

# **CURRICULUM VITAE**

### 1. PERSONAL

Name :	Hisham M. Hilow
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# 2. <u>Education:</u>

- Ph.D. in Statistics (1985) from Virginia Tech University, Blacksburg-Virginia USA.
   Dissertation Advisor: Professor Klaus Hinkelmann.
   Dissertation Field: Design of Experiments.
- 2- M.Sc.in Statistics (1982) from Virginia Tech University- Blacksburg-Virginia, USA,
- 3- Diploma of Proficiency in English (1980) from the University of Michigan Ann Arbor, Michigan, USA.
- M.Sc. in Mathematics (1979) from University of Jordan, Jordan Dissertation Advisor: Professor Mohammad Hamdan.
   Dissertation Field: Categorical Data Modeling and Analysis.
- 5- Higher Diploma in Education (1979) from The University of Jordan, Jordan.
- 6- B.Sc. in Mathematics (1974) from The University of Jordan, Amman- Jordan.

# 3. Professional Administative and Academic Positions:

- 1- Visiting Associate Professor of Statistics (2012-2013) Petra University of Jordan-Sabbatical Leave.
- 2- Visiting Associate Professor of Statistics (2009-2011) Al-Zaytoonah Jordanian University-Sabbatical Leave.

- 3- Chairman of Mathematics Department, The University of Jordan (2005-2008).
- 4- Assistant Dean, Faculty of Science (2004 2005), The University of Jordan.
- 5- Consulting Statistician (1986-2008) Computer Center and Deanship of Academic Research, University of Jordan.
- 6- Statistics Instructor and Consultant (1990- 2008), Center for Consultation and Technical Services, The University of Jordan.
- 7- Research Assistant (1983-1985), Institutional Research Unit., Virginia Tech University, Blacksburg, Virginia,USA.
- 8- Teaching Assistant (1981-1982), Statistics Department, Virginia Tech. University, Blacksburg, Virginia USA.
- 9- Mathematics Instructor (1979-1981) Math. Department, University of Jordan.
- 10- Mathematics Teacher(1974-1979)Prince Hasan High School, Amman-Jordan.

#### 4- Professional Teaching Experience:

I have taught numerous Mathematics , Statistics and Actuarial Science courses (graduate and undergraduate) at the Math. Dept. of The University of Jordan. I have also taught courses to graduate students of other departments (Industrial Engineering, Biology, Ecology, Pharmacy, Public Health, Nursing and Medicine) as well as to undergraduate students of the following Jordanian universities : Petra Univ., Zaytoonah Univ., Applied Science Univ. and Al-Balqa Applied Univ. Following are names of all courses I have taught so far:

#### Mathematics Courses(undergraduate)

Calculus I-II-III, Mathematics for Business, Linear Algebra(I and II), Differential Equations, Matrix Theory, Mathematical Programming ,Operations Research, Abstract Algebra, Numerical Analysis and Discrete Mathematics. Set theory and Mathematical Logic and Complex Analysis.

#### Statistics and Actuarial Science Courses (undergraduate)

Elementary Statistics, Statistical Methods I-II, Engineering Statistics, Biostatistics, Sample Survey Techniques, Experimental Design and Analysis, Probability Theory, Mathematical Statistics, Stochastic Processes, Applied Probability, Time Series Analysis, Survival Analysis, Multivariate Statistics. Actuarial Mathematics(I &II), Mathematics of Finance(I and II) and Risk Theory.

#### Statistics and Actuarial Science Courses (graduate- M.Sc and Ph.D)

Linear Models, Design of Experiments, Advanced Biostatistics, Environmental Statistics and Biometrics, Time Series Analysis, Stochastic Processes, Categorical Data Modeling and Analysis, Multivariate Statistics, Discriminant and Cluster Analysis and Factor Analysis, Mathematical Statistics, Statistical Quality Control, Advanced Engineering Statistics. Actuarial Mathematics, Actuarial Risk Theory, Survival Analysis, Reliability theory and Special Topics in Design of Experiments.

