



CPU Research NEWSLETTER

Official Publication of the University Research Center
Central Philippine University, Jaro, Iloilo City

Volume 14, No. 2 June 2018

University Research Center Advocates Food Security



The CPU faculty and staff at Kasetart University

In line with the Sustainable Development Goals set by the United Nations in achieving food safety and security, the Central Philippine University Research Center focused on developing research programs that provide solutions to the growing urgency of providing opportunities and breakthroughs to the declining food economy.

True to its commitment, 18 faculty and staff, led by Dr. Mary O' T. Penetrante, Director of the CPU Research Center attended the KU Presidents Forum: In Celebration of the 75th Anniversary of Kasetart University in Bangkok, Thailand on January 31 to February 2, 2018.

Dr. Penetrante was joined by Trip Coordinator and Officer-In-Charge, Office of International Relations and Cooperation, Prof. Anna May A. Yap-Zerrudo; Director of the CPU Office of Institutional Advancement, Engr. Dimpna C. Castigador; from the College of Hospitality Management, Prof. Emma T. Gico and Prof. Evelyn R. Ybarzabal; from the Center for Teaching and Learning Excellence, Dr. Ananias C. Sabijon, Jr.; from the Packaging Department, College of Engineering, Engr. Bernie



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C. Cangrejo; from the College of Education, Dr. Maredil R. Ambos and Prof. Eden P. Gomez; from the CPU Junior High School, Prof. Marigold E. Jutare; from the College of Pharmacy, Prof. Darlene Joy J. Marañon, Prof. Mylyn L. Poral, Prof. Analie S. Serafino, and Prof. Vincent Anthony V. Militante; and from the College of Business and Management, Prof. Russali S. Baldevarona, Dr. April Ann B. De La Gente and Prof. Nelia G. Bonete.

Their visit included a tour of the university's Institute of Food Research and Product Development, a meeting with the institute head, and an observation of the processes of the food processing plants. According to Dr. Penetrante, their visit aimed to benchmark researches on functional food from conceptualization to commercialization. "We have nine research teams. Two from each team came to Kasetsart University to observe the best practices of other research centers on product conceptualization up to commercialization, and to use those experiences and learning in developing research proposals that address local situations such as food security and safety."

Since 2017, the CPU Research Center has provided assistance to local farmers and established international and external linkages to promote a more sustainable food production in the province. "We are partnering with various agencies such as the US AID, the German International Cooperation (GIZ), and other agencies to capacitate our local farmers in various municipalities like Pototan, Oton, Zarraga, Badiangan, and Leganes in managing their farm business and their income through sustainable production systems and better market linkages."

The center's research agenda which include food safety and security is a response to the global trends issue on poverty and malnutrition especially among women and youth. "Our university is aggressively responding to the needs of our communities, particularly in addressing poverty,

unemployment, and malnutrition among marginalized people by improving the income of small farm holders through sustainable farm production and better market linkages. We are in the process of developing high value products and functional food sourced from local materials to provide more business and employment opportunities for our farmers."

The university is thankful to the officers of CPU Alumni Association Inc. in Thailand for facilitating the accommodation and other needs of the team who visited Kasetsart University: Mr. Joseph S. Beloria, President of the CPUAAI in Thailand, (BS Commerce, Major in Marketing, 1999), and a teacher at RC International School Ploenchit Road, Bangkok; Sandy Legita Reyes, Vice President, (BS Nursing 2010), and an English academic teacher at Boromarajonani College of Nursing, Chang Wat Nonthaburi; Jezreel Tan, Secretary, (CPU High School 1997) and a teacher at Saint Gabriel's College; Lilibeth Azucena Tanada, Assistant Secretary, (CPU BSEd 2009), a teacher at Suankularb Wittayalai Nonthaburi School; Ailene Joan Beloria, Treasurer, (CPU High School 1991), a teacher at RC International School; Jhon Fritz, Auditor, (CPU High School) a gym instructor at Training Ground Bangkok; Alan Dale Gonzales, (BS Civil Engineering 1983), executive director at Full Advantage Co., Ltd. in Panthumthani Thailand; and Joefrey B. Geroche, (BS Commerce, Major in Management 1998), and an academic specialist, Faculty of Business Administration at Kasetsart University, Bangkok.

"Research is creating new knowledge."

- Neil Armstrong

URC conducts seminar-workshop on research methodology and writing

The University Research Center (URC), the research arm of Central Philippine University, conducted a seminar-workshop on research methodology and writing, October 12, 2017 at the Nursing Audio-visual Room, Loreto D. Tupaz Building.

The first workshop in the morning was on “Simplifying Ontology, Epistemology, and Methodology in Research Writing” led by Dr. Irving Domingo L. Rio, Vice-president for Academic Affairs of the University. Dr. Rio highlighted the different methodologies used in research, both for quantitative and qualitative research.

The afternoon session was facilitated by Dr. Anita U. Illenberger, former dean of the College of Arts and Sciences, and Prof. Hope G. Patricio, faculty of the College of Agriculture, Resources and Environmental Sciences. Dr. Illenberger and Prof. Patricio focused on “Form and Style in



Dr. Mary O’ T. Penetrante (URC Director), **Dr. Irving Domingo L. Rio** Vice President for Academic Affairs (**Speaker**), Prof. Marigold E. Jutare and Prof. Emma T. Gico (Research Training Committee)



Research Writing.”

The seminar-workshop was participated by 64 faculty/staff from different colleges and departments.

URC Director Penetrante, CPU research professors evaluate dissertation of TUEBA DM students

Dr. Mary O’ T. Penetrante, University Research Center Director, Dr. Reynaldo N. Dusaran, Director for Accreditation and Instructions and Dr. Lucio T. Encio, faculty, College of Business and Accountancy served as panelists during the evaluation of dissertation papers of Doctor of Management (DM) students in Thai Nguyen University of Economics and Business Administration (TUEBA) in Thai Nguyen City, Vietnam from April 23-28, 2018. Their visit and participation in the said evaluation was part of the joint program between CPU and TUEBA.

