



Curriculum Vitae

Rinovia Simanjuntak

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Place and date of birth: Bandung, 15 November 1972

Address: Combinatorial Mathematics Research Group

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EDUCATION

2003: **Ph.D. of Computer Science**, School of Electrical Engineering and Computer Science, The University of Newcastle, Australia

Research area: Graph Theory

Dissertation: *Distance-Related Problems in Graph Theory*

1998: **Magister Sains (MSc)**, Mathematics Department, Institut Teknologi Bandung

Field of Studies: Algebra and Applied Mathematics

Thesis: *Ketunggalan graf berarah berorde maksimum dengan derajat empat dan diameter dua*

1996: **Sarjana Sains (BSc)**, Mathematics Department, Institut Teknologi Bandung

Field of study: Computational Mathematics

Final Project: *Kompresi data dengan pengkodean Huffman*

EXPERIENCE

Institut Teknologi Bandung, Indonesia (1997–now)

Position: Lecturer, Combinatorial Mathematics Research Group, Faculty of Mathematics and Natural Sciences.

Responsibilities: Teaching, Research, and Community Empowerment.

Activities: Research

My research interests include distance-related problems in graphs (the degree/diameter problem, metric dimension), graph labelings, and applications of graph theory. Within the afore-mentioned area of research, I served as the Principal Investigator for **eleven research grants** since 2003.

Teaching

I lectured various courses in Department of Mathematics, Department of Computational Science, and Department of Informatics. Since 2005, I co-supervised **six PhD students**, three of them have graduated; and I also supervised 1-2 MSc and 1-4 BSc students yearly.

Administrative

- Member of Excellent Doctoral Program Implementation Team (2009-2012).
- Member of Master Degree in Computational Science Implementation Team (2008-2009).
- Vice Chair/Executive Secretary, Centre for Mathematical Modelling and Simulation (2005-2007).
- Chair and member of various conferences' program and organising committees.

Community Empowerment

- Serving as member of National Board for Standard in Education ad-hoc team for text books monitoring and evaluation (2011-2013)
- Training Mathematics high school teachers in various areas in Indonesia
- Training Indonesian delegations to international mathematics competitions

The University of Newcastle, Australia (2000-2002)

Position: Tutor and Grader, Department of Computer Science and Software Engineering

Activities: Tutoring: Data Security, Computer Network.

Universitas Katolik Parahyangan, Indonesia (1998-1999)

Position: Lecturer, Departemen Matematika

Activities: Lecturing: Calculus, Discrete Mathematics

PUBLICATION

I have written **37 articles** published in peer-reviewed journals; 26 of which are indexed in the American Mathematical Society's Mathematical Reviews and 16 are indexed in SCOPUS.

In press

- N. Inayah, R. Simanjuntak, A.N.M. Salam, K.I.A. Syuhada, **Super (a,d)-H-antimagic total labelings for shackles of a connected graph H**, *Australasian J. Combinatorics*.
- Amrullah, Hilda Assiyatun, Edy Tri Baskoro, Saladin Uttunggadewa, Rinovia Simanjuntak, **The Partition Dimension for a Subdivision of Homogeneous Caterpillars**, *AKCE Int. J. Graphs Comb.*
- Des Welyyanti, E.T. Baskoro, R. Simanjuntak, S. Uttunggadewa, **On Locating-Chromatic Number of n-ary Tree**, *AKCE Int. J. Graphs Comb.*

2013

S.W. Saputro, R. Simanjuntak, S. Uttunggadewa, H. Assiyatun, E.T. Baskoro, A.N.M. Salman, M. Bača, **The metric dimension of the lexicographic product of graphs**, *Discrete Math.* **313** (2013) 1045–1051.

2012

Asmiati, H. Assiyatun, E.T. Baskoro, D. Suprijanto, R. Simanjuntak, S. Uttunggadewa, **The Locating-Chromatic Number of Firecracker Graphs**, *Far East J. Math. Sci.* **63** (2012) 11-23.

2011

- Tomas Vetrík, Rinovia Simanjuntak, Edy Tri Baskoro, **Large bipartite Cayley graphs of given degree and diameter**, *Discrete Math.* **311** (2011) 324-326
- A. Q. Baig, Ali Ahmad, Edy Tri Baskoro, Rinovia Simanjuntak, **On the super edge-magic deficiency of forests**, *Utilitas Math.* **86** (2011) 147-159.
- H. Iswadi, E.T. Baskoro, R. Simanjuntak, **On the metric dimensions of corona product graphs**, *Far East J. Math. Sci.* **52** (2011) 155-170.

