

## CURRICULUM VITAE

I. NAME: PAG-ASA D. GASPILLO



II. COLLEGE: College of Engineering  
Chemical Engineering Department

### III. ACADEMIC BACKGROUND:

#### **Doctor of Engineering (Chemical Engineering)**

Graduated : March 1995, Nagoya University  
Nagoya, Japan

Grant: **Ronpaku (Ph. D Dissertation) Program**  
under the cooperation program of the *Japan Society for the Promotion of Science (JSPS)*  
and the Philippine *Department of Science and Technology (DOST)*.

Dissertation: **Mass Transfer in Three-Phase Reactors  
and Application to Wastewater  
Treatment.**

#### **Master of Science in Environmental Engineering**

Graduated: June 1985, University of the Philippines  
Diliman, Quezon City, Philippines

Thesis: **A Fundamental Study of the Shearing  
Stress of Biological Film in a Trickle  
Filter Process.**

#### **Bachelor of Science in Chemical Engineering**

Graduated: April 1978, University of Mindanao  
Davao City, Philippines

#### **1V. LEADERSHIP IN PROFESSIONAL/ACADEMIC ORGANIZATION**

- 1. Vice President, Nagoya University Alumni Association – Philippine Branch**  
FY 2014-2015
- 2. Philippine Representative to the Steering Committee, ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net),** FYs 2012; 2011; 2008; 2007. AUN/SEED-Net Project membership: 19 Member Institutions in the ASEAN Region and 11 Japanese Supporting Universities.
- 3. Project Leader, DLSU-Manila on ASEAN University Network for Southeast Asia Engineering Education Development Network (AUN/SEED-Net) and DLSU Representative to the Steering Committee of AUN/SEED-Net,** AYs 2011-2012; 2010-2011; 2009-2010; 2008-2009; 2007-2008; 2006-2007; 2005-2006.

**Responsible in the recruitment and deployment of DLSU scholars to different member Institutions and Japanese Supporting Universities, and also the screening and acceptance of Foreign students to study at DLSU under AUN/SEED-Net Cooperation.**

- 4. President, Philippine Association for Technological Education, Inc. (PATE),** 1<sup>st</sup> Term (2 Years) 2009 and 2010; 2<sup>nd</sup> Term (Re-elected) 2011 and 2012.

**PATE, Inc. Is the national organization of Engineering Schools in the Philippines established in 1955. Currently, PATE has 135 member institutions from the National Capital Region (NCR), Luzon, Visayas, and Mindanao. The main objective of the association is to promote quality engineering education through seminar, trainings, colloquia, and conferences in order to develop the skills of engineering faculty, staff, and administrators.**

- a. 1st Vice President ,** Philippine Association for Technological Education, Inc. (PATE), AYs 2007-2008; 2006-2007
- 5. Project Leader, DLSU-Manila Engineering Research and Development for Technology (ERDT) and Member of the Steering Committee for ERDT,** AY 2011-2012; 2010-2011; 2009-2010; 2008-2009.  
**Responsible for the recruitment of ERDT scholars to enroll in the Masters and PhD programs.**
- 6. Overall Chair for PAASCU Program Accreditation Preparations:**

- a. 2011-2012, **Level 4 Program Accreditation** for Civil Engineering, Electronics and Communications Engineering, and Industrial Engineering, May 2012
  - b. 2011-2012, **Level 1 Program Accreditation** for Manufacturing Engineering and Management, period of visit February 2012
  - c. 2010-2011, **Level 3 Program Re-accreditation** for Chemical Engineering, Civil Engineering, Electronics and Communications Engineering, Industrial Engineering, and Mechanical Engineering, period of visit October 2010.
  - d. 2010-2011, **Pre-survey Visit** for Manufacturing Engineering and Management and Computer Engineering, period of visit October 2010.
  - e. 2005-2006, **Level 3 Program Re-accreditation** for Chemical Engineering, Civil Engineering, Electronics and Communications Engineering, Industrial Engineering, and Mechanical Engineering, period of visit February 2006.
7. 2007-2008, **Overall Team Leader for ASEAN University Network- Quality Assurance (AUN-QA) for Chemical Engineering (Program Level) DLSU.** AUN-QA Assessors' visit on August 11-13, 2008.
  8. **Overall Project Leader for DLSU ECO- Car** (future generation cars) Build for **ASIA Shell-Eco-Marathon Competition** at Sepang International Circuit, Kuala Lumpur, Malaysia for AY 2010-2011; 2011-2012.

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9. **Project Leader, SIKAT 2 and SIKAT 1 SOLAR Cars Build (for Solar Car Challenge Competition in Australia)**, De La Salle University and the Philippine Solar Car Society, Inc., AYs 2011-2010; 2009-2010; 2008-2009. Represent DLSU in the Monthly Board meeting of the Philippine Solar Car Challenge Society, Inc.
10. **President, Philippine Society of the JSPS RONPAKU Fellows (PRF)**, FYs2007 and 2008.

PRF is an association of Filipino scholars who have studied and completed their PhD degrees in Japan under the Japan Society for the Promotion of Science (JSPS) RONPAKU (Dissertation Ph.D) Program. PRF membership counts 85 members since it was administered by the Department of Science and Technology in 1982. The association aims to contribute to the development of the country, through the advancement and promotion of science and technology by consolidating and harnessing the individual expertise of its members, bridging and strengthening partnerships with Japanese institutions and other RONPAKU Fellows from other countries.

11. **Board of Advisor**, Philippine Society of the JSPS RONPAKU Fellows (PRF), FYs 2011; 2010; 2009
12. **Overall in-charge** in the application for **Centers of Development** for the 6 programs, namely, ECE, CoE, ChE, CE, ME, IE to the **Commission on Higher Education (CHED)** submitted on November 13, 2007.
13. **Past President and Board** of Director, Water Environment Association of the Philippines, Inc. (WEAP), FYs 2011; 2010; 2009; 2008; 2007; 2006; 2005
14. **President, Water Environment Association of the Philippines, Inc. (WEAP), FY 2004**

#### V. **MEMBERSHIP IN PROFESSIONAL/ACADEMIC ORGANIZATION**

1. **Member, Board of Trustee, DLSU Science Foundation, Inc.**, October 2014 to September 2017.
2. **Associate Editor, National Research Council Research Journal** (for Division 7)  
Appointment period: April 1, 2014 to March 31, 2015.
3. **Board of Trustee, JSPS Alumni Association of the Philippines (JAAP)**, April 2013 and onwards.
4. **Member: Commission on Engineering Education - Philippine Accrediting Association of Schools, Colleges and Universities (PAASCU)**, June 2011 - May 2013
  - a. Participated in the **Training Workshop for Accreditors** Sponsored by **PAASCU Commission on Tertiary Education**, St. Paul University, Manila, July 25-26, 2005
  - b. PAASCU Accreditor for Instruction at Saint Louis University, Tuguegarao, August 28-29, 2008.
5. **Member, Technical Committee for Chemical Engineering - Commission on Higher Education (CHED)**, FYs 2010, 2011, 2012-2013, 2013-2014, FY 2014(Jan 2014 to Dec 2014); January 12, 2015 to December 31, 2016.
6. **Member: Technical Working Group on the Implementation of an Outcomes Based Education (OBE), Commission on Higher Education(CHED)**, FY 2011, 2012, 2013
7. **Member, IEEE on Education Division**, Philippine Division, FY 2012.

8. **Member, Editorial Board Member: ASEAN Engineering Journal** (ASEAN E.J.) IN Chemical Engineering Field, ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net), July 2010-2012; 2013-2015.
9. **Regular Member, National Research Council of the Philippines (NRCP)**, Division V11, Engineering and Industrial Research since 2007.
  - a. Committee Chair on Water for NRCP, Div. V11 FY 2012
10. **Member, International Advisory Board**, International Conference on Manufacturing and on Material Processing 2010 (ICENV 2010, University of Sains Malaysia, Penang, Malaysia, FYs 2010
11. **Member, International Advisory Board**, 4<sup>th</sup> and 5<sup>th</sup> International Conference on Environment (ICENV 2010. 2008), School of Chemical Engineering, University of Sains Malaysia, Penang, Malaysia, FYs 2010; 2008
12. **Member, National Metrology Board**, Department of Science and Technology (DOST) -Technical Advisory Group, 2010
13. **Steering Committee Member**, 1st International Conference on Science and Engineering, Yangon Technological University, 2009.
14. **Member**, Technical Working Group on Filippinovation Network, DOST-**PCIERD**, 2009
15. **Member** in the Technical Working Group for Manufacturing and Industry Research, DOST- Presidential Council on Research and Development (**PCCRD**), 2009
16. **Member**, Accreditation Committee, Philippine Accrediting Association For Schools, Colleges and Universities (**PAASCU**) since 2008
17. **Member, Board of Trustees, De La Salle University Science Foundation, Inc.**, AYs 2009-2010; 2008-2009; 2008-2007; 2006-2007
18. **Technical Committee membership** for the National Barriers to Trade (**TBT**), Bureau of Products and Standards, 2007
19. **Member** of the Expert Group for *DOST-SEI Undergraduate Scholarships Examination*, DOST-SEI, 2007
20. Scholars Selection for Professional training Category, Japanese Government Scholarship Program (MONBUSHO), 2007
21. **Member**, Philippine Institute of Chemical Engineers (**PIChE**) since 1979

22. **Member**, IEEE Professional; IEEE in Engineering in Medicine and Biology Society ; **IEEE Women in Engineering** in 2008.
23. **Lifetime Member**, Philippine Association of Japanese Scholarship Society (**PHILAJAMES**) since 1983

**VI. PROFESSIONAL/INDUSTRIAL PRACTICE OR EMPLOYMENT  
OUTSIDE DLSU OTHER THAN TEACHING**

1. Contracted as **Consultant** in the “**Mentoring Program Curriculum Specialist**” for Senior High School Syllabi thru the Lasallian Education Commission (LEC) by the **De La Salle Brothers Inc.**, November 1, 2014 to August 31, 2015.
2. Contracted as **Consultant** for the **Technical Assistance and Training on Implementation and Monitoring of Environmentally Sound Management of PCBs** (DENR Project), INNOGY Solutions, Inc., March 6, 2013 up to end of February 2014.
3. Contracted as **Wastewater Specialist** for the **Development of National Water Quality Criteria Status Report (2006- 2013) (DENR Project)**, INNOGY Solutions, Inc., February 2014 up to Dec 2014.
4. Contracted as **Consultant** for the **Technical Assistance Industry Specific Effluent Standards for Offshore Oil and Gas (DENR Project)**, INNOGY Solutions, Inc., October 2013 to Dec 2014
5. Contracted for **Consultant's Services for TA 7575: Determining the Potential for Carbon Capture and Storage in Southeast Asia as National Consultants, Asian Development Bank (ADB) and Geoscience Foundation Inc., Philippines.**, August 2010 to December 2011
6. **Visiting Professor, Graduate School of Science and Technology, Kumamoto University, Kumamoto Japan**, period covered: July 12- 18, 2015; July 6-12, 2014; May 12-18, 2013; August 5 to 11, 2012; October 3-8, 2010.  
  
