



SITI HAJAR BINTI MAT SARIP

RESEARCH OFFICER

DETAILS

Date of Birth: 16 October 1983
Nationality: Malaysian
Gender: Female

CONTACT

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EDUCATION

- 2016 Master of Bioprocess Engineering
Universiti Teknologi Malaysia
- 2005 Bachelor of Science (Biology Industry) Universiti Teknologi Malaysia
- 2002 Science Matriculation Shah Alam

CORE COMPETENCIES

Water Analysis
Chemical Analysis
Fertilizer and Biofertilizer
Microbiology
SAMM ISO/IEC 17025
Biopesticide
Nanoemulsion

PROFILE

10 years' experience in Institute Bioproduct Development (IBD) under Analytical & Biovalidation unit and previously has been working in Soil, Water & Biofertilizer Laboratory unit and in Bioresources unit. Appointed as a Deputy Quality Manager and Technical Manager in IBD Laboratory Services to maintained accredited laboratory as ISO 17025 requirements and now appointed as Head of Analytical & Biovalidation unit since 2016. His expertise is related to ISO/IEC 17025 system and analytical laboratory.

WORK EXPERIENCE

Institute Bioproduct Development **Head of Metabolite Profiling & Analytical Unit**

2016–present (Achievements)

- As consultant for Accreditation ISO 17025 IPASA Laboratory RM50,000
- Assisting HICOE task force in updating income generation data in services niche area
- Responsible in safety of laboratory following OSHE regulation
- Responsible on the operational of analytical services in good order for chemical, microbiology and chromatography laboratory with KPI RM100,00 every year.

Deputy Quality Manager **IBD Laboratory Services (IBDLS)**

2011–present (Achievements)

- Transition of ISO/IEC 17025:2005 to ISO/IEC 17025:2017 in March 2020
- Publishing ISO book (in Malay version) with ISBN 978-983-99322 in 2019

Research Officer

2008–present (Achievements)

- Involved in international, industry and government grant
- Contribute in publication (books, journal and proceeding)
- Organize in-house training for international and local participant
- Contribution in patent filling for product development
- Contribution in Bionexus partner Award for Biofertilizer Laboratory in 2011 under Malaysia Biotech Corporation
- Accreditation Award in Analytical Laboratory for SAMM ISO/IEC 17025 in 2009
- Accreditation of ISO/IEC 17025 for water quality analysis (validation & verification process)

TASKFORCE

2020 - 2022	Ahli jawatankuasa Penyediaan Spesifikasi Teknikal Sebutharga
2020 - 2022	Ahli jawatankuasa Penilaian Spesifikasi Teknikal sebutharga
2020 - 2021	HEC Taskforce
2020 - 2021	Jawatankuasa Kualiti IBD
2017 - present	HICOE Task Force
2019 - present	Pegawai Penyelaras Data Sistem KRSTE.MY by TNCPI
2017- present	Ahli jawatankuasa Keselamatan dan Kesihatan Pekerjaan IBD (OSHE) taskforce
2009 - present	IBD Laboratory Services taskforce for ISO 17025

AWARD AND RECOGNITION

- 1) Anugerah Penghargaan Pengurusan Kualiti (Makmal) 2017**
Institute Bioproduct Development
- 2) Anugerah Staf Cemerlang 2016**
Institute Bioproduct Development
- 3) Best Poster Award for most outstanding presentation 2017**
2017 International Symposium toward the Future of Advanced Researches in Shizuoka University, Japan.
February 27th, 2017.
- 4) UTM Citra Karisma : Outstanding Performance Staff 2013**
Sultan Iskandar Hall, 28th June 2014
- 5) Anugerah Kerja berkumpulan Terbaik 2012**
Establishment of SMM ISO/IEC 17025 in IBD Laboratory Services
- 6) Intellectual Properties (IP) 2013**
Title of Invention: Biopesticide Composition Based On Lauric Acid
PI No: PI2013003633
Filing date: 4 October 2013
- 7) GOLD Award- BioInnovation Award 2013**
3 in 1 Biochemical Pellet Fertilizer
- 8) Centre of Excellent Award 2013 from Biotech corporation**
(BNP Status for Biofertilizer Laboratory)
- 9) SILVER Award- Bio Inno Award 2012**
Team project for Invention of Active Grow Multifunctional Biofertilizer
Bio Malaysia 2012, KLCC Convention Centre, 5-7 November 2012
- 10) Intellectual Properties (IP)**
Title of Inventions: Bio-organic fertilizer for plant and soil
IP No: PI 2011700002
Filing date: 19 Jan 2011
- 11) Bronze Inatex 2010**
Team project for Invention of Development of Biofertilizer for fruit, Flower, leaves and Trunks, 12nd Industrial Art and Technology Exhibition (INATEX), 3-5 Oct 2010

