# Curriculum Vitae

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PRESENT POSITION : Associate Professor

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DATE OF BIRTH : March o1, 1977

GENDER : Male

NATIONALITY : Bangladeshi

FATHER'S NAME : Md. Amzad Hossain

MOTHER'S NAME : Mrs. Laily Begum

MARITAL STATUS : Married

SPOUSE'S NAME : Maksuda Khanam

## RESEARCH INTEREST

- 1) Generalized Estimating Equations Approach in Capture-Recapture Models: Methods and Applications
- 2) Specific Issues on Ecology based on Statistical Analysis
- 3) Model Selection, Estimation and Goodness-of-Fit Tests
- 4) Demand for Health Care and Health Care Issues
- 5) Econometric Applications based on Current Challenges

## ACADEMIC QUALIFICATIONS

- 1) PhD in Mathematics (Specialization in Statistics) (Under Erasmus Mundus Mobility with Asia-West (EMMA-WEST) funded by European Union) awarded with distinction, 13<sup>th</sup> June 2014, Research Centre for Mathematics and Applications (CIMA-U.E.), University of Évora, Portugal.
- 2) M.A. in International Political Economy (Equivalent to M.Phil. by the University of Dhaka) (Under the Joint Japan/World Bank Graduate Scholarship Program, Major in Economics), 2009, Graduate School of Humanities and Social Sciences, Program in International Political Economy, University of Tsukuba, Japan.
- 3) Master of Science in Statistics (Thesis Group), 1999, Department of Statistics, University of Dhaka, Bangladesh.
- 4) Bachelor of Science (B.Sc.) (Honours) in Statistics, 1998, Department of Statistics, University of Dhaka, Bangladesh.
- 5) Higher Secondary Certificate (H.S.C.), 1994, Cantt. Public School & College, Bogra, Bangladesh.
- 6) Secondary School Certificate (S.S.C.), 1992, Lakshmipur Bilateral High School, Gaibandha, Bangladesh.

## OTHER ACADEMIC QUALIFICATION

1) Diploma in Human Rights and Legal Aid, 2006, Humanist and Ethical Association of Bangladesh (HEAB) in collaboration with Dhaka International University, Dhaka, Bangladesh.

## PUBLISHED BOOKS

- 1) Akanda, M. A. S. and Khanam, M. (2011). Goodness-of-Fit Tests for GEE Model: Methods and Applications, VDM Verlag Dr. Müller, ISBN: 978-3-639-35122-4, Saarbrücken, Germany.
- 2) Akanda, M. A. S. (2011). Demand for Health Care and Health Care Expenditure: Applications and Policy Implications in Bangladesh, LAP Lambert Academic Publishing, ISBN: 978-3-8443-8545-8, Saarbrücken, Germany.

## SUBMITTED PAPERS

- 1) Akand, M. A. S. and Alpizar-Jara, R. (submitted). 'A Generalized Estimating Equations Approach and Model Selection Allowing for Heterogeneity and Time Dependence.' *SpringerPlus*.
- 2) Akand, M. A. S. and Alpizar-Jara, R. (submitted). 'Generalized additive models and generalized estimating equations to capture-recapture closed population models.' Atas do XXI Congresso Anual da Sociedade Portuguesa de Estatistica.

#### PUBLISHED PAPERS IN JOURNALS

- 1) Akanda, M. A. S. and Alpizar-Jara, R. (2014). 'Estimation of Capture Probabilities Using Generalized Estimating Equations and Mixed Effects Approaches.' *Ecology and Evolution*, **4(7)**, pp.1158–1165.
- 2) Akanda, M. A. S. and Alpizar-Jara, R. (2014). 'A Generalized Estimating Equation Approach for Capture-Recapture Closed Population Models.' Environmental and Ecological Statistics, DOI: 10.1007/s10651-014-0274-7.
- 3) Akanda, M. A. S., Khanam, M. and Shafiullah, A. Z. M. (2014). 'Determinants of Earnings and Selection into Labor Market by Controlling Selection Bias in Bangladesh.' *Dhaka Univ. J. Sci.*, **62(1)**, pp.11–16.
- 4) Akanda, M. A. S. and Alpizar-Jara, R. (2013). 'Estimation of Capture Probabilities Using a GEE Approach.' Atas do XX Congresso Anual da Sociedade Portuguesa de Estatistica (Maia, M., Campos, P. and Silva, P. D., eds.), pp. 27–35.

