

The Contributors

Kyle Christian Fernandez is a founding member of team Cantela. He is currently pursuing a ladderized bachelor's and master's degree in Manufacturing Engineering at De La Salle University Manila where he was awarded a merit scholarship reserved for applicants from the public education system. He feels very fortunate to have been able to go to one of the top public schools in his country for high school and to have been given the opportunity to study at one of the most prestigious private universities in the Philippines through a scholarship. He believes that someone who has been as fortunate as him has a responsibility to give back to society. He is doing his best to give back to society through the development of this project and other things like volunteering for blood donations.

Mr. Anthony Li John T. Velasquez is currently a BSMS Manufacturing Engineering student at De La Salle University. His research interests are agriculture technologies, artificial intelligence, and computer vision. His career interests is on supply chain management, operations management, and production management, preferably for the agricultural industry.

Dr. Ira C. Valenzuela is a faculty member of the Manufacturing Engineering and Management Department. She earned her PhD Electronics and Communications Engineering at De La Salle University. She has a Master of Science in Electronics and Communications Engineering at Mapua Institute of Technology. Her previous work was focused on smart farms wherein she developed an AI-controlled environmental system for high value crops such as cherry tomato and lettuce.

The research project was funded by USAID-STRIDE and was completed on the target timeline. Most of her works include artificial intelligence, evolutionary computing, artificial neural networks, fuzzy logic, vision system, wireless sensor network and systems automation.

Dr. Ronnie S. Concepcion II completed the Doctor of Philosophy degree in Electronics and Communications Engineering at the De La Salle University, Manila, in the area of artificial intelligence and vision systems. His research interests are biosystems engineering, plant science, computational intelligence, evolutionary computing, computer vision, intelligent systems, and sustainable agriculture. His core research methodology is the integration of computer vision with scanning electron microscopy with energy dispersive X-ray analysis, Fourier transform infrared spectroscopy, UV-Vis spectroscopy, aquaphotomics, and light microscopy for non-destructive assay of crop signatures from molecular, organ and up to system level. He is currently a researcher of the Smart Farm research project and a science research specialist of the CRUISE research project. He received local and international research awards with the Young Researcher Award for lettuce imaging in ISCIIA (China, 2020) as the latest. He developed two novel vegetation indices for computational plant imaging and lettuce phenotyping. He is a Fellow of the European Alliance for Innovation, Fellow of the Royal Institute of Electronics Engineer in Singapore, an Associate Member of the National Research Council of the Philippines, and member of the Crop Science Society of America.

Migelle Jihro F. Malinis is Computer Engineering student of De La Salle University. He has always been one for tinkering and playing around with electronics as a kid, and still have been as curious ever since. He was taking up a handful of leadership roles during his time at the university, indulging in the experiences and skills I am able to build. These have included joining the home organization for Computer Engineering (ACCESS) as an Executive Board member, as well as undertaking leadership and associate roles for campus-wide annual activities. He is an avid fan of coding projects, particularly ones that involve data routing and cybersecurity, and have personally automated data management tasks within and outside of my organization.

Paul Michael C. Guntalilib finished his bachelor's degree in civil engineering at Central Luzon State University and master's degree in construction management at Polytechnic University of the Philippines Open University System and currently taking his Doctorate Degree in Engineering Management at Polytechnic University of the Philippines Open University System. He is a Registered Civil Engineer who specializes in Project Management and Construction Engineering. He also acquired internationally recognized certifications such as WELL AP, LEED AP BD+C, CDCP and PMP. At present he is the Sr. Project Manager of Shimizu Philippine Contractors, Incorporated. He also teaches at Polytechnic University of Philippine Open University System for its Master of Science in Construction Management Degree.

Jonathan B. Orbe earned his bachelor's degree in information technology from City of Malabon University in 2005 and his master's degree in industrial engineering and management from the graduate school of the Polytechnic University of the Philippines in 2017. He is currently focusing on service quality management, after-sales service, customer service, and continuous improvement with his doctorate in engineering management at Polytechnic University of the Philippines - Open University System.

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Karl Carasus is a student at the De La Salle University, Manila. He is currently an incoming graduate student finishing his bachelor's degree in computer engineering. He finished junior high school in Colegio San Agustin – Makati where he was a consistent honor student. He then transferred to De La Salle University – Manila to complete his senior high school studies. In his first three college years in De La Salle University, he was consistently on the Dean's List and was an officer in various school organizations which shows his dedication and tenacity. His participation and officer roles in organizations reflects his capability to work in a team setting. For his further studies after college, he plans to complete certifications in specializations such as cybersecurity, analytics, and information and communication technologies. With this in mind, he plans to pursue a career in one of these fields.