RESEARCH EXPERIENCE

- 1) Plant And Active Compounds Identification**
Funded by Contract Research
Duration: 1 July 2020 – 30 Oct 2020
Allocation: RM16,000
Status: Member
- 2) Consultancy Services to carry out SAMM ISO/IEC 17025:2017 Accreditation of Waste Water Analysis Laboratory (IPASA) UTM**
Funded: UTM fund
Duration: 2019-2020
Allocation: RM50,000
Status: Lead
- 3) Preparation and characterisation of fatty acid-based nanoparticles for anti-microbial and hair growth promotion**
Funded : HICOE grant
Duration: Jan 2018 – 31 Dec 2019
Allocation: RM40,000
Status: Member
- 4) Qualitative Analysis of Aloe vera Extract using High Performance Liquid Chromatography QTOF Mass Spectrometer (HPLC-QTOF/MS)**
Funded by PIJ Manufacturing Sdn Bhd
Duration: 1 July – 31 Dec 2017
Allocation: RM21,200.00
Status: Member
- 5) Extraction Of Bromelain From Pineapple Pulp And Fruit Using Membrane Filtration**
Funded by Lembaga Nenas Malaysia
Duration: 1 September 2017- 31 Aug 2018
Allocation: RM80,000.00
Status: Member
- 6) As a team member on Preliminary Study of Pulverization of Edible Bird Nest and Herbal Mixture**
Funded by HICOE grant IBD
Duration: 15 April-31 July 2017
Allocation: RM10,600.00
- 7) As a team member on Study on Plant Extract by Lyophilized Method for Nutraceutical Application**
Funded by HICOE grant IBD
Duration: 1 Jan 2017 – 31 Dec 2019
Allocation: RM50,000.00
- 8) As a team member of Fractionation, Isolation and Purification of Bioactive Phytochemicals from fruit biomass of Ananas comosus and Cocos nucifera**
Funded by HICOE grant IBD
Duration: 1 Jan 2017-31 Dec 2019
Allocation: RM190,000.00
- 9) As a team member on Improvement of the Booster Product Malodor without effecting its Quality with Azfarina Enterprise**
Funded by Ministry of Education Malaysia under PPRN project
Duration: 1 June 2016- 30 December 2016
Allocation: RM 30,000.00
- 10) As a team member on Project To enhance biofertilizer product quality by Eliminate the pathogenic bacteria with AgroExt SuperBio Sdn Bhd**
Funded by Ministry of Education Malaysia under PPRN project
Duration: 1 June 2016- 30 December 2016
Allocation: RM 45,000.00
- 11) As a team member on project Development of Bio-based Crop Protection Product with Agribolics Sdn Bhd**

Funded by Ministry of Education Malaysia under PPRN project

Duration: 15 April 2016- 16 October 2016

Allocation: RM 35,000.00

12) As a team member on a project Synthesis of Pyrolygneous Acid from Oil Palm Fiber Via Microwave- Assisted Heating (Flagship Grant) with Felda global Ventures

Funded by RUG UTM

Duration: 15 January 2016- 14 July 2016

Allocation: RM 50,000.00

13) As a team member on a project Efficacy of Pyrolygneous acid treated Rubberwood Composite Against Wood Degrading Agent

Funded by RUG UTM

Duration: 1 September 2015 – 30 november 2016

Allocation: RM 10,000.00

14) As a team member on project Production and Optimization of Palm Kernal Shell (PKS) as Biocharcoal

Funded by Ministry of Education under PPRN Project

Duration: 15 February 2015 – 15 August 2015

Allocation: RM 30,000.00

15) As a team Member on project Modelling and Optimization of product Related to Clay for Cleansing Method in Islam

Funded by Ministry of Education under PPRN Project

Duration: 15 January 2015 – 15 October 2015

Allocation: RM 30,000.00

16) Validation of Test Procedure for Soil Microorganism- Accredited for SAMM ISO/IEC 17025.