#### Short condensed courses and siminars

I also taught short condensed courses in Applied Statistics(using SAS Statistical Package) to governmental and non-governmental researchers. Some of these courses are organized either by the Continuing Education Department of the Center for Consultations and Technical Services of the University of Jordan. I have also given Statistics seminars at universities and governmental and non-governmental institutions. Some of these governmental institutions are: The Jordanian Department of Criminology and The Traffic Institute while some of these non-governmental institutions is Al-Amal Maternity Hospital in Amman-Jordan.

# 5 - Professional Research Experience:

Most of my research has been in the domain of my two fields of graduate education, namely: Experimental Design and Categorical Data Modeling. I have also developed interest in the diverse applications of Statistics, where some of my published research is of applied flavor.

## **Thesis Supervision**

I have supervised the research of nine graduate students. Most of this supervised research was theoretical .The applied research I have supervised was on a variety of areas including: Engineering (quality improvement and process capability), Environmental (Statistical analysis of rainfall series ) and Medical (mostly in Dentistry). Following are the titles of the 9 dissertations I have supervised:

- 1. "Balanced 2<sup>n</sup> screening designs for exploratory sequential factorial experiments" By Khalid Hasan Ahmed Suliman, June 1992.
- 2. "Balanced 3<sup>n</sup> designs for sequential factorial experiments" By Ra'if Ibraheem Is'eed, August 1992.
- 3. "Balanced economic 2<sup>n</sup>3<sup>n</sup> designs for sequential factorial experiments" ByZiad Saber Abu-Ziotoun, May 1993.
- 4. "Construction and analysis of some time trend-free run orders for sequentially carried out factorial and fractional factorial experiments" By Majdi Fathi Abu Al-Haj, May 1996.
- 5. "Statistical Analysis of Some Confounded Asymmetrical Factorial Designs" By Luai Al-Labadi, 2000.
- 6. "Reduction of The Necking Defect of Aluminum Beverage Cans Using Design of Experiments" By Mohammad Khaled Abu-Hammad, August 2001.
- 7. "Rainfall Analysis During the Twentieth Century and their Associated Environmental Impact in Jordan" By Mona H. Dahabiyeh, August 2002.
- 8. "Statistical Analysis of Some Orthogonal and Balanced Arrays"By Randa Bashir Hijazeen, August 2003.
- 9. "Statistical Analysis of Some Loglinear Models for Multidimensional Contingency Tables" By Omar Moh'd Bdair, May 2004.

## Membership In Theses Defenses

I have participated in defense committees for several graduate students (M.Sc and Ph.D) in Statistics and in Industrial Engineering. Topics of these dissertations covered a variety of theoretical and applied areas in Statistics. Following are the titles and authors of these dissertations:

#### Master degree Theses:

- "Analysis of Regression Data with Missing Regressor Values" By Abdel-Hadi W. Yousef, August 1988.
- 2. "On Availability Measures for Some Maintained Systems"By Nahed Ramadan Abu-Laban, November 1988.
- 3. "A Comparative Study of the Maximum Likelihood Estimators in Some Reliability Models" By Sana' Ahmad Abd Al-Raheem Muna, June 1989.
- 4. "On Accelerated Life Testing Problem"By Khalil Hussain Khalil, August 1989.
- 5. "Goodness-of-Fit Tests" By Fadwa Sami Haddad, December 1993.
- 6. "Tolerance Intervals for Gamma Distribution"By Mahmoud Saif Abdel-Rahman Musafa, January 1994.
- 7. "Optimal Sample Size in Approximating Some Sampling Distributions" By Mohammad El Moudier Mahammad Gobar, May 1999.
- 8. "Approximating Some Sampling Distributions Based on Some Information

Measures" By Hana'a Mohammed Al-Rashdan, August 2000.

