruf Abd Ghani, Chin Ping Tan, Nazamid Saari and Norhayati Hussain. 2025. Effects of Different Extraction Methods on Yield, Polyunsaturated Fatty Acids, Antioxidants, and Stability Improvement of Chia Seed Oil: A Review. Pertanika J. Trop. Agric. Sci. 48 (1): 237 – 257. Q3
3	Norhayati Hussain, Amirun Hafiz Azizan and Afiah Mohamed Ghazali. 2025. Impact of Minimal Processing on Quality and Shelf Life of Cucumbers (<i>Cucumis sativus</i>). Journal of Biochemistry, Microbiology and Biotechnology. Vol 13, No 1 SP1, 42-48. MyCite
4	Hussain, N. Ismadi, M. H. N. M. and Mohamad, S. F. 2025. Consumer Knowledge, Attitude and Practice Regarding Stingless Bee Honey in Klang

No.	Journal title (Corresponding author)
	Valley, Malaysia. Quantum Journal of Social Sciences and Humanities. 6(S11): 164-179. MyCite
5	Shanti Dwita Lestari, Norhayati Hussain, Anis Shobirin Meor Hussin, Shuhaimi Mustafa, Yun Shin Sew. 2024. <i>Bacillus</i> Multi-strain from Malaysian Fish Sauces Demonstrating Proteolytic, Lipolytic, Esterolytic and Glutamic-acid Production Activities. 11 (1): e26. Q2
6	Norhayati Hussain, Wong Pei Er and Komati Rajentran. 2024. Effects of Polyglycerol Polyricinoleate (PGPR) as Partial Substitute of Cocoa Butter and Lecithin on Rheology and Shelf Life of Chocolate Glaze. Journal of Biochemistry, Microbiology and Biotechnology. Vol 12, No 1 SP1, 35-38. MyCite
7	Afiah Mohamed Ghazali, Nasiru Bilkisu Umar and Norhayati Hussain. 2024. Application of Different Aqueous Ultrasound-assisted Extraction Process Parameters on the Quality of Pandan (<i>Pandanus amaryllifolius Roxb</i>) Leaves Extract. Journal of Biochemistry, Microbiology and Biotechnology. Vol 12, No 1 SP1, 9-11. MyCite
8	Norhayati Hussain and Siti Razwani Narazi. 2024. Effects of Pasteurisation on Antioxidant Activities and Microbiological Properties of Stingless Bee Honey Beverage During Storage. Vol 12, No 1 SP1, 50-53. MyCite
9	Norhayati Hussain, Shanti Dwita Lestari., Anis Shobirin Meor Hussin, Shuhaimi Mustafa, Yun Shin Sew, Han Ming Gan, Amalia Mohd Hashim. 2023. Bacterial community structure, predicted metabolic activities, and formation of volatile compounds attributed to Malaysian fish sauce flavor. Food Chemistry. Q1
10	Norhayati Hussain, Komati Rajentran, Wan Nur Amalin Syakira Wan Mohd Zul, Najjah Azhar, Nur Filza Mohd Fuad. 2023. Effects of ascorbic acid and kelulut honey as antibrowning agent on the quality of minimally processed jackfruit (<i>Artocarpus heterophyllus</i>). Journal of Food, Nutrition and Diet Science. 1(1): 44-56.
11	Norhayati Hussain, Aida Athirah Salim, Siti Fatimah Mohamad, Nursabrina Munawar. 2023. Evaluation of consumer's knowledge, attitude, practice towards herbal tea consumption, preparation and their association with demographic profile. MOJ Food Processing & Technology. 11(2):84-96.
11	Baizura Aya Putri Agus, Komati Rajentran, Jinap Selamat, Shanti Dwita Lestari, Nasiru Bilkisu Umar, Norhayati Hussain. 2023. Determination of 16 EPA PAHs in food using gas and liquid chromatography. Journal of Food Composition and Analysis. https://doi.org/10.1016/j.jfca.2022.105038 . Q2
12	Norhayati Hussain, Choy Hew Weng, Nursabrina Munawar. 2022. Effects of different concentrations of pineapple core extract and maceration process on free-range chicken meat quality. Italian Journal of Food Science. 34 (1): 124-131. Q3
13	Norhayati Hussain, Aisyah Zafirah Md Dali, Nursabrina Munawar. 2021. Effects of fat contents and particle size of cocoa nibs on alkaloid composition, antioxidant activities, and volatile compound of concentrated cocoa drink. Journal of Food Processing and Preservation. https://doi.org/10.1111/jfpp.15748 . Q3