Funded by Malaysian Biotechnology Corporation

Duration: 2011- present

Allocation: RM56,545.00

17) As a Team member on Contract Research International Company

Company: Biomax Technologies Pte Ltd

Title : Organic Fertilizer & Plant growth study

Duration: Dec 2012 until March 2014

Amount: RM32,605.00

18) As a team member on FRGS Grant

Title : Mechanism of Action of Environmentally friendly Nanoemulsion Biopesticide Formulation

Year: 1 April 2010 until 1 January 2013

Amount: RM48,800.00

19) Cooperative production of pelletized sustainable biofertilizer between IBD (UTM) and ALL COSMOS INDUSTRIES SDN BHD , 2012

20) BNP Status (Phase 1): Fertilizer laboratory Awarded by Malaysian biotechnology Corporation. Budget Allocation : RM140,792.00. Start date: 2011-2014

21) BNP Status (Phase 2): Fertilizer laboratory Awarded by Malaysian biotechnology Corporation. Budget Allocation: RM94, 792.05. Start date: June 2014-present

22) Chicken Project with Biomax Company, 2011. Chicken profiling Analysis. (RM15,000)

23) Research and Development for Biofertilizer by Using Efective Microorganism

Tekno Integrated Farm Sdn Bhd

Allocation: RM9853.00

Duration: 2010-2011

24) Felcra Berhad

MOU signing on 5th Mac 2010 – “Development of FECLRA BioValley”

25) Halex Biotechnologies Sdn Bhd - 2009

MOA signing Feb 2008 – “R&D Collaboration in vermicast & Specialty Fertilizer Product” Allocation RM21,000.00

PUBLICATION

Indexed Paper

1. Effaliza Misran, Ani Idris*, Siti Hajar Mat Sarip, Harisun Ya'akob. **Properties of bromelain extract from different parts of the pineapple variety Morris**. Biocatalysis and Agricultural Biotechnology. 2019
2. Noor Azwani Zainol, Nor Farahiyah Aman Nor, HarisunYaakob, Siti NorAzlina Abd Rashid, Siti Hajar Mat Sarip and Ramlan Abdul Aziz. **Sensory Evaluation And Quantitative Analysis Of Mineral And Heavy Metal Content Of Protein Supplement Incorporated With Herbal Extract** . Malaysian Journal of Analytical Science ISSN 1394 – 2506. Volume 21 No 6 Year 2017
3. Aidee Kamal Khamis, Umi Aisah Asli, Farista Galuh S., Siti Hajar Mat Sarip, Putri Ayu Elisa. **The Application of Dried Pennisetum Polystachion in Reducing Soil Acidity as an Alternative for CaCo3 for Agricultural Purpose**. International Conference Proceeding May 2017. ISBN 978-93-84422-78-3
4. Maizatulakmal Yahayu, Sindhu Mathew, Khoirun Nisa Mahmud, Siti Hajar Mat Sarip, Mohammed Nabil Mahamad, Nur Fashya Musa, Nurul Husna Rizan, Chai Bing Min, Nurul Farhana Mustafa, Sulaiman Ngadiran, Salmiah Ujang, Shahlinney Lipeh, Zainul Akmar Zakariaa, **Antibacterial, anti-termites, antioxidant and plant growth promoting properties of wood vinegar produced from solid pineapple biomass**. Jurnal Inovasi Nanas. 2017
5. Chi Kim Lim, Ta Wee Seow, Chin Hong Neoh, Muhammad Hanif Md Nor, Zaharah Ibrahim, Ismail Ware, Siti Hajar Mat Sarip. **Treatment of landfill leachate using ASBR combined with zeolite adsorption technology**. 3 Biotech. 2016; 6:195. DOI: 10.1007/s13205-016-0513-8
6. Siti Hajar Mat Sarip, Azila Abdul-Aziz, Harisun Ya'akob and Khalidah Puad. **Toxicological Effect of Lauric Acid Based Insecticide on the Reproduction System, Growth Development and Feeding Activity of Aphids, Aphis gossypii Glover**. International Journal of Biotechnology for Wellness Industries. 2016; Vol 5. No 2. Scopus Indexed
7. Chin Hong Neoh, Chi Yong Lam, Suriati Mat Ghani, Ismail Ware, Siti Hajar Mat Sarip, Zaharah Ibrahim. **Bioremediation of high-strength agricultural wastewater using Ochrobactrum sp. strain SZ1**. 3 Biotech Journal. 2016; 6:143. DOI: 10.1007/s13205-016-0455-1
8. Siti Zulaiha Hanapi, Hassan M. Awad, Sheikh Imranudin Sheikh Ali, Siti hajar Mat Sarip, Mohamad Roji Sarmidi, Ramlan Aziz. 2013. **Agriculture Wastes conversion by beneficial microorganisms into multi functional biofertilizer for sustainable agriculture applications**. Malaysian Journal of microbiology, Vol 9 (1).Scopus Indexed
9. Farahwahida Mohd Yusof, Arieff Salleh Osman, Salwa Mahmood, Siti Hajar Mat Sarip, The Ubaidah Noh. **Green Technology Management in the Muslim World Jurnal Teknologi**. Penerbit UTM press. 2013. 2180-3722

