

CURRICULUM VITAE

PERSONAL INFORMATION

Name: **Jayantha Lanel**

Designation: Senior Lecturer in Mathematics

Birth Date: January 23, 1974

Marital Status: Married

Gender: Male



CONTACT INFORMATION

Department of Mathematics
University of Sri Jayewardenepura
Nugegoda
Sri Lanka

Voice: +94 11 2758384

Fax: +94 11 2803470

E-mail: ghjlanel@sjp.ac.lk

Web Page: <http://scholar.sjp.ac.lk/lanel>

EDUCATION

Oakland University, Rochester, Michigan, USA

- Ph.D., Applied Mathematics, April 2009
 - * Dissertation Topic: “Complex Root Isolation”.
 - * Supervisor: Professor Charles Ching-An Cheng
- M.A., Applied Mathematics, December 2006

Sri Jayewardenepura University, Nugegoda, Colombo, Sri Lanka

- M.Sc.(Merit), Industrial Mathematics, December 2002
 - * Thesis Topic: “A third order convergent method for finding roots of non-linear equation”
 - * Supervisor: Professor Sunethra Weerakoon
- CTHE (Certificate Course in Teaching in Higher Education), December 2012

The Open University, Nugegoda, Colombo, Sri Lanka

- B.Sc.(Hons), Mathematics, December 1999

Bandarawela Central College, Bandarawela, Sri Lanka

- G.C.E. Advanced Level Examination, 1992

Naulla National School, Demodara, Bandarawela, Sri Lanka

- G.C.E. Ordinary Level Examination, 1989

Piyarapandowa Elementary School, Piyarapandowa, Bandarawela, Sri Lanka

- Fifth Grade Scholarship Examination, 1984

RESEARCH
INTERESTS

Computer Algebra/Symbolic Mathematics, Graph Theory/Computational Discrete Mathematics

MATHEMATICAL
EXPERTISE

Algebra, Computer Algebra, Graph Theory, and Numerical Analysis

HONORS AND
AWARDS

Oakland University

- *Certificate of Merit* for Outstanding Academic Achievement (STA 614), fall 2005
- *Certificate of Merit* for Outstanding Academic Achievement (STA 613), winter 2005

Sri Jayewardenepura University

- *Research Award* for the publication in Refereed Journal in 2015
- *Research Award* for the publication in Index Journal in 2014
- *Certificate of Achievement* Professional Development Program (Team Endeavor) Conducted by the Academy of Adventure-Belihuloya, 2012
- *Merit pass* in the Industrial Mathematics Degree Program, 2002

The Open University

- *A first class honors pass* in the Bachelor of Science Degree Program, 1999
- *D. B. Ellepola Gold Medal Award* for the best performance in the Bachelor of Science Degree Program, 1999
- *Prize* for the best performance in Mathematics in the Bachelor of Science Degree Program, 1999

ACADEMIC
EXPERIENCE

Sri Jayewardenepura University, Nugegoda, Sri Lanka

- *Visiting Lecturer*(**Graph Theoretic Applications**), *M. Sc. in Industrial Mathematics* July 2016 - October 2016
- *Visiting Lecturer*(**Computational Mathematics**), *M. Sc. in Industrial Mathematics* June 2015 - September 2015
- *Coordinator*, *M. Sc. in Industrial Mathematics* January 2013 - December 2014
- *Visiting Lecturer*(**Ordinary Differential Equations**), *M. Sc. in Industrial Mathematics* March 2012 - December 2012
- *Visiting Lecturer*(**Graph Theory and Its Applications**), *M. Sc. in Industrial Mathematics* August 2013 - November 2013
- *Senior Lecturer in Mathematics* October 2010 - Present

Oakland University, Rochester, Michigan, USA

- *Special Lecturer* September 2009 - June 2010
- *Lecturer* June 2008 - August 2008 and June 2009 - August 2009
- *Teaching Assistant* January 2004 - April 2009

Oakland Community College, Highland Lakes Campus, Waterford, Michigan, USA

- *Adjunct Faculty* September 2009 - June 2010

Oakland Community College, Royal Oak Campus, Royal Oak, Michigan, USA

- *Adjunct Faculty* January 2010 - June 2010

The Open University, Nugegoda, Colombo, Sri Lanka

- *Visiting Lecturer*(**Fluid Mechanics**), *Department of Mathematics* June 2015 - September 2015
- *Instructor* May 2000 - June 2003

