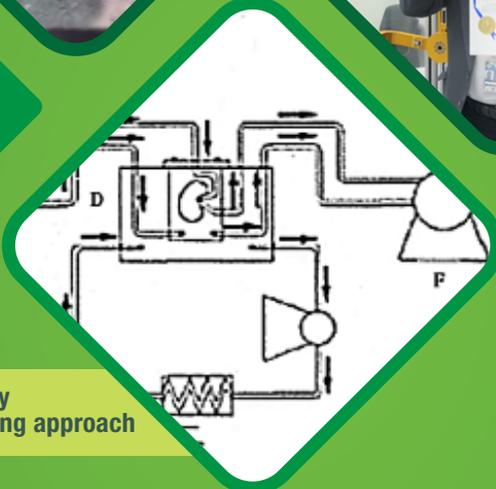
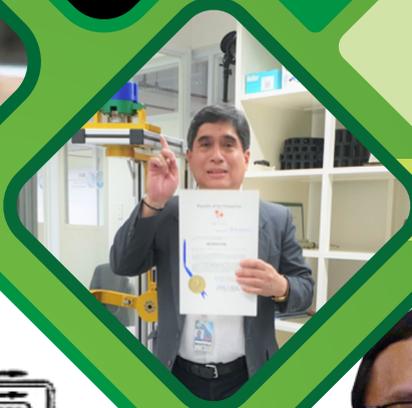




**New methods for making geopolymer products**



**New device for robotic exoskeleton project**



**Whole kidney bioengineering approach**



## Three DLSU faculty projects receive patent

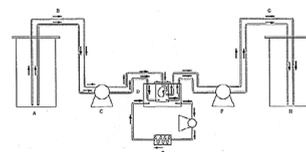
DE LA SALLE UNIVERSITY RECENTLY RECEIVED FROM THE INTELLECTUAL PROPERTY OFFICE OF THE PHILIPPINES THREE NEW PATENTS FOR THE PROJECTS OF GOKONGWEI COLLEGE OF ENGINEERING FACULTY, WHICH WERE DEVELOPED IN COLLABORATION WITH STUDENTS AS WELL AS FACULTY MEMBERS FROM OTHER DISCIPLINES.

*Continue on Page 2* >

## What's inside

- Southeast Asia researchers receive grant on feminist artificial intelligence **3**
- Doy del Mundo releases new book **4**
- DLSU is No. 1 in Linguistics, top PHL private HEI in Business and Chemical Engineering **4**
- Gawad Paz Marquez Benitez 2022 awardee **5**

## Whole kidney bioengineering approach



**A MULTIDISCIPLINARY TEAM FROM THE DEPARTMENT OF CHEMICAL ENGINEERING (CHE) OF THE DLSU GOKONGWEI COLLEGE OF ENGINEERING** was recently awarded a patent for the invention "Method and system of organ decellularization using ultrasonic bath."

Led by ChE Full Professor Dr. Nathaniel Dugos, the team developed a whole kidney bioengineering approach capable of generating whole kidney ECM (extracellular matrix) scaffolds in a shorter time (hours), minimizing chemical usage, and retaining its structural integrity.

The system results in a more efficient and economical decellularization process compared to other developed protocols. In addition, it presents an effective decellularization procedure for the production of scaffolds from animal organs such as porcine kidneys.

Co-inventors of the system include Say Sreykich (ChE), Dr. Custer Deocariz (Biology), Dr. Susan Roces (ChE), Dr. Lawrence Belo (ChE), Dr. Cynthia Madrazo (ChE), Joseph Rey Sta. Agueda (MEM), Tosha Mae Manalastas (ChE), and John Martin Mondragon (Biology). The setup utilizes the synergy of chemical perfusion and sonication to improve the decellularization of whole kidneys through the faster lysis of the cell membrane, which releases all cell components into the perfused solution for easier removal.

Several parts comprise the invention: (A) detergent chamber, (B) inlet pump tube, (C) peristaltic pump 1, (D) decellularization chamber, (E) sonicator, (F) peristaltic pump 2, (G) outlet pump tube, and (H) waste container.

Together with the Biomaterials and Tissue Engineering Laboratory (BiMaTEL), the team aims to be at the forefront of tissue engineering research specifically on kidney bioengineering in the Philippines.