Non-indexed paper

1. Siti Hajar Mat Sarip, Azila Abdul-Aziz, Harisun Ya'akob, Khalidah Puad, Ismail Ware, Norliza Abdul Latiff, Nur Fashya Musa. **"Toxicological Effect Of Lauric Acid Based Pesticide On The Reproduction System And Growth Development Of Aphids, Aphis Gossypii Glover"**. 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016. Proceeding paper.
2. Norliza Abd Latiff, Noor Azwani Zainol, Ismail Ware, Muna Mohamad, Nur Fashya Musa, Siti Hajar Mat Sarip. **"Antioxidants and total phenolic content from leaves and stem of Clinacanthus nutans (C.nutans)"**. 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016. Proceeding paper.
3. Ismail Ware, Monica Limau Jadam, Idayu Razali, Rahma Paradis, Nur Fashya Musa, Siti Hajar Mat Sarip1, Nor Farahiyah Aman Nor, Norliza Abdul Latiff, Muna Mohamed1, Mohamad Roji Sarmidi. **"Simultaneous HPLC Determination of Caffeine in Selected Malaysian Products"**. 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016. Proceeding paper.

Conferences

1. **Comparison Data on Antioxidant Activities, Flavonoid and Mineral Content Analysis of Artocarpus Altilis Leaves at Different maturity Stages.** Aiche. 2018.
2. Siti Hajar Mat Sarip, Azila Abd-Aziz, Harisun Yaakub, "**Formulation of A Stable and Efficacious Insecticidal Nanoemulsion of Lauric Acid**". 2017 International Symposium toward the Future of Advanced Researches in Shizuoka University, Japan. 27 February 2017.
3. Siti Hajar Mat Sarip, Azila Abd-Aziz, Ismail Ware, Norliza Abd Latiff, Maizatulkamal Yahayu, Nur Fashya Musa, Nor Farahiyah Aman Nor, "**Stability of Lauric Acid Nanoemulsion Formulation by Addition of Palm Oil**". 16th Asia Pasific International Symposium on Microscale Separation and Analysis 2016, KSL Hotel Johor Bahru, 7-10 November 2016.
4. Nor Farahiyah Aman Nor, Shakti kaur Khalsa, Maizatulkamal Yahayu, Sulaiman Ngadiran, Harisun Ya'akub, noor Azwani Zainol, Norliza Abdul Latiff, Ismail Ware, Nur Fashya Musa, Siti Hajar Mat Sarip. "**Extraction of Coconut Oil From Different Coconut Species**". 16th Asia Pasific International Symposium on Microscale Separation and Analysis 2016, KSL Hotel Johor Bahru, 7-10 November 2016.
5. Siti Hajar Mat Sarip, Azila Abdul-Aziz, Harisun Ya'akob, Khalidah Puad, Ismail Ware, Norliza Abdul Latiff, Nur Fashya Musa. "**Toxicological Effect Of Lauric Acid Based Pesticide On The Reproduction System And Growth Development Of Aphids, Aphis Gossypii Glover**". 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016.
6. Amir Fuhaira Ishak, Siti Hajar Mat Sarip, Solleh Ramli, Roslinda Abd Malek, Nor Zalina Othman, Ramlan Aziz, Hesham A. El Enshasy "**Bioprocess Development Of Se-Enriched Yeast As Biotherapeutic Yeast Of Saccharomyces Boulardii**". 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016.
7. Nur Fashya Musa , Ekaexzalina Bakar , Norliza Abdul Latiff , Ismail Ware , Muna Mohamed , Siti Hajar Mat Sarip "**Ultrasonic-Assisted Extraction of A-Mangostin From Garcinia Mangostana: Method Development And Validation By Hplc-Pda**". 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016.