- 5) Akanda, M. A. S. (2012). 'Demand for Institutional Delivery in Bangladesh: An Application of Household Production Function.' *Dhaka Univ. J. Sci.*, **60(1)**, pp.53–59.
- 6) Akanda, M. A. S. (2011). 'HYV Technology on Non-Farm Labor and Adoption by Gender in Bangladesh: An Econometric Analysis.' *Stamford Journal of Business Studies*, **4(2)**, pp.43–52.
- 7) Akanda, M. A. S. and Minowa, M. (2011). 'Household Demand for Health Care and Health Care Expenditure by Controlling Endogeneity Bias in Bangladesh.' *Dhaka Univ. J. Sci.*, **59(1)**, pp.137–146.
- 8) Ahmed, A., Hoque, S., Ohlson, M., Akanda, M. A. S. and Moula, M.G. (2010). 'Phytoplankton Standing Crop and its Diversity in the Buragauranga River Estuary in Relation to Chemical Environment.' *Bangladesh J. Bot.*, **39(2)**, pp.143–151.
- 9) Akanda, M. A. S. (2010). 'Consumption Smoothing Behavior through Savings and Borrowings: A Household Study in Bangladesh.' *Stamford Journal of Business Studies*, **3(2)** & **4(1)**, pp.129–136.
- 10) Akanda, M. A. S. (2010). 'Demand for Antenatal Care in Bangladesh: An Application of Two-Part Model.' South Asian Journal of Population and Health, 3(1), pp.29–41.
- 11) Akanda, M. A. S. (2010). 'Returns to Education in Nepal: Evidence from Living Standard Survey.' *Dhaka Univ. J. Sci.*, **58(2)**, pp.257–264.
- 12) Akanda, M. A. S. (2010). 'Relationship between Prenatal Care and Infant Mortality: Evidence from Bangladesh Demographic and Health Survey.' South Asian Journal of Population and Health, **3(2)**, pp.191–202.
- 13) Akanda, M. A. S. and Khanam, M. (2007). 'Fitting GEE Models and Goodness-of-Fit Tests for Delivery Complications in Rural Bangladesh.' *Aust. J. Basic Appl. Sci.*, **1(4)**, pp.431–440.
- 14) Ahmed, A. and Akanda, M. A. S. (2007). 'Relationship among Phytoplankton Diversity, Physical and Chemical Properties of the Padma River.' *Dhaka Univ. J. Biol. Sci.*, **16(1)**, pp.21–27.
- 15) Khanam, M. and Akanda, M. A. S. (2007). 'Determinants of Delivery Complications in Rural Bangladesh.' *J. Appl. Sci. Res.*, **3(11)**, pp.1320–1326.

- 16) Akanda, M. A. S. and Khanam, M. (2007). 'Analysis of Maternal Health Complications in Rural Bangladesh by Using GEE.' *Dhaka Univ. J. Sci.*, **55(1)**, pp.91–95.
- 17) Akanda, M. A. S. and Khanam, M. (2005). 'Goodness-of-Fit Tests for GEE Models Using Kappa-like Statistic to Diabetes Mellitus Study.' *J. Appl. Sci.*, **5(9)**, pp.1597–1601.
- 18) Akanda, M. A. S., Jahan, K., Khanam, M. and Islam, M. A. (2005). 'Generalized Estimating Equations for Conditional and Unconditional Residuals in Diabetes Mellitus Data.' *J. Appl. Sci.*, **5(7)**, pp.1228–1231.
- 19) Akanda, M. A. S., Khanam, M. and Islam, M. A. (2005). 'Comparison of Goodness-of-Fit Tests for GEE Modeling with Binary Responses to Diabetes Mellitus.' *J. Appl. Sci.*, **5(7)**, pp.1214–1218.