Seven DM students defended their dissertation papers. Several TUEBA professors also sat in the panel of evaluators.



15th Research and Development Week held



Faculty presenter (from left) Dr. Reynaldo N. Dusan, former University Research Director, (center) Mr. Jun Ozbert M. Haguisan, Stockroom Coordinator, Chemistry Department, CAS and (right) Dr. Mary O' T. Penetrante (Acting Director) University Research Center

To strengthen the university research capabilities of faculty, staff and students, the annual Research and Development Week was held on March 5-9 at the Educational Media Center. Now on its 15th year, the R&D Week focused on the theme, *"Technopreneurship: Driving Growth and Expanding borders."*

The opening program featured two keynote speakers, Dr. Richard S. Abendan, Manager of USAID-Stride Research and Industry Partnerships, and Ms. Marianne Tajanlangit-Bebit, Intellectual Property Field Operations Specialist of IPOPHL. Dr. Irving Domingo L. Rio, Vice-president for Academic Affairs of this university welcomed the guests and participants, while Dr. Florence P. Bogacia, Vice-president for Finance and Administration gave the inspirational message.

An important segment of the celebration was the 19th Faculty Research Symposium on the first day which was participated by faculty and staff of the university. Three papers were presented, namely: "Validation of 2017 Business Permit Licensing System" by Dr. Reynaldo N. Dusan, Director for

Accreditation and Instructions; "Comparison of Heavy Metals in Salt" by Mr. Jun Ozbert M. Haguisan and Prof. Ann Marie P. Alguidano, both of the Chemistry Department; and "Farmers Market Linkage" by Dr. Mary O' T. Penetrante, Acting Director of the University Research Center.

On the second day, March 6, the 16th Student Research Symposium commenced. Researches done by students from various fields competed for the best paper presentation (see related story). The competition gave students the chance to share the results or outputs of their research work.

The awarding of certificates and prizes for the winners was done during the closing program, March 9 at two o'clock in the afternoon. University President Dr. Teodoro C. Robles gave the message to cap the weeklong celebration. The R&D Week was sponsored by the University Research Center under the leadership of Dr. Mary O' T. Penetrante, Acting Director, and the University Research Committee (URESCOM) composed of representatives from different colleges and departments in the university.



46 Entries Compete in the Student Research Symposium

Forty-six research papers by students from different colleges and departments in the university competed in the 16th Student Research Symposium during the 15th Research and Development Week held at the university on March 5-9, 2018.

The researches were grouped according to the following categories: Information Technology and Related Studies; Social Science (Psychology, Nursing and Senior High School); Social and Political Sciences; Business and Related Studies; Engineering and Agriculture Related Studies; Education Related Studies; Humanities and Related Studies; Chemistry and Related Studies; and Junior and Senior High School.

For categories that had four or more entries, the top three were chosen as first, second and third place, respectively, and those with three entries or less, only one was chosen as winner.

The winners for the different categories were given cash prizes and certificates during the closing program on the last day, March 9, two o'clock in the afternoon at the Educational Media Center. (See list of winners on page 6-7).

March 6, 2018 - (Afternoon Session)

SOCIAL SCIENCES -(Psychology, Nursing & Senior High School)

Time	Title of the Study	Presenter
1:00-1:30	1. The Effects of Physical Attractiveness and Traits on Friendship Choices among Junior High School Students of Tigbauan National High School (by Jezrelle Reign Tiposo, Yssa Mae Usolino, Dece Rose Aludia, Maricon Sta. Ana, Genrey Cabrera, Shaine Valerie Caballero, Mia Melissa Espinosa, Alyssa Mae Ganila and Brett John Prado)	Jezrelle Reign Tiposo
1:30-2:00	2. Resilience of Teenage Mothers in Iloilo City (by Athina Shane Silvela, Chae Lim Hong, Bea Vyle Fundal, Arlette Mae Palsario, Adolee Grace Bañares, Christine Faith Acaraz and Angela Malata)	Bea Vyle Fundal
2:30-3:00	3. The Effects of Tattoos on Physical Attractiveness and Trustworthiness on Central Philippine University Senior High School Students (by Chriselda Elaine Ador, Sharry Ledesma, Hennie Marie Eraldo, Kyra Quidato, Epirb Ian Amelliam, Johnalene Gales, Kysha Jezel Abella, Shekinah Demigillo, Shemaiah Louise Buenvenida and Wendy Anne Tubola)	Christela Elaine Ador 2ND PLACE
3:00-3:30	4. The Lived Experiences of Human Resource Practitioners in Iloilo City (by Zarina Anne Antonino, Ellah Niña Bano, Kaye Iray, Melanie Sumadic, Keannu Liene Dillera and Janne Retsel Piz)	Melanie Sumadic 3RD PLACE
3:30-4:00	5. Effects of Music Therapy on Physical Well-Being of Post-Cesarean Women on Selected Hospitals in Iloilo and Antique (by Samela Charisse Escobin, Christienne Baleña, Jojie Ann Cortel, Mae Anne Kristel Depra, Jazzlene, Mia Khrylle Princess Gahum and Maria Imelda Sutrina)	Samela Charisse Escobin 1ST PLACE
4:00-4:30	6. Stress Level and Academic Performance of Senior High School Students of Central Philippine University (by Nicole Anike Dorgu, Renee Gil Babon, Jemuel Cris Batilaran, Jesus Rulen Franco, Kenn Adlin Genova and Ken Benedict Pueyo)	Nicole Anike Dorgu
4:30-5:00	7. Perception of Senior High School Students on the Education System of the 21st Century (by Melia Sienah Braña, Deewan Darroca, John Kenneth Rosaldes, Jesse Bryant Serviano and Trisha Tolosa)	Melia Sienah Braña