## New device for robotic exoskeleton project

**TOGETHER WITH HIS RESEARCH TEAM OF THE "AGAPAY PROJECT ROBOTIC EXOSKELETON FOR UPPER EXTREMITY REHABILITATION",** Department of Manufacturing Engineering and Management Full Professor Dr. Nilo Bugtai recently received his third patent for the project, "Motor Driven Actuator Assembly". The project was funded by the DOST-PCHRD.

His co-inventors are Dr. Jade Dungao, Dr. Renann Baldovino, Engr. Alexander Abad, Paul Dominick Baniqued, Aira Patrice Ong, Eng. Michael Manguerra, Voltaire Dupo, and Winny Paredes.

The invention provides a motor driven actuator assembly with elements arranged in a manner that would allow the assembly to bear axial loads while minimizing strain on the strain wave gearing.

In 2020, Bugtai received his second patent for the "Motor Actuated Articulating Laparoscopic Instrument", developed together with a group of students. His first patent was granted in 2019, for the invention, "Meat Extracting Machine and System," which was developed with a thesis group under his supervision.

Bugtai is the founding director of the DLSU Institute of Biomedical Engineering & Health Technologies (DLSU IBEHT) and currently the program leader for the Niche Center in the Regions (NICER): R&D Center for Medical Robotics by the DOST – Science for Change Program.

## New methods for making geopolymer products



**THE TEAM OF DEPARTMENT OF CHEMICAL ENGINEERING FULL PROFESSOR DR. MICHAEL ANGELO PROMENTILLA (LEAD INVENTOR), ROY ALVIN MALENAB, AND JANNE NGO** received a patent for their project, "Method for chemically treating plant cellulose fibers, and method of making a geopolymer composite structure, including chemically treated plant cellulose fibers."

A method for chemically treating plant cellulose fibers includes soaking the plant cellulose fibers in an inorganic salt solution that contains polyvalent metal ions and that has the pH thereof adjusted to range between 4.5 and 7.5 to thereby bind a salt of the polyvalent metal on surfaces of the plant cellulose fibers.

A method of making a geopolymer composite structure includes mixing fly ash with chemically treated plant cellulose fibers to obtain an ash-fiber mixture, mixing an alkaline activator and water with the ash-fiber mixture to obtain a geopolymer slurry, and pouring the geopolymer slurry into a mold, followed by curing at an elevated temperature.

Potential uses of geopolymer-based products include geopolymer cement for construction; soil stabilizer that can trap heavy metals; and water treatment beads or composites to purify water.



Rosallia Domingo



Hazel Biana

## Southeast Asia Researchers Receive Grant on Feminist Artificial Intelligence

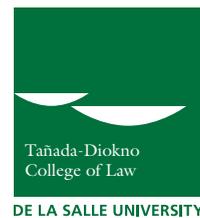
**TWO FACULTY MEMBERS AND RESEARCHERS FROM DE LA SALLE UNIVERSITY HAVE BEEN AWARDED A RESEARCH GRANT ON FEMINIST AI IN SOUTHEAST ASIA** by the Center for Science, Technology and Society, Chulalongkorn University, Bangkok, Thailand.

Dr. Hazel Biana, Research Fellow at the Southeast Asia Research Center and Hub (DLSU-SEARCH) and Associate Professor at the Department of Philosophy, and Rosallia Domingo, Assistant Professorial Lecturer at the Department of Philosophy, will be working with other feminist scholars in Southeast Asia to advance research in the areas of Artificial Intelligence and gender equality in the region.

Biana and Domingo's project proposes revised frameworks of thinking about new AI models for the empowered mobility of Southeast Asian women. The research grant is part of the larger "F<A+i>r" Feminist AI Research Network which seeks to use AI to promote gender equality and a more inclusive society, and the empowerment of women in underrepresented regions such as Southeast Asia.



Photo from the Integrated Bar of the Philippines/Facebook



## Legal Aid Referral System between DLSU and IBP Makati

**TAÑADA-DIOKNO COLLEGE OF LAW OF DE LA SALLE UNIVERSITY SIGNED A MEMORANDUM OF AGREEMENT ON LEGAL AID** with the Integrated Bar of the Philippines, Makati Chapter (IBP Makati).