- 9. "Reliability Estimation" By Hanan Ahmad "HajAhmad", August 2001.
- 10. Improving Quality Through Analyzing Repeatability and Reproducibility of Measuring Devices for a Wood Industry Company (Case Study)"By Abbas Mohammed Al Refaie, January 2002.
- 11. "Relations for expectations of generalized order statistics and their characterizations" By Lina Naim Abu-Lawi ,May 2004
- 12. "Order Property of Information Measures" By Ma'moun Abu Hammad, August, 2004.
- 13. "Application of Entropy Measures to Life Testing Models" By Mohammad Haatab, May, 2005.
- 14. "On Sup-Entropy Measures" By Mohammad Omar Sahtout, January 2006.
- 15. "On Renyi Entropy Measures" By Nobogh Qumsiyeh, March 2006.
- 16. "Best Linear Estimation Using Ranked Set Sampling"By Maisa R. Shadid , August 2006.
- 17. "Applications of some entropy measures on censored data"By Doha H.M. Hamed , January 2007.
- 18. "Current Record Statistics: Concepts and Distributional Properties" By Murad A. Ahmed, May 2007.
- 19. "Generalized Logistic Distribution: estimation and comparative study"By Muna R.Al-Kasasbeh, May 2007.
- 20. "Efficiency of censored samples based on entropy measures"By Omar A.I. Kittaneh, June 2008.
- 21. "Classification of distributions according to their entropy and information measures" By Rimah Abu Raed November 2008
- 22. "Order Statistics from Proportional Reversed Hazard Rate Model"By Areej Lafi,. March 2009.
- 23. "Bounds for the mean past life function of (n-k+1)-out-of-n system"By Hanaa Lafi, May 2009.
- 24."Prediction of future order statistics from Pareto distribution based on doubly censored samples" By Nasser Qandil, July 2009.
- 25. "Approximate Method for Bivariate Stratification of a population"By Adel Oliemat, April 2011.
- 26. "Estimation of parameters of the Burr-XII distribution based on progressive censoring using the EM algorithm"By: Adila B. Jaber August 2012.

#### **Doctorater degree Theses**

26. "Bioavailability Indices and their Role in Bioequivalence Studies" By Husam A. Bayoud, August 2007.

27. "Characterization of Maximum entropy models" BY Salema A.Al-Mutlak, December 2008.

28. "Statistical Inference and Prediction Involving Ordered Data" By Raed R. Abu Awwad October 2011

29 "On Comparison of Fisher Information of the Weibull and Genralized Rayleigh Distributions" By Morad A.Ahmad 2012

#### Invitation for short visits abroad: Among such visits are to:

- (1) Germany funded by the DAAD research authority for a three-month summer project in 1990.
- (2) the Statistics Department of the University of Toronto–Canada, (Fall 2005) to establish cooperation in Actuarial Science education and professional accreditation of Actuarial Science graduates.

#### Nomination to represent the University of Jordan : Among such

nominations are:

- 1. to the Public Security Department of Jordan in (1989) for upgrading their statistical techniques in handling and documenting criminal data.
- 2. to the conference entitled: "The Role of the Actuary in Jordanian Economy" held in Amman-Jordan (1999).
- 3. to participate -through V-SATTELITE- in (2004) for UNESCO demonstration of its IDAMS Statistics software .

### 5.5 Evaluating Faculty Research for Promotion:

I have been selected by Al-Najah University in the West Bank-Palestine(2006) and by The Islamic University of Qaza Strip –Palestine (2007) to evaluate the research of some of their faculty members for their promotion to the rank of associateship in Statistics.

## 6 - <u>Papers Presented at Local and International Conferences:</u>

- "Screening Factor Effects in Sequential Factorial Experiments" International Conference on Combinatorics, Optimization, and Statistics. Srinagar, India, August 17-21/1987.
- "Analysis of Webb's Four Saturated 2<sup>n</sup> Designs" International Annual Meeting of the American Statistical Association. Washington D.C, August 5-10/1989.
- "Expansible Contractible Factorial Designs" **International Conference on Mathematics and its Applications**. University of Bahrain, Bahrain, November 25-28/1990.
- 4. "Estimation and testing for the parameters of the Bivariate Poisson Population based on 2x2 sample" **First Jordanian Mathematics Conference**, The Univ.of Jordan, Amman, September 2-4/1991.
- 5. "Methods for Teaching Applied Statistics" Conference on teaching methods for Statistics. **Statistics Department of Yarmouk University**, Irbid, Jordan, November 25-26, 1992.
- "McNemar's Problem in 2x2x2 Contingency Tables" Fourth Islamic Countries Conference on Statistical Sciences. Lahore – Pakistan, August 27-31/1994.
- 7. "Statistical analysis for Traffic Accidents in Jordan during 1998-2000", **Conference on Traffic Safety in Jordan**, Amman, Jordan 2002.

