

Rosabelle Louise A. Caram

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EDUCATION

- **MS Environmental Engineering [University of the Philippines Diliman] 2019**
 - Master's Research: Assessment of the Utilization of Lightly Pyrolyzed Rubber (LPR) and Rice Husk Ash (RHA) in Hot-Mix Asphalt
 - Conducted WACS training and assisted in revising the Solid Waste Management Plan for Paniqui, Tarlac
- **BS Civil Engineering [University of the Philippines Diliman] 2014**
 - Undergraduate Research: The Correlation of Ultrasonic Wave Characteristics with Pull Out Strength as the Corrosion in Reinforced Concrete Progresses with Time

RESEARCH EXPERIENCE

Project Leader, University of the Philippines Diliman *January 18, 2021 – July 17, 2022*

Project: Determination of Appropriate Expansion Process of Perlite to Conform to Standards of Lightweight Aggregates for Use in Construction.

- Developed an expansion process for Philippines Perlite with 3 different gradations
- Developed mortar mix designs for Mortars M, N, O, S with partial and full replacement of fine aggregates with expanded perlite aggregates

Funded: Department of Science and Technology- Philippine Council for Industry, Energy, and Emerging Technology Research and Development.

Products: Mortar mix designs that could be utilized by the industry for multiple mortar applications. Utility Model for the expansion process of local Perlite.

Project Leader, University of the Philippines Diliman *January 2020 – January 2022*

Project: Assessment of plastic laminates as possible replacement for bitumen in Asphalt Concrete.

Funded: University of the Philippines Office of the Vice Chancellor for Research and Development.

Graduate Student, University of the Philippines Diliman *2018-2019*

Mentor: Dr. Leslie Joy Diaz

Project: Assessment of the Utilization of Lightly Pyrolyzed Rubber (LPR) and Rice Husk Ash (RHA) in Hot-Mix Asphalt

Funded: Department of Science and Technology- Engineering Research and Development for Technology Scholarship

RELEVANT WORK EXPERIENCE

Institute of Civil Engineering (UP ICE) of the University of the Philippines Diliman

Instructor

August 2015- July 2019

Assistant Professor

July 2019- June 2023

CIVIL ENGINEERING INDUSTRY CONSULTANCY

World Wide Fund for Nature- Philippines

Environmental Engineer

Environmental Management Plan of Hamilo Coast

October 2022- August 2023

WACS Baseline for IGaCoS and San Isidro

November -December 2020

Waste and Material Flow Analysis for Donsol, Sorsogon

December 2019- February 2020

Plastic Smart Cities for Davao Region

September- December 2019

Puerto Princesa LGU

Technical Engineer

Puerto Princesa RNDP Capability- Building Program.

April- November 2021

World Wide Fund for Nature- Malaysia

Environmental Engineer

Extended Producer's Responsibility Study

January- October 2020

Department of Foreign Affairs

Cost/ Contract Documents Engineer

Professional Engineering and Architectural Services

for Foreign Service Buildings Design Excellence program

June-September 2016

PAPER PUBLICATIONS AND CONFERENCE PROCEEDINGS

1. Diaz, Z., Caram, R., Diola, M. Utilization of plastic laminates in asphalt cement mastic. AIP Conference Proceedings Vol. 2785, No. 1. July 10, 2023
2. Guanzon, C., Librea, J., Valencia, P. Camposano, J., Caram, R., Colegio, K, Peralta, M.. Physical and Morphological Investigation of the Utilization of Expanded Perlite as Fine Aggregates for Type M Structural Lightweight Mortar. 13(2), 175-183. May 31, 2023. <https://doi.org/10.11113/aej.v13.19373>
3. R. Caram. Assessment of the Utilization of Rice Hull Ash(RHA) as Partial Replacement of Fine Aggregates and Fillers in Hot Mix Asphalt. 5th International Conference on Building Materials and Construction 2020. Tokyo, Japan
4. J. Elman, L. Porciuncula, R. Caram. Lightly Pyrolyzed Rubber as Partial Replacement of Fine Aggregates in Hot-Mix Asphalt. 12th AUN/SEED-Net Regional Conference on Environmental Engineering 2019. Bali, Indonesia.
5. M. Chan, R. Dela Rama, R. Caram. Utilization of Rice Husk Ash as Partial Replacement of Fine Aggregates in Hot Mix Asphalt. The 4th Symposium of the International Waste Working Group-Asian Regional Board (IWWG-ARB) 2019. Sukusol Hotel, Bangkok, Thailand.
6. R. Caram, M. dela Cruz, K. Lasala. Adsorption Studies on *Citrofortunella microcarpa* (fruit peel of calamansi): Recovery of Cadmium from Synthetic Mining Wastewater. 10th Regional Conference on Environmental Engineering 2017, Hanoi, Vietnam.
7. D. Aquino, R.Caram, L. Tan, I. Villalba. Mainstreaming Disaster Preparedness and Environmental Sustainability awareness in communities through the National Service Training Program. 3rd AsiaEngage Regional Conference 2016. Metro Manila, Philippines

FIELDS OF INTEREST

- Solid Waste Management
- Sustainable Materials and Design
- Circular Economy
- Sustainable Built Environments and Green Buildings
- Disaster Risk Management
- Environmental governance and policy
- Construction Management
- Resource Management

CONFERENCES AND TRAININGS

- Philippine Institute of Civil Engineers, Inc. Technical Conference. 2022

- International Conference on Building Materials and Construction. 2020
- Greening the Economy: Sustainable Cities. Lund University (through Coursera). 2020
- Solid Waste Institute for Sustainability- International Solid Waste Association Winter School 2019: *Solid Waste Management: Landfill and Landfill Mining*. University of Texas at Arlington, USA. 14 – 25 January 2019.
- 6th Seminar Workshop on the Utilization of Waste Materials in Conjunction with 1st International Symposium on Sustainable Concrete and Structures using Alternative Materials. Metro Manila, Philippines. 13 September 2018

**A more detailed list of conference presentation/attendance and trainings attended over the years are available upon request.*

AWARDS RECEIVED:

- Certificate of Excellent Oral Presentation. Assessment of the Utilization of Rice Hull Ash (RHA) as Partial Replacement of Fine Aggregates and Fillers in Hot-Mix Asphalt. 2020 5th International Conference on Building Materials and Construction. Tokyo, Japan. February 26-29, 2020.
- Solid Waste Institute for Sustainability- International Solid Waste Association Winter School 2019 (Full scholarship to 2019 Winter School)

OTHER SKILLS AND QUALIFICATIONS

- Licensed Civil Engineer (Philippines) and licensed Real Estate Broker (Philippines)
- Knowledgeable in several programs, including but not limited to:
 - MS Office
 - Programming Software
- Fluent in English, Filipino and Hiligaynon

REFERENCES:

Dr. Maria Antonia N. Tanchuling
Dean, College of Engineering
University of the Philippines Diliman
Email: mntanchuling@up.edu.ph

Dr. Leslie Joy L. Diaz
Associate Dean, College of Engineering
University of the Philippines Diliman
Email: lldiaz@up.edu.ph

Dr. Diocel Harold M. Aquino
UP Building Research Service Director
Construction Engineering and Management Head
University of the Philippines Diliman
Email: dmaquino@up.edu.ph