**Visiting Professor, Chung Yuan Christian University, Department of Chemical Engineering, Taiwan**, November 18 to 22, 2008. Also, delivered a lecture at the National Chung Hsing University, Taichung, Taiwan.
7. Contracted as **Wastewater Specialist (For the Development of Industry Specific Effluent Standards for Hotels and Restaurants; Quick Service Restaurants)**, Japan International Cooperation Agency (JICA) and the Department of Environment and Natural Resources (DENR) through the consulting firm Innogy Solutions, Inc., June 2009 to January 2010

8. Contracted as **Wastewater Management Specialist (For the Development of Industry Specific Effluent Standards:Alcohol Distillery; Sugar Milling; Paper Milling; Abaca Pulp)**, JICA and DENR through the consulting firm Innogy Solutions, Inc., June 2008 to January 2009
9. Contracted as **Wastewater Management Specialist (For the Revision of the Water Quality Guidelines, DAO No. 34 and General Effluent Standards, DAO No. 35 )**, JICA and DENR through the consulting firm Innogy Solutions, Inc., June 2007 to January 2008
- 10. Reviewer for project/research proposals and articles/manuscripts for Journal Publications**
  - Member, Technical Advisory Committee (TAC), Department of Science and Technology -Philippine Council for Industry and Energy Research and Development
  - I and EC Research Journal, University of Texas, Austin
  - ASEAN Journal of Chemical Engineers
  - Separation Science and Technology Journal
  - Industrial and Chemistry Research Journal (May 2012)
  - Chinese Academy of Science on Biomass Group: reviewed a Book Chapter for Springer Book publication entitled: Pretreatment techniques for biofuels and biorefineries (April 2012)
  - Philippine Engineering Journal, University of the Philippines Publisher (July 2012)
11. **Associate Environment Professional -Accredited Environmental Impact Statement Preparer**, DENR - Environment Management Bureau since 1998 (Certificate No. C2PDG0039. February 3. 1998, Quezon City)

## **V11. EMPLOYMENT PROFILE IN DLSU OUTSIDE OF TEACHING**

1. **Chairman, Engineering Sciences Department**, September 1988 ~ May 1989
2. **Chairman, Engineering Publication Committee**, School Year 1987 ~ 88 and 1988 ~ 89, 2001-2002, 2002-2003, 2001-2002, 2002- 2003, 2003-2004
3. **Director, College Research Committee**, School Years 1990 ~ 1994 and 1995 ~ 1998, 2001-2002, 2002-2003, 2003-2004
4. **Director, Engineering Graduate Studies**, School Years 2001-2002, 2002-2003, 2003-2004, 2004-2005

5. **Director, University Research Coordination Office (URCO)**, School Year 2004-2005
6. **Dean, College of Engineering, Academic Years:** 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010, 2010-2011, and 2011-2012
7. **Vice President for De La Salle University Science and Technology Complex** (Canlubang Campus) beginning Jan. 6, 2014 to August 2015.

## **V11. RESEARCH PUBLICATIONS**

### **JOURNAL PUBLICATIONS**

1. **Kimthet Chhouk<sup>1</sup>, Armando T.Quitain<sup>2\*</sup>, Pag-asa D.Gaspillo<sup>3\*</sup>, Julius B. Maridable<sup>3</sup>, Mitsuru Sasaki<sup>4</sup>, Yusuke Shimoyama<sup>5</sup> and Motonobu Goto<sup>6</sup>**  
 Supercritical Carbon Dioxide-Mediated Hydrothermal Extraction of Bioactive Compounds from *Garcinia mangostana* Pericarp  
**The Journal of Supercritical Fluids**  
 Accepted: November 2015 (Available On-Line)
2. **Sin, Kang, Baraoidan, Wilheliza, and Pag-asa Gaspillo**  
 Microwave-Assisted Extraction of Phenolic Compounds from Moringa Oleifera Lam. Keaves Using Response Surface Methodology as Optimization Tool  
**Philippine Agricultural Scientist, Vol. 97 No. 1, March 2014, ISSN 0031-7454**
3. **M.A.B. Promentilla, J. F. D. Tapia, C. A. Arcilla, N.P. Dugos, P.D. Gaspillo, and S. A. Rocas.**  
 Interdependent Ranking of Sources and Sinks in CCS System Using the Analytic Network Process  
**Environmental Modelling and Software Journal, Elsevier Publishing, 50 (September 2013) pp 21-24.**
4. **Nguyen, H., Gaspillo, P., Maridable, J., Maluan, R., H. Hinode, and C. Salim**  
 Modeling of Moringa Oleifera Oil Solubility in Supercritical Carbon Dioxide  
**Journal of Chemical Engineering and Process Technology, Biochemical Sciences, On-Line Journal**  
 Accepted November 14, 2011.
5. **Nguyen, H., Gaspillo, P., Maridable, J., Maluan, R., H. Hinode, and C. Salim**



- Extraction of Oil from *Moringa Oleifera* Kernels Using Supercritical Carbon Dioxide with Ethanol for Pretreatment: Optimization of the Extraction Process  
**Journal of Chemical Engineering and Processing, August 2011 (Available On-Line); ISI LISTED JOURNAL**
6. **Nguyen, P., Abella, L., Gaspillo, P. and H. Hinode,**  
Removal of Arsenic from Simulated Groundwater Using Calcined Laterite as the Adsorbent  
**Journal of Chemical Engineering of Japan, June 2011**  
**ISI LISTED JOURNAL**
  7. **P. D. Gaspillo, J.B. Maridable, N. N. Hoang, K.H. Aye, R. Malaluan, R.J. S. Lamis, and Ronnie Gicana**  
Supercritical Carbon Dioxide Oil Extract of *Moringa Oleifera* Shows Lectin Activity on Human Erythrocytes  
The Visionary, Vol 3 No. 1, October 2011, ISSN 2244-2618
  8. **P. D. Gaspillo, J.B. Maridable, N. N. Hoang, K.H. Aye, R. Malaluan, R.J. S. Lamis, and Ronnie Gicana**  
Supercritical Carbon Dioxide Oil Extract of *Moringa Oleifera* and *Sesamum Indicum* Decreased the Spontaneous Reverse Mutation of *Salmonella Typhimurium* Histidine Mutants  
The Visionary, Vol 3 No. 1, October 2011, ISSN 2244-2618
  9. **Magnaye, Florante, Gaspillo, P. and J. Auresenia**  
Biological Nitrogen and COD Removal of Nutrient Rich-Wastewater Using Aerobic and Anaerobic Reactors  
**Journal Water Resource and Protection (Scientific Research), 1, p. 376-380, published on-line November 2009. ABSTRACTED AND REFEREED JOURNAL**
  10. **Son Van Dang, J. Kawasaki, L. Abella, J. Auresenia, H. Habaki, P. Gaspillo and H. Kosuge**  
Removal of Arsenic from Simulated Groundwater by Adsorption Using Iron-Modified Rice Husk Carbon.  
**Journal of Water and Environment Technology, Volume 7, No. 2, pp. 43-46, July 2009, ISSN 1348-2165. ABSTRACTED AND REFEREED JOURNAL**
  11. **Son Van Dang, J. Kawasaki, L. Abella, J. Auresenia, H. Habaki, P. Gaspillo and Q. Vu**  
An Investigation on the Removal of Arsenic From Simulated Groundwater by Adsorption Using Iron and Iron Oxide [111]  
**Journal of Environmental Science for Sustainable Society, Vol. 3, pp 19-28, March 2009, ISSN 1881-5073. ABSTRACTED AND REFEREED JOURNAL**

- 12. Muttana Santasnachok, Leonila C. Abella, Pag-asa D. Gaspillo and Hirofumi Hinode**  
The Effects Of Process Parameters In The Removal Of Arsenic Using Treated Laterite As Adsorbent  
**Journal of Science and Technology, Volume 47, Number 5A, 2009.**  
**ABSTRACTED AND INDEXED in Vietnamese Academy of Science and Technology (VAST) Journal System. ISSN: 0866-708X**
- 13. Son Van Dang, J. Kawasaki, L. Abella, J. Auresenia, H. Habaki, P. Gaspillo and H. Kosuge**  
Removal of Arsenic from Synthetic Groundwater by Adsorption Using the Combination of Laterite and Iron-Modified Carbon.  
**Journal of Water and Environment Technology, Vol. 6, No.1, pp. 65-76, July 2008. ABSTRACTED AND REFEREED JOURNAL**
- 14. Ragasa, C., Ha, P, Hasika, M., Maridable, J., Gaspillo, P., and J. Rideout**  
Antimicrobial and Cytotoxic Terpenoids From *Cymbopogon Citriatus* Stapf..  
**The Philippine Scientist. Published by San Carlos University, Cebu City, Vol. 45, pp. 111-122, 2008, ISSN 0079-1466. ISI LISTED JOURNAL**
- 15. Magnaye, F., GAspillo, P., Auresenia, J., Kampscheur, M., Kleerebezen, R., and M. Van Loosedrecht**  
Nitrous and Nitric Oxides and the Effect of Oxygen Level and Nitrite Concentration on its Emission from Nitrification and Denitrification Reactors  
**IEEE Publication on The 2<sup>nd</sup> International Conference on Bioinformatics and Biomedical Engineering, March 7, 2008. REFEREED**
- 16. Phuong Ha, H., Maridable, J., Gaspillo, P., Malaluan, R., Kawasaki, J., and M. Hasika**  
Essential Oil from Lemongrass Extracted by Supercritical Carbon Dioxide and Steam Distillation  
**Journal of the Philippines Agricultural Scientist, Vol. 91, No. 1, pp. 36-41, 2008. ISI LISTED JOURNAL**
- 17. Lin lin Tun, Wilheliza.A. Baraoidan and Pag-asa D. Gaspillo**  
Comparative Analysis of Three Coagulants in the Treatment of A Textile Bleaching and Dyeing Industrial Wastewater  
**Philippine Institute of Chemical Engineering (PICHE) Journal, Volume 11, No. 8, October 2008.**

- 18. Phuong Ha, H., MAridable, J., Gaspillo, P., MAIaluan, R., Kawasaki, J., and M. Hasika**  
Modeling and Optimization of Supercritical Extraction of Essential Oil from Lemongrass Using Response Surface Methodology  
**Journal of Research in Science, Computing and Engineering, Vol. 4, No. 3, 2007. REFEREED JOURNAL**
- 19. Baraoidan, W., and P. Gaspillo, P.**  
Dechlorination of Trichloroethylene (TCE) by Zero-Valent Iron  
**Journal of Research in Science, Computing and Engineering, Vol. 4, No. 1, 2007. REFEREED JOURNAL**
- 20. Aiouache, F., Kitagawa, K., Goto, S., Abella, L. and P. Gaspillo**  
Ethyl Tertiary Butyl Ether Synthesis in a Reactive Distillation Column Inserted by Zeolite Membrane Tube  
**Journal of Research in Science, Computing and Engineering, Volume 2, No.2 May 2005. REFEREED JOURNAL**
- 21. Goto, S., Hori, K., Abella, L., and P. Gaspillo**  
Periodic Operation of Reactive Distillation for Dehydrogenation of 2-Propanol  
**ASEAN Journal of Chemical Engineering, Vol. 4, No. 1, June 2004 REFEREED JOURNAL**
- 22. Gaspillo, Pag-asa D. (as thesis adviser, B.S. Ch.E. Program), Abellano, Jacqueline; Lui, Grace Eileen; and Evan Lawrence Soteco**  
Kitchen Wastewater Treatment Using Air Flotation for Without and With the Addition of Enzyme.  
**Awarded the Gold Medal Thesis Award by the Chemical Engineering Department. DLSU Engineering Journal. Volume XIV, No.2, March 2001. REFEREED JOURNAL**
- 23. Cruz, G.P., Gaspillo, P.D. (as thesis adviser, Ph.D. Program) and K. Takahashi**  
Selective Transport of Li-Na and Li-K Binary Systems Across a Cation Exchange Membrane Under an Electric Field.  
**Separation and Purification Technology Journal. Volume 19 (2000) 21-26, Elsevier. ISI LISTED JOURNAL**
- 24. Baraoidan, W., Gaspillo (as thesis adviser, Ph.D. Program), P.D., Shim, H. and S. Tian Yang**

**Degradation of Tri-chloroethylene by Zero-Valent Iron**

**INHENYERIYA (An International Journal of Engineering). Volume, 1, No. 1, March 2000, 1-10. REFEREED JOURNAL**

**25. Tan, Raymond and Pag-asa D. Gaspillo (as thesis adviser, Masteral Program)**

Flotation of Zinc From Aqueous Solution.

**DLSU Engineering Journal. Volume X111, No.1, September 1999, 30-35.**

**REFEREED JOURNAL**

**26. Abella, L.C., Gaspillo, P.D (as thesis adviser, Ph.D. Program), and S. Goto**

Dehydration of Tertiary Butyl Alcohol in Reactive Distillation

**Journal of Chemical Engineering of Japan, Vol. 32, No. 6, pp. 742-746 (1999)**

**ISI LISTED JOURNAL**

**27. Abella, L.C., Gaspillo, P.D(as thesis adviser, Ph.D. Program), and S. Goto**

Kinetic Study on Dehydration of Tertiary Butyl Alcohol Catalyzed by Ion-Exchange Resin

**International Journal of Chemical Kinetics (1999).**

**ABSTRACTED AND REFEREED JOURNAL**

**28. Gaspillo, P., Abella L. and S. Goto**

Dehydrogenation of 2-Propanol in Reactive Distillation Column for Chemical Heat Pump.