## CONFERENCE PRESENTED PAPERS

- 1) Akanda, M. A. S. and Alpizar-Jara, R. (2013). 'Generalized Estimating Equations and Mixed Effect Modeling Approaches in Capture-Recapture Closed Population Models.' Resumos de XXI Congresso da Sociedade Portuguesa de Estatistica, pp.233–235.
- 2) Akanda, M. A. S. and Alpizar-Jara, R. (2013). 'Estimation of Capture Probabilities using GEE and Mixed Effect Approaches.' Abstract of EUR-ING 2013 Analytical Meeting & Workshop, April 28-May 4, 2013, Athens, Georgia, USA, pp.44.
- 3) Akanda, M. A. S. and Alpizar-Jara, R. (2012). 'A Generalized Estimating Equation Approach for Estimating Population Size by Using Capture-Recapture Data.' Abstract of International Statistical Ecology Conference 2012, 3-6 July 2012, Sundvolden Hotel, Oslo, Norway, Abstract no.125.
- 4) Akanda, M. A. S. and Alpizar-Jara, R. (2012). 'Estimation of Capture Probabilities and Model Selection Using a Generalized Estimating Equation Approach.' Resumos de XX Congresso Anual da Sociedade Portuguesa de Estatistica, 26–29 September 2012, Porto, Portugal, pp.595-596.

## THESIS PAPERS

- 1) Akanda, M. A. S. (2014). 'A Generalized Estimating Equations Approach to the Capture-Recapture Closed Population Models: Methods and Applications.' PhD Thesis, Research Centre for Mathematics and Applications (CIMA-U.E.), University of Évora, Portugal.
- 2) Akanda, M. A. S. (2009). 'Demand for Health Care and Health Care Expenditure: A Household Study in Bangladesh.' M.A. Thesis, Graduate School of Humanities and Social Sciences, Doctoral Program in International Political Economy, University of Tsukuba, Japan.
- 3) Akanda, M. A. S. (2001). 'Goodness-of-Fit Tests for GEE Modeling with Binary Responses to Diabetes Mellitus.' M.Sc Thesis, Department of Statistics, University of Dhaka, Bangladesh.

## AWARDS/SCHOLARSHIPS

- 1) 'Erasmus Mundus Mobility with Asia-West (EMMA-WEST)' Scholarship (September, 2011- July, 2014) funded by European Union to PhD study in the Department of Mathematics (Specialization in Statistics) at the University of Évora, Portugal.
- 2) 'Stipends for Participants from Developing Countries' from the International Statistical Ecology Conference 2012, Sundvolden Hotel, Oslo, Norway.
- 3) 'Joint Japan/World Bank Graduate Scholarship' (April, 2007-March, 2009) to study M.A. in International Political Economy jointly selected by the World Bank Committee at the University of Tsukuba, Japan and the authorities of World Bank.
- 4) 'Dean's Special Award' from the Faculty of Science, University of Dhaka for the extra ordinary performance in B.Sc.(Honours) Examination.
- 5) 'Governmental General Merit Scholarship' (1997–1998) for academic excellence and best conduct from the Government People's Republic of Bangladesh.
- 6) 'Hall Sub-Scholarship' (1995–96) for the academic result from the Shahidullah Hall, University of Dhaka.
- 7) 'Gaibandha Zila Student Welfare Association's Scholarship' (1996–97 and 1998–99) for the academic result and the inhabitants of Gaibandha district.

