

# ANANDA BANDULASIRI MANAGE

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Department of Mathematics & Statistics  
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## **Education:**

### **Ph.D. in Mathematics (Concentration in Statistics)**

Department of Mathematics and Statistics, Texas Tech University

Title: Statistical Shape Analysis in Medical Imaging, August 2006

### **Master of Science in Mathematics**

Department of Mathematics and Statistics, Texas Tech University, 2005

### **Master of Science in Statistics**

Department of Mathematics and Statistics, Sam Houston State University,  
2001

### **Bachelor of Science in Mathematics (special)**

Department of Mathematics, University of Kelaniya, Sri Lanka, 1995

## **Research Interests:**

Statistical Shape Analysis, Statistics of Medical Imaging, Biostatistics,  
Bootstrapping, Sports Statistics, Statistics Education.

## **Professional Experience:**

Assistant Professor of Statistics (Tenure Track), Department of Mathematics  
and Statistics, Sam Houston State University, August 2006 – Present

Graduate Part Time Teaching Instructor, Department of Mathematics and  
Statistics, Texas Tech University, January 2002 – August 2006

Research Assistant, Department of Mathematics and Statistics, Sam Houston  
State University, 2000 – 2001

Assistant Manager, Vanik Incorporation Ltd., Sri Lanka, 1998 – 1999

Tutor, Department of Mathematics, University of Kelaniya, Sri Lanka, 1995 –  
1998

## Teaching Experience:

Department of Mathematics and Statistics, Sam Houston State University  
Fall 2011 Regression Modeling and Analysis (Graduate)  
Spring 2011 Biostatistics (Graduate)  
Spring 2011 Theory and Applications of Probability and Statistics II  
2010 – Fall Theory and Applications of Probability and Statistics I  
2010 – Fall Biostatistics (Undergraduate)  
2010- Spring Mathematical Statistics II (Graduate)  
2009- Fall Mathematical Statistics I (Graduate)  
2009- Spring Mathematical Statistics II (Graduate)  
2008- Fall Mathematical Statistics I (Graduate)  
2008-Spring Nonparametric Statistics (Graduate)  
2007-Fall Design And Analysis of Experiments (Graduate)  
2007-Spring Biostatistics (Graduate)  
2006- Fall Statistical Methods in Practice  
2006- Fall Elementary Statistics  
2006- Fall Theory and Applications of Probability and Statistics

Department of Mathematics and Statistics, Texas Tech University  
2006- Spring Statistical Methods  
2005- Fall Statistical Methods  
2005- Spring Calculus III  
2004- Fall Calculus II  
2004- Spring Calculus II  
2003- Fall Calculus I  
2003- Spring College Algebra  
2002- Fall College Algebra  
2002- Spring Intermediate Algebra

## Publications:

Peter Westfall and **Ananda Manage**; (2011) “ How well Do Multiple Testing Methods Scale Up When Both n and k Increase”, *Journal of Biopharmaceutical Statistics*, 21: 583-594.

**Manage, Ananda B. W.**; Mallawaarachchi, Kumudu; and Wijekularathna, Kanchana (2010) "Receiver Operating Characteristic (ROC) Curves for Measuring the Quality of Decisions in Cricket", *Journal of Quantitative Analysis in Sports*: 6(2), Article 8.

**Manage, A.** and Scariano, S. (2010) “A Classroom Note on: Student Misconceptions Regarding Probabilistic Independence Vs. Mutually Exclusivity”, *Journal of Mathematics and Computer Education*, 44(1), 14-20.

Petrikovics, I., Baskin, S.I., Beigel, K.M., Schapiro, B.J., Rockwood, G.A., **Manage, A.B.W.**, Budai, M., and Szilasi M. (2010) “Nano-intercalated Rhodanese in Cyanide Antagonism”. *Nanotoxicology*, 4(1-4), 247-254.

Amaradasa, Sajeewa, Robert A. Lane, and **Ananda Manage**, (2010) "Vertical migration of *Haemonchus contortus* infective larvae on *Cynodon dactylon* and *Paspalum notatum* pastures in response to climatic conditions," *Journal of Veterinary Parasitology*, 170, 78-87.

Bandulasiri A., Bhattacharya, R., and Patrangenaru, V., (2009), "Nonparametric Inference on Shape Manifolds with Applications in Medical Imaging", *Journal of Multivariate Analysis*, 100, 1867-1882.

Bandulasiri, A., Gunathilaka, A., Patrangenaru, V., Ruymgaart, F. and Thompson, H. (2009), "Nonparametric Shape Analysis Methods in Glaucoma Detection", *International Journal of Statistical Sciences*, 9, 135-149.

Bandulasiri, A. and Scariano, S., (2009), "The Robustness of the Three-Way Chart to Non-Normality", *Communications in Statistics*, 38, 1-13.

Butar F. and Bandulasiri, A. (2009), "Comparison of the Power of the Paired Samples Using Permutation Tests", *Journal of Mathematical Sciences and Mathematics Education* ,4(2), 19-31.

Butar F. and Bandulasiri, A. (2009), "Permutation Tests for Paired Samples: Power Comparison", *Proceedings of the Joint Meetings of the American Statistical Association Conference*, Washington D.C.

Bandulasiri, A., (2008), "Predicting the Winner in One Day International Cricket", *Journal of Mathematical Sciences and Mathematics Education* ,3(1), 6-17.