2010

- H. Iswadi, E. T. Baskoro, A. N. M. Salman, Rinovia Simanjuntak, **The resolving graph of amalgamation of cycles**, *Utilitas Math.* **83** (2010) 121-132.
- H. Iswadi, E. T. Baskoro, A. N. M. Salman, Rinovia Simanjuntak, **The metric dimension of amalgamation of cycles**, *Far East J. Math. Sci.* **41** (2010) 19-31.

2009

- Darmaji, S. Uttunggadewa, R. Simanjuntak, and E.T. Baskoro, **The partition dimension of a complete multipartite graph, a special caterpillar, and a windmill**, *J. Combin. Math. Combin. Comput.* **71** (2009) 209-215.
- Nur Inayah, A. N. M. Salman, R. Simanjuntak, **On (a,d)-H-antimagic coverings of graphs**, *J. Combin. Math. Combin. Comput.* **71** (2009) 273-281.
- Muhammad Kashif Shafiq, Gohar Ali, and Rinovia Simanjuntak, **Distance magic labelings of a union of graphs**, *AKCE J. Graphs. Combin.*, **6** (2009) 191-200.

2008

- C. Imron, B. Setiono, Rinovia Simanjuntak, E. T. Baskoro, **Critical set of caterpillar for secret sharing scheme**, *J. Combin. Math. Combin. Comput.* **65** (2008) 121-125.
- H. Iswadi, E. T. Baskoro, Rinovia Simanjuntak, A. N. M. Salman, **The metric dimension of graphs with pendant edges**, *J. Combin. Math. Combin. Comput.* **65** (2008) 139-145.
- Mirka Miller and Rinovia Simanjuntak, **Graphs of order two less than the Moore bound**, *Discrete Math.* **308** (2008) 2810-2821.
- A. A. Ngurah, E. T. Baskoro, Rinovia Simanjuntak, **On the super edge-magic deficiencies of graphs**, *Australian J. Combinat.* **40** (2008), 3-14.
- A.A.G. Ngurah, E.T. Baskoro, R. Simanjuntak, and S. Uttunggadewa, **On super edge-magic strength and deficiency of graphs**, *Lecture Notes in Computer Science* **4535** (2008), 144-154.

2007

- A. A. Ngurah, E. T. Baskoro, Rinovia Simanjuntak, **On the new families of (super) edge-magic graphs**, *Utilitas Math.* **74** (2007), 111-120.
- A. A. Ngurah, Rinovia Simanjuntak, E. T. Baskoro, **On (super) edge-magic total labeling of subdivision of $K_{1,3}$** , *SUT J. Math.* **43** (2007), 127-136.

2006

- Martin Baca, Edy Tri Baskoro, Rinovia Simanjuntak and Kiki A. Sugeng, **Super edge-antimagic labelings of the generalized Petersen graphs**, *Utilitas Math.* **70** (2006), 119-127.

- A. A. Ngurah, E. T. Baskoro, Rinovia Simanjuntak, **On (α, d) -edge-antimagic total labeling of mC_n** , Bull. Inst. Combin. Appl. **48** (2006), 35-44.
- A. A. Ngurah, E. T. Baskoro, Rinovia Simanjuntak, S. Uttunggadewa, **On edge-magic total labeling of kC_4 -snakes**, *Congressus Numerantium* **179** (2006), 97-107.
- Martin Baca, Edy Tri Baskoro, Mirka Miller, Joe Ryan, Rinovia Simanjuntak and Kiki A. Sugeng, **Survey of edge antimagic labelings of graphs**, *J. Indones. Math. Soc.* **12** (2006), 113-130.

2005

- Anak Agung G. Ngurah, Edy Tri Baskoro, Rinovia Simanjuntak, **On antimagic total labelings of generalized Petersen graph**, *J. Combin. Math. Combin. Comput.* **55** (2005), 57-70.
- Rinovia Simanjuntak and Mirka Miller, **Maximum order of planar digraphs**, *Lecture Notes in Computer Science* **3330** (2005), 159-168.
- M. Baca, E. T. Baskoro, Y. M. Cholily, S. Jendrol, Y. Lin, M. Miller, J. Ryan, Rinovia Simanjuntak, Slamun, K. A. Sugeng, **Conjectures and open problems on face antimagic evaluations of graphs**. *J. Indones. Math. Soc.* **11** (2005), no. 2, 175-192.