**Chemical Engineering Journal of Japan, 24 (5) 600 (1997).**

**ISI LISTED JOURNAL**

**29. Gaspillo, P. and S. Goto**

The Effect of Static Mixer on Mass Transfer in Draft-tube Bubble Column and in External-Loop Column.

**Chemical Engineering Science Journal, 47(13\14), 3533 (1992).**

**ABSTRACTED AND REFEREED JOURNAL**

**30. Gaspillo, P. and S. Goto**

Multiple Hydrodynamic State in Gas-Liquid Upflow and Downflow Through Beds of Small Packing

**Industry and Engineering Chemistry Research Journal, 31, 629 (1992).**

**ABSTRACTED AND REFEREED JOURNAL**

**31. Gaspillo, P. and S. Goto**

Mass Transfer in Bubble Slurry Column with Static Mixer in Draft-tube.

**Chemical Engineering Journal of Japan, 24 (5) 600 (1991).**

**ISI LISTED JOURNAL**

32. **Goto S., Saikawa K. and P. Gaspillo**  
 Mass Transfer and Holdup in Gas-Liquid Cocurrent Flow Packed Beds  
 Containing Water-Repellent Particles.  
**Canadian Journal of Chemical Engineering**, 69, 1344 (1991).  
 ABSTRACTED AND REFEREED JOURNAL
  
33. **Gaspillo, P. and Goto S.**  
 Domestic Wastewater Treatment Using Bubble-Slurry Bioreactor : A Preliminary  
 Study.  
**DLSU Engineering Journal**, 6 (1) 17 (1989). REFEREED JOURNAL
  
34. **Gaspillo, P. and Goto S.**  
 Holdup in Packed Bed Cocurrent Upflow.  
**DLSU Engineering Journal**, 6 (2) 17 (1989). REFEREED JOURNAL
  
35. **Gaspillo, P. and Uy M.**  
 Evaluation of Heat and Mass Transfer Coefficients of a Cross Flow Cooling  
 Tower Using Bamboo as Distributing Decks.  
**DLSU Engineering Journal**, 6 (1) 17 (1989). REFEREED JOURNAL
  
36. **Goto S., Matsumoto Y. and Gaspillo, P.**  
 Mass Transfer and Reaction in Bubble Slurry Column Reactor with Draft-tube.  
**Chemical Engineering Communication Journal**, 85, 81(1989).  
 ABSTRACTED AND REFEREED JOURNAL

#### **V111. PUBLICATIONS IN CONFERENCE PROCEEDINGS and Others**

1. **Umlas, Neil Gabriel, Baraoidan, Mary Joy, Leonco, Gabriel, Mission, Elaine, and Pag-asa Gaspillo**  
 Electrocoagulation of Simulated Quick Service Restaurant Wastewater Using  
 Aluminum-Iron Electrode Pair  
**DLSU Research Congress 2014, De La Salle University, Manila, Philippines, March 6-8, 2014.**
  
2. **Gaspillo, P. and Elaine Mission**  
 Development of Compact Electrocoagulation Reactor in De La Salle University  
**20<sup>th</sup> Regional Symposium on Chemical Engineering (RSCE 2013), Nov. 12-13, 2013, Aloha Kew White Beach Resort, Bohol, Philippines**  
**ISBN 971-555-497-0**
  
3. **Uyen, Tu, Lieu, Gaspillo, Pag-asa, Cruz, Gladys, and Hirofumi Hinode**  
 Optimization of Process Parameters and Energy Consumption in the  
 Electrocoagulation Treatment of Tannery Wastewater By Using Response Surface  
 Methodology

**The 6<sup>th</sup> ASEAN Environmental Engineering Conference (AEEC), Nov. 21-22, 2013, Pathumwan Princess Hotel, Bangkok, Thailand**

- 4. Chhouk Kimthet, Quitain, Armand, Pag-asa Gaspillo, Maridable, Julius, Shimoyama, Yusuke, Sasaki, Mitsuru, and Monotobu Goto**  
Supercritical CO<sub>2</sub>- Modified Hydrothermal Extraction of Bioactive Compounds from Mangosteen Pericarp.  
**The Society of Chemical Engineering of Japan (SCEJ) 78<sup>th</sup> Annual Meeting, March 17-19, 2013, Osaka, Japan**
- 5. Nguyen, H., Gaspillo, P., Maridable, J., Maluan, R., H. Hinode, Salim, C., and Ha Ky Huynh**  
*Moringa Oleifera* Oil Solubility in Supercritical Carbon Dioxide: Empirical Model  
**Proceeding for 5<sup>th</sup> Regional Conference on Chemical Engineering, “Moving towards the new Chapter in Chemical Engineering amongst ASEAN Region”, February 7-8, 2013, Pattaya, Thailand.**
- 6. Chin, Jake Lawrie, Choa, Christopher Kenneth, Cruz, Gladys Paz, Borja, Josephine and Pag-asa Gaspillo**  
Treatment of Quick Service Restaurant Wastewater through Compact Electro-Coagulation Technology  
**Proceeding 19<sup>th</sup> Regional Symposium on Chemical Engineering (RSCE 2012), November 7-8, 2012, Bali, Indonesia**

**Proceedings on the 2012 Research @ DLSU Congress: S & T Congress, February 15, 2012, Yuchengco Seminar Room, De La Salle University.**
- 7. Belo, L. And P. Gaspillo**  
The Role of Sediment Oxygen Demand in Pasig River’s Low Dissolved Oxygen Profile  
**Centennial Coffee Book on Environment**  
Publish by DLSU Academic Publishing Office, 2011
- 8. Abella, L., Gaspillo, P., and J. Auresenia**  
Low Cost Technology for Arsenic Removal from Groundwater  
Centennial Coffee Book on Environment  
Publish by DLSU Academic Publishing Office, 2011
- 9. Mission, E., Gaspillo, P., Belo, L. and G. Cruz**  
Effect of Electrode Assembly on the Performance of a Compact Electro-coagulation Reactor System Applied to Pharmaceutical Residue Ibuprofen  
Proceedings on the 3<sup>rd</sup> Regional Conference on Chemical Engineering  
January 20-21, 2011. ISSN-2094-3237
- 10. Nguyen, H., P. Gaspillo, J. Maridable, R. Malaluan, H. Hinode, C. Salim and H. Huynh**

- Moringa Oleifera* Oil Solubility in Supercritical Carbon Dioxide with Co-Solvent Ethanol  
Proceedings on the 3rd Regional Conference on Chemical Engineering  
January 20-21, 2011. ISSN-2094-3237
- 11. Nguyen,P., L. Abella, P. Gaspillo, and H. Hinode**  
Calcined Laterite for the Removal of Arsenic from Simulated Groundwater in a Fixed Bed Column  
Proceedings on the 3rd Regional Conference on Chemical Engineering  
January 20-21, 2011. ISSN-2094-3237
- 12. Nguyen, H., P. Gaspillo, J. Maridable, R. Malaluan, H. Hinode, C. Salim and H. Huynh**  
Supercritical Fluid Extraction of *Moringa Oleifera* Seeds Using Spercritical Carbon Dioxide and Modeifier Ethanol: Regression Model  
Proceedings on the 2010 Regional Conference on Chemical Engineering, Bangkok, Thailand, November 2010
- 13. Kang, S., W. Baraoidan, P. Gaspillo and S. Hirose**  
Microwave Assisted Extraction of *Moringa Oleifera Lam.* Leaves Using RSM as Optimization Tool  
Proceedings on the 2010 Regional Conference on Chemical Engineering, Bangkok, Thailand, November 2010
- 14. Mission, E., Gaspillo, P., Belo, L. and G. Cruz**  
Treatment of Ibuprofen in Simulated Wastewater Through Compact Electro-coagulation Process  
Proceedings on the 5th ERDT Regional Conference: Philippine Competitiveness through ERDT, September 10, 2010. ISSN-2094-2516
- 15. Khin Hnin Aye, J. Maridable, P. Gaspillo, R. Malaluan, R., H. Kosuge, H. Hinode and Phuong Ha**  
Studies on Physico-Chemical Properties and Yield Percent of Sesame Oil Extracted from Various Varieties of Sesame Seeds by Supercritical Carbon Dioxide  
Proceedings of the 16th ASEAN Regional Conference in Chemical Engineering, Manila, Dec. 1-2, 2009. ISSN-2094-3237
- 16. Lawrence. Belo and Pag-asa Gaspillo**  
A Preliminary Study on the Effects of Salinity on Measured Sediment Oxygen Demand in Pasig River in the Philippines  
Proceedings on DLSU S & T Congress and DLSU-Osaka University International Research Workshop, Sept. 22-23, 2009. ISBN 971-555-512 -8
- 17. K. Hong, N. Caronongan, W. Baraoidan and P. Gaspillo**  
Manganese Reduction of the San Pablo Domestic Water by Chemical Treatment  
Proceedings on DLSU S & T Congress and DLSU-Osaka University International Research Workshop, Sept. 22-23, 2009. ISBN 971-555-512 -8

- 18. A.J. Francisco, J. Gotuanco, J.A. Sombilla and P. Gaspillo**  
Treatability Study of Ibuprofen as Pharmaceutical Waste in a Simulated/Synthetic Wastewater Using SBR Sludge  
Proceedings on DLSU S & T Congress and DLSU-Osaka University International Research Workshop, Sept. 22-23, 2009. ISBN 971-555-512 -8
- 19. Santasnachok, M., Sihombing, A.G., Abella, L., and P. Gaspillo**  
Treated Laterite as an Adsorbent in the Removal of Arsenic from Simulated Groundwater  
70th Philippine Institute of Chemical Engineering National Convention, Davao City, February 25-27, 2009
- 20. Khin Hnin Aye, J. Maridable, P. Gaspillo, R. Malaluan, R., H. Kosuge, H. Hinode and Phuong Ha**  
Preliminary Study on the Physico-Chemical Property of Sesame Oil Extracted from Myanmar Black Sesame Seeds Using Supercritical Carbon Dioxide  
70th Philippine Institute of Chemical Engineering National Convention, Davao City, February 25-27, 2009
- 21. Mith, H., P. Gaspillo and J. Maridable**  
**Properties of Patchouli Essential Oil Extracted by Using Supercritical Carbon Dioxide**  
1<sup>st</sup> Regional Conference on Chemical Engineering, AUN/SEED-Net JICA, Century Park Sheraton Hotel, January 22-23, 2009. ISSN-2094-3237
- 22. Huynh KY Phuong Ha, J. Maridable, P. Gaspillo, H. Mith, R. Malaluan and J. Kawasaki**  
**Modeling and Optimization of Supercritical Carbon Dioxide Extraction on Essential Oil From Lemongrass Using Response Surface Methodology**  
1<sup>st</sup> Regional Conference on Chemical Engineering, AUN/SEED-net JICA, Century Park Sheraton Hotel, January 22-23, 2009. ISSN-2094-3237
- 23. Belo, L., P. Gaspillo, J. Kawasaki and M. Zusuki.**  
**A Numerical Model to Estimate the Sediment Oxygen Demand in the Pasig River.**  
1<sup>st</sup> Regional Conference on Chemical Engineering, AUN/SEED-net JICA, Century Park Sheraton Hotel, January 22-23, 2009. ISSN-2094-3237
- 24. Mision,E., P. Gaspillo and J. Lim**  
**Occurrence and Fate of Pharmaceuticals and Personal care Products in Wastewater Environment**  
11<sup>th</sup> DLSU-Osaka University International Research Seminar Workshop, DLSU, Manila, Sept. 4, 2008. ISBN 971-555-512 -8