No.	Journal title (Corresponding author)
14	Norhayati Hussain, Izzreen Ishak, Baizura Aya Putri Agus, Nor Fatin Atikah Samah. 2021. Effects of different stabilization conditions and extraction methods (Soxhlet and ultrasonic-assisted) on quality of rice bran oil. <i>Emirates Journal of Food and Agriculture</i> . 33(3): 220-227. Q3
15	Izzreen Ishak, Norhayati Hussain, Ranil Coorey, Maaruf Abd Ghani. 2021. Optimization and characterization of chia seed (<i>Salvia hispanica</i> L.) oil extraction using supercritical carbon dioxide. <i>Journal of CO2 Utilization</i> . 45 (2021): 101430. Q1
16	Norhayati Hussain, Najjah Azhar, Nur Fathiah Abdul Razak. 2021. Stability of chili padi bara (<i>Capsicum frutescens</i> L.) paste containing calamansi lime during storage and its tenderizing effect on chicken fillet. <i>Journal of Food Measurement and Characterization</i> . 15: 5150–5158. https://doi.org/10.1007/s11694-021-01086-3 . Q3
17	Agus, B.A.P., Hussain, N., Selamat J. 2020. Quantification of PAH4 in roasted cocoa beans using QuEChERS and dispersive liquid-liquid micro-extraction (DLLME) coupled with HPLC-FLD. <i>Food Chemistry</i> . 303:125398. Q1
18	Hussain, N., Abd Rahim, N.A. and Azhar, N. 2020. Physicochemical properties of chili padi Centil (<i>Capsicum frutescens</i>) powder dried at different drying temperatures. <i>Food Research</i> . 139-144. Scopus
19	Nursabrina Munawar, Najjah Azhar, Nur Syahirah Rohaizad and Norhayati Hussain (2020). Characterization of Watermelon Rind Powder Using Foam Mat Drying with Different Types of Foaming Agents and Temperatures. <i>Asian Journal of Fundamental and Applied Sciences</i> ,1-10.
20	Hussain, N., Ishak, I., Sulaiman, R., Fauzi, N.M. and Coorey, R. 2020. Influence of processing conditions on rheological properties of aqueous extract chia (<i>Salvia hispanica</i> L.) mucilage. <i>Food Research</i> 4 (Suppl. 1): 227 – 236. Scopus
21	Fakhlai, R., Rozzamri, A. and Hussain, N. 2020. Composition, color and antioxidant properties of cocoa shell at different roasting temperatures. <i>Food Research</i> 4 (3): 585 – 593. Scopus
22	Halimatun Sa’adiah, A. H., Jinap, S. and Norhayati, H. 2019. Fractionation of coconut oil via supercritical fluid extraction for production of cocoa butter substitute. <i>International Food Research Journal</i> . 26(3): 783-790). Q4
23	Abdul Halim, H.S., Selamat, Mirhosseini, S.H. and Hussain, N. 2019. Sensory preference and bloom stability of chocolate containing cocoa butter substitute from coconut oil. <i>Journal of the Saudi Society of Agricultural Sciences</i> .18(4): 443-448. Q4
24	Roiaini Mohamad, Baizura Aya Putri Agus and Norhayati Hussain. 2019. Changes of Phytosterols, Rheology, Antioxidant Activity and Emulsion Stability of Salad Dressing with Cocoa Butter During Storage. <i>Food Technology and Biotechnology</i> . 57(1): 59-67. Q2
25	Norhayati H., Izzreen I., Nurhazirah M.H., Gloria P.K.L. 2019. Comparison of bioactive compounds and sensory evaluation on edible flowers tea infusion. <i>Italian Journal of Food Science</i> . 31: 264-273. Q3

No.	Journal title (Corresponding author)
26	Hussain, N., Azhar, N., Rajoo, S.G.S. 2019. Effects of thermosonication on watermelon rind-honey beverage. <i>Italian Journal of Food Science</i> . 31(4), pp. 631-651. Q3.
27	Norhayati Hussain, Izzreen Ishak, Muhammad Aiman Ahmad Kamal, Etty Syarmila Ibrahim Khushairay and Baizura Aya Putri Agus. 2019. Peeling of key lime (<i>Citrus aurantifolia</i>) fruit aided with vacuum infusion, different levels of pectinase concentration and soaking time. <i>Journal of Food Measurement and Characterization</i> . 13(3), pp. 2095-2105. Q3
28	Hussain, N., Ishak, I., Abdullah, M.F., Rauh, A.A., Azhar, N. 2019. Water soluble hydrocolloid from basil seed (<i>Ocimum basilicum</i> L.) mucilage <i>Malaysian Applied Biology</i> . 48(2), pp. 97-101. MyCite
29	Norhayati, H., Izzreen, I. and Tan Hooi, P. 2019. Effects of pasteurization and different concentrations of xanthan gum on honey beverage. <i>Food Research 3 (4): 325 – 332</i> . Scopus
30	Norhayati Hussain, Baizura Aya Putri Agus, Aisyah Zafirah Md Dali, How Wee Teng. 2018. Determination of Functional Properties of Cocoa Waste from Concentrated Cocoa Drink. <i>Journal of Food Measurement and Characterization</i> 12(3): 2094-2102. Q3
31	Baizura Aya Putri Agus, Nurul Nadzirah Mohamad, Norhayati Hussain. 2018. Composition of Unfermented, Unroasted, Roasted cocoa beans and Cocoa shells from Peninsular Malaysia. <i>Journal of Food Measurement and Characterization</i> . 12:2581–2589. Q3
32	Razak, R. A., Karim, R., Sulaiman, R. and Hussain, N. 2018. Effects of different types and concentration of hydrocolloids on mango filling. <i>International Food Research Journal</i> 25(3): 1109-1119. Q4
33	Nur Sadrina Mohamad, Rabiha Sulaiman, Lai Oi Ming, Norhayati Hussain. 2018. Comparison between conventional and alternative peeling methods on peeling efficiencies of Malaysian 'Chok Anan' mango (<i>Mangifera indica</i> L.) fruit. <i>International Food Research Journal</i> 24(5): 1934-1940. Q4
34	Aisyah Zafirah, M. D., Roselina, K., Jinap, S. and Norhayati, H. 2018. Effects of fat content and grinding level of cocoa nibs on physicochemical characteristics of espresso cocoa. <i>International Food Research Journal</i> . 25(3): 1239-1245. Q4
35	Norhayati Hussain, Izzreen Ishak, Nurul Syafizan Rosle, Nurul Husna Mohamed, Maaruf Abd Ghani. 2018. Effects of par-frying and calcium propionate on the quality of frozen curry puff. <i>International Journal of Engineering & Technology</i> . 7 (4.14) (2018) 283-287. Scopus
36	Norhayati Hussain, Baizura Aya Putri Agus, Siti Nur Fifi Abdul Rahim, Halimatun Sa'adiah Abdul Halim. 2018. Comparison of quality characteristics between compound and pure milk chocolate. <i>MOJ Food Processing & Technology</i> .6(3):292–296.
37	Ida Madiha Y., Rukayadi Y., and Norhayati H. 2017. Effects of extraction condition on yield, total phenolic contents and antibacterial activity of methanolic Cinnamon <i>zeylanicum</i> Blume leaves extract. <i>International Food Research Journal</i> . 24(2): 779-786. Q4

