



DEPARTMENT OF FOOD & AGRICULTURAL PRODUCT TECHNOLOGY

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STAFF HANDBOOK

Name	Dr. Arima Diah Setiowati,S.T.P., M.Sc.		
Post	Lipid and Hydrocolloid Technology		
Academic career	Doctoral Degree (Particle and Interfacial Technology)	Ghent University, Belgium	2013-2018
	Master Degree (Food Science and Technology)	KU Leuven – Ghent University, Belgium	2010-2012
	Undergraduate Degree (Food and Agricultural Product Technology)	Universitas Gadjah Mada, Indonesia	2005-2009
Employment	Lecturer	Universitas Gadjah Mada	2020-present
Research and development projects over the last 5 years	No	Title of Research and Development Projects	
	1	Evaluation of the Effect of Vegetable Oil Fatty Acid Composition on the Characteristics of Gelled Emulsion as an Animal Fat Replacer in Meat-Based Food Products Period: 2024 Amount of Financing: 50 million rupiah Personnel: Arima Diah S	
	2	Structurization of Red Palm Oil through the Formation of Colloidal Gel (Emulsion Gel and Biphasic Gel): Physicochemical Properties and Application in Low-Fat Products Period: 2024 Amount of Financing: 50 million rupiah Personnel: Arima Diah S , Chusnul Hidayat, Fiametta Ayu P	
	3	Extended Research on the Development of MALSAI Infrastructure Period: 2024 Amount of Financing: 95 million rupiah Personnel: Arima Diah S	
	4	Physicochemical Characterization of Mycoprotein from <i>Rhizopus oligosporus</i> as a Meat Substitute Period: 2024 Amount of Financing: 75 million rupiah Personnel: Rachma Wikandari, Ria Millati, Arima Diah S	



	5	Palm Oil Phytonutrients for the Development of Functional Beverage Products Period: 2024 Amount of Financing: 219.9 million rupiah Personnel: Sri Raharjo, Arima Diah S , Dwi Larasatie NF	
	6	Colon-Targeted Phytonutrients from <i>Curcuma xanthorrhiza</i> (Temulawak) for the Prevention of Colonic Diseases: Formulation and In Vitro and In Vivo Evaluation Period: 2024 Amount of Financing: 130.45 million rupiah Personnel: Yunika M, Arima Diah S , Wahyu DS	
	7	Study on Processing Methods and Their Effects on the Quality Parameters of Chocolate Produced from Raw Cocoa Beans (Unroasted Cocoa Beans) Period: 2024 Amount of Financing: 70 million rupiah Personnel: Arifin DS, Eni H, Sri R, Arima Diah S	
	8	Application of Spirulina Protein in Emulsion Gel Formation as a Solid Fat Replacer in Animal-Based Processed Products Period: 2023 Amount of Financing: 29.2 million rupiah Personnel: Arima Diah S , Andriati N	
	9	Enhancement of the Technofunctional Properties of Spirulina (<i>Arthrospira platensis</i>) Protein and Carrageenan through Electrostatic Complexation–Conjugation as a Food Emulsifier Period: 2023 Amount of Financing: 29.2 million rupiah Personnel: Arima Diah S , Chusnul H	
	10	Development of Fungal Mycelium-Based Nuggets Cultivated in Soybean Boiling Water as a Sustainable Alternative Protein Source Period: 2023 Amount of Financing: 66.37 million rupiah Personnel: Rachma Wikandari, Arima Diah S	
Industry collaborations over the last 5 years	No	Industry	Year
		-	
Patents and proprietary rights	No	Title	Year
		-	
Important publications over the last 5 years	Selected recent publications		
	1	Fibri, D.L.N., Safira, A.N., Setiowati, A.D. , Putro, A.W. (2024). Strategy to reduce salt consumption in millennial generations using potato stick snack as a food model: a study case in Indonesia. Food Research, 8(Suppl. 2): 190-200. https://doi.org/10.26656/fr.2017.8(S2).133 .	
	2	Setiowati, A.D. , Isharyadi, F., Sinurat, E., Damayanti, N.T.E., Susanto, D.A., Kristiningrum, E., Suroto, D.A., Setyaningsih, W. (2024)Improving the	