- 25. L. Acacio, M. Medina, A. Sevillano and P. Gaspillo**  
Baseline Sediment Oxygen Demand Measurement at Selected Sampling Stations in Pasig River Using A Bench Scale Benthic Respirometer  
11<sup>th</sup> DLSU-Osaka University International Research Seminar Workshop, DLSU, Manila, Sept. 4, 2008. ISBN 971-555-512 -8
- 26. Magnaye, F., Gaspillo, P., Auresenia, J., Kampsheur, M., M. Van Loosedrecht**  
Nitrous and Nitric Oxide and the Effect of Exygen Level and Nitrite Concentration on its Emission from Nitrification and Nitrification-Denitrification Reactors  
IEEE Publications on the 2nd International Conference on Bioinformatics and Biomedical Engineering, China, March 7, 2008
- 27. Son Van Dong, L. Abella, J. Auresenia, P. Gaspillo, H. Habaki, K. Kosuge and J. Kawasaki**  
Column Study on Arsenic Removal by Adsorption Using Laterite and Iron-Modified Activated Carbon  
1st Thammasat University Intternational Conference on Chemicals, Environmental and Energy Engineering (TU ChEEE 2008), Bangkok, Thailand, March 2008
- 28. Son Van Dong, L. Abella, J. Auresenia, P. Gaspillo, H. Habaki, K. Kosuge and J. Kawasaki**  
Equilibrium and Kinetic Study on Arsenic Removal by Adsorption Using Laterite and Iron-Modified Activated Carbon  
1st Thammasat University Intternational Conference on Chemicals, Environmental and Energy Engineering (TU ChEEE 2008), Bangkok, Thailand, March 2008
- 29. Linlin Tun, W. Baraoidan, P. Gaspillo and M. Suzuki**  
Kinetic Study on the Chemical Oxygen Demand (COD) at the Optimum Conditions in the Treatment of Textile Bleaching and Dyeing Industrial Wastewater Using Coagulationa and Flocculation  
Proceedings of the Regional Conference in Chemical Engineering, Indonesia, December 2007
- 30. Linlin Tun, W. Baraoidan, P. Gaspillo and M. Suzuki**  
Treatment of Textile Bleaching and Dyeing Industrial Wastewater Using Coagulation and Flocculation  
Proceedings of the 10th DLSU-Osaka University Joint Internation Academic Research Workshop, Manila, August 2007

- 31. Gaspillo, P., Belo, L., Acacio, L., Medina, M.D., and A.J. Sevillano.**  
**Baseline Sediment Oxygen Demand Measurement at Selected Sampling Stations in the Pasig River Using a Bench Scale Benthic Respirometer Chamber.**  
 11<sup>th</sup> DLSU-Osaka U. Academic Research and Workshop, DLSU-Manila, August 9, 2007. ISBN 971-555-512 -8
- 32. Gaspillo, P., Belo, L., Acacio, L., Medina, M.D., and A.J. Sevillano.**  
**Baseline Sediment Oxygen Demand Measurement at Selected Sampling Stations in the Pasig River Using Bench Scale Benthic Respirometer Chamber(A Preliminary Study).**  
 9<sup>th</sup> DLSU-Osaka U. Academic Research and Workshop, DLSU-Manila, August 9, 2007. ISBN 971-555-512 -8
- 33. Gaspillo, P., Belo, L., Acacio, L., Medina, M.D., and A.J. Sevillano.**  
**Baseline Sediment Oxygen Demand Measurement at Selected Sampling Stations in the Pasig River Using a Bench Scale Benthic Respirometer Chamber.**  
 11<sup>th</sup> DLSU-Osaka U. Academic Research and Workshop, DLSU-Manila, August 9, 2007. ISBN 971-555-512 -8
- 34. Gaspillo, P., J. Auresenia and F. Magnaye.**  
**Preliminary Study on Modelling and Optimization of Biological Nitrogen Removal of a Nutrient Rich-Industrial Wastewater Using Modified Ludzack-Ettinger (MLE) Systems.**  
 S & T Congress, Yuchengco Bldg., DLSU, Manila, March 8, 2006.
- 35. Gaspillo, P., J. Maridable, R. Malaluan, M. Marve, J. Kawasaki, H. Mith, and Phuong Ha.**  
**Preliminary Study on Physico-Chemical and Anti-Microbial Characterization of Essential Oils Extracted from Lemongrass and Patchuoli Using Supercritical Carbon Dioxide**  
 S & T Congress, Yuchengco Bldg., DLSU, Manila, March 8, 2006
- 36. Hasika, M., P. Gaspillo, J. Maridable, R. Malaluan, J. Kawasaki and Ky Phuong Ha**  
 Physico-Chemical properties and Anti-Microbial Characterization of Patchuoli (*Pogostemon Cablin*) Using Supercritical Carbon Dioxide  
 Proceedings in the Regional Symposium in Chemical Engineering, Singapore, December 3~5, 2006
- 37. Chua, R., Go, J., Sebastian, J. and P. Gaspillo**  
 Alkyd resin Wastewater treatment Using Coagulation and Flocculation

Proceedings in the Regional Symposium in Chemical Engineering, Singapore, December 3~5, 2006

**38. Gaspillo, P. and Magnaye, R.**

**Preliminary Study on Biological Nitrogen Removal of a Nutrient Rich Wastewater Using Modified Ludzack-Ettinger (MLE) System**

The 7<sup>th</sup> Science and Technology Congress 2005: Towards National recovery through Science, Computing, Engineering and Education, March 2, 2005

Yuchengco Building, DLSU-Manila

**39. Gaspillo, P., Cada, C., Du, R.V., and M. Huang**

**Domestic Wastewater Characterization at de La Salle University-Manila Yuchengco Building SBR Wastewater Treatment System**

The 7<sup>th</sup> Science and Technology Congress 2005: Towards National recovery through Science, Computing, Engineering and Education, March 2, 2005

Yuchengco Building, DLSU-Manila

**40. Gaspillo P. and R. Soria**

**Cyanide Waste Water Treatment From Electroplating Operations By Alkaline Chlorination Process**

**Proceedings in the Regional Symposium on Chemical Engineering 2004:**  
December 1-3, 2004, Grand Hotel, Bangkok, Thailand

**41. Gaspillo, P. and F. Magnaye.**

Treatability Study of Waste Water From Resin Manufacturing Company

**Proceedings in the Regional Symposium on Chemical Engineering 2003:**

**"Chemical Engineering in Promoting Sustainable Technology", December 1-3, 2003, Dusit Hotel Nikko Manila, Ayala Canter, Makati City, Philippines.**

**42. Aiouache, F., Kitagawa, K., Goto, S., Abella, L. and P. Gaspillo**

Ethy Tertiary Butyl Ether Synthesis in a Reactive Distillation Column Inserted by Zeolite Membrane Tube.

Proceedings in the Regional Symposium on Chemical Engineering 2003:

"Chemical Engineering in Promoting Sustainable Technology", December 1-3, 2003, Dusit Hotel Nikko Manila, Ayala Canter, Makati City, Philippines.

**43. Goto, S., Hori, K., Abella, L. and P. Gaspillo.**

Periodic Operation of Reactive Distillation for Dehydrogenation of 2- Propanol.

**2002 Chemical Engineering Congress, "Chemical Engineering in the 21<sup>st</sup> Century," Proceedings, Chemical Engineering Department, College of Engineering, De La Salle University-Manila, December 6-7, 2002.**

**44. Belo, L., Uy, H., Chan, J.R. and P. Gaspillo.**

A Comparative Study on the Color Removal Performance of Utilizing Different Sources of Activated Carbon on Garment Processing Industry Wastewater.

2002 Chemical Engineering Congress, "Chemical Engineering in the 21<sup>st</sup> Century," Proceedings, Chemical Engineering Department, College of Engineering, De La Salle University-Manila, December 6-7, 2002.

**45. Yamada, H., S. Goto and P. Gaspillo.**

The Effect of Solvents on Selective-Hydrogenation of Unsaturated Aldehyde in Gas-Liquid-Solid Three Phase Reactor

**Technical Paper Presentation on the 5<sup>th</sup> International Conference on Gas-Liquid-Solid Reactor Engineering in Melbourne, Australia, September 24-26, 2001.**

**46. Gaspillo, Pag-asa D., K. Agustin, A. Aquino, and N. R. Cruz.**

Solidification of Hazardous Sludge From Wastewater Treatment of Garment Processing Industry.

**Chemical and Process Engineering Conference (CPEC) 2000 in conjunction with Regional Symposium on Chemical Engineering (RSCE) 2000, NUS Guild House, Singapore, 11-13 December 2000.**

**47. Gaspillo, Pag-asa and R. Soria.**

Cyanide Wastewater Treatment in Electroplating Operations by Alkaline Chlorination Process.

Third (3<sup>rd</sup>) Southeast Asian Regional Conference on Higher Engineering Education Network. October 27-28, 1999, Manila Peninsula Hotel, Makati City.

**48. de Ocampo, Mylene, and P. Gaspillo.**

A Study on the Effects of pH Buffering on a Denim Finishing Plant Using FBR System.

**Regional Symposium on Chemical Engineering: The Asian Chemical Engineers in the Face of Global Competition.** (Innotech Building, Manila, Philippines, October 14~16, 1998), pp.350~356.

**49. Gaspillo, P.; Abella, L. and S. Goto.**

**Dehydrogenation of 2-Propanol in Reactive Distillation Column for Chemical Heat Pump.**

Regional Symposium in Chemical Engineering 1997: Optimum Utilisation of Natural Resources in Asia Pacific Region ( **Hyatt Regency, Johor, Malaysia October 13-15, 1997**), pp.581~587.

**50. Gaspillo, P.; Trajano, A. and S. Goto.**

Gas-Liquid Mass Transfer in Bubble Column Reactor with Draft Tube.

The 1996 Regional Symposium on Chemical Engineering: Fundamentals and Applications in Chemical Engineering and Gas and Petrochemical Technology (Jakarta, Indonesia, October 7~9, 1996), pp. 1-3-1~1-3-7.

**51. Gaspillo, P. and Goto, S.**

Hysteretic Behavior of Pressure Drop and Liquid Holdup for Packed Bed with Gas- Liquid Cocurrent Upflow and Downflow.

**The 1995 Regional Symposium on Chemical Engineering: Research and Development in Chemical Engineering and Industrialization of ASEAN** (Chulalongkorn University, Bangkok, Thailand, October 9~11, 1995) pp. 5-13.

**52. Gaspillo, P. and Goto, S.**

Wastewater Treatment in a Draft-tube Bubble Slurry Column Bioreactor.

The 1994 Regional Symposium on Chemical Engineering: Basic Aspects and Application in Energy and Environmental Technology (Manila, Philippines, October 1994) ET3-1

**53. Gaspillo, P. and Goto, S.**

The Effect of Static Mixer on Mass Transfer in Draft-tube Column and in External- Loop Column.

First International Conference on Gas-Liquid-Solid Reactor Engineering (Columbus, OHIO, U.S.A., September 1992) 3533~ 3539.

**54. Goto S., Saikawa K. and Gaspillo, P.**

Mass Transfer and Holdup in Gas-Liquid Cocurrent Flow Reactors Packed with Water-Repellent Catalysts, **Second ASEAN Conference on Fluidized Bed and Three-Phase Reactors** (Taiwan, February 1990) 520.

**1X. LECTURES/TALKS DELIVERED**

1. Delivered a talk on **“Leadership and Management”** to Administrators of the DLSU STC Integrated School, June 2014.
2. Delivered **KEYNOTE Speech on Region 10, Track on “Women in Engineering”**, (**“Make Dreams Happen” –title of talk**) **Institute of Electrical and Electronics Engineers Technology Conference (IEEE TENCON\_ 2012**, Raddison Blu Hotel, Cebu City, November 21, 2012.
3. Delivered a talk at **THE CENTENNIAL PLENARY LECTURES** entitled **“Research @ DLSU-Gokongwei College of Engineering: From the Modest to the Modern”**, February 15, 2012, Teresa Yuchengco Auditorium.
4. Delivered a talk in the **Series of Forum on Environmental Research** entitled **“De La Salle University Sewerage and Sanitation System Status”**, February 13, 2012 at the Ariston Estrada Seminar Room. Organized by the University Research and Coordination Office (URCO)
5. Terminal report presentation of the **DOST-GIA funded Project** on the **“Development of Compact and Efficient Electro-coagulation Treatment System for Pharmaceutical Waste Products and other Pharmaceutical and Personal Care Product (PPCP) Residues in Wastewater”**, DOST Compound, PCIEERD, December 13, 2011.
6. Delivered a talk about the **“Milestones of the College of Engineering”**, at the launching of the Gokongwei College of Engineering, December 5, 2011, Velasco Building.
7. Gave an orientation talk on **“PAASCU Accreditation Process”** to the administrators and faculty members of De La Salle Canlubang, February 2010.
8. Resource Speaker during the National Research Council of the Philippines (NRCP) Division of Engineering & Industrial Research meeting on the topic, **“Engineering Research Discipleship of the Philippine Association of Technological Education”** (PATE), June 3, 2009, Ariston Estrada Seminar Room, De La Salle University.
9. Invited to deliver a lecture as part of the **FORUM ON 100 YEARS OF LASALLIAN EDUCATION IN THE PHILIPPINES LECTURE SERIES** on **“DLSU and Science and Technology Initiatives for Sustainable Development”** on July 29, 2011 at the Santuario de La Salle Hall 3, University of St. La Salle, Bacolod City.