Known as the Legal Aid Referral System, this is part of DLSU's service to the poor and marginalized sectors of society.

DLSU has been providing legal aid services through its Law Clinic since 2013. Services have evolved through the years and have been expanded since 2020 to meet the requirements of the Revised Student Practice Rule (Rule 138-A). This rule was issued by the Supreme Court to prepare law students to be practice-ready even as they serve the marginalized sectors. DLSU has 155 law student practitioners (LSPs) at present.

IBP Makati was represented by its president Dicky Salazar while DLSU was represented by its Dean Virgilio De Los Reyes. DLSU Supervising Lawyer Minerva Ambrosio and Assistant Dean for Clinical Legal Education Chato Olivas-Quinto served as witnesses.

# DLSU is No. 1 in Linguistics, top PHL private HEI in Business, Economics, and Chemical Engineering

**DE LA SALLE UNIVERSITY IS THE TOP PHILIPPINE UNIVERSITY IN THE FIELD OF LINGUISTICS, ACCORDING TO THE 2022 QUACQUARELLI SYMONDS (QS) WORLD UNIVERSITY RANKINGS.** It is also the country's leading private university in Business and Management Studies and Chemical Engineering.

DLSU retained its 201-250 bracket standing in Linguistics, while it placed in the 351-400 bracket in Business and Management Studies. For the first time, the University entered the Chemical Engineering subject rankings this year, landing in the 351-400 bracket.

The University ranked in the Social Sciences and Management (377=) and Arts and Humanities (323=) broad subject rankings, making it one of two Philippine private universities to make the cut. This is the first time that the DLSU Arts and Humanities programs of the College of Liberal Arts have entered the world university rankings.

The QS World University Rankings by Subject ranks the universities across the globe in individual subject areas, covering 51 disciplines.

In the same rankings, DLSU is the top Philippine private university in Economics and Econometrics (500-520 bracket), and was able to improve its ranking in English and Literature, placing in the 151-200 bracket. This year, DLSU also debuted the Modern Languages subject ranking, placing in the 301-330 bracket.

For more information, visit the official website of



## Doy del Mundo releases new book

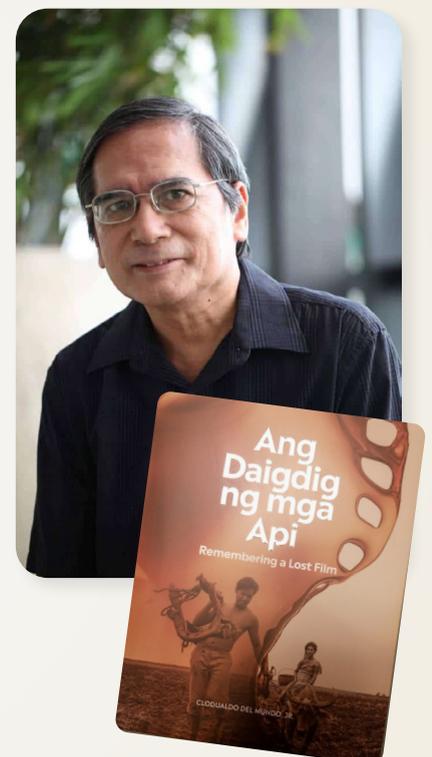
**DLSU PROFESSOR EMERITUS AND UNIVERSITY FELLOW DR. CLODUALDO "DOY" DEL MUNDO, JR. LAUNCHED HIS NEW BOOK, *ANG DAIGDIG NG MGA API: REMEMBERING A LOST FILM*,** co-published by the Film Development Council of the Philippines (FDCP) and the DLSU Publishing House Inc., last April 6 at the Cinematheque Centre Manila.

The book takes inspiration from the now non-extant film "*Ang Daigdig ng mga Api*," by National Artist Gerry de Leon, and features the film's surviving materials including its original sequence treatment, anecdotes from the cast and crew, and on-set photographs on one of the National Artist's best films.