No.	Journal title (Corresponding author)
38	Roiaini, M., Seyed H. M., Jinap, S. and Norhayati, H. 2016. Effect of extraction methods on yield, oxidative value, phytosterols and antioxidant content of cocoa butter. <i>International Food Research Journal</i> 23(1): 47-54. Q4
39	Roiaini, M., Ardiannie, T. and Norhayati, H. 2015. Physicochemical properties of canola oil, olive oil and palm olein blends. <i>International Food Research Journal</i> 22(3): 1228-1234. Q4
40	H. Norhayati & M Roiaini. 2015. Effect of Different Solvents on Phytosterols and Antioxidant Activity of Cocoa Beans. <i>International Journal of Food Engineering</i> . 1:1:18-22. Q4
41	H. Norhayati & A. Mohd Khan. 2014. Sensory Quality of Pilot Scales Prebiotic Chocolates in Malaysia. <i>Sains Malaysiana</i> . 43(9): 1333-1344. Q4
42	Norhayati H, Rasma Suzielawanis I. & Mohd Khan A. 2013. Effect of Storage Conditions on Quality of Prebiotic Dark Chocolate. <i>Mal J Nutr</i> . 19(1): 111 – 119. MyCite
43	Norhayati H., Muhammad Anas. O. & Mohd Khan A. 2012. Kesan Penggunaan Inulin dan Coklat Berinulin Terhadap Pertumbuhan in vitro Bifidobakteria. <i>Sains Malaysiana</i> . 41(10): 1223–1231. Q4
44	Norhayati H., K.Rosmin, I.Rasma Suzielawanis, O.Muhammad Anas and A. Mohd Khan. 2008. Effects of prebiotic chocolates on some physicochemical properties, intestinal microflora of rat's digesta and their serum profile. <i>Journal of Science and Technology in the Tropics</i> . 4(1): 39-46.
45	Norhayati H, K.Rosmin, I. Rasma Suzielawanis, Yazid A.M. and A. Mohd Khan. 2008. Effect of inulin on texture, melting profile and sensory properties of sugar free milk chocolate. <i>Malaysian Cocoa Journal</i> . 4:20-24

(K1.2) Co- author

No.	Journal title (Co-author)
1	Sari, A.R., Rahman, R.A., Shukri, R. and Norhayati, H. 2025. Effects of hot air drying on the kinetics and characteristics of pregelatinized corn grits. <i>Food Research</i> 9 (4) : 286 – 293. Scopus.
2	Rodiah, M.H., Jamilah, B., Norhayati, H., Kharidah, M. 2023. Debittering of <i>Borassus Flabellifer</i> Mesocarp using Naringinase: Impact on The Composition, Physicochemical Characteristics, and Functional Properties <i>Malaysian Journal of Science</i> . 42(3), p. 34–44. Scopus.
3	Mohsin, A.Z., Mat Nor, N.A., Muhialdin, B.J., Hussain, N., Meor Hussin, A.S. 2022. The effects of encapsulation process involving arabic gum on the metabolites, antioxidant and antibacterial activity of kombucha (fermented sugared tea). <i>Food Hydrocolloids for Health</i> . 2:100072. Q1
4	Sari, A.R., Rahman, R.A., Shukri, R., Norhayati, H. 2019. Improvement process of partially cooked corn grit (PCCG) preparation. <i>International Food Research Journal</i> . 26(2), pp. 537-546. Q4
5	Kam, W.Y.J., Abas, F., Hussain, N., Mirhosseini, H. 2019. Comparison of crude extract from <i>durio zibethinus</i> M. (durian) leaf waste via ultrasound-assisted