10. Delivered a talk on **“RONPAKU (PhD) Dissertation Program”**, on September 24, 2007 during the 1<sup>st</sup> Tokyo Tech Forum at the Thomas Aquinas Research Complex, University of Sto. Tomas, Manila.
11. Delivered two presentations on **“Five Point Criteria:The DLSU-Manila Experience”** and **“Expectations and Challenges of Phase 11”** during the AUN/SEED-Net Field-wise Seminar in Chemical Engineering on July 30, 2007, Century Park Hotel, Manila.
12. Presented a paper on **“Faculty Development Program for Engineers”**, PSME Semi-Annual General Assembly and M.E. Congress, June 22, 2007, PSME Building, Quezon City.
13. Delivered a talk on **“The College of Engineering Faculty Research,”** in the 8<sup>th</sup> DLSU-Osaka University Research Workshop on August 8-9, 2006 at the Yuchengco Center, DLSU-Manila.
14. Delivered a talk on **“Removal of Arsenic from Groundwater by Adsorption Using Granular Activated Carbon and Laterite,”** AUN/SEED-Net Fieldwise Seminar in Environmental Engineering, August 1-2, 2006, Hotel Intercontinental, Manila.
15. Delivered a talk on **“Chemical Removal of Heavy Metals in Wastewater,”** in the Philippine Society of Sanitary Engineers, Inc. (PSSE) Mid-Year Convention entitled **“Sanitary Engineers on Technology Updates Reducing Adverse Effect to the Environment”** last June 2-4, 2005, Quezon City Sports Club, Quezon City.
16. Delivered a talk on **“Trickling Filter: An Alternative Technology for Domestic Wastewater Treatment,”** sponsored by the Water Environment Association of the Philippines, Inc (WEAP) in cooperation with the League of Cities of the Philippines (LCP) and the Local Initiatives For Affordable Wastewater Treatment (LINAW). The theme was on **“Designing Low-Cost Wastewater Treatment Systems for Local Government Units”**, May 11-13, 2005, Astoria Plaza, Ortigas Center, Pasig City.
17. Delivered a talk on **“Advanced Wastewater Treatment-Nutrient Removal,”** sponsored by the **Water Environment Association of the Philippines, Inc (WEAP)** in cooperation with the **Department of Environment and Natural Resources – Region 111, Environmental Management Bureau**, April 7-8, 2005, 8 Waves Hotel, San Rafael, Bulacan. The theme of the seminar is entitled **“Planning and Design of Water and Wastewater Treatment Plants and Updates on Related Environmental Laws”**.

18. Presented the Judge Guillermo Guevarra 11 Distinguished Professorial Chair Lecture in Chemical Engineering entitled “**De La Salle University: Sewerage and Sanitation System Status,**” on April 4, 2005, Tereso Lara Seminar Room, De La Salle University.
19. Delivered a talk on “**High Rate Bio-Filtration: An Alternative Wastewater Treatment for Domestic Sewage,**” in the seminar entitled **Alternative Technologies for Wastewater Treatment Processes**. The seminar was sponsored by **Water Environment Association of the Philippines, Inc. (WEAP)** in cooperation with **Center for Engineering Research, Training, and Consultancy of De La Salle University-Manila (CERTC-Manila)** held last December 2002 at Ariston Estrada Seminar Room, DLSU-Manila, December 17, 2002 and at the Holiday Inn Hotel, Manila on January 29, 2003.
20. Delivered a talk on “**Cyanide Wastewater Treatment by Alkaline Chlorination Process,**” in the seminar entitled Environmental Pollution Control Technologies. The seminar was sponsored by **Water Environment Association of the Philippines (WEAP)** in cooperation with **United States-Asia Environmental Partnership (US-AEP)** held last August 31, 2001 at the Holiday Inn Hotel, Manila.
21. Presented The Jolly L. Ting Professorial Chair Lecture in Engineering entitled “**Solidification of Hazardous Sludge: An Alternative Method to Sanitary landfill**” on March 23, 2001, Tereso Lara Seminar Room, De La Salle University.
22. Delivered a talk on “**Waste Management Technology for Environmental Protection,**” at the University of Perpetual Help in Las Piñas City on February 13, 2001.
23. Delivered a talk on “**Attached Growth Biological Treatment,**” in the seminar entitled Biological Wastewater Treatment Technology. The seminar was sponsored by **Water Environment Association of the Philippines (WEAP)** in cooperation with **United States-Asia Environmental Partnership (US-AEP)** held last February 1, 2001 at the Manila Galeria Suites, Ortigas, Pasig City.
24. Presented The Jolly L. Ting Professorial Chair Lecture in Engineering entitled “**Detoxification Process for Cyanide Containing Electroplating Wastes by Chemical Oxidation: The Classic and the Practical,**” on March 8, 2000, Ariston Estrada Seminar Room, De La Salle University.
25. Presented a talk on “**Cyanide Wastewater Treatment in Electroplating Operations by Alkaline Chlorination Process,**” on the 3<sup>rd</sup> Southeast Asian



**Regional Conference on Higher Engineering Education Network**, October 27-28, 1999, Manila Peninsula Hotel, Makati City.

26. Delivered a talk on **“Waste Minimization in the Chemical Process Industries,”** in the seminar entitled Waste Minimization and Clean Technologies. The seminar was sponsored by the **Philippine Institute of Chemical Engineers (PICHE)** in cooperation with the Chemical Engineering Department of De La Salle University on October 1, 1999, Cusco Lounge, Manila Midtown Hotel, Pedro Gil St., Manila.
27. Delivered a professorial chair lecture of the Jolly L. Ting Administrative Chair in Engineering entitled **“Biological Fluidized Bed Reactors: A New Generation of Robust Wastewater Treatment Processes”** on December 4, 1998, Ariston Estrada Seminar Room.
28. Delivered a talk on **“Wastewater Treatment Technology”** in the seminar entitled “water: will it be the problem of the next millennium?” sponsored by the **Environmental Outreach Network (EON)** on November 27, 1998, Local Water Utilities Administration Auditorium, Katipunan Road, Quezon City.
29. Presented a talk on **“Chemical Heat Pump: A Breakthrough in Industrial Heat Recovery System”** in the **JSPS Core University Seminar**, SEAMEO, INNOTECH Building, Diliman, Quezon City, October 14, 1998.
30. Delivered a talk on **“ Wastewater Engineering: Wastewater Treatment Processing for Domestic and Industrial Wastewaters”** in the Environmental Seminar Series sponsored by **The Philippine Center for Sustainable Development and Environmental Technologies (PCSDET)** last April 30, 1998, Ariston Estrada Seminar Room, De La Salle University, Taft Avenue, Manila, Philippines.
31. Presented the Jolly L. Ting Professorial Chair Lecture on **“ Chemical Heat Pump: A Breakthrough in Industrial Waste Heat Recovery”** at Tereso Lara Seminar Room last April 1, 1998, De La Salle University, Taft Avenue, Manila, Philippines.
32. Delivered a talk on **“ Research at the College of Engineering”** in the Industry - Academe Linkage Convention: Partners in Research and Development sponsored by the College of Engineering last December 6, 1996, William Shaw Theater, De La Salle University, Taft Avenue, Manila, Philippines.
33. Summary of the Ph. D. Dissertation entitled **“Mass Transfer in Three-Phase Reactors and Application to Wastewater Treatment”**

- a. Presented in the DOST-JSPS Joint Scientific Cooperation Program on Lecture of RONPAKU Graduates last March 14, 1996, DOST Executive Lounge, Bicutan, Taguig, Metro Manila.
- b. Presented in the Graduate Students of Chemical Engineering at Nagoya University as part of their seminar-lecture series.

#### **V111. AWARDS AND DISTINCTIONS RECEIVED**

1. Awarded the **Judge Guillermo Guevara Chair in Engineering**, an Administrative Chair for AYs 2015-2016; 2014-2015.
2. **Finalist, PICIEERD's Search for Outstanding R & D Awards 2015 under the Special Concerns Category**, May 19, 2015, Science Garden Complex, Agham Road, Diliman, Quezon City.
3. Awarded the **OUTSTANDING CHEMICAL ENGINEER (EDUCATION CATEGORY) for 2012** by the **Philippine Institute of Chemical Engineers (PIChE)** on **Feb. 15, 2012 at the 73<sup>rd</sup> Philippine Institute of Chemical Engineers National Conference held at the Tavern Hotel, Surigao City.**
4. **Awarded the Paterno & Natividad Bacani Chair of Engineering, AY 2012-2013.**
5. **Awarded the Bennie B. Cuason Professorial Administrator Chair of Engineering, Academic Years 2009-2010, 2010-2011, and 2011-2012.**
6. **Grand Winner for Outstanding Thesis Award in Earth Science and Space Technology Applications Category – 2009 PCASTRD Outstanding Thesis Award in Advanced Science and Technology (Hotel Intercontinental – Dec 18, 2009)**

*Master's Thesis Title: Measurement of the Sediment Oxygen Demand in Selected Stations of the Pasig River Using a Benchscale Benthic Respirometer*

**Finalist, DOST-PCASTRD (Philippine Council for Advanced Science and Technology, Research and Development) 2009 Search for Outstanding Thesis and Dissertation (2009)**

7. Recipient of the **National Academy of Science and Technology (NAST) 2008 OUTSTANDING SCIENTIFIC PAPER RESEARCH AWARD** on the paper entitled **“Modeling and Optimization of Supercritical Carbon Dioxide Extraction on Essential Oil from Lemongrass Using Response Surface Methodology”**, July 10, 2008, Manila Hotel, Manila.

8. Recipient of the **INSTITUTIONAL AWARD** from the **University of Mindanao, Davao City** in recognition to the surmountable achievements in Engineering and Research given last April 19, 2006.
9. Conferred the “**UNIVERSITY FELLOW**” on August 24, 2005, **De La Salle University-Manila**. This is in recognition of the distinguished teaching, research, and publications in the field of study and meritorious service to the University.
10. Awarded the “**2005 NAST-HUGH GREENWOOD ENVIRONMENTAL SCIENCE AWARD**” by the **NATIONAL ACADEMY OF SCIENCE AND TECHNOLOGY (NAST)** on April 21, 2005 at the Traders Manila Hotel, Manila.
11. Awarded by the **Department of Science and Technology Grants-in-Aid Fund Grant for One Million Pesos (Php1,000,000.00) for Research** on the “**Development of Compact and Effluent Electro-coagulation Treatment System for Pharmaceutical Waste Products and other Pharmaceutical and Personal Care Product (PPCP) Residues in Wastewater**”. Project proposal was approved by DOST in Year 2008. The project was completed and accepted by DOST on December 13, 2011.
12. Recipient of the **U.S. Wastewater and Sanitation Study Tour under the Exchange program for Sustainable Growth** through the United States-Asia Environmental Partnership (US-AEP) and the leadership of the United States Agency for International Development (USAID) held on September 29~October 10, 2004.
13. Awarded the “**STUDENTS SEARCH FOR OUTSTANDING TEACHERS SY 2003-2004**” by the **Council of Student Organization**, the umbrellas organization of De La Salle University-Manila.
14. Recipient of the **Judge Guillermo Guevarra II Professorial Chair in Chemical Engineering**, School Year 2003-2004.
15. Recipient of the **Jolly L. Ting Professorial Chair in Chemical Engineering**, School Years 1999-2000, 2000-2001, 2001-2002, 2002-2003.
16. Recipient of a Short Training on “**Wastewater Treatment Technologies and STP Operators Training**” at the City of Elkhart, **Indianapolis, U.S.A.** held on October 21~26, 2000. The Indiana Water Pollution Control Association in cooperation with the United States-Asia Environmental Partnership and the Water Pollution Association of the Philippines supported and sponsored the training.