PUBLICATIONS

INDEX JOURNAL

1. M.T.M. Perera, G.H.J. Lanel, *A Model to Optimize University Course Timetable Using Graph Coloring and Integer Linear Programming*, Journal of Mathematics, International Organization of Scientific Research (IOSR), Volume 12, Issue 5, PP. 13-18, September 2016
2. M.G.R.U.K. Ferdinandes, G.H.J. Lanel, H.K. Pallage, N.K. Angulgamuwa, *Enhancing the Work Performance of Coastal and Suburban Division of Sri Lanka Fort Railway Station Using Graph Coloring*, International Journal of Emerging Technology and Innovative Engineering (IJETIE), Volume 2, Issue 2, pp. 93-99, ISSN: 2394 6598, February 2016
3. P. A. D. Dilrukshi, H. D. I. M. Nirmanamali, G. H. J. Lanel, M. A. S. C. Samarakoon, *A Strategy to Reduce the Waiting Time at the Outpatient Department of the National Hospital in Sri Lanka*, International Journal of Scientific and Research Publications (IJSRP), Volume 6, Issue 2, ISSN 2250-3153, February 2016
4. S.A.S. Sureni Wickramasooriya, Thisal M. Weerasekara, G.H. Jayantha Lanel, T.P. de Silva, N.C. Ganegoda, *A cryptographic method to send a secret route or map to a receiver using concepts in graph theory and number theory*, International Journal of Engineering and Applied Sciences (IJEAS), Volume 2, Issue 12, December 2015
5. Ferdinandes, M.G.R.U.K., Pallage, H.K., Lanel, G.H.J. and Angulgamuwa, A.N.K.. *An Improved Strategy to Reduce the Passenger Traffic at Coastal and Suburban Area Division of Sri Lanka Fort Railway Station Ticketing Counters*, International Journal of Information Research and Review (IJIRR), Volume 2, Issue 7, pp. 909-913, July 2015
6. G.K.H. Thondilege, G.H.J. Lanel, P.D.A.G.D. De Almeida. *Possibilities of Sharing Multi Species in a Cage Based on Their Food Preference Using Graph Coloring Technique*, International Journal of Scientific and Research Publications (IJSRP), Volume 5, Issue 3, ISSN 2250-3153, March 2015
7. G.H.J. Lanel, C.C. Cheng. *The Number of Complex Roots of a Univariate Polynomial Within a Rectangle*, Journal of Mathematics, Statistics and Operations Research (JMSOR), Singapore, Volume 2, Number 2, pp. 41, 2014

BOOKS

1. G.H. Jayantha Lanel. *A chapter on "The Number of Complex Roots of a Univariate Polynomial Within a Rectangle" (Papers from the 3rd International Conference on Computational Mathematics and Computational Geometry) in the book Forging Connections between Computational Mathematics and Computational Geometry*, ISBN 978-3-319-16138-9, Springer Proceedings in Mathematics and Statistics Volume 124, 2016
2. G.H. Jayantha Lanel. *Complex Root Isolation*, ISBN-978-639-51444-5, Scholar's Press, Heinrich-Boecking Str. 6-8 D - 66121 Saarbrcken, Germany, 2013
3. G.H. Jayantha Lanel. *Complex Root Isolation*, ISBN-10: 1243635053, ISBN-13: 978-1243635051, ProQuest, UMI Publishing, Michigan, USA, 2011
4. G.H. Jayantha Lanel. *Complex root isolation of univariate polynomials*. Ph. D. Thesis, Oakland University, USA, 2009

CONFERENCE AND PROCEEDING

1. Fernando K.L.M., Lanel G.H.J., Anura T.G.A., *Developing Methods for Fabric Consumption and Fabric Spreading Time Calculation*, Symposium "Uni-In Alliance 2016" of B.Sc. (Honors) Degree in Applied Sciences, University of Sri Jayewardenepura, pp. 32, 2016
2. Perera C.P.T.S., Lanel G.H.J., Modarage R., *Smoothing the Work Load Due to Month end Bulk of Insurance Proposals in Life Underwriting Department at Asian Alliance Insurance*, Symposium "Uni-In Alliance 2016" of B.Sc. (Honors) Degree in Applied Sciences, University of Sri Jayewardenepura, pp. 37, 2016
3. J. Epasingha, G.H.J. Lanel. *Automated Examination Time Table for Faculty of Applied Sciences of University of Sri Jayewardenepura*, Sri Lanka Association for the Advancement of Science (SLAAS), Colombo, 504 E1, pp. 55, 2014
4. R.M. Rajapaksa, G.H.J. Lanel. *On Reading Information about the Sri Lankan Monarchs*, Sri Lanka Association for the Advancement of Science (SLAAS), Colombo, 504 E1, pp. 56, 2014
5. R. Ferdinandes, H. Pallage, J. Lanel, D. Rodrigo, N. Angulgamuwa *A Strategy to Reduce the Passenger Traffic at Sri Lanka Fort Railway Station Ticketing Counters*, International Conference on Multidisciplinary Approaches (iCMA),