#### PROFESSIONAL EXPERIENCES

- 1) Associate Professor, Department of Statistics, Biostatistics & Informatics, University of Dhaka, Bangladesh. March 06, 2014 to onwards.
- 2) Assistant Professor, Department of Statistics, Biostatistics & Informatics, University of Dhaka, Bangladesh. September 06, 2009 to March 05, 2014onwards.
- 3) Lecturer, Department of Statistics, University of Dhaka, Bangladesh. October 30, 2003 to September 05, 2009.
- 4) Assistant House Tutor, Fazlul Huq Muslim Hall, University of Dhaka, Bangladesh. September 02, 2004 to April 15, 2007.
- 5) Lecturer (Statistics), Department of Computer Sciences and Engineering, Dhaka International University, Banani, Dhaka-1212, Bangladesh. January 05, 2003 to October 30, 2003.

## PRECEDING GUEST TEACHER

- 1) Dhaka International University, Banani, Dhaka-1212, Bangladesh for the Department of Bachelor of Business Administration and Department of Computer Science and Engineering. October 31, 2003 to March 28, 2007.
- 2) Institute of Cost and Management Accountants of Bangladesh (ICMAB), Nilkhet, Dhaka-1000, Bangladesh. January, 2006 to December, 2006.
- 3) Stamford University Bangladesh, Dhanmondi, Dhaka for the Department of Bachelor of Business Administration. January, 2006 to March, 2007.
- 4) Green University of Bangladesh, Dhaka for the program of Master of Business Administration. January, 2006 to December, 2006.

#### PARTICIPATION IN INTERNATIONAL CONFERENCES

- 1) The XXI Congress of the Portuguese Statistical Society, November 29—December 02, 2013, Aveiro, Portugal.
- 2) The EURING 2013 Analytical Meeting & Workshop, April 28–May 4, 2013, Athens, Georgia, USA.

- 3) The Ecological & Environmental Statistical Modelling Symposium, April 11, 2013, Instituto Superior de Agronomia, Lisbon, Portugal.
- 4) The XX Congress of the Portuguese Statistical Society, September 26-29, 2012, Portuguese Catholic University in Porto, Portugal.
- 5) The International Statistical Ecology Conference 2012, July 3–6, 2012, Sundvolden Hotel, Oslo, Norway.
- 6) The First International Conference on Theory and Application of Statistics, Dhaka, December 26–28, 2010.
- 7) The Joint Japan/World Bank Graduate Scholarship Program (JJ/WBGSP) Tokyo Conference, June, 2007.

### PARTICIPATION IN WORKSHOP

1) Workshop in Statistical Inference in Linear Models, April 27, 2012, at the Universidade de Évora, Portugal.

## PROFESSIONAL MEMBERSHIPS

- 1) Member of Research Center in Mathematics and Applications (CIMA-UE), University of Évora, Portugal.
- 2) Life member of Bangladesh Statistical Association, Dhaka, Bangladesh.
- 3) Life member of Dhaka University Statistics Department Alumni Association (DUSDAA), Dhaka, Bangladesh.
- 4) Member of the Technical Editorial board of the Research Journal of Applied Sciences published by International Network for Scientific Information.
- 5) Honorary member of Stem and Leaf, an association of the former and current students of the Department of Statistics, University of Dhaka, Bangladesh.

## OTHER RELEVANT ACTIVITIES

- 1) Reviewer of Health Promotion International published by Oxford University Press, UK.
- 2) Reviewer of Journal of Advanced Social Research (JASR) published by Design for Scientific Renaissance, UK.

3) Reviewer of International Journal of Sociology and Anthropology (IJSA) published by Academic Journals, Nairobi, Kenya.

#### COMPUTER LITERACY

- Microsoft Office: Ms Word, Ms Excel, Ms Power Point and so on.
- Programs and Packages: FORTRAN, SPSS, SAS, STATA, C++, S-PLUS, R-Language, MARK, LaTex, FoxPro etc.
- Web Design: HTML, Java script.

#### LANGUAGE PROFICIENCY:

- Bengali (Native), English (Fluent), Japanese (Medium) and French (Poor).

#### TRAVELLING IN FOREIGN COUNTRIES

- Austria, Belgium, China, France, Germany, Hong Kong, India, Japan, Nepal, Netherlands, Norway, Portugal, Spain, Switzerland, United States of America (USA).

#### REFERENCES

#### Russell Alpizar-Jara

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