17. Recipient of a Short Training Course on **Environment Management and Environmental Impact Assessment** at the **University of Portsmouth, United Kingdom** under the Philippine Academic Link Programme supported by **The British Council** from January 4 to February 12, 1999.
18. Recipient of the **Exchange Scientist Program** under the Cooperation of the Department of Science and Technology (DOST) and the Japan Society for the Promotion of Science, **Nagoya University, Nagoya, Japan** October 28, 1996 ~ December 1, 1996.
19. Recipient of the **RONPAKU (Ph.D. Dissertation Programme)** under the cooperation program of the Japan Society for the Promotion of Science and the Philippine Department of Science and Technology.
20. Recipient of the **Exchange Scientist Program** under the Cooperation Program of the Japan Society for the Promotion of Science and the Department of Science and Technology at **Nagoya University, Nagoya, Japan** February - March 1989 (40 days)
21. Recipient of **MONBUSHO** (Ministry of Education) **Research Training on Environmental Engineering**, Civil and Sanitary Engineering, **Waseda University, Tokyo, Japan**, January 1982 - March 1983.
22. Recipient of the **Jolly L. Ting Professorial Chair in Chemical Engineering** for School Years 1997-98 and 1998-99.
23. Recipient of the **Jolly L. Ting Academic Chair in Chemical Engineering** for School Years 1995-96 and 1996-97.
24. Recipient of the **Don Eduardo Cojuangco, Sr. III Academic Chair in Chemical Engineering** for School Year 1994-95.
25. Recipient of the **Antonio Cojuangco Academic Chair in Industrial Technology** for School Year 1987 - 1988.
26. Recipient of the **Eduardo Cojuangco Academic Chair in Chemical Engineering** for School Year 1988-89.

#### **IX. SEMINARS/TRAINING/MEETING ATTENDED**

1. Attended the Roundtable Discussion on Environmental Chemical Pollutants and Non-Communicable Diseases organized by the National Academy for Science and Technology, February 24, 2015, Hotel Jen, Manila.

2. Attended the lecture of PROF. ADA YONATH, Nobel Laureate for Chemistry at the Teresa Yuchengco Auditorium, DLSU, Manila.
3. Attended the NRCPS Scientific Conference and 82<sup>nd</sup> General Assembly at the Philippine International Convention Center, March 11, 2015.
4. Served as Moderator in Plenary Session 2 during the 75<sup>th</sup> PIChE Convention with the theme “A Glorious Past, A Challenging Future”, Feb. 26-28, 2014, Manila, Hotel
5. Participated in the 5<sup>th</sup> regional Conference on Chemical Engineering with a theme “Advancement and Globalization through University-Industry Collaborations and Enhancing Research Capabilities Among ASEAN Countries”, December 2-3, 2013, Century Park Hotel, Manila
6. Presented a paper in the 6<sup>th</sup> ASEAN Environmental Engineering Conference (AEEC) entitled “Optimization of Process Parameters and Energy Consumption in the EC Treatment of Tannery Wastewater By Using Response Surface Methodology”, Nov. 21-22, 2013, Pathumwan Princess Hotel, Bangkok, Thailand
7. Served as moderator and participated in the CHED Training and Mentoring of OBE Coordinators for Engineering Higher Education Institutions, , October 24-25, 2013, Lohas Hotel, Clark Freeport Zone, Pampanga and Nov. 7-8, 2013, Bay View Park Hotel, Roxas Boulevard, Manila
8. Completed the “Train-the Trainers Workshop on Environmentally Sound Management of Polychlorinated Biphenyls (PCBs), May 7-10, 2013, Subic Holiday Villas, Subic Freeport Zone, Zambales
9. Served as Coach/Mentor for 3 GCOE Faculty Members of Academic Leadership Development Program Batch 1- Module 4, 1<sup>st</sup> Trimester, AY 2013-2014.
10. Completed a Train-the-Trainers Workshop on Environmentally Sound Management of Polychlorinated Biphenyls (PCBs) held on May 7-10, 2013 at the Subic Holiday Villas, Subic Freeport Zone, Zambales, Philippines. Organized by the Department of Environment and Natural Resources and funded by the World Bank.
11. Attended the 74<sup>th</sup> PIChE National Convention with the theme, “Chemical Engineers at the Forefront of Climate Change Adaptation and Disaster Risk Reduction” held on February 20-23, 2013 at the La Piazza Hotel and Convention Center, Tahao Road, Legazpi City.

12. Served as Moderator in one of the Plenary Talks during the DLSU Research Congress 2013 held at the 5<sup>th</sup> Floor of Henry Sy Seminar Hall , March 8, 2013, De La Salle University.
13. Attended the **Technical Panel/Technical Committee Workshop on the Framework and Elements of OBE for Engineering and Review Course Specifications for Engineering and Architecture** organized by CHED – Office of Programs and Standards, May 28-29, 2012, Holiday Inn, Clark Field, Pampanga.
14. Attended the consultation meeting on **Water/Weather Modification Project** called for by **National Research Council of the Philippines** (NRCP) on May 17, 2012, June 5 and June 25, 2012. Served as Project Leader for Group 2 to work on the topics **Pollution, Quality and Conservation/Protection of Water Resources**.
15. Attended the meeting on **Task Force for the AUN/SEED-Net Project Phase 11** on March 19-20, 2012 in Bangkok, Thailand and **18<sup>th</sup> Steering Committee meeting and Year 2011 Annual Meeting** on October 20-21, Phnom Penh, Cambodia.
16. Participated in the **Engineering Accreditation Workshop on Developing and Implementing Sustainable Educational Program Assessment Process** by **Dr. Gloria Rogers**, Associate Executive Director for **Accreditation Board for Engineering and Technology (ABET) for Education and Research**, January 25-26, 2012, Manila Hotel, Manila, Philippines.
17. Participated in the **International Conference on Outcomes-Based Teaching and Learning** (ICOBTL) on February 16, 2012, Technological Institute of the Philippines, Quezon City Campus.
18. Completed the three modules (one-year) **Leadership and Management Development Program (LMDP)**, De La Salle University, January to December 2011.
19. Promoted and Participated in Seminar-workshops on **Outcome Based Education Implementation Workshop for Engineering officials and Program Chairs**, November 20, 2009 (USLS, Bacolod City); February 25-26, 2010 Xavier University, Cagayan de Oro City; March 28, 2011 TUP; April 26, 2011 Baguio Country Club; July 22-23, 2011 University of Mindanao, Davao City; April 20, 2012 at the Central Philippine University, Iloilo City and organized by PATE, Inc.;
20. Attended the NRCP Division V11 Assembly and Meeting, 2nd Floor, Sports Center Building, DLSU-Manila, June 8, 2011.

21. NRCP Division V11 Assembly and Meeting, 2nd Floor, Sports Center Building, DLSU-Manila, June 8, 2011.
22. Attended the PICHe National Convention, L'Fisher Hotel, Bacolod City, February 16-17, 2011; Development Academy of the Philippines, February 17-19, 2010.
23. **AESEAP Workshop-Seminar on Washington Accord Accreditation: International Accreditation of Engineering programs for the Global Engineer**, Pearl Hall, SEAMEO Innotech, Quezon City, May 20-21, 2010.
24. Participated in **Tertiary Education Commission Seminar-Workshop**, DLSP Multi-Purpose Hall, April 6-8, 2010 (Part 1); and February 15-16, 2010 (Part 2)
25. Served as moderator in the **2nd Regional Conference on Biotechnology: Research and Development on Food Biotechnology**, Cambodiana Hotel, Phnom Penh, Cambodia, February 11-12, 2010
26. Served as moderator in the **4th ERDT Regional Conference** and as one of the judges in the Poster competition, Sofitel Hotel, Manila, February 19, 2010.
27. Participated in the **Workshop on Development of Policies and Standards for Engineering Graduate programs**, HEDC Auditorium, 2<sup>nd</sup> Floor, HEDC Building, C.P. Garcia Ave., UP Campus, Diliman, Quezon City on October 14-15, 2010 and Dec. 6, 2010.
28. Participated in **study tour** in University of Arizona, University of California-San Diego, University of California-Berkeley and Stanford University Research Initiatives and Technology transfer Seminar, Arizona and California, U.S. A., October 18-28, 2009
29. Attended in the 16th **AUN/SEED-Net Steering Committee Conference and Annual Year meeting**, Hanoi Horizon Hotel, Hanoi, Vietnam, November 6, 2009.
30. Participated in the **Academic Workshop of SUPREME-HCMUT-JICA Research Project** : Served as Research Consultant for one Research Area, Ho Chi Minh University (HCMUT), Vietnam, September 6-10, 2009
31. Attended the **Regional Symposium in Chemical Engineering** (Manila and Hanoi , Vietnam), Manila Hotel and Hanoi, Vietnam, December 2, 2009 (Manila)
32. Participated in the **1st Regional Conference in Biotechnology** under AUN/SEED-NET PROJECT, Traders Hotel, Manila, July 30-31, 2009

33. Attended the **2009 PATE General Membership Assembly** and 2008 PATE General membership Meeting and Annual Conference, 2009 PATE General Membership Assembly and 2008 PATE General Membership Meeting and Annual Conference, August 28~29, 2009.
34. Attended the **3rd ERDT Conference and 2nd ERDT Conference**, Shangri-la Hotel, Makati/Diamond Hotel, Manila, September 11, 2009 and February 20, 2008.
35. Participated in the Seminar Workshop on the **La Sallian Guiding Principles 1 and 2**, Yuchengco 507 and Ariston Estrada Seminar Room, June 19, 2009 and July 17, 2009.
36. Attended the **Seminar on Nanotechnology: Small things, Enormous Potentials, Great Impact**, organized by DOST, Sulo Hotel, Quezon City, June 17, 2009
37. Attended the **1st Regional Conference in Manufacturing Engineering** under AUN/SEED-NET PROJECT, Century Park Hotel, Manila, Nov. 24~25, 2008.
38. Attended the Congressional Commission on Science, Technology and Engineering (COMSTE) R & D Conference, NISMED, UP-D, Quezon City, December 15, 2008.
39. Participated in the **ERDT Strategic Planning Workshop**, Meralco Development Center, Antipolo City, March 2, 2009.
40. Attended the **1st Regional Conference in Chemical Engineering**, Century Park Hotel, Manila, January 22~23, 2009.
41. Participated in the **Technology and Business Incubation Benchmarking**: Taiwan; Singapore, Thailand and Malaysia, Malaysia, Singapore, Thailand and Taiwan, January 11-16, 2009 and February 11-14, 2009.
42. Participated in the **15th AUN/SEED-net Steering Committee** Conference, JICA Building, Tokyo, Japan, October 21-24, 2009.
43. Participated in the **Orientation Workshop for the Paranaque-Las Pinas Critical Habitat and Ecotourism Program**, Protected Areas and Wildlife Bureau, Quezon City, September 24, 2008.
44. Participated in the **Training Workshop for Accreditors** Sponsored by **PAASCU Commission on Tertiary Education**, St. Paul University, Manila, July 25-26, 2007.
45. Attended the **Research Discipleship Program** (PATE, Inc. ), July 18, 2008 - Cagayan De Oro City (Visayas); March 7, 2008 - Holy Angel University in Angeles City(Luzon); and November 16, 2007 - Phil. Columbian (NCR).



46. Attended the **Field-wise Seminar for Environmental Engineering and Fieldwise Seminar for Chemical Engineering**, Vientiane, Laos (Envi), Nov. 25-28, 2007; and Hard Rock Hotel, Pattaya, Thailand, Nov. 28-30, 2007.
47. Attended the **Philippine RONPAKU Fellows Society Science Forum**, SEAFDEC, Iloilo City, Dec. 21, 2007.
48. Conference and Consultation meeting to **Address on Climate Change** with Department of Energy and ASIAN Development Bank, ADB Auditorium, Pasig City, October 30, 2007.
49. Participated in the **Engineering R & D Technology (ERDT) Round Table Discussion** on October 2, 2007 at Melchor Hall, University of the Philippines.
50. Participated in the **Focus Group Discussion on “Early/Advanced Placement of Philippine Science High School Graduates”**, organized by DOST-Science Education Institute on September 26, 2007 at Sulo Hotel, Quezon City.
51. Participated on the **Workshop on Support Programs for the Gifted/Talented Children under the Human Resource Development Efforts in S & T** of DOST Science Education Institute, on September 20, 2007 at the Traders Hotel, Manila.
52. Attended the **2007 National Convention on Catholic Educational Association of the Philippines (CEAP)** on September 12-14, 2007 at the Waterfront Hotel, Cebu City.
53. Participated in the **13<sup>th</sup> Steering Committee Meeting and Year 2007 Annual Meeting** of the AUN/SEED-Net JICA Program on August 10, 2007, Chulalongkorn University, Bangkok, Thailand.
54. Attended the **9<sup>th</sup> DLSU-Osaka Academic Research Workshop and Symposium** with a theme on **New and Emerging Technologies:the Future Begins**, on August 7-9, 2007, Marilen Gaerlan North Wing Conservatory, DLSU-Manila.
55. Attended the **Field-wise Seminar in Environmental Engineering** with a theme on **“Strengthening the Industry \_Government- Academe Linkage in Environmental Engineering Education and Research”**, on August 1-2, 2007, Richmond Hotel, Ortigas Center, Metro Manila, Philippines.
56. Attended the **Field-wise Seminar in Chemical Engineering Education and Research**: with a theme on **“Towards Stronger Partnership Among AUN/SEED Net Member Institutions”**, 30-31<sup>st</sup> July 2007, Century Park Hotel, Manila, Philippines.