Faculty of Graduate Studies, University of Sri Jayewardenepura, PP. 87, 2014

6. G.H.J. Lanel, C.C. Cheng. *The Number of Complex Roots of a Univariate Polynomial Within a Rectangle*, Third Annual International Conference on Computational Mathematics, Computational, Geometry and Statistics (CM-CGS 2014), Singapore, 2014
7. D.M.K.N. Seneviratna, G.H.J. Lanel, S. Weerakoon, M. Liyanage. *Traveling Tourist Problem for Selected Destinations in Sri Lanka*. Sri Lanka Association for the Advancement of Science (SLAAS), Colombo, 505 E1, pp. 55, 2012
8. G.K. Watugala, H.K.G. de Z. Amarasekara, G.H.J. Lanel, and S. Weerakoon. *A third order convergent method for finding roots of nonlinear equation*. Sri Lanka Association for the Advancement of Science (SLAAS), Colombo, 502 E1, pp. 209, 2002

PAPERS IN
PREPARATION
AND SUBMITTED

1. T. Sathiyakumar, G.H.J. Lanel, *A Survey on Hamiltonian cycles and paths in Cayley graphs and digraphs*, 2016
2. G.H.J. Lanel, P.D.A.G.D. De Almeida. *Data Model and Algorithms for Rates Base Route Planning with Rail Way Transportation Networks in USA*, 2016
3. C.C. Cheng, G.H.J. Lanel. *Complexity of an algorithm for complex root isolation of univariate polynomials*, 2016

PRESENTATIONS

1. Participated in the Discussions of Advanced Level Combined Mathematics in the Thakshilawa educational program of the Independent Television Network (ITN), Sri Lanka, 2016
2. Delivered the Presidential Address of Section E1 of Sri Lanka Association for the Advancement of Science (SLAAS) on "Applications of Graph Theory" at annual session of SLAAS, 2015
3. Participated in the Discussions of Advanced Level Combined Mathematics in the Thakshilawa educational program of the Independent Television Network (ITN), Sri Lanka, 2015
4. Participated in the Discussions of Advanced Level Combined Mathematics in the Thakshilawa educational program of the Independent Television Network

(ITN), Sri Lanka, 2014

5. Participated in the Discussions of Advanced Level Combined Mathematics in the Thakshilawa educational program of the Independent Television Network (ITN), Sri Lanka, 2013
6. Presented “Traveling Tourist Problem for Selected Destinations in Sri Lanka” in the annual sessions of the Sri Lanka Association for the Advancement of Sciences, University of Colombo, Sri Lanka, 10.12.2012
7. Participated in the Discussions of Advanced Level Combined Mathematics in the Thakshilawa educational program of the Independent Television Network (ITN), Sri Lanka, 2012
8. Presented “On the domination number of Hamiltonian graphs with minimum degree six” at the Department of Mathematics, University of Sri Jayewardenepura, Sri Lanka, 2011
9. Presented “An algorithm for complex root isolation of univariate polynomials” to the Computer Algebra class, Oakland University, USA, 2009
10. Presented “A chain rule for the resultants of two polynomials” at the Department of Mathematics and Statistics (Computer Algebra Seminar), Oakland University, USA, 2007
11. Presented “A chain rule for the subresultants of two polynomials” at the Department of Mathematics and Statistics (Computer Algebra Seminar), Oakland University, USA, 2007
12. Presented “A third order convergent method for finding roots of nonlinear equation” in the annual sessions of the Sri Lanka Association for the Advancement of Sciences, University of Colombo, Sri Lanka, 2002