INFORMATION TECHNOLOGY-March 6, 2018 (Morning Session)

Time	Title of the Study	Presenter
8:00-8:30	1. Iloilo Medical Society Web Portal (by Marie Ariessa Lane Ko, Mary Psalms De Castro, Shara Ventura, Jonna Grace Basañes, Francis Vic Magdato and Rona Ola)	Marie Ariessa Lane Ko
8:30-9:00	2. Web Based City Social Welfare and Development Assistance System (by Lucky Jed Moscardon, Joshua Oducado, Ryan James Diras, Marc Ivan Rosios and Roy Valeza)	Ryan James Diras 3RD PLACE
9:00-9:30	3. Central Philippine University (CPU) Immerse Campus Map (by Kerusso Torotoro, Joshua Miranda, Tristan Ken Pueyo and Rico John Jambaro)	Kerusso Torotoro
9:30-10:00	4. Web-Based Disaster Risk Reduction and Management Assistance System for the CDRRMO (City Disaster Risk Reduction and Management Office) of Iloilo City (by Kerina Inovah Marie Amigo, Neimark Braga, Sherwin Dane Haro, Ian Joseph Juarez, Charles Botavara and Sherah Lour Deduro)	Kerina Inovah Marie Amigo 1ST PLACE
10:00-10:30	5. Patata Run (by Janica Marie Quiling, Aegis Catolin, Kwesi Magdato and Honey Grace Naria)	Janica Marie Quiling 2ND PLACE

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POLITICAL SCIENCES-March 6, 2018, Afternoon Session

Time	Title of the Study	Presenter
1:00-1:30	1. Political Participation of Senior Citizens in the Municipality of Pototan, Iloilo (by Kurt Nicolo Ogatis, Edmark Abasquez, Patrick Parlon, Kimberly Uy and Misael Canones)	Kurt Nicolo Ogatis 1ST PLACE
1:30-2:00	2. Political Efficacy and Political Trust of the Constituents of the Municipality of Zarraga, Iloilo on Sangguniang Kabataan (by Noel Sala, Jade Ayson, Hacel Espada, Aljen Gimay and Daniela Palec)	Noel Sala
2:00-2:30	3. The Role Distinction Between the Jurisdictions of the Local Government Unit and the Indigenous People's Council of the Panay-Bukidnon of Barangay Kuyot, Janiuay, Iloilo (by Jose Edmundo Dayot, Leonora Gelito, Pamela June Pedroso, April Dawn Vista and Leo Ysug)	Jose Edmundo Dayot

ENGINEERING & AGRICULTURE RELATED STUDIES March 7, 2018, Afternoon Session

Time	Title of the Study	Presenter
1:00-1:30	1. Queuing-for-Admin System (QUADSY) (by Marc Vincent Alabado, Ruth Joy Ataal, Ma. Lorielyn Ledesma, Ma. Criselda Liper and Bernard Ceasar Susbilla)	Bernard Ceasar Susbilla 2ND PLACE
1:30-2:00	2. Design and Evaluation of a Vertical Drum-Type Defeathering Machine (by Kristian Karlo Gutierrez)	Kristian Karlo Gutierrez
2:00-2:30	3. Henry Luce III Library Radio Frequency Identification (RFID) Based Sentry System (by Jant Albrent Kristdict Caceras, Jay Neil Espiritu, Edgar John Ocheda, Cassidy Mertyl Suplido and Ray Patrick Tambasen)	Cassidy Mertyl Suplido 1ST PLACE
2:30-3:00	4. Design and Evaluation of a Prototype Hydraulic Ram Pump (by Nicole Unice Buhat)	Nicole Unice Buhat

BUSINESS RELATED STUDIES - (March 7, 2018 - Morning Session)

Time	Title of the Study	Presenter
8:00-8:30	1. Empowerment Among Women Entrepreneurs in the Municipality of Pototan (by Shantelle Kaye Simbahan, Ma. Emielyn Bacas, Shyra Dicon, Diana Stephanie Erfelua, Christine Medina and Karen Pelaez)	Shantelle Kaye Simbahan
8:30-9:00	2. Job Satisfaction of Senior High School Teachers in Central Philippine University (by John Philip Azarcon, Krishna Mae Marquez, Camille Kate Nandin, Mary Grace Niera and Melteodor Zuñega)	Melteodor Zuñega
9:00-9:30	3. Attitude, Subjective Norm, and Perceived Behavior Control Among Youth with Entrepreneurial Intention in the City and Province of Iloilo (by Renzo Jay Reyes, Carissa Louise Borlado, Clarez Joy Jamelo, Mary Grace Kong, Angelika Pedroso and Hans Valderrama)	Renzo Jay Reyes 2ND PLACE
9:30-10:00	4. Determinants of Management Skills of Management Students Undergraduate and Graduate School Programs in Central Philippine University, Jaro, Iloilo City (by Francis Abordaje, Christine Bajada, Christine Capunihan, Kayzelle Douaine King and Ruben Nill Joy Monreal)	Francis Abordaje 1ST PLACE
10:00-10:30	5. Entrepreneurial Intention among Graduating Students in Central Philippine University (by Angelyn Necessario, Giselle Dapiton, Rholen Abella, Ashley Bereber and Rina Suelo)	Angelyn Necessario 3RD PLACE

EDUCATION RELATED STUDIES - (March 7, 2018 - Afternoon Session)