Bandulasiri, A. Patrangenaru, V., Su, J., and Zhang, J., (2008) "Applications of Nonparametric Statistics on Reflection Shape Manifolds and Reflection Size-and-Shape manifolds in Medical Imaging and Proteomics", *Proceedings of the Joint Meetings of the American Statistical Association Conference*, Denver, CO.

Bandulasiri Ananda and Ferry Butar (2007), Statistical Analysis of One Day International Cricket, " *Proceedings of the Joint Meetings of the American Statistical Association Conference*, Salt Lake City, Utah, Aug 2007.

Butar Butar, F., Bandulasiri, A., Holt, M., and Hallum, C. (2007) "Matrix Plots in Support of Visualization of Matrix Characteristics", *Proceedings of the Joint Meetings of the American Statistical Association Conference*, Salt Lake City, Utah, Aug 2007.

Bandulasiri, W. A. and Patrangenaru, V. (2005), Algorithms for Nonparametric Inference on Planar Shape Spaces, *Proceedings of Joint Statistical Meeting*, Minneapolis, 1617-1622.

Hallum, C.R. and Bandulasiri Ananda, Hallum Cecil (2002), "Impacts of Model Misspecifications in the Restricted General Linear Model" *Proceedings of the American Statistical Association Conference*, Atlanta, Georgia, August 2001

Hebert, J. L. and Bandulasiri, W. A. (2002) “Nonparametric Bootstrap Estimation of Location Extrema in Exponential Mixture Models” *Proceedings of the Joint Meetings of the American Statistical Association Conference, Atlanta, Georgia, August 2001*

## **Presentations:**

Student Misconceptions Regarding Probabilistic Independence Vs. Mutually Exclusivity, MAA Texas Section, Abilene, TX, April 2010.

A Brief Review of Statistical Applications for Cricket Data, Joint Statistical Meeting, Washington DC , Aug. 2009.

ROC Curves to Measure the Quality of the Decisions in Cricket, The 2009 New England Symposium on Statistics in Sports, Harvard University, Cambridge, MA, Sep. 2009.

Moisture Content of Bermuda Grass Hay Baled with New Holland Bale-Slice™ and CropCutter™ Technology, 2009 The American Forage and Grassland Council (AFGC) Annual Conference. Michigan. June 2009.  
(Presented by the coauthor)

ROC Curves to Measure the Quality of the Decisions in Cricket MAA-Texas Tarleton State University, TX, April 2008.

Receiver Operating Characteristic (ROC) curves, Texas Undergraduate Mathematics Conference, Sam Houston State University, Huntsville, TX, Oct 2007.

Statistical Analysis of One Day International Cricket, Joint Statistical Meeting, Salt Lake City, Utah, Aug 2007.

Shape Analysis with Applications in Medical Imaging, MAA-Texas, University of Pan American, Edinburg, TX, April 2007.

Statistics for Glaucoma Detection, Texas Tech University Summer Mathematics Academy, June 2006.

Statistical Shape Analysis, Sam Houston State University, December 2005

Statistical Shape Analysis in Medical Imaging, Stephen F. Austin State University, Texas, December 2005

Algorithms for Nonparametric Inference on Shape Manifolds, Joint Statistical Meeting, Minneapolis, MN, (August 2005) (Co-Authored with Dr. Victor Patrangenaru), (August, 9 – 2005)

Multivariate Angular Data Analysis in Glaucoma Detection using Tomographic Images  
LSU Eye Center, New Orleans (July – 2005)

A Statistical Index for Glaucoma Detection from Tomographic Images

AMS Sectional Meeting, Texas Tech University (April – 2005)

Statistical Method for Detecting Glaucoma, an Angular Approach  
3<sup>rd</sup> Annual Student Research Day sponsored by the Texas Tech Chapter of  
SIAM (March – 2005)

Detection of Glaucoma Using Tomographic Images  
Statistics Seminar, Texas Tech University (November - 2004)

Optimality Consideration in Testing Massive Numbers of Hypotheses  
Second Lehmann Symposium, Rice University (Co-Authored with Dr. Peter  
Westfall), (May – 2004).

Nonparametric Methods in Glaucoma Detection, 5h Annual Graduate Poster  
Competition, Texas Tech University, 2006

Multivariate Circular Data Analysis in Glaucoma Detection from  
Tomographic Images (Co-Authored with Dr. Victor Patranganaru and Dr.  
Hilary Thompson)  
American Institute of Mathematics, Palo Alto, California (May – 2005)

Impacts of Model Misspecifications in the Restricted General Linear Model  
(Co-Authored with Dr. Cecil Hallum)  
American Statistical Association Conference, Atlanta, Georgia (August – 2001)

Nonparametric Bootstrap Estimation of Location Extrema in Exponential  
Mixture Models (Co-Authored with Dr. Jaimie Hebert)  
Meetings of the American Statistical Association, Atlanta, Georgia (August -  
2001)

**Awards:**

Best poster award in the Statistics in Sports Section at the Joint Statistical  
Meeting, Washington DC , Aug. 2009

Outstanding Doctoral Teaching Assistant of the Year, Department of  
Mathematics and Statistics, Texas Tech University, 2005

First Place, Annual student poster competition, Texas Tech University, 2005