57. Attended the **2<sup>nd</sup> WEAP National Annual Convention** with a theme on “**Global Warming: Responding to protect the Water Environment**”, on July 27-28, 2007 at the Waterfront Insular Hotel, Davao City, Philippines.
58. Participated in the **Training Workshop for Accreditors** on July 25-26, 2007, organized by the Philippine Accredited Association of Schools, Colleges and Universities (PAASCU) on July 25-26, 2007 at St. Paul University Manila.
59. Attended the **Philippine Association for Technological Education (PATE), Inc. 2007 General Membership Meeting** with a theme on “**PATE on Teaching, Innovation and Research Productivity**”, 20~21 July 2007, Philippine Columbian Association, Plaza Dilao, Paco, Manila.
60. Attended the **2007 National Science and Technology Week** with a theme on “**Science and Technology and Innovation Progress**”, on July 16, 2007 at Dusit Hotel Nikko, Makati City, Philippines.
61. Attended the **29<sup>th</sup> National Academy of Science and Technology Annual Scientific Meeting** with a theme on “**A Progressive Philippines Anchored on Science: Building a Science Culture in the Philippines**”, July 11-12, 2007, Manila Hotel, Philippines.
62. Attended the **Philippine Pollution Prevention Roundtable Discussion** on “**Innovative Approaches to Sanitation,**” 25/F RCBC Tower 1, Makati City, June 27, 2007.
63. Attended the **10<sup>th</sup> Fieldwise Seminar on Materials and Minerals Engineering** organized by University of Sans Malaya on June 5-6, 2007 at the Gurney Hotel Resort, Penang, Malaysia.
64. Attended the Seminar Workshop on Intellectual Property for DLSU Administrators with a theme on “**Maximizing Synergy Between Intellectual Property and University Based Research: The Role and Impact of a University’s IP Policies, Guidelines and Practices**”, on May 29, 2007. Ariston Estrada Seminar Room, DLSU-Manila.
65. Attended the presentation on “**Establishing University Incubators and Science Parks**”, on May 15, 2007, Ariston Estrada Seminar Room, DLSU-Manila.
66. Attended the **27<sup>th</sup> Annual PAASE Meeting and Symposium and 2007 International S & T Conference** on Feb. 15-17, 2007, Century Park Hotel, Manila, Philippines.

67. Attended the **National Workshop on Effective Teaching for Engineering Educators** on January 29~30, 2007 at the University of Sto. Tomas.
68. Attended the **2006 Catholic Educational Association of the Philippines: National Convention (CEAP Diamond)**, at the Manila Hotel, September 13-15, 2006.
69. Attended the **AUN- SEED/Net Field-wise Strategy Meeting and the 11<sup>th</sup> Steering Committee** meeting organized and sponsored by JICA/AUN- SEED Net/ Pathumwan Princess Hotel, Bangkok, Thailand, June 29-30, 2006.
70. Attended the **PICHE-MMAC General Assembly/ PICHE-MMAC** at Mapua Institute of Technology, July 14, 2006.
71. Attended and presented a paper in the **8<sup>th</sup> Field-wise Seminar in Environmental Engineering on “Engineering Solutions to Environmental Challenge: A Regional Collaborative Approach**, AUN SEED Net-JICA/ Intercontinental Hotel, Makati, August 1-2, 2006.
72. Attended the **8<sup>th</sup> Field-wise Seminar in Chemical Engineering on “Strategic Directions Towards Strengthening Research Collaboration in Chemical Engineering in the Asean Region”**, August 3-4, 2006, AUN SEED Net-JICA/ Intercontinental Hotel, Makati.
73. Attended and presented a paper in the **7<sup>th</sup> DLSU –Osaka University Research Workshop**, De La Salle University, August 8-9, 2006.
74. Attended the **2006 PATE (Philippine Association for Technological Education) General Membership Meeting** with a theme “Seeding a Culture of Research in the Academe”/ PATE/ Yuchengco Hall, De LaSalle University-Manila, August 10-11, 2006.
75. Participated in the **Roundtable Discussion and Workshop on Water Issues**, Philippine Plaza Hotel, August 14, 2006, sponsored by NAST.
76. Joined in the meeting cum forum on S & T with her Excellency PGMA, Malacanang Palace, August 16, 2006.
77. Attended the National Academy of Science and Technology **28<sup>th</sup> Annual Scientific Meeting “The Century of Biology”**, Manila Hotel, July 12-13, 2006.
78. Attended the **National Science and Technology Week** at the Philippine Trade Training Center, Pasay City, July 17-21, 2006.

79. Attended in the **“Philippine Technical Commission Forum”** Mapua Institute of Technology, Makati Campus Makati City, May 26, 2006.
80. Hosted the turn-over ceremony on the EU-Asia-Link **Project “Development of Core Competencies in the Area of Biomedical and Clinical Engineering in the Phils. And Indonesia”**, Marilen Gaerlan, North Wing Conservatory, May 19, 2006.
81. Attended the **PATE Seminar Forum: Capacity Building on Research among Engineering Educational Institutions** at St. Louis University in Baguio City held July 29, 2005; Grand Mansion Hotel in Cagayan de Oro City held September 30, 2005, and Central Philippines University in Iloilo City last March 3, 2006.
82. Attended the **67<sup>th</sup> PIChE National Convention** at the Phela Convention Center in General Santos City last February 9-11, 2006.
83. Presented a paper **on Wastewater Treatment Processes: A Consolidated Study during** the 6<sup>th</sup> OSAKA U and DLSU-Manila International Science and Engineering Workshop in Osaka University, Osaka, Japan last January 31-February 2, 2006.
84. Attended the seminar on **Transformative Learning Workshop** on December 10, 2005 at De La Salle University-Manila.
85. Attended the PCASTRD lecture invitation on **Supercritical Fluid Extraction and Protein Transport** in University of the Philippines, Diliman, Quezon City held on December 8, 2005.
86. Participated in the **AUN/Fieldwise Seminar in Environmental Engineering** in Hanoi, Vietnam on November 30 to December 1, 2005.
87. Attended the 2005 **PATE National Convention and 50<sup>th</sup> Founding Anniversary** on November 10-11, 2005 at the Thomas Aquinas Research Complex, University of Sto Tomas, Manila.
88. Attended the Inauguration rites of Tokyo Tech Office (Philippines) on September 29, 2005 at the Marilen Gaerlan Conservatory North Wing, DLSU-Manila.
89. Attended the **2005 National Convention on Catholic Educational Association of the Philippines: 64 Trails, Trials, Traditions** in Catholic Education held last September 14-16, 2005 in Davao City.
90. Attended the NAST 27<sup>th</sup> Annual Scientific Meeting on Philippine Agriculture 2020 at the Manila Hotel held July 13-14, 2005.

91. Attended the Advance Aeration and Biological Treatment of Wastewater sponsored by the US Chamber of Commerce in Ayala FGU Building held last July 18, 2005.
92. Attended the Taiwan Task Force on IC Design sponsored by the DTI/BOI at the Mandarin Hotel held on June 25, 2005.
93. Attended the **National Workshop 2005 sponsored by Asian Regional Research Programme on Environmental Technology (ARRPET)** held last February 18, 2005 at the Angelo King International Hotel, Malate, Manila.
94. Attended and served as moderator in the **66<sup>th</sup> National Convention of the Philippine Institute of Chemical Engineers** held on February 10-12, 2005 at the Sarabia Manor Hotel and Convention Center in Iloilo City.
95. Attended and served as moderator in the technical seminar on **“Wastewater Treatment, Laboratory Test Methods and Clean Water Act Updates”** held on November 26-27, 2004 at the Development Academy of the Philippines, Tagaytay City. The Water Environment Association of the Philippines (WEAP) sponsored the seminar.
96. Participated in the **Workshop Forum on the Development of Implementing Rules and Regulations of the Clean Water Act (RA 9275)** regarding the Provision on Sewerage-Septage and Sanitation held on November 9, 2004, Conference Room, UP Sewage Treatment Plant, Diliman, Quezon City
97. Attended and served as moderator in the technical seminar on **“Pollution Control Technologies and Environmental Laws”** held on September 22-23, 2004 at the Central Park Hotel, Hacienda Luisita, San Miguel, Tarlac City. The Water Environment Association of the Philippines (WEAP) in cooperation with the Department of Environment and Natural Resources- Region 3 sponsored the seminar.
98. Attended and served as moderator in the technical seminar on **“Wastewater Treatment Technologies and Salient Features of the Clean Water Act”** held on August 27, 2004 at the Manila Pavilion Hotel, Manila. The Water Environment Association of the Philippines (WEAP) sponsored the seminar.
99. Invited as **panel reactor** in the seminar on **“Industry Forum on Environmental Pollution Laws”**, organized by the **Federation of Philippine Industries in partnership with the Department of Environment and Natural Resources and Environmental Management Bureau** held on June 30, 2004, Kalayaan Hall 24F Export Bank Plaza, Makati City.

100. Participated in the workshop seminar on **Beach Eco Watch Program** organized by **World Bank** held on May 31-June 2, 2004, Boracay Island.
101. Attended and served as moderator in the technical seminar on **“Water Resource Management and Wastewater Treatment Technologies and Updates on Relevant Water and Wastewater Environmental Regulations”** held on May 27-28, 2004 at the Hotel Supreme, Baguio City. The Water Environment Association of the Philippines (WEAP) sponsored the seminar.
102. Attended in the technical seminar on **“Improved Analytical Techniques, Equipment Selections, Trouble-Shooting of Wastewater Treatment Processes & Updates on the Relevant Environmental Regulations”** held on January 16, 2004 at the Manila Pavilion formerly the Holiday Inn Hotel, Manila. The Water Environment Association of the Philippines (WEAP) sponsored the seminar.
103. Attended and served as one of the moderators in the **Field-Wise seminar on "Currents Trends and Development for Environmental and Chemical Engineering Research**, December 1-3, 2003, Dusit Hotel Nikko, Makati City. The seminar was organized by the Chemical Engineering Department of the De La Salle University-Manila and the University of the Philippines in cooperation with the Japan International Cooperation Agency (JICA) through the ASEAN University Network/Southeast Education Development Network (AUN/SEED-NET).
104. Attended in the **Regional Symposium on Chemical Engineering on "Chemical Engineering in Promoting Sustainable Technology," December 1-3, Dusit Hotel Nikko, Makati City.** The symposium was organized by the Chemical Engineering Department, De La Salle University-Manila, Philippine Institute for Chemical Engineers, Department of Science and Technology, and the University of the Philippines.
105. Attended the **"Field-Wise Seminar on Future Research Collaboration and Course Development, September 9-10, 2003, Yogyakarta, Indonesia.** The seminar was organized by the Chemical Engineering Department of Gadjah Mada University in cooperation with the Japan International Cooperation Agency (JICA) through the ASEAN University Network/Southeast Education Development Network (AUN/SEED-NET).
106. Attended and served as moderator in the **"Field-Wise Seminar on Regional Network in Chemical and Environmental Engineering Education and Research, March 4-5, 2003, Angelo King International Center, De La Salle University, Manila.** The seminar was organized by the Chemical Engineering Department of the De La Salle University-Manila and the University of the Philippines in cooperation

with the Japan International Cooperation Agency (JICA) through the ASEAN University Network/Southeast Education Development Network (AUN/SEED-NET).