Time	Title of the Study	Presenter
1:00-1:30	1. Factors Associated with the Academic Performance of Central Philippine University Elementary School Varsity Players and Their Coping Mechanisms (by Katrina Marie Jucaban, Marjorie Rice and Gretchel Joy Sampiano)	Katrina Marie Jucaban 2ND PLACE
1:30-2:00	2. Factors Influencing Senior High School Students' Choice of Academic Strand (by Maevir Gemanga, Red Faldas, Athaliah Easter Cabrias, Alaiza Esteves and Andrea Sobredilla)	Maevir Gemanga 3RD PLACE
2:00-2:30	3. The Elementary School Pupils at CPU: Their Mathematics Academic Performance and Its Correlates (by Ronald Dela Cruz, Frea Arlyn Delgado, Vhea Glace Nasis, Lemlyn Serantes and Jyx Bryan Villagomez)	Ronald Dela Cruz
2:30-3:00	4. Extent of Participation in Sport and Academic Performance of Varsity Players in a Christian Institution of Higher Learning (by Cassie Mae Ortalla, Arianne Hope Lagarto, Cyres Jean Campaña, Kenneth Grace Titular, Deo Amparado and Gio Patrick Andaya)	Cassie Mae Ortalla
3:00-3:30	5. The Level of Confidence Towards English Conversation among Education Students in a Certain Private University in Iloilo City (by Eunji Lee, Eunsung Lee, Jenrose Kiel Dario and Majelia Rose Datoon)	Majelia Rose Datoon 1ST PLACE

HUMANITIES & RELATED STUDIES

March 8, 2018 - Morning Session

Time	Title of the Study	Presenter
8:00-8:30	1. TV Networks Producing the Most Reliable News as Perceived by Adults from Barangay La Fortuna, Barotac Viejo (by Era Mariz Murillo)	Era Mariz Murillo
8:30-9:00	2. A Legend: An Analysis on the Medias Portrayal on Whang-Od's Persona and Contribution in the Recognition and Preservation of Philippine Culture (A Tri-Media Research) (by Izza Cassandra Abolucion)	Izza Cassandra Abolucion 3RD PLACE
9:00-9:30	3. Self Improvement on Public Communication Skills as Perceived by Theater Artists (by Clem Marnel Burgos)	Clem Marnel Burgos
9:30-10:00	4. What Went Wrong: An Analysis on the Actions Taken by the Media in Mendoza's Case Documentary (by Nestle Taala)	Nestle Taala 2ND PLACE
10:00-10:30	5. The Unique Features of President Rodrigo Duterte's Public Statements: An Impact Assessment (by Jynea Baldevarona)	Jynea Baldevarona 1ST PLACE
10:30-11:00	6. "This Why We Play": An Analysis of the Evolution of the NBA 2K Game Series from 2012-2015 (by Jeter Hibionada)	Jeter Hibionada

CHEMISTRY & RELATED STUDIES

March 8, 2018 - Afternoon Session

Time	Title of the Study	Presenter
1:00-1:30	1. Nutrient Composition of Four Formulated Feeds (Developer, Starter, Grower, Breeder) for Native Chicken (by Josie Torrecampo)	Josie Torrecampo 2ND PLACE
1:30-2:00	2. Heavy Metal (Cadmium and Lead) Contents of Shrimp Paste in Iloilo by Atomic Absorption Spectrometry (by Leojen Torres)	Leojen Torres
2:00-2:30	3. Analysis of Curcumin Content and Antioxidant Activity of Processed Turmeric (<i>Corcuma Longa</i>) Powders (by Jezreel Gaa)	Jezreel Gaa 1ST PLACE
2:30-3:00	4. Total Antioxidant Activity and Anthocyanin Content of Different Processed Blue Ternate (<i>Clitoria Ternatea</i>) (by Dianne Grace Panadero)	Dianne Grace Panadero

JUNIOR & SENIOR HIGH RELATED STUDIES

March 9, 2018 - Morning Session

Time	Title of the Study	Presenter
8:00-8:30	1. Efficacy of Powdered Oyster (<i>Crassostrea virginica</i>) Shell and Madre de Cacao (<i>Gliricidia sepium</i>) Leaf Extract in Aleviating Soil pH (by Mareville Anne Caro, Clarisa Hortilano, Persenie Galimba, Patricia Marie Arquiola, Rosa Mae Cabangal, Lycha Jun Ga, Rudy Ann Leyso, Christie Maramento, Marc Joseph Moncada and Jubilee Garcia)	Mareville Anne Caro
8:30-9:00	2. Efficacy of Ginger (<i>Zingiber officinale roscoe</i>) Rhizome and Dalandan (<i>Citrus aurantium</i> Linn.) Leaf Extracts as a Biopesticide against Adult Cockroaches (<i>Periplaneta americana</i>) (by Fredda Marie Sumollo, Arnin Grace Sovella, Glydelle Casa, Patrice Hyacinth Galotera and Je Erryl Shayne Esmao)	Fredda Marie Sumollo
9:00-9:30	3. The Larvicidal Efficacy of Lantana (<i>Lantana camara</i>) Flower Extracts against Mosquito (<i>Culex pipiens</i> L.) (by Karen Joy Oscares, Samantha Faye Herbolario, Bethany Laboratorio, Rhilyn Erika Sarinas and Erica Clarice Bñares)	Karen Joy Oscares 3RD PLACE
9:30-10:00	4. A Comparative Study of the Insecticidal Efficacy of Neem Tree (<i>Azadirachta indica</i>) Cork Cambium and Fruit Extracts against Red Fire Ants (<i>Solenopsis invicta</i>) (by Freya Umadhay, Albie Jane Zurbito, Rica Marie Sonido, Micah Luisa Lavente, Lykah Joyce Orrica and Allayza Zigrid Mamon)	Freya Umadhay
10:00-10:30	5. Efficacy of Young Mango (<i>Mangifera indica</i>) Leaf Extract to Reduce Blood Sugar in White Mice (<i>Mus musculus linnaeus</i>) (by Arianne Leigh Segovia, Allyssa May Bimbo, Aurora Angela Calvez, Rosebelle Honorario, Mariah Alexis Lamasan and Esh Belle Te)	Arianne Leigh Segovia 2ND PLACE
10:30-11:00	6. Efficacy of Vetiver Grass (<i>Chrysopogon zizanioides</i>) Extracts against Native Subterranean Termites (<i>Reticulitermes virginicus</i>) (by Dawn Darienne Almacen, Alana Yzabel Biton, Bea Marie Borra, Jenny Vey De Tomas and Krystel Joyce Pragale)	Dawn Darienne Almacen
11:00-11:30	7. Green Mussel <i>Perna viridis</i> (Linnaeus) Tissues as Biosafety Determinants for Heavy Metals (by Meliza Louise Javellana, Larri Daniel Lamanosa, Keith Erwin Plagata, Janielle Silubrico and Karylle Kaye Tejada)	Meliza Louise Javellana 1ST PLACE