WORKSHOPS
CONDUCTED

1. Scientific Writing Workshop (Based on LATEX) for the Physical Science (Special) Part I/Part II, and Extended Degree Students, Under the Section E1 of Sri Lanka Association for the Advancement of Science (SLAAS) at University of Sri Jayewardenepura, February 28, 2016
2. Scientific Writing Workshop (Based on LATEX) for the Physical Science (Special) Part I/Part II, and Extended Degree Students, Under the Section E1 of Sri Lanka Association for the Advancement of Science (SLAAS) at University

of Sri Jayewardenepura, March 21, 2015

3. Scientific Writing Workshop (Based on LATEX) for the Physical Science (Special) Part II Students, Under the Section E1 of Sri Lanka Association for the Advancement of Science (SLAAS) at University of Sri Jayewardenepura, April 06, 2014

CONFERENCES
AND
WORKSHOPS
ATTENDED

1. A workshop on "How to incorporate Google Scholar into your research", University of Sri Jayewardenepura, May 20, 2015
2. A Workshop on Measurements and the Global Energy Challenge, Conducted by Sri Lanka Association for the Advancement of Science(SLAAS), University of Sri Jayewardenepura, May 20, 2014
3. International Conference on Applications of Computer Algebra, Oakland University, July 19–22, 2007
4. International Conference on "What is algebraic geometry", Institute for Mathematics and Its Applications, University of Minnesota, April 12–13, 2007

GRADUATE
STUDENTS WITH
THESIS TOPICS

M.PHILL

M.SC.

1. M.T.M. Perera (University of Moratuwa), *A Model to Optimize University Course Timetable Using Graph Coloring and Integer Linear Programming*, 2016
2. P.D.A.G.D. De Almeida, *Data Model and Algorithms for Rates Base Route Planning with Rail Way Transportation Networks in USA*, 2016
3. G.K.H. Thondilege, *Possibilities of Sharing Multi Species in a Cage Based on Their Food Preference Using Graph Coloring Technique*, 2015
4. D.M.K.N. Seneviratna, *Traveling Tourist Problem for Selected Destinations in Sri Lanka*, 2011

UNDERGRADUATES
STUDENTS WITH
PROJECT TOPICS SPECIAL DEGREE

FINAL PROJECTS

1. P.A.D. Dilrukhi, *A Strategy to Reduce the Waiting Time at the Outpatient Department of the National Hospital in Sri Lanka*, 2015, **This project won the Physical Science Award (Mathematics) from Sri Lanka Association for the Advancement of Science (SLAAS) in 2016**
2. T.R. Safraz Ariffin, *A Study of Students' Performances of G.C.E. Ordinary Level Examination to Model a New Paper*, 2015
3. M.G.R.U.K. Ferdinandes, *An Improved Strategy to Reduce the Passenger Traffic at Coastal and Suburban Area Division of Sri Lanka Fort Railway Station Ticketing Counters*, 2014, **This project won the Physical Science Award (Mathematics) from Sri Lanka Association for the Advancement of Science (SLAAS) in 2015**
4. S.D. Senarathna, *Automated Time Table generated for the Coastal Line of Sri Lanka Railway*, 2014
5. J. Epasingha, *Scheduling a Final Examination Time Table for the Faculty of Applied Sciences of the University of Sri Jayewardenepura*, 2013
6. R.M. Rajapaksa, *On the Representation of Directory of Sri Lankans Rulers*, 2013
7. K.M.H.K. Ranasinghe, *Dominating Sets and Its Applications*, 2012
8. E.C.R. Fernando, *Symbolic Computation and Its Applications*, 2012
9. A.A.D.H.S. Amarathunga, *Grobner Basis and Its Applications*, 2011

INDUSTRIAL INTERNSHIP PROGRAM (IIP)

1. G.D.D.P. Jayaweera and T. Sathiyakumar, *Application of Queuing Theory to Enhance the Quality of Performance of an Organization*, 2016

2. B.M.Y.U.A. Batugedara, S.L. Heennatigala and W.L.C. Piyasundara, An Algorithm to Find the Distance Between any Two Railway Stations Allowing the Modifications to Existing Database, 2016
3. H. D. I. M. Nirmanamali and P.A.D. Dilrukhi, *A Strategy to Reduce the Waiting Time at the Outpatient Department of the National Hospital in Sri Lanka*, 2015
4. H.K. Pallage and M.G.R.U.K. Ferdinandes, *A Strategy to Reduce the Passenger Traffic at Coastal and Suburban Area Division of Sri Lanka Fort Railway Station Ticketing Counters*, 2014.
5. S.D. Senarathna and P.W.C.E. Pathirana, *Automated Time Table generated for the Coastal Line of Sri Lanka Railway*, 2014