No.	Journal title (Co-author)
	extraction and accelerated solvent extraction: antioxidant activity and cytotoxicity. <i>Natural Product Research</i> . 1937-1941. Q2
6	Joanne Kam, Wai-Yee; Mirhosseini, Hamed; Abas, Faridah; Hussain, Norhayati; Hedayatnia, Simin. Florence Chong, Huey-Lin. 2018. Antioxidant activity enhancement of biodegradable film as active packaging utilizing crude extract from durian leaf waste. <i>Food Control</i> . 90: 66 – 72. Q1
7	Cheok C.Y.; Sulaiman R.; Manan N.A.; Zakora A.J.; Chin N.L.; Hussain N. 2018. Pasting and physical properties of green banana flours and pastas. <i>International Food Research</i> . 25 (6): 2585 – 2592.
8	Mahazar N.H.; Zakuan Z.; Norhayati H.; MeorHussin A.S; Rukayadi, Yaya. 2017. Optimization of culture medium for the growth of <i>Candida</i> sp. and <i>blastobotrys</i> sp. as starter culture in fermentation of cocoa beans (<i>Theobroma cacao</i>) using response surface methodology (RSM). <i>Pakistan Journal of Biological Sciences</i> . 20(3): 154-159. Q3
9	S.A. Mat, I.S. Mohd Daud, M.H. Mohamad Rojje, N. Hussain and Y. Rukayadi. 2016. Effects of <i>Candida</i> sp. and <i>Blastobotrys</i> sp. Starter on Fermentation of Cocoa (<i>Theobroma cacao</i> L.) Beans and Its Antibacterial Activity. <i>Journal of Pure and Applied Microbiology</i> . Vol. 10(4), p. 2501-2510. Q4
10	Choon Yoong Cheok, Noranizan Mohd Adzahan, Russly Abdul Rahman, Nur Hanani Zainal Abedin, Norhayati Hussain, Rabiha Sulaiman & Gun Hean Chong. 2016. Reviews: Current Trends of Tropical Fruit Waste Utilization. <i>Critical Reviews in Food Science and Nutrition</i> . doi:10.1080/10408398.2016.1176009. Q1
11	Abdul Aris, M. H., Lee, H. Y., Hussain, N., Ghazali, H., Mahyudin, N. A. Nordin, W. N. and Mahyudin N.A. 2015. Effect of Vietnamese coriander (<i>Persicaria odorata</i>), turmeric (<i>Curcuma longa</i>) and asam gelugor (<i>Garcinia atroviridis</i>) leaf on the microbiological quality of gulai tempoyak paste. <i>International Food Research Journal</i> 22(4): 1657-1661. Q4
12	Mahazar, N. H., Sufian, N. F., Meor Hussin, A. S., Norhayati, H., Mathawan, M. and Rukayadi, Y. 2015. <i>Candida</i> sp. as a starter culture for cocoa (<i>Theobroma cacao</i> L.) beans fermentation. <i>International Food Research Journal</i> 22(5): 1783-1787. Q4
13	Physicochemical properties of Malaysian-grown tropical almond nuts (<i>Terminalia catappa</i>) Ng, S., Lasekan, O., Muhammad, K.S., Hussain, N., Sulaiman, R. 2015. <i>Journal of Food Science and Technology</i> . 52(10), pp. 6623–6630
14	Siewsee Ng, Ola Lasekan, Kharidah Muhammad, Rabiha Sulaiman and Norhayati Hussain. 2014. Effect of roasting conditions on color development and Fourier transform infrared spectroscopy (FTIR-ATR) analysis of Malaysian-grown tropical almond nuts (<i>Terminalia catappa</i> L.). <i>Chemistry Central Journal</i> . 8(55):1-11. Q2
15	Muhammad Anas, O. Mohd Yazid A.M, Norhayati, H. Loong, Y.Y & Shuhaimi, M. 2007. Fermentation of chocolate with inulin by bifidobacteria strains. <i>World Journal of Microbiology and Biotechnology</i> .

(K2) Books/Monographs

1. **Norhayati Hussain**. 2014. Ke arah penghasilan coklat bermutu- skala loji pandu. Penerbit Universiti Putra Malaysia.

(K3) Chapter in book

1. ***Norhayati Hussain**, Izzreen Ishak, Ranil Coorey, Ma'Aruf Abd Ghani, and Tan Chin Ping. 2021. A Centum of Valuable Plant Bioactives (1st Ed.) In Chapter 31: *Tocopherols*. Elsevier, UK. ISBN: 978-0-12-822923-1. pg 707-727.
2. ***Norhayati Hussain**, Nurfaiah Aqilah and Najjah Azhar. 2020. A comprehensive guide to processed foods. In Chapter 10: *Quality attributes of watermelon rind with honey beverage processed using pasteurisation and thermosonication*, Nova Science Publishers Incorporation, USA. ISBN 978-1-53617- 308-6. pg 253.
3. *Rodziah Atan, Mohd Daud Awang, Fatin Nur Majdina Nordin. 2018. Halal Industry: Food, Non Food & Halal Image. In Part 3: Progress and challenges in halal industry. Application of selected emulsifiers in chocolate: A short review. Laboratory of Halal Policy and Management, Halal Products Research Institute, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor Darul Ehsan, Malaysia. ISBN 978-967-12398-4-1. pg 102-106.
4. **Norhayati Hussain**. 2010. Current research in food science and nutrition. In Chapter 9: *Effect of prebiotics on the physical properties and sensory evaluation of milk chocolates*. Penerbit Universiti Malaysia Sabah. pg 97-108.