The film premiered at the first Manila Film Festival in 1966 where it received eight awards, including Best Picture and Best Director. Starring Robert Arevalo and Barbara Perez, the film tells the story of Filipinos living in penury and follows the stories of the suffering of agricultural workers under the hands of their overseer and landlord.

*Ang Daigdig ng mga Api: Remembering a Lost Film* is priced at P800 (softbound) and P1,000 (hardbound). For inquiries about the book and orders, contact De La Salle University Publishing House at 524-4611 loc. 271 or e-mail [dlsupublishinghouse@dlsu.edu.ph](mailto:dlsupublishinghouse@dlsu.edu.ph).

Source:



# Gawad Paz Marquez Benitez 2022 awardee

## DEPARTMENT OF LITERATURE FULL

**PROFESSOR DR. JAZMIN LLANA** was recently selected as this year's Gawad Paz Marquez Benitez awardee.

The Gawad Paz Marquez Benitez award is annually given by the Unyon ng mga Manunulat sa Pilipinas (UMPIL) to esteemed educators in literature who have devoted their life and passion in molding students into becoming the next generation of critical thinkers and creative writers.

Llana teaches drama, theater, and performance studies. She has served as chair of the department and dean of the College of Liberal Arts. One of her volunteer engagements is with the National Commission for Culture and the Arts where she currently serves as General Editor of *Saliksik Kultura: The NCCA Research*

*Journal* and sits in the Executive Council of the National Committee on Dramatic Arts. In 2016, she initiated the establishment of the NCCA Research Program and led the program as chair of the Research Technical Working Group. The program is now in its fifth year, providing grants and awards for research projects on culture and the arts by individuals and groups across the country.

She is also active internationally as Vice President of Performance Studies International ([www.psi-web.org](http://www.psi-web.org)) and as Associate Editor of *Performance Research, the Routledge Journal of the Performing Arts*.

The UMPIL awarding ceremony will take place on April 30 and will be streamed live on Unyon Ng Mga Manunulat Sa Pilipinas Facebook page.



## Accounting for Non-Accountants

### WEBINAR SCHEDULE

- Run 1: June 24 and 25, 2022
- Run 2: July 22 and 23, 2022
- Run 3: August 19 and 20, 2022
- Run 4: September 16 and 17, 2022
- Run 5: October 14 and 15, 2022
- Run 6: November 11 and 12, 2022
- Run 7: December 9 and 10, 2022



**STARTING THIS JUNE, THE DLSU SCHOOL OF LIFELONG LEARNING, IN COOPERATION WITH THE ACCOUNTANCY DEPARTMENT OF THE RAMON V. DEL ROSARIO COLLEGE OF BUSINESS,** will be offering a series of webinars titled "Accounting for Non-Accountants."

The program seeks to assist participants with no accounting background to explain and apply basic concepts, conceptual framework, basic principles, tools, and techniques of the accounting process, as well as interpretation for sound business decisions.

It also aims to help managers without an accounting background understand and appreciate how business transactions are recorded and interpreted for sound business decisions.

**The course fee is P9,000 (regular rate) or P5,000 for early birds (payment should be made one month before the start of each run).**



The more loving you are to the young,  
the greater will be the effects of God's grace.



*De La Salle*

Med 134.2 - on St Barnabas

CONGRATULATIONS TO THE

**256** NEW LASALLIAN  
LAWYERS

**30** EXEMPLARY  
BAR PASSERS

FIRST-TIME TAKERS  
PASSING RATE

**90.18%**

**90.10%** OVERALL  
PASSING RATE

NATIONAL  
PASSING RATE

**72.28%**

*Animo La Salle!*

SOURCE: TAÑADA-DIOKNO COLLEGE OF LAW



2401 (tweñ'te för'ó, wun) is a landmark number along Taft Avenue. It is the location ID of De La Salle University, home to outstanding faculty and students, and birthplace of luminaries in business, public service, education, the arts, and science. And 2401 is the name of the official newsletter of DLSU, featuring developments and stories of interest about the University.

2401 is published bi-weekly by the Office for Strategic Communications (AH-21F, intercom 144). Editorial deadline is 3 p.m. Tuesdays. Contributions should include the name, office and signature of the sender. Materials may be edited for clarity or space.

2401 may be accessed online through the URL: <http://www.dlsu.edu.ph>.

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