



#### IV. PROFESSIONAL EXPERIENCE :

Position	School	Inclusive Dates
<i>Instructor / Assistant Prof.</i>	UP at Los Baños	1968–1981
<i>Prof. Lecturer</i>	UP-Diliman	1997–1998

VI. SOME SEMINARS/TRAININGS ATTENDED :

Seminar/Training	Venue	Date
Introduction to APL <sup>1</sup>	UP-Los Baños,	Mar 1978
Executive Course		

VII. AWARDS AND DISTINCTIONS RECEIVED:

Award/Distinction	Details
UP-NSDB Graduate Scholarship	1966–1968 MS Mathematics, UP-Diliman
UPLB Faculty Fellowship	1974–1977 PhD Mathematics, Ateneo de Manila University
Research Fellowship	July-August, 1976 Lee Kong Chian Institute of Mathematics and Computer Science Nanyang University, Singapore
Outstanding Mapúan	1981, Mathematics National Association of Mapúa Alumni
Outstanding Young Scientist	1981, Mathematics
Exchange Scientist to Japan	March–June, 1986 October 1989 October 1992 DOST-JSPS
Achievement Award	1992 National Research Council of the Philippines
Professorial Chair (Mathematics)	AY 1993–1994 until AY2008–2009
Outstanding Teacher	1997 Students Search for Outstanding Teachers
Research Award	1999 Miguel Febres de Cordero Research Award
University Fellow (De La Salle University)	1999–present DLSU Society of Fellows
Outstanding Teacher	2006 Students Search for Outstanding Teachers
Outstanding Mapúa Alumnus	August 20, 2009 Mapua Institute of Technology

Awarded after my commencement speech during the commencement exercises of Mapúa Institute of Technology, August 20, 2009.

## VIII. EXTRA-CURRICULAR/COMMUNITY INVOLVEMENT:

- President, Iligan City Bowlers Association, 1991-1993
- President, T<sub>E</sub>X Users Group, Philippines, May 1993–September 1998
- Vice Chairman, NRCP Division II, 1997–1998
- Chairman, NRCP Division II, 1998–1999
- Member, Senior Citizens' Association of Laguna Bel Air, 2007–present
- President, Laguna Bel Air Home Owners' Association, Inc., 2007–2009

## IX. PUBLICATIONS/RESEARCH PAPERS PUBLISHED:

- [1] *On Kernels of  $(n; k)$ -Graphs*. Mathematics in the Philippines. Proceedings of the First International Summer Institute of Mathematics, Manila, 1975.
- [2] *On  $*-BD$  Graphs*. Research Report No. 29, Lee Kong Chian Institute of Mathematics and Computer Science, Singapore, 1976.
- [3] *A Generalization of a Theorem of Lovasz*. Research Report No. 30, Lee Kong Chian Institute of Mathematics and Computer Science, Singapore, 1976.
- [4] *On  $(k; r)$ -BD Graphs*. Research Report No. 31, Lee Kong Chian Institute of Mathematics and Computer Science, Singapore, 1976.
- [5] *An Introduction to Graph Theory*. Matimyas Matematika, vol. 1, no. 6, Philippines, 1977.
- [6] *On Pythagorean Triples*. Matimyas Matematika, Philippines, 1977.
- [7] *On the Existence of Weak Direct Product of Algebras*. Southeast Asian Bulletin of Mathematics, 1977.
- [8] *Block Design Graphs and Associated Hypergraphs*. Southeast Asian Bulletin of Mathematics, 1977.
- [9] *A Note on Pythagorean Angles*. Matimyas Matematika, Philippines, 1977.
- [10] *Some Problems in Graph Theory–IV*. Southeast Asian Bulletin of Mathematics, 1978.
- [11] *On Magic Graphs*. Matimyas Matematika, vol. 3, no. 3, Philippines, 1979.
- [12] *Characterization of Magic Graphs*. Matimyas Matematika, Philippines, vol. 3, No. 4, 1979.
- [13] *On Graphs All of Whose Orientations Have Kernels*. Southeast Asian Bulletin of Mathematics, Proceedings of the First FRANCO-Southeast Asian Mathematics Conference, 1979.
- [14] *Are Generalized Petersen Graphs Proper Autographs?* (co-author: R. G. Panopio), vol. 6, no. 4, Matimyas Matematika, Philippines, 1979.

- [15] *A Characterization of Bipartite Graphs Using Kernels*. Research Report, Ateneo de Manila University, 1979.
- [16] *Full Graphs and Permutation Graphs*. Nanta Mathematica, Singapore, vol. 13, no. 1, 1980.
- [17] *Constructions of Experimental Designs from Block Design Graphs*(coauthor: W. C. Lao), NRCP Research Bulletin, vol. 36, no. 2, Philippines, 1981.
- [18] *Difference Graphs*. Proceedings of the Second FRANCO-Southeast Asian Mathematics Conference, Manila, 1982.
- [19] *Which Wheels are Proper Monographs?* Southeast Asian Bulletin of Mathematics, 1983.
- [20] *Some Notes on Power Graphs* (co-author: R. C. Guerrero), Matimyas Matematika, vol. 6, no. 1, Philippines, 1982.
- [21] *Characterization of Power Graphs* (co-author: R. C. Guerrero), Matimyas Matematika, vol. 6. no. 2, Philippines, 1982.
- [22] *Graphs Induced by Topological Spaces*. Matimyas Matematika, vol. 7, nos. 1 & 2, Philippines, 1983.
- [23] *Cycle Graphs*. Asian Journal of Graph Theory and Combinatorics, Proceedings of the First Graph Theory Colloquium, Singapore, 1983.
- [24]