(K4) Abstract/ Proceedings

1. *Impact of Borassus Flabellifer on The Quality and Nutrition of Fiber-Enriched Muffins. 4th International Paris Congress on Applied Sciences, Paris. 5-9 February 2025.
2. *Effects of Different Drying Conditions, Ultrasonic-Assisted Extraction, and Anticancer Activities of Annona Muricata (Soursop) Leaves. 7th International Mediterranean Congress, University of Valencia, Spain. 2025.
3. *Effects of Polypropylene (PP) Packaging Thickness on Microplastic Migration into Chocolates during Microwave Heating. Malaysian International Cocoa Fair, Sabah International Convention Centre, Kota Kinabalu, Sabah. 24-27 May 2025.
4. *Komati Rajentran and Norhayati Hussain. Improvement of Alkaline Chia Mucilage Extraction Parameters using Ultrasound. 3rd International Food Research Conference. 6-8 August 2024. Palm Garden Hotel, Putrajaya, Malaysia.

5. ***Norhayati Hussain** and Nur Sabrina Munawar. 1-3 March 2024. Optimization of cold infusion parameters of *Annona muricata* leaves using response surface methodology (RSM). International Congress on Sustainable Agriculture, Igdir University, Tukiye. IKSAD Publications – 2024. ISBN: 978-625-367-661-2.
6. *Wong Pei Er, Komati Rajentran and **Norhayati Hussain**. 27-28 February, 2024. Effects of Polyglycerol Polyriconoleate (PGPR) as Partial Substitute of Cocoa Butter and Lecithin on Rheology and Shelf Life of Chocolate Glaze. 2nd Food Science and Technology Undergraduate Colloquium (FOSTUC) 2024 by UMT, UPM and UMS.
7. *Afiah Mohamed Ghazali and **Norhayati Hussain**. 27-28 February, 2024. Application of Different Aqueous Ultrasound-assisted Extraction Process Parameters and their Effect on the antioxidant level and stability of Pandan leaves Extract. **Gold Award**. 2nd Food Science and Technology Undergraduate Colloquium (FOSTUC) 2024 by UMT, UPM and UMS.
8. ***Norhayati Hussain** and Najjah Azhar. 17-20 February, 2023. A Comparison Study on Antioxidant Activity and Microbial Load Between Peel and Pulp of Malaysian Musa Paradisiaca Aab “Tanduk” Extracted using Different Extraction Methods (Simple Extraction, Soxhlet and High Hydrostatic Pressure). International Anatolian Congress on Multidisciplinary Scientific Research, Kars, Turki.
9. ***Norhayati Hussain** and Nur Sabrina Munawar. 17-20 February, 2023. The Potential Herbal Plant in Malaysia as Tea: The Antioxidant Compounds, Antioxidant Activity and Contaminant in Fresh Local Herbal Leaves. International Anatolian Congress on Multidisciplinary Scientific Research, Kars, Turki.
10. *Shanti Dwita Lestari, Anis Shobirin Meor Hussin, Shuhaimi Mustafa, Sew Yun Shin, and **Norhayati Hussain**. September 3rd, 2022. The 2nd International Joint Symposium on Agriculture and Food Security, Mae Fah Luang University, Thailand.
11. *Najjah Azhar, Aisyah Razak and **Norhayati Hussain**. 13-15 October, 2022. Effects of Different Ripening Stages and Stability of Banana Musa Acuminata Aaa ‘Lakatan’ (Berangan) Puree during Storage. Sivas International Conference on Scientific and Innovation Research, Turki.
12. ***Norhayati H.**, Engku Ahmad Imran E.A.Z., Siti Fatimah M. April 7-8, 2022. Consumer knowledge and consumption pattern of chocolate in Malaysia. 2nd International Anatolian Conference on Coffee & Cocoa, Bogota, Colombia.
13. *Najjah Azhar and **Norhayati Hussain**. 2021. The Enhancement of Functional Bioactive Compound of Different Local Plantain Peels (*Musa paradisiaca* L.) Extracted Using High Hydrostatic Pressure: A Preliminary. 2nd International Conference on Agriculture, Animal Sciences & Food Technology (ICAFT), Terengganu, Malaysia.
14. *Aisyah Zafirah Md Dalia, Nursabrina Munawar, and **Norhayati Hussain**. 2021. Development of Espresso Cocoa: Effects of Grinding Process and Fat Content on

Certain Physicochemical and Sensorial Properties. 2nd International Conference on Agriculture, Animal Sciences & Food Technology (ICAFT), Terengganu, Malaysia.

15. *Nur Sabrina M., Najjah A. Nur Syahirah R. and **Norhayati H.** 2020. Characterization of watermelon rind powder using foam mat drying with different types of foaming agents and temperatures. Kuala Lumpur International Conference and Management, Education and Technology, (KLIMET 2020), Malaysia
16. ***Norhayati H.** and Nurul Amielia Liza M. Ali. 2019. Effects of Different Anti-Browning Agents on Minimally Processed Banana (Musa Aa Cv Mas and Musa Aab Cv Rastali). International Food Research Conference, Putrajaya.