8. Maizatulkamal Yahayu¹, Siti Hajar Mat Sarip¹, Aidee Kamal Khamis¹, Suzami Junaidah Ariffin¹, Khoirun Nisa Mahmud¹, Abdul Rahman Shahrudin¹, Fatimatul Zaharah Abas¹, Seri Elyani Zainul Akmar Zakaria "**Synthesis And Characterization Of Palm Kernel Shell (Pks) Activated Carbon By Physical Activation Methods**". 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016.
9. Norliza Abd Latiff, Noor Azwani Zainol, Ismail Ware, Muna Mohamad, Nur Fashya Musa, Siti Hajar Mat Sarip. "**Antioxidants and Total Phenolic Content From Leaves and Stem of Clinacanthus Nutans (C.Nutans)**". 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016.
10. Ismail Ware, Monica Limau Jadam, Idayu Razali, Rahma Paradis, Nur Fashya Musa, Siti Hajar Mat Sarip¹, Nor Farahiyah Aman Nor, Norliza Abdul Latiff, Muna Mohamed¹, Mohamad Roji Sarmidi. "**Simultaneous HPLC Determination of Caffeine in Selected Malaysian Products**". 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016.
11. Muna Mohamed, Norliza Abd Latiff, Ismail Ware, Nur Fashya Musa, Nur Farahiyah Aman Noor, Siti Nor Azlina Abd Rashid and Siti Hajar Mat Sarip. "**Nutritional And Antioxidant Analysis And Of Belalai Gajah Leaves Clinacanthus Nutans (C.Nutans)**". 6th International Conference of Biotechnology and Wellness Industry 2016, Hotel Equatorial Melaka, 16-17 August 2016.
12. Siti Zulaiha hanapi, Suriani Mohd Shahidi, Nur Ardawati bt Adnan, Husna Aimi Halidan, Mohd Nizam Iani, Siti Hajar mat Sarip, Mohamad Roji Sarmidi, Ramlan Aziz. 2012. **Determination of Pathogen survival in biofertilizers.** International Conference of Botechnology for Wellness industries (4th ICBWI)
13. Siti Zulaiha Hanapi, Sheikh Imranuddin Sheikh Ali, Siti Hajar Sarip, Hassan M .Awad , Muhamad Roji Sarmidi and Ramlan Aziz "**A Comparison Study of Macronutrients, Micronutrients and Microbiological Content of Biofertilizers and their Effectiveness in Commercial Applications**". 3rd International Conference of Biotechnology and Wellness Industry, 8-10 October 2010.

14. Siti Zulaiha Hanapi, Sheikh Imranudin Sheikh Ali, Siti Hajar Mat Sarip, Hassan M. Awad, Mohamad Roji and Ramlan Aziz and Tan Sey Hue. "**Comparisons of different biofertilizers using vermicast**". 3rd International Conference of Biotechnology and Wellness Industry, 8-10 October 2010.
15. Siti Hajar Mat Sarip, Nurhasmi Omar, Aidee Kamal Khamis, M.R. Sarmidi: **The effect of Effective Microorganism to Water Quality In Aquaculture**. 2nd International Conference on Biotechnology for the Wellness Industry 2009, Kuala Lumpur, Malaysia. 23-26 July 2009

Book chapter

1. Azila Abdul Aziz, Siti Hajar Mat Sarip, Harisun Yaakob, Mailin Misson (2012) **Challenges in Biopesticide Development**, in (eds.) Zainul Akmar Zakaria, Wan Azlina Ahmd, Zainoha Zakaria, "Biotechnology Development in Agriculture, Industry and Health", 341-357, Penerbit UTM (in press)

Proceeding Editor

1. Noor Azwani Zainol, Ismail Ware, Siti Hajar Mat Sarip, Mariam Samani and Zainul Akmar Zakaria. Proceedings of the 6th International Conference on Biotechnology for the Wellness Industry 2016, Melaka, Malaysia. (2016). pg. 84-88. eISBN 978-983-99322-3-2.

Book

1. Sistem Kualiti Makmal – Pengalaman Pelaksanaan & Pengekalan SMMM ISO/IEC 17025 Di makmal Analisis IBD 1st edition, 2019, ISBN 978-983-99322-7-0

REFEREE

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