107. Participated in the **Workshop on Formulating Field-Wise Support System of the AUN/SEED-Net on December 9-13, 2003 in Tokyo, Japan**. Chaired the Field-Wise meeting for Chemical Engineering group.
108. Participated and served as moderator in two-days technical seminar on **“Operations and Maintenance of Water and Wastewater Treatment Plants”** held on May 9-10, 2003 at Hotel Supreme in Baguio City. The Water Environment Association of the Philippines, Inc. (WEAP) sponsored the seminar.
109. Attended and invited as one of the resource speakers in the technical seminar on **“Alternative Technologies for Wastewater Treatment Processes”** held on December 17, 2002 and January 29, 2003 at the Ariston Estrada Seminar Room, DLSU-Manila and Holiday Inn Hotel, Manila. The Water Environment Association of the Philippines (WEAP) sponsored the seminar.
110. Attended and served as moderator in the technical seminar on **“Equipment Selection and Operators Training on Wastewater Treatment Processes and Safety Concerns ”** held on September 3, 2002 at Holiday Inn, Manila and on September 5, 2002 at Water Front Hotel, Cebu City. The Water Environment Association of the Philippines (WEAP) in cooperation with the United States-Asia Environmental Partnership (US-AEP) sponsored the seminar.
111. Attended and served as moderator in the technical seminar on **“Equipment Selection and Operators Training on Wastewater Treatment Processes and Safety Concerns ”** held on September 3, 2002 at Holiday Inn, Manila and on September 5, 2002 at Water Front Hotel, Cebu City. The Water Environment Association of the Philippines (WEAP) in cooperation with the United States-Asia Environmental Partnership (US-AEP) sponsored the seminar.
112. Attended and served as moderator in the technical seminar on **“Domestic Wastewater Treatment Technologies and Updates on Relevant Environmental Regulations”** held on June 19, 2002 at Holiday Inn Hotel, Manila. The Water Environment Association of the Philippines (WEAP) in cooperation with the United States-Asia Environmental Partnership (US-AEP) and the Chamber of Real Estate and Builders Association (CREBA) sponsored the seminar.
113. Attended and served as moderator in the technical seminar on **“Alternative Technologies for Water Purification and Wastewater Treatment Processes and Safety Concerns”** held on April 18-19, 2002 at the Hotel Supreme, Baguio City. The Water Environment Association of the Philippines (WEAP) in cooperation with the

United States-Asia Environmental Partnership (US-AEP) and Luzon Asso. of Water Districts (LAWAD) sponsored the seminar.

114. Attended and served as moderator in the technical seminar on **“Wastewater Treatment Technologies and Updates on Environmental Rules and Regulations”** held on January 31, 2002 at Holiday Inn, Manila. The Water Environment Association of the Philippines (WEAP) in cooperation with the United States-Asia Environmental Partnership (US-AEP) sponsored the seminar.
115. Attended a two-day training on **“Power Point in the Classroom Training Program (Module 2)”** held on February 13~20, 2002 at Miguel 306 Room, De La Salle University. The Center for Educational Multimedia in cooperation with Institute for faculty Development sponsors the training program.
116. Attended and served as moderator in the technical seminar on **“Wastewater Treatment Control Technologies and Its Applications ”** held on October 11, 2001 at the World Trade Center, U.S. Pavilion Seminar Room, Roxas Boulevard, Manila. The Water Environment Association of the Philippines (WEAP) in cooperation with the United States-Asia Environmental Partnership (US-AEP) sponsored the seminar.
117. Attended and served as moderator in the technical seminar on **“Wastewater Treatment Processes and Operator's Training Course”** held on May 29-30, 2001 at Manila Galeria Suites, Ortigas, Pasig City. The Water Environment Association of the Philippines in cooperation with the United States-Asia Environmental Partnership sponsored the seminar.
118. Attended and served as moderator in the technical seminar on **“Physical and Chemical Treatment of Industrial Wastewaters”** held on March 30, 2001 at Manila Galeria Suites, Ortigas, Pasig City. The Water Environment Association of the Philippines in cooperation with the United States-Asia Environmental Partnership sponsored the seminar.
119. Attended an 8- hour training on **“ Educational Technology Training Program (Module 1)”** held on February 14, 2001 at Francisco Ortigas Jr. Memorabilia Room, De La Salle University. The Center for Educational Multimedia in cooperation with Institute for faculty Development sponsor the training program.
120. Attended a technical seminar on **“Biological Wastewater Treatment Technology”** held on February 1, 2001 at Manila Galeria Suites, Ortigas, Pasig City. The Water Environment Association of the Philippines in cooperation with the United States-Asia Environmental Partnership sponsored the seminar.



121. Attended the **WEFTEC 2000 73<sup>rd</sup> Annual Exhibition and Technical Conference on Water Quality and Wastewater Treatment** held at **Orange County Convention Center, Anaheim, California, U.S.A.** from October 14 to 18, 2000.
122. Attended a **Wastewater Treatment Technologies and STP Operators Training** at the City of Elkhart, **Indianapolis, U.S.A.** held on October 21~26, 2000. The Indiana Water Pollution Control Association in cooperation with the United States-Asia Environmental Partnership and the Water Pollution Association of the Philippines sponsored the training.
123. Attended and chaired the technical seminar on **“Sustainability on Improved Wastewater Management, Treatment, and Operation”** held on September 11, 2000 at Manila Galeria Suites, Ortigas, Pasig. The Water Environment Association of the Philippines in cooperation with the United States-Asia Environmental Partnership sponsored the seminar.
124. Presented a Poster Presentation in the **20<sup>th</sup> Philippine-American Academy of Science and Engineering (PAASE)** held on 7-8 July 2000, Shangri-la Hotel, Makati City.
125. Attended a seminar on **“Sustainable Environment for Economic Growth and Development”** held on June 29, 2000 at Sulo Hotel, Quezon City, Philippines. The Department of Environment and Natural Resources (DENR) in cooperation with the Water Environment Association of the Philippines, Inc (WEAP) sponsored the seminar.
126. Attended and served as chair of the Technical Seminar on **“Approaches Towards Cost-effective Wastewater Management,”** April 10-11, 2000, Metropolitan Club, Estrella corner Amapola St., Makati. Water Environment Association of the Philippines, Inc. (WEAP), sponsored the seminar with the support of United States – Asia Environmental Partnership (U.S.-AEP) and the Water Environment Federation (WEF).
127. Attended the **61<sup>st</sup> PICHE National Convention** on February 4-6, 2000, at the Water Front Hotel, Cebu City.
128. Attended a 2-day technical seminar on **“Domestic and Industrial Wastewater Treatment Plant Operation,”** September 16-17, 1999, Occupational Safety and Health Center, North Avenue corner Science Road, Diliman, Quezon City. Water Environment Association of the Philippines, Inc. (WEAP), sponsored the seminar with the support of United States – Asia Environmental Partnership (U.S.-AEP) and the Water Environment Federation (WEF).

129. Attended a seminar on **“Safe Drinking Water Congress,”** July 25, 1999, Philippine Village Hotel, Pasay City, MM. The Department of Health sponsors the seminar.
130. Attended a Short Training Course in **Environment Management and Environmental Impact Assessment** at the **University of Portsmouth, United Kingdom** under the Philippine Academic Link Programme supported by the **The British Council** from January 4 to February 12, 1999.
131. Attended a seminar on **“Policy Issues on the Use of Incinerator”** at ISMED Auditorium, University of the Philippines, Diliman, Quezon City, May 27, 1999 sponsored by National Research Council of the Philippines.
132. Attended the **59th PIChE National Convention** last February 5-7, 1998 at Subic Bay, Olongapo City.
133. Attended a seminar on **“Water, Energy and Environmental Technologies,”** November 10 1997, Bulwagan ng Diwang Pilipino, Development Bank of the Philippines, Makati sponsored by the Philippine Center for Sustainable Development and Environment Technologies.
134. Attended the 2<sup>nd</sup> Technical Session 1997 on **“Global Warming, Health Environment and Development; Nuclear Power,”** August 8, 1997, Manila Midtown Hotel, Manila. The Philippine Institute of Chemical Engineers (PICHE) sponsors the seminar.
135. Attended the 1<sup>st</sup> Technical session 1997 on **“ISO 14000 and DAO 37,”** Continuing Professional Education Program, June 16, 1997, Manila Midtown Hotel, Manila. The Philippine Institute of Chemical Engineers (PICHE) sponsors the seminar.
136. Participated in the seminar on **“Alternative Approaches to Wastewater Management”** at Metropolitan Club, Estrella St., Makati on March 6, 1997. Water Environment Association of the Philippines, Inc. (WEAP), sponsored the seminar with the support of United States – Asia Environmental Partnership (U.S.-AEP) and the Water Environment Federation (WEF).
137. Attended a seminar on **“Utilization of Philippine Volcanic Ejecta”** last February 25, 1997 at the Dusit Hotel, Makati. The Department of Science and Technology sponsors the seminar.

138. Attended the **58th PIChE National Convention** last February 6-8, 1997 at Grand Men Seng Hotel, Davao City.
139. Attended a seminar on “**Modern Cell Culture and Fermentation Technology**” at the Manila Peninsula Hotel, Balmori Room last July 5, 1996.
140. Completed a short course on **Environmental Management System** conducted by University of South Wales (Sydney, Australia) Professors held from May 6~20, 1996 at the **Asian Institute of Management**, Makati City. Funding support was from the Department of Science and Technology.
141. Participated in the **57th PICHE National Convention** last February 1996 at Cebu Plaza Hotel, Cebu City.
142. Participated in the “**Seminar-Workshop on Writing and Packaging Research Proposals in the National Sciences and Engineering**” last September 23, 1995 at the PCED Hostel Social Hall, U.P. Diliman, Quezon City.

## **X. COMMUNITY ENGAGEMENT/SERVICE**

1. Spoke person for **SAGIP ILOG Project on Ecological Solid Waste Management and Water Environment Protection and Preservation, City of Las Pinas**, Office of Congresswoman Cynthia Villar since 2003 up to 2009..
2. Member , **Couples for CHRIST Community (CFC)** since 1986. Serving as **Sector Head** for entire Las Pinas City
3. Member, Oikos –Couples For Christ
4. Member of the Experts Group for the **DOST-SEI Undergraduate Scholarship Examination** on May 2007.
5. Committee member for Scholars selection for Professional Training Category under the **Japanese Government Scholarships Program** by the Japan Information and Cultural Center FY2007.
6. Member of the **Technical Advisory Committee (TAC) of the DOST\_ Philippine Council for Industry and Energy Research and Development (PCIERD)**, FYs 2005, 2007 to present

7. Member of the **Technical Committee of the National Technical Barriers to Trade (TBT)** under the Bureau of Products and Standards of the Department of Trade and Industry, May 2007 and onwards.
8. Actively involved in the "**SAGIP ILOG**" (**River Rehabilitation Project and Ecological Solid Waste Management Campaign**) project of the **City of Las Pinas under the office of Congresswoman Cynthia Villar. The OIKOS-GAWAD Kalinga of the Couples for Christ** for which I am an active member is the NGO partner for this project.
9. Delivered a lecture on the **Ecological Solid Waste on Management** for the rehabilitation of the Las Pinas River and Zapote River **every Saturday** from August 2003 to December 2003; January 2004~December 2004 and January 2005 to date.

10. **Membership in Professional Organizations:**

**a. WATER ENVIRONMENT ASSOCIATION OF THE PHILIPPINES, INC. (WEAP, Inc.), a member association of Water Environment Federation (WEF)-U.S.A.**

Board of Director: FY 2005 – to present  
 Past President FY 2005 (Board of Directors)  
 President: FY 2004  
 Vice-President: FY 2003  
 P.R.O.: FY 2002 & 2001  
 Board of Director (Member): FY 2000  
 Technical Committee Chair: FY 2001, 2002, 2003

**b. Philippine Institute for Chemical Engineers (PICHE)**

**c. Philippine Association of the Japanese Ministry of Education Scholars (Lifetime membership)**

**d. Philippine Society of JSPS RONPAKU Fellows (PRF)**

President, Fiscal Years 2006 and 2007  
 Board Member, 2008, 2009

**e. President of Philippine Association for Technological Education, Inc. (PATE Inc. with 127 strong Member Schools and Universities offering Engineering Programs), SY 2008-2009 and 2009-2010.**

PATE, 1<sup>st</sup> Vice-President, SY 2006-2007 and SY 2007-2008

PATE PRESIDENT, SY 2008-2009; 2009-2010, 2010-2011, 2011-2012, September 2012 (end of 4 year term)

f. **NATIONAL RESEARCH COUNCIL OF THE PHILIPPINES (NRCP),  
REGULAR MEMBER Division V11**, Engineering and Industrial Research, from 2007 to present

g. **Vice President, Nagoya University Alumni Association – Philippines. FY: 2014; 2015; 2016**