# 7 - <u>Professional paper reviewing and consulting activities:</u>

#### **Reviewing & Refereeing Research Articles**

Quite much of my professional activities were devoted to teaching and towards reviewing research articles in diverse areas of theoretical and applied Statistics. As a reviewer ,I have served an editorial member , a reviewer and a referee for several local and international Statistics journals. These journals are: Pakistan Journal of Statistics, Journal of Probability and Statistical Science, Jordan Journal of Mathematics and Statistics , Dirasat Journal of The Univ. of Jordan, Mu'tah Research Journal of Mu'tah Univ., Al-Basa'er Journal of Petra Univ. , Journal of Arab Universities Federation, Scientific Journals International and Jordan Dental Journal and Bioinfo Publication Journals/Journal of Statistics and Mathematics. Following are titles of the articles I have reviewed for these journals:

1."Six Factor Central Composite Designs Robust to a Missing Observation" Manuscript: PJS/92/1369 (Pakistan Journal of Statistics).

2."An Efficient New Iterative Method for Computing Optimal Controls (s,D) Inventory Policy for Poisson Demand"

Manuscript: 103/797 (An-Najah National University Journal - Palestine).

3."Permutation Tests for One-Sided Shift Alternative in the Comparison of Two Multivariate Populations"

Manuscript: 20/10/93 (Dirasat Journal)-Jordan.

4. "Cross Diagonal Fractions in 2<sup>n</sup> Factorials"

Manuscript: PJS/93/692 (Pakistan Journal of Statistics).

5. "Combined Analysis of a Group of Randomized Block Design with Stable Group of Treatments in the Presence of Heterogeneous Error Variances" Manuagrint: PIS/02/000 (Pakiston Journal of Statistics)

Manuscript: PJS/93/009 (Pakistan Journal of Statistics).

6."Modified Curricula for 4-Year Undergraduate courses in Mathematics and Statistics (B.A / B.Sc. & M.A. / M.Sc.).

No. ISOSS/94/39/3122: "Islamic Society of Statistical Sciences"

7."Handling the Problem of Autocorrelation in Repeated Measurement Experiments"

Mu'tah Journal for Research and Studies (1995)-Jordan.

8."Determining the Effects of Dependent Data on Multiple Comparisons Procedures for a k-way Nested Classifications"

Manuscript: 54BKh/3/97 (Dirasat Journal)-Jordan.

9."Forecasting Road Accidents in Irbid Governorate - Jordan" Mu'tah Journal for Research and Studies (1997)-Jordan.

10."Multivariate Permutation Tests for Matched Pairs Designs" Manuscript: 68/11/98 (Mu'tah Journal for Research and Studies)-Jordan.

11."A New Distribution Derived From Gumbel's Bivariate Exponential Distribution." Manuscript: 56BKh/3/98 (Dirasat Journal)-Jordan.

12."Likelihood Based Estimation in the Logistic Model With Failure- Censored Data" Manuscript: 28BKh/3/99 (Dirasat Journal)-Jordan.

13."Employing Discriminant Analysis For Distinguishing Between Normal and Non-Normal Births" Manuscript: 63AKh/1/2000 (Dirasat Journal)-Jordan.

14."Weibull Parameter Estimation in Small Sample Inspection" The First International Conference on Industrial Engineering, University of Jordan September 2001-Jordan.

15."Children Death (below 5 years) in The Arab World and its relationship with income, population, female education and their fertility. Al Basa'er Journal – Petra University (2001)-Jordan.