(K5) International Conference- Presenter

1. *Impact of Borassus Flabellifer on The Quality and Nutrition of Fiber-Enriched Muffins. 4th International Paris Congress on Applied Sciences, Paris. 5-9 February 2025.
2. *Effects of Different Drying Conditions, Ultrasonic-Assisted Extraction, and Anticancer Activities of Annona Muricata (Soursop) Leaves. 7th International Mediterranean Congress, University of Valencia, Spain. 2025.
3. *Effects of Polypropylene (PP) Packaging Thickness on Microplastic Migration into Chocolates during Microwave Heating. Malaysian International Cocoa Fair, Sabah International Convention Centre, Kota Kinabalu, Sabah. 24-27 May 2025.
4. *Improvement of Alkaline Chia Mucilage Extraction Parameters using Ultrasound. 3rd International Food Research Conference, Putrajaya. 6-8 August 2024.
5. *International Congress on Sustainable Agriculture, Igdir University, Tukiye. 1-3 March 2024.
6. *International Anatolian Congress on Multidisciplinary Scientific Research, Kars, Turki. 17-20 February, 2023.
7. *2nd International Conference on Agriculture, Animal Sciences & Food Technology (ICAFT), Terengganu, Malaysia. 2021
8. *Kuala Lumpur International Conference and Management, Education and Technology, (KLIMET 2020), Malaysia. 2020
9. International Food Research Conference, Putrajaya. 2019.
10. *Global Halal Sphere Conference, ISTAC- IUM, Kuala Lumpur. 2019.
11. *International conference on agriculture, animal sciences & food technology, Terengganu. 2018.
12. *2nd International Conference on Applied Sciences and Industrial Technology 2018

13. International Halal Ecosystem Conference (IHEC) 2018; Kompleks Kedekanan FST UKM.13th - 15th Nov 2018
14. *Halal Food Certification Workshop, Istanbul Sebahatin Zaim University. 2017.
15. *International Postgraduate Symposium, UKM, K. Lumpur. 2017
16. 2nd International Conference on Crop Improvement, Institute of Tropical Agriculture and Faculty of Agriculture UPM, The University of Nottingham Malaysia, University of Reading, UK and Wageningen University, Netherland. 2015
17. 5th International Conference on Biotechnology and Food Science. Istanbul, Turkey. 2015.
18. Malaysia International Halal Research & Education Conference, MIHREC Putrajaya. 2014.
19. 47th Annual AIFST Convention & Exhibition, Australia. 2014.
20. The 3rd International Symposium on Processing of Foods, Vegetables and Fruits. University of Nottingham, Malaysia. 2014.
21. Second National Conference on the Knowledge Transfer Programme (KTP 02). Universiti Sains Malaysia. 2014.
22. The FOOD S & T 2013 - BIT's, 2nd World Congress of Food Science and Technology-2013, Hangzhou, China. 2013.
23. First National Conference on the Knowledge Transfer Programme (KTP 01), Universiti Sains Malaysia. 2013.

(K6) Mass Media

1. *Facebook (Alumni Relations Centre's): Building COVID-19 Aftermath New Norm in Malaysia: Strategic Actions for Health, Economy, and Education. International Forum Covid- 19 Aftermath (IFOCA Series 3). 2021

L. INVITED SPEAKER/ GUEST LECTURER

(L1) Outside UPM

1. ***Guest lecturer:** Title: 'Halal Assurance System Awareness'. Product Testing and Food

Safety course at the Applied Undergraduate Program of Agroindustry Product Development, Vocational College, Universitas Gadjah Mada in Indonesia. 23rd May 2025.

2. ***Invited speaker:** Halal Toyibban Awareness Program and Its Importance in Marketing for Micro, Small and Medium Food Enterprise. KTGS Temerloh, Pahang. 17 August 2024 (Topic: Food Ingredients and Its effect).
3. ***Invited speaker:** Mevlana Exchange Programme- International Halal Food Certification Workshop presented at Istanbul Sebahatin Zaim University, Turkey, 2017 (Topic: 'The application of science on determination of Halal Status').
4. ***Invited speaker:** Faculty of Veterinar and Faculty of Islamic Studies, Kirikkale University, Turkey, 2017 (Topic: Halal Food).
5. **Guest lecturer:** Subject STKM6043 Sugar and Chocolate Confectionery Technology, Food Science Department, Faculty of Science and Technology, Universiti Kebangsaan Malaysia. Semester 2- 2013/2014.