WEB-BASED DISASTER RISK REDUCTION AND MANAGEMENT ASSISTANCE SYSTEM FOR THE CDRRMO (CITY DISASTER RISK REDUCTION AND MANAGEMENT OFFICE) OF ILOILO CITY

Karina Inovah Marie Amigo, Neimark Braga, Ian Joseph Juarez, Sherwin Dane Zauro Haro, Sherah Lou Deduro and Charles Botavaran

ABSTRACT

Database construction and maintenance has evolved into one of the most critical aspects of the day-to-day operations of the modern business company especially as the world completes its transition into the digital age. The protection of data and information has never been more tenuous than it is today. The faster speed which humans now transmit information demands that the repositories for these data and people handling them keep up with the space and yielded safe, reliable performances in the act of maintaining data integrity. This study was created to help spur this process through the use of a web-based system. The Web-Based Disaster Risk Reduction and Management Assistance System use a variety of tools to assist the staff operating in the office of City Disaster Risk Reduction Management (CDRRM) and other facilities involved in its daily

operations. The system was intended to be used as a tool in storing and presenting disaster-related statistics, becoming a web-based repository of information pertaining disasters. As such, concepts that were integrated are as follows: reporting, user evaluation, mapping and data mining. The researchers made extensive use of the Prototyping Model. PHP was used as the system's backend whilst using MySQL as the system's database. HTML, CSS, and JavaScript were used as its frontend. By creating different modules for the City Disaster Risk Reduction Management Office (CDRRMO) and its affiliates, tasks such as report submission, barangay profiling, disaster mapping, etc. can now be done with more efficiency as per the benefit of an online environment.

EFFECTS OF MUSIC THERAPY ON PHYSICAL WELL-BEING ON POST-CESAREAN WOMEN IN SELECTED HOSPITALS IN ILOILO AND ANTIQUE

Samela Charisse D. Escobin, Christienne G. Baleña, Jojie Ann L. Cortel, Mae Anne Kristel C. Depra, Jazzlene M. Fundal, Mia Khrylle Princess V. Gahum and Maria Imelda R. Sutrina

ABSTRACT

This study evaluates the effects of music therapy on physical well-being of post-cesarean women who underwent primary CS delivery under spinal anesthesia after 48 hours postoperatively. This was a pretest-posttest control trial, 30 patients randomly assigned to music therapy and without music therapy. Physiologic parameters BP, PR, RR and oxygen saturation were evaluated before and after 30 minutes. Subjective levels of felt pain were

measured. Experimental group were given instrumental music. Control group were given standard care only. There was a significant difference in level of pain between experimental group and control group on posttest. This suggests that music therapy on post-CS was effective in reducing respiratory rate and level of felt pain and some increasing effects on oxygen saturation.

GREEN MUSSEL, *Perna viridis* (Linnaeus) TISSUES AS BIOSAFETY DETERMINANTS FOR HEAVY METALS CONTAMINATION IN COASTAL OF PANAY ISLAND, PHILIPPINES

Meliza Louise B. Javellana, Larri Daniel G. Lamanosa, Keith Erwin Plagata, Janielle S. Silubrico, and Karylle Kaye E. Tejada

ABSTRACT

This study was conducted to evaluate the use of green mussel tissue as determinants for heavy metals contamination in coastal waters of Panay Island, Philippines. It determined the concentration levels of: copper (Cu), cadmium (Cd) and lead (Pb) in the tissues of green mussels farmed in Barotac Viejo, Iloilo; Ivisan, Capiz; and Batan, Aklan. The mussel tissues were removed from the shell, oven dried, pulverized with mortar and pestel, weighed with Metler Balance, ashed in furnace and digested and was prepared for spectrophotometer reading.

Results showed that the highest Copper concentration was observed in tissue samples with mean value of 10.48 ± 0.12 ug/g dry (above the standard limit), Cadmium with a mean value of 2.76 ± 0.06 ug/g dry wt and this value was (above the standard limit) and Lead with a mean value of 2.91 ± 0.07 ug/g dry wt (above standard limit). Based on the results of the study, green mussels cultured in the three study areas are above the standard limits set by The Codex General Standard for Contaminants and Toxins in Food and Feed.

THE UNIQUE FEATURES OF PRESIDENT RODRIGO DUTERTE'S PUBLIC STATEMENTS: AN IMPACT ASSESSMENT

Jynea A. Baldevarona

ABSTRACT

This study was conducted to assess the impact of the unique features of President Rodrigo Duterte's public statements on issues that made controversy during the 2016 Philippine Presidential Elections: Papal visit in the Philippines that caused "traffic" in 2015, West Philippine Sea Dispute, Rape Joke Issue, Contractualization and Endo, and War on Drugs, Crime and Corruption. This study used the following theories: Agenda-Setting Theory, Medium Theory, and Uses and Gratifications Theory. The assessment of the impact was done through the analysis of public statements made by President Rodrigo R.