- [38] *Tournament Score Sequences*. Proceedings of the First China-US Conference in Graph Theory, Jinan, China, 1986. Annals of the New York Academy of Sciences, vol. 576, 1989.
- [39] *Topologies Induced by Graphs*. (co-author: R. Guerrero) Matimyas Matematika, Philippines, 1989.
- [40] *Non-singular Trees* (co-author: H. Rara). Very Often Graphs, Ateneo de Manila University, No. 5, 1989.
- [41] *Minimizing the Maximum Difference Between Integer Labels of Adjacent Vertices in a Graph*. Transactions, Nat. Acad. of Sci. & Tech., Philippines, 1989.
- [42] *Disjoint Subsets of Integers Having Constant Sum*. (co-authors: K. Ando and M. Kano)

- [60] *Unit Graphs*, in : Proceedings of the 1998 Annual Meeting of the National Research Council of the Philippines.
- [61] *Subdividing a Graph Toward a Unit Distance Graph in the Plane*, (co-author : Hiroshi Maehara), European Journal of Combinatorics, 2000.
- [62] *A Teacher's Nomograph*, (co-author : Sonia Y. Tan), The Manila Journal of Science, 1999.
- [63] *Folding Wheels and Fans*, (co-authors : Romulo C. Guerrero & Helen M. Rara), Graphs and Combinatorics, 2000.
- [64] *Subdivision Numbers of Large Complete Graphs and Large Complete Multipartite graphs*, Lecture Notes in Computer Science, 3330, pp. 94–101, 2005
- [65] *Rational Sines and Cosines*, Journal of Research in Science, Computing, and Engineering, Aug 2005.
- [66] *A Partial Order on a Family of  $k$ -subsets of a Partially Ordered Set*, (co-author: Hiroshi Maehara), Discrete Mathematics, 306, pp. 413–419, 2006
- [67] *Rational Sines, Cosines, and Tangents of Rational Multiples of  $2\pi$* , Journal of Research in Science, Computing, and Engineering, 2006.
- [68] *Integral Embedding of Complete Graphs in the Euclidean Plane*, Journal of Research in Science, Computing, and Engineering, 2006.
- [69] *Economical Integral Representation of the Complete Graph in the Euclidean Plane*, Proceedings of the Eighth Osaka University-De La Salle University Science Research Workshop, 2006.
- [70] *Solvable Powers of Paths and Cycles*, Proceedings of the Eighth Osaka University-De La Salle University Science Research Workshop, 2006.
- [71] *A Family of Cusped Cubic Bézier Curves*, Proceedings of the Ninth Osaka University-De La Salle University Academic Research Workshop, 2007.
- [72] *Lights Out Puzzle: Number of Solvable States of Graphs*, (co-author: Yvette F. Lim), Proceedings of the Ninth Osaka University-De La Salle University Academic Research Workshop, 2007.
- [73] *Subdividing the Complete Bipartite Graph Toward a Unit-Distance Graph in 3-Dimensional Space*, (co-author: Ernita R. Calayag), Proceedings of the Ninth Osaka University-De La Salle University Academic Research Workshop, 2007.
- [74] *The Euclidean Dimension of the Power of a Path*, (co-author: Alana H. Hernandez), Proceedings of the Ninth Osaka University-De La Salle University Academic Research Workshop, 2007.
- [75] *The Three-Way Lights Out Puzzle*, (co-authors: Leonor A. Ruivivar and Bladimir Ocampo), Proceedings of the Ninth Osaka University-De La Salle University Academic Research Workshop, 2007.
- [76] *Universal and Primitive Graphs*, (co-author: Neil M. Mame), Proceedings of the Ninth Osaka University-De La Salle University Academic Research Workshop, 2007.
- [77] *The Euclidean Dimension of the Join of Two Cycles*, (co-author: Isagani B. Jos), Discrete Mathematics, 308, pp. 5722–5726, 2008.
- [78] *Planar Unit-Distance Graphs with Planar Unit-Distance Complement*, (co-authors: Yvette F. Lim, Hiroshi Maehara), Discrete Mathematics, 308, pp. 1973–1984, 2008



- [79] *Solvable Trees*, (co-authors: Yvette F. Lim and Leonor A. Ruivivar), Lecture Notes in Computer Science, 4535, pp. 79–84, 2008.
- [80] *Resistance Distance in Graphs*, Proceedings of the 10<sup>th</sup> Osaka University-De La Salle University Academic Research Workshop, 2009.
- [81] *Generator Subgraphs of  $p$ -power of a Cycle*, (co-author: Neil M. Mame), Proceedings of the Gervacio International Conference on Graph Theory and Combinatorics, The DLSU Mathematics Inbox, special issue, p. 98, 2009.
- [82] *Searching for Other Generator Subgraphs of Fans and Wheels*, Proceedings of the Gervacio International Conference on Graph Theory and Combinatorics, The DLSU Mathematics Inbox, special issue, p. 101, 2009.
- [83] *A Note on Lights Out Puzzle–Parity-State Graphs*, (co-author: Hiroshi Maehara), Graphs and Combinatorics, 2010.
- [84] *Resistance Distance in Complete  $n$ -Partite Graphs*, Journal of Educational Development, Tokai University, vol. 6, 2010, p. 111–119.
- [85] *Resistance Distance in Complete  $n$ -Partite Graphs*, The Mindanawan Journal of Mathematics, vol. 3, issue no. 1, May 2012, 1–19.
- [86] *Characterization and Construction of Permutation Graphs*, (co-authors: Teofina Rapanut,