Daniel Salazar is a 4th year student of De La Salle University Manila, currently taking his bachelor's degree in computer engineering. He finished his junior high school in GCF – International Christian School and his senior high school also in De La Salle University Manila. During his junior high school years, he was consistently part of his school's achiever's circle, and was invited to join the Asia Math Engineering Challenge which is a robotics camp held in Singapore wherein he won a gold medal for his achievements. On the other hand, during his senior high school years, he co-authored a journal article relating adolescents' self-medication behavior with the Theory of Planned Behavior. This got him invited to present the article in the 2nd DLSU SHS Research Congress 2020

where he was awarded with a gold medal for his outstanding oral presentation. Currently, as he is finishing his bachelor's degree, he is putting in effort by being consistently part of the Dean's list, and is hoping to graduate with honors.

Marc Chester Diesta is incoming graduate who is about to complete his bachelor's degree in computer engineering through his passion for technology. Prior to his university studies, Marc completed his Junior High School education at GCF – International Christian School and his Senior High School at De La Salle University-Manila where he was invited to present his research project on self-medication and The Theory of Planned Behavior winning a gold award for its presentation. His consistent inclusion on Dean's list and honor roles reflects his strive for excellence. Beyond academics, Marc actively participated in school organizations, taking on leadership roles with his involvement in organizations like AIESEC allowing him to develop valuable skills in teamwork, communication, and organization. Marc's passion lies in the field of cybersecurity and robotics. As part of his career development, Marc plans to pursue online certifications in cybersecurity, data analytics, and information technologies.

Morteza Rajabimendi earned his PhD from Hakim Sabzevari University, Iran in the area of electrical and electronic engineering in the year 2016. He is a reviewer of the Journal of Electric Power Components and Systems; Journal of Electrical Engineering & Technology (jeet). He has published several papers in the field of power systems optimization using computational intelligence algorithms in journals and conferences. His areas of interest include power system economics and optimization of them.

Mohammad Ebrahim Hajiabadi was born in Neyshabur, Iran, in 1983. He received the B.Sc. degree from University of Sistan & Baluchestan, Zahedan, Iran, in 2005, M.Sc. degree from Sharif University of Technology, Tehran, Iran,

in 2008, and the Ph.D. degree from the Ferdowsi University of Mashhad, Mashhad, Iran, in 2013, in electrical engineering. He is as Associate Professor of Electrical Engineering at Hakim Sabzevari University, Sabzevar, Iran. His areas of interest include power system economics and power system reliability evaluation.

Majid Baghaei Nejad received the B.S. and M.Sc degree in electrical engineering from Ferdowsi University, and Tarbiat Modares University, Iran, in 1996 and 2000 respectively, and his PhD degree in electronic and computer systems from Royal Institute of Technology (KTH), Stockholm, Sweden in 2008. Since 2000 he has been with electronics department at Hakim Sabzevari University, Iran, where currently has an Associate Professor position. His current research work includes low power analog/RF integrated circuit design, ultra wideband communication, RFID systems and wireless sensing and Internet of Things.

Elmer Dadios earned his PhD from Loughborough University, United Kingdom in the area of Robotics and Intelligent Systems. He is an editor of the Journal of Advanced Computational Intelligence and Intelligent Informatics (JACIII); the Journal of AI, Computer Science and Robotics Technology; an Editor in Chief of the Journal of Computational Intelligence in Engineering Applications (JCIEA). He edited and published five books on fuzzy logic systems and a book on Control and Automation. He published over 500 Scopus indexed technical papers in highly reputable journals and IEEE Xplore. Elmer was bestowed the 2023 National Academy of Science and Technology (NAST) Academician award. The 2022 Philippine American Academy of Science and Engineering Severino & Paz Koh Lectureship Awardees in Engineering; The 2018 Philippine Association for the Advancement of Science and Technology D. M. CONSUNJI Award for Engineering Research; The National Research Council of the Philippines Lifetime Achievement Award; The Department of Science and Technology 50 Men and Women of Science and Technology;

The Department of Science and Technology Scholar Achievers; De La Salle University Miguel Febres Cordero Research Award. Elmer currently holds the rank of Distinguished Professor and a University Fellow of the De La Salle University Manila. He is the founder and Chairman of the Board of the Intelligent Systems Innovation Corporation. He was the past Chair of the IEEE Philippines Section; past EXCOM member of the IEEE Region 10; past Chair of the IEEE Region 10 Awards and Recognition Committee; the Founder and Chair of the IEEE Computational Intelligence Society Philippines Chapter, and IEEE Robotics and Automation Society Philippines Chapter.