16."The Effect of Critical Reading on Writing Capability for Tenth Graders. Manuscript: 35A/8/2002 (Dirasat Journal)-Jordan.

17."The Collective Risk Model for Compulsory Automobile Insurance in bodily Injury including liability for death: A Preliminary Application to an Actuarial Study in Jordan. Manuscript: 27AKh/16/2002 (Dirasat Journal)-Jordan. 18."Estimating Traffic Fatality Rates in Jordan" Manuscript: 48BKh/9/2002 (Dirasat Journal)-Jordan.

19. The Two Books Entitled "Statistics" and "Research Methodology" for Al-Quds Open University(2002)-Palestine.

20."Effect of the parameter and sample size on the estimation of R=P(Y<X):A Simulation Study" Manuscript:32B(KH)-3-2002(Dirasat Journal)-Jordan

21. "Interval estimation of the common lognormal mean of several populations" **Journal of Probability and Statistical Science**(October 2003).

22."Identification of youth human losses caused by road traffic accidents in Jordan" Manuscript: 32B(KH)-9-2003 (Dirasat Journal)-Jordan

23."A traffic accident scenario in Jordan and root cause analysis of drivers' errors" Manuscript:28B(KH)-9-2003(Dirasat journal)-Jordan

24." A study of denture base polymerization contraction" Jordan Dental Journal(2004)-Jordan.

25."Analyzing ordered categorical data: various ways giving similar conclusions"(2004),

Um Al-Qura University Journal of Science-Medicine-\_Engineering. Saudi Arabia.

26."Self assessment of university teacher using his examination results" Manuscript 58A(KH)-16-2003 Dirasat Journal-Jordan.

27."Predictive influence of variables in multivariate distribution" Journal Of Probability and Statistical Science.2004

28."Difficulties Facing Class Teachers in Teaching Plane Geometry "

Journal of Arab Universities Federation.

29. "Normal cumulative distribution function"

Manuscript 52-B(KH)-3-2005 Dirasat Journal-Jordan.

30."Factor analysis and quick transfer between R-mode and Q-Mode for their effect on the correlation matrix " Manuscript 25-B(KH)-3-2006 Dirasat Journal.

31."A proposed method for the occurrence rate in non-homogeneous Poisson process" Manuscript 34B(KH)3-2007 Dirasat Journal-Jordan.

32."The effect of siege and embargo on the birth-weight of Iraqi babies using quality control methods" Manuscript 31B(KH)3-2007 Dirasat Journal-Jordan.

33."A comparison between least squares fuzzy linear regression and fuzzy least squares method" Manuscript 18B(KH)3-2007 Dirasat Journal-Jordan.

34."Intuition and guessing in teaching and learning Mathematics- pros and cons" Manuscript 17B(KH)3-2007 Dirasat Journal-Jordan.

35."Estimation and prediction in truncated and contaminated Normal Distribution" Manuscript 35B(KH)3-2007 Dirasat Journal-Jordan.

36." Mathematical Modeling of Islamic daily five prayers"

Manuscript 17B(KH)3-2008 Dirasat Journal-Jordan

37."Estimation and prediction of random effects models for longitudinal survey data under informative sampling" Manuscript 58B(KH)3-2007 Dirasat Journal

38."On the use of sample distribution and sample likelihood for inference under informative probability sampling" Manuscript 57B(KH)3-2007 Dirasat Journal

39."Estimating the reliability of textile machines :A case study in the National Jordanian Textile Industry-King Abdullah II Industrial Zone"

Manuscript 36B(KH)2-2007 Dirasat Journal-Jordan

40."A comparative study of some information measures in estimating the lag order of Markov chains: with applications" Manuscript 32B(KH)3-2007 Dirasat Journal

41." E-learning from the point of view of mathematics teachers in Jordanian governmental schools" Journal of Arab Universities Federation 2006.

42.An analytical comparative study between Mathematical content (exponents and logarithms)in high school textbooks in Jordan and Saudi Arabia in the light of the international standards for Mathematics Curricula"

Journal of Arab Universities Federation 2006.