(L2) In UPM

1. ***Invited speaker:** Juice Processing Course involved participants of the Department of Agriculture. Location: Faculty of Food Science and Technology, Department of Food Technology, UPM, 2022

M. AWARDS/ RECOGNITION

(M1) Awards

Name of awards	Title	Award Authority	Award Level	Year
Academic Awards	A. PhD scholarship	Science and Technology Development Fund, Public Service Department, Malaysia	National	2007-2010
	B. BSc scholarship	People's Trust Council (MARA)	National	1994 - 1996

Name of awards	Title	Award Authority	Award Level	Year
Excellent Service Awards	A. Excellent Service Award	Universiti Putra Malaysia (UPM)	National	2012-2024
	B. Excellent Service Award	Malaysia Cocoa Board.	National	2007
	C. Outstanding Participant of the General Module Induction Course	UITM	National	2004
Competition / Others	A. Gold Award- Application of Different Aqueous Ultrasound-assisted Extraction Process Parameters and their Effect on the antioxidant level and stability of Pandan leaves Extract.	2nd Food Science and Technology Undergraduate Colloquium (FOSTUC) 2024 by UMT, UPM and UMS	National	2024
	B. Best Poster Award Science Category (Consolation Prize)- Improvement of Alkaline Chia Mucilage Extraction Parameters using Ultrasound.	3rd International Food Research Conference. August 2024	International	2024
	C. Gold award- Innovation (Pinezer 3 in1- Pineapple core- based meat tenderizer)	Melaka International Intellectual Exposition 2019	International	2019
	D. Hold 18 Copyrights (Product development)	UPM	National	2016
	E. Best Oral Presenter (H. Norhayati & M Roiaini. 2015. Effect of Different Solvents on Phytosterols and Antioxidant Activity of Cocoa Beans)	6 th International Conference on Biotechnology and Food Science, Istanbul, Turkey	Oral Competition (ICBFS 2015), Istanbul Turkey	2015
	F. Silver Medal, Malaysia Technology Exhibition: Sugar Free Prebiotic Chocolate	Malaysia Association of Research Scientist	Malaysia Technology Exhibition (MTE)	2007
	G. Bronze Medal.	UPM	Poster	2007

Name of awards	Title	Award Authority	Award Level	Year
	Muhammad Anas O., Norhayati H., Suhaimi M., Loong Y.Y & Mohd Yazid A.M. An in vitro study of the synbiotic potential of a probiotic preparation containing bifidobacterium pseudocatenulatum G4 and prebiotic (inulin and chocolates). H. Patent (MY-139020-A): Prebiotic chocolate and method for producing the same.	MYIPO	Competition, UPM	2007

(M2). Recognition (National and International)
Appointment by institutions as expert panel

Name of Institution/ Level	Role/ Program	Year
Malaysia Palm Oil Board, Ministry of Plantation and Commodities	Programme Advisory Committee (Focus Area of Value Addition)/ Advice: The Board on new and ongoing research programs, financing costs, publicity, and views on the direction of MPOB research programme	2022-2023
Department of Standards Malaysia, Ministry of International Trade and Industry	Permanent Working Group Members/ Sensory Analysis Standard (National and International level)	2021-present
Department of Standards Malaysia, Ministry of International Trade and Industry	Technical working group/ Develop MS Honey Specification and National Mirror Committee- Bee products	2020-present
Food Safety and Quality Division, Ministry of Health, Malaysia	Permanent expert committee/ Review, update and improve credibility of Food Commodity Standards under the Advisory Committee, Malaysia Food Acts 1985 (assist Food industries, government and non- government agencies)	2013-present

Name of Institution/ Level	Role/ Program	Year
Department of Skill Development, Ministry of Human Resources Malaysia	Standard Evaluation Technical Committee (JTPS)– for national skill job development documentation (NOSS)- handmade chocolate production Level 3 (minimum competencies of a skilled worker)	2013

N. PROFESSIONAL ORGANIZATION/ COMMUNITY/ NON- OFFICIAL MEMBERSHIPS

PROFESSIONAL ORGANIZATION

- a. Academic Staff Association, UPM (PPAUPM). 2012 till present
- b. Malaysian Board of Technologist. 2018 till present
- c. Nutrition Society till present
- d. Malaysian Institute of Food Technology, 2025

0. PROFESSIONAL SERVICE/ ACTIVITY

(01) National level

1. **Committee** National and International Sensory Standard, Department of Standards Malaysia, Ministry of International Trade and Industry, 2021 till present
2. **Committee** Honey Specification Department of Standards Malaysia, Ministry of International Trade and Industry, 2020 till present
3. **Committee** Food Commodity Standards, Food Safety and Quality Division, Ministry of Health, Malaysia, 2019 till present
4. **Programme Advisory Committee (PAC)**, Focus Area of Value Addition, Malaysia Palm Oil Board, Jan 2022- Dec 2023
5. **Chairman** Oral session (Novel and Green technology), International Food Research Conference 7-8 August 2024
6. **Judge** Innovation Categories, Malaysia Cocoa Board, Malaysian Cocoa Industry Awards Ceremony, Malaysian National Cocoa Conference. 2021
7. **Secretariat** International Science and Social Sciences Halal Food Symposium (UPM-Kirrikale University, Turkey and IIUM). 2018
8. **Guest Speaker** International Halal Food Workshop, Sabahattin Zaim University,

Istanbul 2017

9. Standard Evaluation **Technical Committee (JTPS)**– for national skill job development documentation (NOSS)-handmade chocolate production Level 3, Department of Skill Development, Ministry of Human Resources Malaysia 2013
10. **Assessor** Evaluation Committee, Putra Grant Progress Reports. 2015
11. **Coordinator** of PTJ Innovation. 2014-2018
12. **Associate Member** of Institute Halal Product Research. 2013-2023
13. **Assessor** of Application Grant Scheme KTP Knowledge Transfer Program. 2014-2015
14. **Judge** at 8th Food Science and Technology Seminar (Undergraduate Innovative Food Product Development), UNISZA, Terengganu 2014
15. **Committee Member** of the 15th Malaysian International Food & Beverage Trade Fair 2014
16. **Committee Member** of 2nd International Food Safety Conference 2013
17. **Committee Member** of Malaysia International HALAL Research & Education Conference 2014