		Quality of Dried Seaweed (<i>Gracilaria</i> sp.) Through the Implementation of Good Aquaculture Practices (GAP) in Brebes, Central Java. <i>International Journal of Design and Nature and Ecodynamics</i> , 19(3): 1019-1031. https://doi.org/10.18280/ij dne.190331 .		
	3	Kusumastuti, M.R., Yuliani, S., Hidayat. C., Setiowati, A.D. (2024). Modification techno-functional properties of spirulina protein concentrates (<i>Arthrospira Platensis</i>) as O/W emulsifier by conjugation and electrostatic complexations. <i>Innovative Food Science and Emerging Technologies</i> , 95. https://doi.org/10.1016/j.ifset.2024.103727 .		
	4	Afdhaliah, N., Ningrum, A., Setiowati, A.D. (2024). Red Palm Oil Gelled Emulsion Stabilized by Spirulina (<i>Arthrospira platensis</i>) Protein and Carrageenan as Fat Replacer in Beef Patty. <i>Food and Bioprocess Technology</i> , 18(4): 3538-3552. https://doi.org/10.1007/s11947-024-03680-x .		
	5	Purdi, T.S., Setiowati, A.D. , Ningrum, A. (2023). Ultrasound-assisted extraction of <i>Spirulina platensis</i> protein: physicochemical characteristic and techno-functional properties. <i>Journal of Food Measurement and Characterization</i> , 17(5): 1-13. https://doi.org/10.1007/s11694-023-02051-y .		
	6	Candraningrum, R.G.S., Setiowati, A.D. , Chusnul, H. (2023). Electrostatic-Maillard formation of coconut protein Concentrate-Pectin conjugate for Oil-in-Water Emulsion: Effects of Ratio, Temperature, and pH. <i>Journal of the Saudi Society of Agricultural Sciences</i> , 22(1): 18-24. https://doi.org/10.1016/j.jssas.2022.05.004 .		
	7	Setiowati, A.D. , Neve, L. D., A'yun, Q., Meeren, P.V.d. (2021). Quartz Crystal Microbalance with Dissipation (QCM-D) as a tool to study the interaction between whey protein isolate and low methoxyl pectin. <i>Food Hydrocolloids</i> , 110(1): 106180. https://doi.org/10.1016/j.foodhyd.2020.106180 .		
	8	Wijaya, W., Turan, S., Setiowati, A.D. , Dewettinck, K., Patel, A., Meeren, P.V.d. (2020). Effect of low-methoxy pectin on interfacial and emulsion stabilizing properties of heated whey protein isolate (WPI) aggregates. <i>Food Structure</i> , 26. https://doi.org/10.1016/j.foostr.2020.100159 .		
	9	Setiowati, A.D. , Wijaya, W., Meeren, P.V.d. (2020). Whey protein-polysaccharide conjugates obtained via dry heat treatment to improve the heat stability of whey protein stabilized emulsions. <i>Trends in Food Science & Technology</i> , 98: 150-161. https://doi.org/10.1016/j.tifs.2020.02.011 .		
	10	A'yun, Q., Demicheli, P., Neve, L., Wu, J., Balcaen, M., Setiowati, A.D. , Martins, J. C., Troys, M.v., Meeren, P.V.d. (2020). Dry heat induced whey protein-lactose conjugates largely improve the heat stability of O/W emulsions. <i>International Dairy Journal</i> , 108. https://doi.org/10.1016/j.idairyj.2020.104736 .		
Activities in specialist bodies over the last 5 years	No	Organization	Role	Period
	1	Indonesian Association of Food Technologists Yogyakarta	Treasurer	2022 - 2026