43." Students learning difficulties in the first circle of the compulsory education in Sultunate of Oman: a field study"Journal of Arab Universities Federation 2007.

44." Cognitive level of essential physics concepts among university students" Journal of Arab Universities Federation 2007.

45." The effect of graphic organizers on the academic achievement of students at UNRWA faculty of education- -Jordan" Journal of Arab Universities Federation 2008.

46."Autoregressive model selection strategy in case of incorrectly model's order determination" AL-Aqsa University Journal-State of Palestine 2008

47." A Monte-Carlo study of folded kernel-based goodness-of-fit test"

Al-Quds Open University –Palestine 2009

48. "Integration Methods by Monte Carlo Simulation and Their Rates of Convergence" Dirasat Journal 2009

49. "Moves and strategies of students in practical education course for Teaching mathematical knowledge" Journal of Arab Universities Federation 2009.

50. "Claussian model for categorical data under hill climbing method"

Jordan Journal of Mathematics and Statistics 2009

51."Modeling and forecasting volatility of returns on Jordanian Stock Index using GARCH Models"Mu'tah Research Journal(Jordan)2009

52."Long memory estimation of FIGARCH model"

Mu'tah Research Journal(Jordan)2009

53. "Robust estimation of the seasonal autocorrelation of the PAR(1) Model" Jordan Journal of Mathematics and Statistics 2009

54. "Geometric Thinking Levels For Mathematics Student Teachers" Journal of Arab Universities Federation 2010.

55. "Profile analysis of the effect of two medicines on worms of goat lungs and stomach " Dirasat Journal of Jordan 2010

56. "Problem solving strategies of Physics problems and their relationship with problem-type and Personal factors" Journal of Arab Universities Federation 2010

57. "Properties of the Buys Ballot estimates when trend-cycle component of the time series is linear" Jordan Journal of Mathematics and Statistics 2010

58. "The effect of epistemological V-shape instructional strategy on understanding of physics concepts by first year university students in physics labs "

Journal of Arab Universities Federation 2011.

59. "Forecasting inflation rate in Jordan by Neural Networks" Mu'tah Journal for research and studies 2011.

60. "On the Effect of Stratification When Two Independent Stratifying Variables Are Used-Journal of Pakistan of Statistics and Operations Research-2011

61." Construction of embedded third order slope rotatable design over all directions using Herzberg method of embedding" Journal of Statistics-Pakistan.

62. "A jackknife approach to error- reducing in nonlinear regression estimation"

Jordan Journal of Mathematics and Statistics 2012.

**<u>Consulting Tasks & Services :</u>** Two of my major consultations were:

1) to supervise the research entitled "Statistical Analysis of Traffic Accidents in Jordan during 1998-2000" funded by the Jordanian Public Security, where findings were published and presented at the conference entitled "Traffic Safety in Jordan" held in Amman-Jordan(April 2002).

2) a consultation in 2003 to the Jordanian Company for Athletic Promotion, where probability computations were conducted for the wining chances of their lottery tickets, where results defended a law suit against acts of forgery and misuse of their magnetized tickets .

#### **Designing new university academic Programs**

Myself and another colleague at the Mathematics Department of the University of Jordan designed the B.Sc. and M.Sc. programs in Actuarial Science. These two programs started functioning at the department in 2003.