Duterte based on its accuracy, timeliness, under loading, procedure, barriers, overloading, understanding, distortion and gate keeping using Robust Effective Communication Performance Indicators. Findings of the study showed that Twitter became an underlying structure for democracy through the audience interaction with President Rodrigo R. Duterte's public statements, tweets of the audiences with the hash tags, the dissemination and presentation of the information by the media.

ANALYSIS OF CURCUMIN CONTENT AND ANTIOXIDANT ACTIVITY OF PROCESSED TURMERIC (*CORCUMA LONGA*) POWDERS

Jezreel Gaa

ABSTRACT

Turmeric, known as luyang dilaw in tagalog, is a common spice used in a vast variety of Asian dishes. At present, turmeric is being consumed in different forms. Some prefer to drink it as teas or as powdered juices while many use it as dietary supplements. This research study was conducted to determine the curcumin content and antioxidant activity of processed turmeric powders subjected to different processing procedures such as air-drying, sun-drying, freeze-drying, drum-drying, and oven-drying at 60°C and 100°C. Curcumin contents of fresh and dried samples (23.76% ± 0.00% - 24.34 ± 0.06%) showed no significant differences. In terms of antioxidant activity, DPPH and TPC assays were used for Free Radical Scavenging Activity and Total Phenolic Content, respectively. It was observed that the antioxidant activities of samples were significantly different. The fresh sample (83.82% ± 0.23%) and oven-dried sample at

60°C (82.42% ± 0.27%) have the highest Free Radical Scavenging Activity, followed by oven-dried sample at 100°C (80.23% ± 0.37%) and freeze dried sample (79.70% ± 0.46%), and then drum-dried sample (78.85% ± 0.58%); sun-dried sample (77.60% ± 0.63%), lastly air-dried sample (72.37% ± 1074%). In terms of Total Phenolic Content, fresh sample (838.20ppm ± 2024ppm) has the highest Total Phenolic Content followed by air-dried (303.60ppm ± 1.08ppm), sun-dried (241.27ppm ± 0.45ppm), oven-dried at 60°C (198.06ppm ± 0.27ppm), oven-dried at 100°C (182.94ppm ± 0.37ppm) and freeze dried (181.63ppm ± 2.78ppm), and then drum-dried sample (164.79ppm ± 1.79ppm). Overall, it is preferred to use oven-drying at 60°C and air-drying in processing turmeric powders. Still, it is best to consume fresh turmeric rhizomes compared to processed turmeric powders to acquire maximum health benefits.

POLITICAL PARTICIPATION OF SENIOR CITIZENS IN THE MUNICIPALITY OF POTOTAN, ILOILO

Edmark B. Abasquez, Misael B. Canones, Kurt Nicolo E. Ogatis, Patrick P. Parcon, and Kimberly M. Uy

ABSTRACT

This study was conducted to determine the degree of political participation of senior citizens in the selected barangays of Pototan, Iloilo in terms of: (1) Electoral Involvement, (2) Civic Activity, and (3) Expressive Verbal and Cognitive Involvement. Descriptive analysis and one-shot survey was utilized. From a population of 588, a sample of 238 was obtained. The results show that the senior citizens degree of political participation in terms of electoral involvement and civic activity is low while in expressive verbal and cognitive involvement, it is

moderate. There is no significant difference between Pototan senior citizens' political participation when grouped according to sex. When grouped according to family income and educational attainment, there is a significant difference. When the senior citizens are grouped according to religion, there is no significant difference in terms of civic activity while in electoral involvement and expressive verbal and cognitive involvement, there is a significant difference.

VALIDATION OF 2017 BUSINESS PERMIT AND LICENSING SYSTEM IN REGION VI

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and Ligaya Villarias-Caniel*

The study was commissioned by the Department of Trade and Industry (DTI), in cooperation with the National Competitiveness Council (NCC) to monitor and assess the streamlined business permit and licensing system (BPLS) of fifteen (15) local government units (LGUs) in Region VI.

Specifically, this study was intended to validate the streamlining of BPLS in terms of the following indicators: 1) Time to process application; 2) Number of steps/procedures; 3) Number of signatures; 4) Number of forms used; 5) Acknowledged with official receipts; 6) Approached by a fixer/ facilitator; and 7) rating of respondents on various items.

Since the study is descriptive in nature, it made use of the one shot survey design or the post test only design. This survey covered all the businesses in the 15 cities/municipalities in Region VI identified by the Department of Trade and Industry. Ten (10) respondents for new applications and 10 respondents for renewal applications were selected from each of the 15 LGUs using the systematic sampling from the list provided by the Business Processing and Licensing Officers (BPLOs) of the covered LGUs. The survey instrument prepared by NCC/DTI was used for data collection by eight (8) interviewers. The data were processed using the Statistical Packages for the Social Sciences (SPSS) version 17. Statistical analyses were purely descriptive in nature.

Results of the study revealed that almost all of the

respondents personally applied for the permits of their respective business which indicates that the respondents have first-hand experience and knowledge in business permit processing. The respondents were owner/managers of their respective businesses which were generally on the service sector. The type of businesses registered by the respondents were single proprietorship, Filipino-owned, and micro in terms of total assets. The new applicants had been in operation for less than one year while almost all of those with renewal applications had been in operation for 1 year or more. All of the respondents except for one renewal applicant applied for their business permits manually. The respondents for renewal application generally applied for permits within the scheduled specific period of time for business permit application while most of the new applicants applied in the first quarter of the year. Most of the respondents for new and renewal applications completed the process of permit application within 2 to 3 days with San Jose, Antique having the shortest processing time of less than one day for new applications and one day to less than two days for renewal applications. It generally took three (3) steps for the respondents to process their Mayor's permit but Malay, Aklan has only one step. In general, there was only one signatory in the Mayor's permit

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except in La Carlota City, Binalbagan and Roxas City which had two signatories. Three (3) or more forms were used in processing the business permit but Malay, Aklan was using two forms and Pavia, Iloilo was using only one form. Certain fees were paid for the permits, mostly at PhP 1,001 to PhP5,000 and the fees that they paid were acknowledged with official receipt. Only very few of the respondents were approached by a fixer/facilitator in the processing of their permits.