PRESENTATION

Since 2000, I have presented my research results in international conferences yearly. In **seven** of the conferences (held in Japan, Australia, Czech Republic, Belgium, Spain, and USA) I was one of the **invited speakers**.

My presentations in the last five years are:

2013

- **Distance in Graphs: Two Old and One New Problems (invited talk)**, *the 1st GSIS-RCPAM International Symposium: Exploring New Frontiers of Pure and Applied Mathematics, Tohoku University, Sendai, Japan, 8 March 2013*.
- **Metric Dimension of Graphs and Digraphs: Recent Results and Open Problems (invited talk)**, *GraphMasters 7, University of Lleida, Spain, 25-28 June 2013*.
- **Metric Dimension of Amalgamation of Graphs**, *24th British Combinatorial Conference, Royal Holloway, London, UK, 1-2 July 2013*.
- **Metric Dimension of Amalgamation of Graphs**, *24th Seventh Czech-Slovak International Symposium on Graph Theory, Combinatorics, Algorithms and Applications, Pavol Jozef Šafárik University, Kosice, Slovakia, 7-13 July 2013*.

2012

- **Magic labeling of distance at most 2**, *International Workshop on Graph Labeling, Puncak, Indonesia, 23-25 July 2012*.
- **Distance in Graphs: Two Old and One New Problems**, *Second Indonesian-American Kavli Frontiers of Science Symposium, Solo, Indonesia, 12-15 July 2012*.

2011

- **Partition Dimension of Some Families of Trees, Colourings, Independence and Domination**, *14th Workshop On Graph Theory, Szklarska Poręba, Polandia, 18-23 September 2011*.
- **Graphs with relatively constant metric dimension, Cycles and Colourings '11**, *Tatranska Strba, Slovakia, 4-9 September 2011*.
- **Complete characterization of graphs with order n and metric dimensions $n-3$ (invited talk)**, *International Workshop on Optimal Network Topologies, University Libre de Brussels, Brussels, Belgium, 11-15 July 2011*.

2010

- **Metric Dimensions of Compositions Products of Graphs**, *50th Midwest Graph Theory Conference, University of Wisconsin – Superior, Superior WS, USA, 24 October 2010*.
- **Distance Magic Labelings And Antimagic Coverings Of Graphs (invited talk)**, *International Workshop on Graph Labeling, Duluth MN, USA, 20-23 October 2010*.
- **On Graphs of order n with Metric Dimensions $n-3$** , *8th French Combinatorial Conference, Orsay, France, 28 June-4 July 2010*.

2009

- **Metric Dimensions of Compositions Products of Graphs**, *Australasian Conference on Combinatorial Mathematics and Combinatorial Computing, Newcastle, Australia, 3-8 Desember 2009*.

EDITORIAL AND REVIEW

- **Layout Editor**, Electronic Journal of Graph Theory and Applications (since 2013)
- **Editor-in-Chief**, Journal of the Indonesian Mathematical Society (2007-2009)
- **Reviewer**, Mathematical Reviews, American Mathematical Society (since 2008)
- **Reviewer**, Discrete Mathematics, Lecture Notes in Computer Science, Australasian Journal of Combinatorics, Utilitas Mathematica, International Journal of Mathematics and Computer Science, New York Journal of Graph Theory, AKCE Journal of Graphs and Combinatorics, Central European Journal of Mathematics, Journal of the Indonesia Mathematical Society, Jurnal Matematika dan Sains

AWARD

One of 100 Outstanding Women Researchers, Indonesian National Committee for UNESCO and Indonesian Ministry of Women Empowerment, 2010

MEMBERSHIP IN PROFESSIONAL ORGANIZATION

- **Associate Fellow**, The Institute of Combinatorics and Its Applications
- **Member**, Combinatorial Mathematics Society of Australasia (Inc.)
- **Member**, Indonesian Combinatorial Mathematics Society
- **Member**, American Mathematical Society
- **Member**, Indonesian Mathematical Society
- **Member**, Society for Industrial and Applied Mathematics
- **Member**, Association for Women in Mathematics, Inc

Bandung, 31 August 2013



Dr. Rinovia Simanjuntak