### 8 - Professional committee memberships and appointments:

- While serving as the head of the Mathematics Department at the University of Jordan(2005-2008) I have chaired several committees including: recruitment ,comprehensive examinations for the Master and PhD programs.
- Member of the American Statistical Association (1981 1995).
- Member of the Council of the Faculty of Science Univ. of Jordan (1986-1988 and 2003-2008).
- Member of the committee for quality assurance of the Faculty of Science-University of Jordan (2004- 2008, 2013-2014).
- Member of the Islamic Society for Statistical Sciences (1990 1999).
- Member of the Orientation Committee for Freshmen graduate and undergraduate students (2004 -2008).Univ. of Jordan
- Member of Student Grades Automation (2004 2008). Univ. of Jordan
- Member of Legal and Legislative Student Affairs (2004 2008). Univ. of Jordan.
- Member of the Graduate Studies Committee of the Faculty of Science (2005-2008).
- Member of the Curriculum Committee of the Faculty of Science (2005-2008).
- Member of the Editorial Board for : Pakistan Journal of Statistics (1990-1997), Jordan Dental Journal (2004- 2008) and Scientific Journals International (2008-).
- Associate editor (2012-2016) Bioinfo Publication Journals/Journal of Statistics and Mathematics.
- Secretary of the Mathematics Department Univ. of Jordan (1999-2003).
- Member of the Technical Committee for the International Conference on Information Technology and Natural Sciences (October 19-21),Zaytoonah Jordanian University.
- Member of the supervisory committee for the Master Program in Actuarial Science (2002-2008). Univ. of Jordan.
- Member of the two committees at the Jordanian Ministry of Health (2002-2004): Drug Research Supervision & Drug Stability and Bioequivalence.
- Member of the Committee for the Comprehensive Examination of the Master Program in Industrial Engineering at the University of Jordan(2000- 2003).
- Representative of the Mathematics Department at the Main Library Council (2002-2003), Univ. of Jordan

- Member of the Jordanian Judges Committee for the selection of best Jordanian Science and Engineering projects presented for Intel-International Science & Engineering Fair(ISEF)- (2005-2007).
- Member of the organizing committee for the International Conference on "Ordered Statistical Data and Inequalities" held at The Mathematics Department of the University of Jordan 12-14 June 2007.
- Head of Educational Resources and Planning Committee at Al-Zaytoonah Jordanian University (2009-2011).

# 9 - <u>Current Undergoing Research:</u>

The research I am currently working on is the utilization of the two notions of design projectivity and minimal run-augmentation (by fold-over and semi-foldover) for the construction of economic systematic regular and non-regular fractional factorial designs for sequential fractionated factorial experiments(blocked and/or unblocked) such that factors main effects and/or their two-factor interactions are robust to the time trend that may be present in the sequentially generated responses.

# 10 - Awards & Major Acknowledgments:

- 1. The 1997 prize of the Middle East Fertility Society for the research on IVF fertilization (No.11 in the publication list below) .
- 2. Thanks with gratitude from the Middle East Canning Industry-Jordan for supervising the research entitled "minimization of neck deformation defects in aluminum beverage cans by experimental design techniques" which resulted in savings of tens of thousands of dollars.
- 3. Key-note speaker at the Fourth Islamic Countries Conference on Statistical Sciences, Lahore Pakistan, August 27-31/1994.
- 4. I was selected by the International Program Committee of the Fourth Islamic Countries Conference on Statistical Sciences (Lahore Pakistan, 1994) tochair the technical session entitled "Statistical Methodology VII".
- 5. Gratitude from the Jordan Traffic Institute of the Public Security Department for supervising the project entitled "Statistical Analysis of Traffic Accidents in Jordan During 1998-2000".

# **<u>11. Statistics Software Proficiency:</u>**

I am quite proficient in using SAS statistical package, where I have constantly been using this package in all my consultations and statistical teaching. I also manage well with packages like: SPSS, MINITAB and MATHEMATICA.

# **<u>12.References</u>**:

1.Professor Klaus Hinkelmann (<u>khstat@vt.edu</u>) Statistics Department, Virginia Tech University, Virginia-USA

2. Professor Ali Nayfeh (<u>anayfeh@vt.edu</u>)

Department of Engineering Science and Mechanics ,Virginia Tech University, Virginia-USA.