The ratings of the respondents on expectation on overall quality of business permit application process, satisfaction of services for business permit application, speed of business permit application process, number of signatories, delivery of services by BPLO frontliners, cost of fees paid and satisfaction of overall quality of business permit application process in 2017 and 2016 were all on the positive note with no rating of lower than 7.0 based on a lowest rating of one (1) to the highest rating of ten (10). Among the rated items, number of steps and number of forms had ratings lower than 7.0 but not less than 6.0.

Generally, the respondents reported no problems encountered in dealing with other government agencies in relation to the processing of their business permits. The respondents find their experience in answering the survey relatively easy and generally have no comments/suggestions about the survey.

Given the findings and conclusions of the

survey, it is recommended that since it is entirely possible to complete the processing of permits within a day, efforts must be made by the LGUs to ensure that the whole process can be completed within the day. The reduction of steps and use of forms can be looked into as possible means. Since waiting time for releasing of permit, payment and mayor's signature are the steps considered by the respondents to take the longest time in the processing of business permits, the steps should be reviewed to find ways and means to reduce the time spent on this steps. Non-allowance of fixers in processing permits should be maintained by the concerned offices. The rating of the LGUs in the different areas of processing business permits can still be improved, most particularly in areas with lower ratings like in the number of steps and number of forms. The comments of the respondents on the processing of the permits, the problems they encountered in dealing with specific agencies to comply with the requirements for their permits could be considered by the concerned agencies as bases for the improvement of their respective services.

“Happiness is not in the mere possession of money; it lies in the joy of achievement, in the thrill of creative effort.”

– Franklin D. Roosevelt

COMPLETED INSTITUTIONALLY FUNDED RESEARCHES

1. Production Capacity and Commercialization of Lemongrass (*Cymbopogon citratus* Stapf.) Ready-to-Drink Beverage Product (Kalamansi-Ginger Flavor) Geared Towards Commercialization of the Lemongrass Ready-To-Drink (RTD Products)

- By Evelyn R. Ybarzabal, Emma T. Gico, Jet R. Nillos, Bernie C. Cangrejo and Mizpah C. Villalobos (completed May 2018)

2. Documenting Indigenous Cooking Methods in Central Panay

- By Armando M. Hisuan, Jr., Mary Ann Garrido and Myrna T. Luceño (completed June 2018)

3. Change in the Quality of Life among the Beneficiaries of the Micro-Hydro Project of CPU College of Engineering and Department of Energy in Barangay Agbobolo, Ajuy, Iloilo: A Social Impact Assessment

- By Darril F. Pamocol, Bernadine T. Baliguat and Frank G. Robite (*draft report-for final editing*)

4. Socio-economic and Technical Evaluation and Change in the Quality of Life among the Beneficiaries of Three Micro-Hydro Projects of CPU in San Remegio, Antique

- By Darril F. Pamocol, Rodel C. Palomar, Caesar Rico S. Acanto and Frank G. Robite (*draft report*)

5. Survey of Terrestrial Macrophytes in Camp Higher Ground, Barotac Viejo, Iloilo, Philippines

- By Ernesto S. Elefan and Stella G. Fernandez (*draft report*)

6. The Effects of Montesorri Teaching Materials to Pupils Attention and Hyperactivity-Impusivity

- By Merle L. Junsay, Joan Iven J. Abello, Praise E. Glory, Eden P. Gomez, Hannah S. Siosan and Melly Beth L. Tayo (*draft report*)

7. Tracer Study of the Graduates of the College of Engineering in CPU for the Academic Year 2000 to 2001 and 2003 to 2004.

- By Rowena P. Calasara and Mary Earl Daryl A. Grio (*draft report-for final editing*)

8. Student Leaders' Perception of the Influence of CPU Leadership Training Seminar

- By Margen A. Java, Alfred C. Morales and Albert Jan Matthew A. Java (*draft report- for final editing*)

"Success isn't always about greatness. It's about consistency. Consistent hard work leads to success. Greatness will come."

- Dwayne Johnson

ONGOING INSTITUTIONALLY FUNDED RESEARCHES

1. Title: Socio-Cultural, Economic, Community Involvement and Priority Needs of Communities in the Barangays of Badiangan, Iloilo: Basis for Enhancing the University Integrated Outreach Programs

Researchers: Aries Roda D. Romallosa, Margen A. Java and Karen Jay D. Lozada

2. Title: Zumba Workout Program for Central Philippine University Employees and Students
Researcher: Necil C. Magno

3. Title: Development of Nutraceutical Products from *Ipomea Batatas* Leaves, *Clitoria Ternatea* Flowers, *Citrus Microcarpa* Fruits

Researchers: Mylyn L. Poral, Vincent Anthony V. Militante, Analie S. Serafino, Ma. Jean Amistas and Anna Liza Jamias

COMPLETED EXTERNALLY FUNDED RESEARCHES

1. 2017 Field Monitoring and Evaluation Project of the Business Permits and Licensing System (BPLS)

- By Reynaldo N. Dusan, Ma. Alina Pescadera, Ligaya V. Caniel and Carmen Rose P. Genoveza
- Funded by Department of Trade and Industry (RO6) (completed December 2017)