EXTENDED (HONORS) DEGREE-FINAL PROJECTS

1. K.L.M. Fernanado, *Developing Methods for Fabric Consumption and Fabric Spreading Time Calculation*, 2015
2. Perera C.P.T.S., *Smoothing the Work Load Due to Month end Bulk of Insurance Proposals in Life Underwriting Department at Asian Alliance Insurance*, 2015

UNIVERSITY SERVICES

- **Member** of the Quality Assurance Cell, Faculty of Applied Sciences, University of Sri Jayewadenepura, 2016 to date.
- **Member** of the Research Committee, Faculty of Applied Sciences, University of Sri Jayewadenepura, 2015 to date.
- **Academic Counselor**, Faculty of Applied Sciences, University of Sri Jayewadenepura, from March 2013 to date.
- **Student Counselor**, University of Sri Jayewadenepura, 2012, 2013, and 2014.
- **Senior Treasure**, Mathematical Society, Department of Mathematics, University of Sri Jayewadenepura, 2012.
- **Member** of the Quality and Innovation Grant(QIG) Proposal Committee, Faculty of Applied Sciences, University of Sri Jayewadenepura, 2011.

- **Member** of the Committee to Introduce Economics as a Science Subject, Faculty of Applied Sciences, University of Sri Jayewadenepura, 2011-2012.
- **Assistant Secretary**, "Vidudaya" Science Teachers Association, Faculty of Applied Sciences, University of Sri Jayewadenepura, 2012.

MEMBERSHIPS
AND POSITIONS
IN
PROFESSIONAL
ORGANIZATIONS

- **President, Section E1** (Physical Sciences Committee) of Sri Lanka Association for the Advancement of Science (SLAAS), 2015.
- **Member**, Young Scientists Forum (YSF), National Science and Technology Commission (NASTEC), Sri Lanka 2014- Present.
- **Executive Committee Member**, Physical Sciences Committee of Sri Lanka Association for the Advancement of Science (SLAAS), 2014, 2016.
- **Member**, Physical Sciences Committee of Sri Lanka Association for the Advancement of Science (SLAAS), 2002-Present.

PROFESSIONAL
AND PUBLIC
SERVICE

- **Editor** of the Evaluation Report (Department of Examinations, Sri Lanka) of G.C.E. (A/L) 2014.
- **Member** of Editorial Board of International Journal of Multidisciplinary Approach and Studies (IJMAS) 2014.
- **Member** of Organizing Committee of International Conference on Multidisciplinary Approaches (iCMA), Faculty of Graduate Studies, University of Sri Jayewadenepura, 2014.
- Refereed Papers/Abstracts for:
 - International Conference on Multidisciplinary Approaches (iCMA), Faculty of Graduate Studies, University of Sri Jayewadenepura
 - Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences (PJAAEVS)
 - International conference on Mathematical Modeling (IFMM), University of Colombo
 - Physical Sciences Section of Sri Lanka Association for the Advancement of Science (SLAAS)

- Annual Research Symposium, University of Colombo
- Symposium "Uni-In Alliance 2016" of B.Sc. (Honors) Degree in Applied Sciences, University of Sri Jayewardenepura
- Symposium "Uni-In Alliance 2017" of B.Sc. (Honors) Degree in Applied Sciences, University of Sri Jayewardenepura
- International Research Symposium on Pure and Applied Sciences(IRSPAS), University of Kelaniya 2016

COMPUTER SKILLS

Extensive hardware and software experience in networking and information technology

- **Mathematical Packages:** Maple, Mathematica, and Matlab
- **Programming:** C, C++, Pascal, Saclib (a library of C functions for symbolic computation), Maple, and Matlab
- **Operating Systems:** Mac OS, Linux / Variants, and Windows

REFERENCES

- Charles Ching-An Cheng
Professor of Mathematics
Department of Mathematics and
Statistics
Oakland University
(248) 370-3444
cheng@oakland.edu
- J. Barry Turett
Professor of Mathematics
Department of Mathematics and
Statistics
Oakland University
(248) 370-4023
turett@oakland.edu
- Stephen J. Wright
Professor of Mathematics
Department of Mathematics and
Statistics
Oakland University
(248) 370-4028
wright@oakland.edu
- Subbaiah Perla
Professor of Statistics
Department of Mathematics and
Statistics
Oakland University
(248) 370-3429
perla@oakland.edu
- Meir Shillor
Professor of Mathematics
Department of Mathematics and
Statistics
Oakland University
(248) 370-3439
shillor@oakland.edu

Last updated: December 19, 2016