3. Professor and Senator Mohammad Hamdan, Jordan Parliament ,Amman-Jordan (<u>M.hamdan@aou.edu.jo</u>)

- 4. Professor Hala Khaymi(<u>horani-h@ju.edu.jo</u>)
  Vice President for Scientific Research, Graduate Studies and Quality University of Jordan.
- 5.Professor Douglass Wolfe( <u>daw@stat.osu.edu</u> ) Chairman of Statistics Department, Ohio State Univ.-USA

# **<u>13 - Publications:</u>**

1-	Hamdan, M. and Hilow, H. (1981): "Homogeneity of two correlated binomial
	populations based on two overlapping samples" Egyptian Statistical Journal, Vol. 25,
	pp72-79.
2-	Hilow, H. and Hinkelmann, K. (1990): "Strict one-run-at-a-time. 2 <sup>n</sup> plans" Pakistan
	Journal of Statistics, Vol. 6, No. 2, P 1-28.
3-	Hilow, H. and Hinkelmann, K. (1990): "One-block-at-a-time 2 <sup>n</sup> factorial plans"
	Pakistan Journal of Statistics, Vol. 6, No. 2, P 105-124.
4-	Hilow, H. (1992): "A sequential one-block-at-a-time 2 <sup>n</sup> 3 <sup>m</sup> factorial design"
~	Pakistan Journal of Statistics, Vol. 9, No. 1, P 47-61.
5-	Hamdan, M. and Hilow, H. (1993): "Estimation and testing for the parameters of the
	bivariate Poisson population based on 2x2 sample" International Statistical Review,
6	Vol. 61, No. 3, pp 361-367. Hilow, H. and Iseed, R. (1993): "Balanced non-saturated expansible-contractible 3 <sup>n</sup>
6-	designs" Egyptian Statistical Journal, Vol. 37. No.1,pp 122-149.
7-	Hilow, H. and Serhan, S. (1994): "Saturated expansible-contractible 2 <sup>n</sup> designs"
,-	Mu'tah Journal for Research and Studies, Vol. 9, No. 6, pp 39-60.
8-	Hilow, H. (1994): "McNemar's Problem in 2x2x2 contingency tables" Mu'tah
U	Journal for Research and Studies, Vol. 9, No. 6, pp 123-136.
9-	Hilow, H. and Suliman, K. (1994): "A balanced non-saturated expansible-
	contractible 2 <sup>n</sup> designs" Pakistan Journal of Statistics, Vol. 10, No. 3, pp 641-655.
10-	Sayegh, A., Shehabi, A., and Hilow, H. (1997): "Multifactorial modeling for caries
	prediction in Jordanian University students"
	Community Dental Health, Vol. 10, pp 97-101.
11-	Karaki, R. Hilow, H., Taher, M., Sarraf, M. and Khalifa, A. (1998): "A modified low
	dose gonadotrophin releasing hormone agonist protocol for poor responders in IVF"
10	Middle East Fertility Journal, Vol. 3, No. 2, pp 171-177.
12-	Al-Shakhrah, I. and Hilow, H. (1999): "Occupational Exposure to Ionizing Radiation in Jordanian Medical Institutions" Dirasat, Vol. 25 Pure Sciences, No. 1, pp 11-21.
13-	Abul-Haj, M. and Hilow, H. (1999): "Economic and Time-Trend Free Systematic
15	Factorial Designs" Dirasat, Vol. 26 Pure Sciences, No. 1, pp 22-31.
14-	Rawabdeh, I., Hilow, H. and Hammad, M. (2003) "Minimizing necking defects in
	Aluminum Beverage Cans Using Experimental Design Techniques".
	Dirasat, Vol.30, No.1, pp 84-97.
15-	Hilow, H. and Kasasbeh, H. (2003) "Statistical analysis for Traffic Accidents in Jordan
	during 1998-2000". Dirasat Vol.30, No.2, pp 343-359.
16-	Hilow, H. and Al-Labadi, L. (2003)"Linear Modeling and Statistical analysis for
	asymmetric factorial experiments". Mu'tah Journal for Research and Studies.Vol
	18,No.3,pp 21-41.
17-	Hilow, H. and Al-Labadi, L. (2004) "Systems of Confounding for Asymmetrical
10	Factorial Experiments". Dirasat Journal Vol.31, No.1, 52-58.
18-	Sayegh, A. Hilow.H. and Bedi, R. (2004) "Patterns of tooth loss in recipients of free
	dental treatment at the University Hospital of Amman, Jordan". Journal of Oral Rehabilitation Vol 31 No 2 pp 124, 130
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