2. Improving Small Farmer's Income Through Better Market Linkages

- By Mary O' T. Penetrante, Dimpna C. Castigador, Gilda G. Monsole, Teresita E. Crucero, Ma. Dona Luz Colorge, and Romarie Jhoanna C. Eder
- Funded by GIZ Better Rice Initiative Asia (completed December 2017)

3. Identification, Collection, Propagation, and Processing of Herbal Plants for Organic Native Chicken Flock Health Management

- By Jaime C. Cabarles, Jr.
- Funded by Department of Agriculture (DA) Regional Office 6 (completed December 2017)

4. Report on the Conduct of Streamlining Workshops in Business Permits and Licensing System of the Cities of General Santos and Legaspi

- By Mary "O T. Penetrante, Dimpna C. Castigador, Levi O. De Los Santos, Jr., Lofel Diamante, Rezia Duerme, and Joel Somosierra
- Funded by USAID Surge Project (completed February 2018)



ONGOING EXTERNALLY FUNDED RESEARCHES

1. Status of Maternal and Child Health (MCH) in Western Visayas

- by Irving Domingo Rio, Salex Alibogha, Melba Sale, Ma. Lourdes Sampiano, Joelah Rio, Rita Penaso, Julieta Boteros, Novie Joy Soledad and Charlie Baldon
- Funded by Department of Health, RO VI

2. Assessment of the Consultant Hiring Strategy of the DOH Region VI to Deliver Family Planning Services in Western Visayas

- By Mary 'O T. Penetrante, Dimpna C. Castigador, Patrocinio Pudadera, Joel H. Somosierra, Levi O. De Los Santos, Jr., Mariana Tababa, Rezia Duerme, Ana Mae Cantel, Ma. Lourdes Andrino and Lofel Diamante
- Funded by Department of Health, RO VI

3. Assessment of the Implementation of Community Health Team (CHT) Mobilization in Region VI

- By Carolyn L. Yoro, Susan Sumande, Nelida Lamasan and Norma Suerte
- Funded by Department of Health, RO VI

4. Assessment of the AH Connect Strategy under the Alternative Health Service Points for Adolescent Health and Development Program of the DOH-RO VI

- By Raquel Polec-eo, Gift Tragico, Florabel Suarez, Rea Balontong, Lennon Pajar, Merle Junsay and Eddanee Debuque
- Funded by Department of Health, RO VI

LIST OF RESEARCH PROPOSALS EVALUATED

- 1. In-Vivo Anti-Inflammatory Activity of Chitosan-Emulsion Based Spray on Native Chicken**
• by Mylyn Poral, Darlene Joy J. Marañon and Jaime C. Cabarles, Jr.
- 2. In Vitro Evaluation of the Anti-Oxidant Synergistic Effect of *Ipomea batatas* Leaves, *Clitoria ternatea* Flowers, *Citrus microcarpa* Fruits**
• by Vincent Anthony Militante, Mylyn Poral, Darlene Joy Marañon and Annalie Serafino
- 3. Nitrite Content of Cured Meat Purchased in Public Markets and Grocery Stores Around Iloilo City, Philippine**
• by Jun Ozbert M. Haguisan and Ann Marie P. Alguidano
- 4. A Survey on Faculty Profile of Central Philippine University in Iloilo City, Philippines**
• by Ananias C. Sabijon, Jr.
- 5. Sensory Evaluation of Selected Food Products Using “Batuan” (*Garcinia binucao* [Blanco] Choisy) Fruit as Acidulant**
• by Emma T. Gico, Evelyn R. Ybarzabal, Armando M. Hisuan, Jr., Myrna T. Luceño, Mary Ann C. Garrido and Jocelyn G. Gonzales
- 6. Development of Module in Teaching Filipino to International Students**
• by Eden P. Gomez, Liza V. Do-oma, Nenita T. Mino, Edgardo A. Eriman, Ma. Alina C. Pescadera and Merle L. Junsay

“SCIENCE WITHOUT RELIGION IS LAME,
RELIGION WITHOUT SCIENCE IS BLIND.”

Albert Einstein

Director's Desk



By Dr. Mary O' T. Penetrante

The Importance of Research in Functional Food Development

Over the years, increasing attention was given to the discovery of substances that can be used as supplementary food. The push was partly due to the increasing consciousness on how food were produced and processed and on how food components improves health and wellness. Up until today, there is still a debate on what is "organic" and "chemical free" food.

Research on functional foods provided scientific paradigms that impregnated a broader approach to diet and nutrition. As the discovery of new knowledge on functional foods and health and wellness of individuals or groups of individuals continues, protecting individual privacy becomes an issue. On one hand, there is an urgent call for legal, ethical and societal framework to ensure genetic information about food and disease is appropriately handled.

The academia, being one of the stakeholders in the field of research, need to continuously provide scientific hypotheses, to support initiatives in finding empirical evidence on food safety and security and, to inform and enlightened the various stakeholders. The private sector may provide the needed resources as scientific advances are translated into commercial products. The government may provide support services to ensure that the various stakeholders have the access to information needed the make the right choice.

There is a vast opportunity for research in functional food development. Scientific evidence is needed to better understand the role and optimal levels of traditional food nutrients for specific segments of the population especially those in geographically isolated and disadvantage areas (GIDAs), the need to identify bioactive substances present in locally produced foods that could lead to more specific recommended dietary allowances for different groups of individual.

Continued research must be pursued to better understand the potential and actual health benefits of bioactive food components, the identification of numerous phytochemicals and their potential roles in health, including sulfur compounds in cruciferous vegetables, polyphenols in teas, and flavonoids in wine, blueberries, and pomegranate.

There is also a need to establish scientific evidence on the association of chronic disease with higher intake of food like whole grains and multiple servings of fruits and vegetables, the packaging design and choice of materials and packaging potential to enhance stability and quality of foods from farm to market to dining tables. Research is important to better understand each of these issues in functional food development. *

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