(02). University Level

1. **Scientific Committee** International Food Research Conference 2026
2. **Scientific Committee** International Food Research Conference 7-8 August 2024
3. **Gold Prize** Food Science and Technology Undergraduate Colloquium (FoSTUC) 2024 by UMT, UPM and UMS. 26 – 27 February 2024. Title: Application of different aqueous ultrasound-assisted extraction process parameters on quality of pandan (pandanus amaryllifolius roxb) leaves extract.
4. **Assessor** Evaluation Panel Committee, Research Grant Scheme Application. 2023-2024
5. **Associate Member** of Institute Halal Product Research. 2013-2023
6. **Judge** Employees Provident Fund, Healthy Bento Cheff Competition. 2023
7. **Invited Speaker:** Juice Processing Course for Participants from the Department of Agriculture, 2022
8. **Mentor** Research mentor-mentee program FSTM Senior Lecturer, 2022

9. **Mentor** Intensive Monitoring Intervention Program/ Exit Policy 2021
10. **Head of Finance** 2nd International Food Research conference 2019
11. Coordinator of PTJ Innovation. 2014-2018
12. **Chairman and Moderator** of University Consortium Graduate Forum (UCGF) Programme 2015
13. **Committee** Member of Workshop on Design of Experiment. 2014
14. **Committee** Member of Workshop on Emulsion and Emulsification. 2014
15. **Assessor** Associate Expert, Centre for Extension, Entrepreneurship and Professional Advancement, UPM (APEEC). 2012-2014
16. **Guest lecturer** Subject STKM6043 Sugar and Chocolate Confectionery Technology, Food Science Department, Faculty of Science and Technology, Universiti Kebangsaan Malaysia. Semester II 2013/2014.
17. **Committee** Curriculum Review 2013 till present
18. **Committee** Ibrahim Chair 2014 till present
19. **Committee** Alumni Dinner 2012
20. **Committee** Faculty Meeting 2015-2016
21. **Committee** New Programme Formation 2014 till present
22. **Committee** New Food Products Launch 2012 till 2018
23. **Committee** Work Safety & Health 2013 till present
24. **Committee** Research and Innovation 2015-2016
25. **Review Committee** of Questions and Answers Scheme 2014
26. **Committee** Emergency Response Team (ERT) 2013 till present
27. **Committee** Utility Savings Environmental Management System 2013-2014
28. **Silver Medal**- Malaysia Technology Exhibition: Sugar Free Prebiotic Chocolate. Malaysia Technology Exhibition. 2007

(03). Non- Professional/ Community membership

1. ***Member** Waitankung and Neitankung Society, Malaysia (Exercise). 2010 till present
2. ***Committee** Sedekah Subuh Organization (Charity). 2017 till present
3. **Member** of Permata UPM. 2014-present
4. **Member** of Koperasi UPM Bhd. 2013-present

**P. DESK OFFICER OF NETWORKING
(MOU/MOA/LOI)**

No.	Item	Agency/ Year	Task
1.	Optimization of Yeast Starter Culture for Cocoa Fermentation	UPM dan Barry Callebaut Services Asia Pacific Sdn Bhd/ 1 Oct 2012 - 30 Sept 2013	Project leader/ Consultant
2*.	Memorandum of Understanding	Halal Institute, UPM and Curtin University/ 17/12/2020-17/12/2024	Desk Officer/ Project leader

(P1). Other mutual research networking involvement

Agency

Project/ Achievement

*Universiti
Kebangsaan Malaysia
(2018-2020)

1. Identification and encapsulation of Antioxidative Peptides Derived from Defatted Chia Flour
 2. Characterization and Bioavailability of Tocopherols from Chia Seed Oil Extracted using Green Technology Supercritical Fluid
- Achievement: 1 Phd, 1 Q1, 1 Q3, 1 book chapter

* Perusahaan Budu
Cap Ketereh

Quality Profiles and Process Improvement of Malaysian Budu Based on Physicochemical, Volatile Compound, and Metagenomic Approach

Achievement: 1 Phd, 1 Q1 and 1 Q2 papers

*Sureco Sure Return
(M) Sdn Bhd

1. Improvement of Process for Production of Selected Local Herbal Tea Based on The Presence of Bioactive Compounds, Contaminant and Toxicity Level
2. Development of Soursop (Annona muricata) RTD

(ready-to- drink) Herbal Drink

Achievement: 2 Phd, 2 proceedings and 1 Q paper, 1 non cited paper and 1 book chapter

ACADEMIC REFEREES

- a. Prof. Emeritus Dr. Jinap Selamat
Food Science Department
Faculty of Food Science and Technology
Universiti Putra Malaysia

- b. Prof. Dr. Ranil Coorey
School of Molecular and Life Sciences
Faculty of Science and Engineering
Curtin University, Perth, Australia

- c. Prof. Dr. Wan Aida Wan Mustapha
Food Science Department,
Faculty of Science and Technology,
Universiti Kebangsaan Malaysia