

## **A. K. Md. Ehsanes Saleh: A Luminous Professor of Statistics**

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It is a great honor for me to write this tribute in recognition of Professor A. K. Md. Ehsanes Saleh, Distinguished Research Professor and Professor Emeritus, School of Mathematics and Statistics, Carleton University, Ottawa, Canada. Professor Saleh is undoubtedly the most outstanding leading statistician of Bangladesh for his exceptional contributions in statistical sciences. He has recently been honored with a special recognition in an international conference organized by the North South University, Dhaka and the Carleton University, Ottawa on “Recent Developments in Statistical Sciences” held at Dhaka, Bangladesh in December, 26-27, 2008.

I heard about Professor Saleh when I was a lecturer in statistics in Jahangirnagar University, Dhaka in 1988. Later, when I was awarded the commonwealth scholarship for my graduate studies in Canada, I chose Carleton University to study under Professor Saleh’s guidance who was then the Director Graduate Studies at the school. In one of his seminar courses, Professor Saleh introduced me to the topic of “Ridge Regression” which opened the door for a seminal collaborative research on combining “ridge regression and preliminary test estimation”. I am grateful for his superb guidance and encouragements to continue to do research on “ridge regression” which ultimately led to 12 significant collaborative papers with Professor Saleh. His sincere encouragements and inspiration guided me to pursue a strong research in statistics. He is truly a great teacher.

Professor Saleh was born on January 1, 1932 in Birkampur in the district of Munshigonj, Dhaka, Bangladesh. He obtained his B. Sc. Degree (stood sixth in order of merit with distinction) in 1951 and M. Sc. Degree in Statistics from the University of Dhaka in 1953 when Professor Dr. Q. M. Hosain was the head of the Department of Statistics. After working with the Central Statistical Office and the Ministry of Defence, Government of Pakistan for eight years, he went to the University of Western Ontario (UWO), London, Canada, for his graduate studies in the newly created graduate program in Statistics in the Department of Mathematics. He is the first M. A. (1962) and Ph. D. (1965) degree holder in Statistics from the University of Western Ontario. In addition, it is remarkable that he immediately published two pioneering papers in Order Statistics in the journal of *Annals of Mathematical Statistics* (1966) from



Professor Saleh receiving a “Crest of honor”

his Masters and Ph. D. theses. In his later years he made seminal contributions to various fields of statistics and served his profession well.

After his degree from the University of Western Ontario, Professor Saleh switched his career from a government official to an academic, starting as a lecturer of Statistics at the University of Western Ontario during 1964-1966. He joined the Department of Mathematics and Statistics as an Assistant Professor at Carleton University in 1966 and following year he was appointed as an Associate Professor in the Department of Mathematics, Simon Fraser University (1967-1968), and was invited back to Carleton University in the Fall of 1968. He was promoted to Full Professor in 1978. He is the founder of the graduate program in Statistics at Carleton and produced his first Ph. D. in 1971. He also served as the Director of the Ottawa-Carleton Institute of Graduate Studies and Research during 1991-93. He retired in 1997 and since then he has been appointed as the Distinguished Research Professor at Carleton University. He is one of the four elites in statistics and probability of the School of Mathematics and Statistics, Carleton University.

Professor Saleh has produced 12 Ph. D. students. Among them, S. E. Ahmed, Ali Abdunnabi, S. M. S. Tabatabaey and M. A. Matin made a mark in academic career. They all are chairs of their respective departments. He was totally devoted to the development of young statisticians and gave them opportunity to visit Carleton and collaborate with him. Some of them are now world class statisticians (i.e. T. Kubokawa and C. Robert). He was visiting professor in a number of institutions, namely, University of Toronto, Stanford University, MIT, University of California, Berkeley, Michigan State University, Bowling Green State

University, Charles University, Prague, Banach Centre, Poland, Kuwait University, Kuwait, University of South Queensland and Monash University, Australia.

Professor Saleh made landmark contributions involving the preliminary test and shrinkage estimation, robust statistics, order statistics, L-estimation, auto-regression quintiles. He is one of the pioneers for the preliminary test and shrinkage estimation in nonparametric setting. Professor Saleh has authored and co-authored around 200 scientific papers which have appeared in many international well known statistical journals: *Annals of Mathematical Statistics*; *Annals of Statistics*, *Journal of Royal Statistical Society, B*, *Statistician*; *Journal of Multivariate Analysis*; *Journal of American Statistical Association*; *Journal of Nonparametric Statistics*; *Sankhya*, *Metrika*, *Journal of Japan Statistical Society*; *Journal of Statistical Planning and Inference*; *Communications in Statistics - Theory & Methods*; *Probability and Statistics letters*; *Calcutta Statistical Association Bulletin* and many others. He has been serving the Journal of Statistical Research as the Editor-in-Chief for more than a decade. He has also served as an associate editor for a number of international statistical journals. Professor Saleh was involved in ASA, IMS, RSS, BSA and other world leading statistical associations since he started his teaching career in 1966. He has organized many national and international conference/symposiums and presented a vast amount of papers as a keynote and invited speakers in different conferences, institutions and countries.



Professors Nancy Reid and Saleh at SSC ceremony

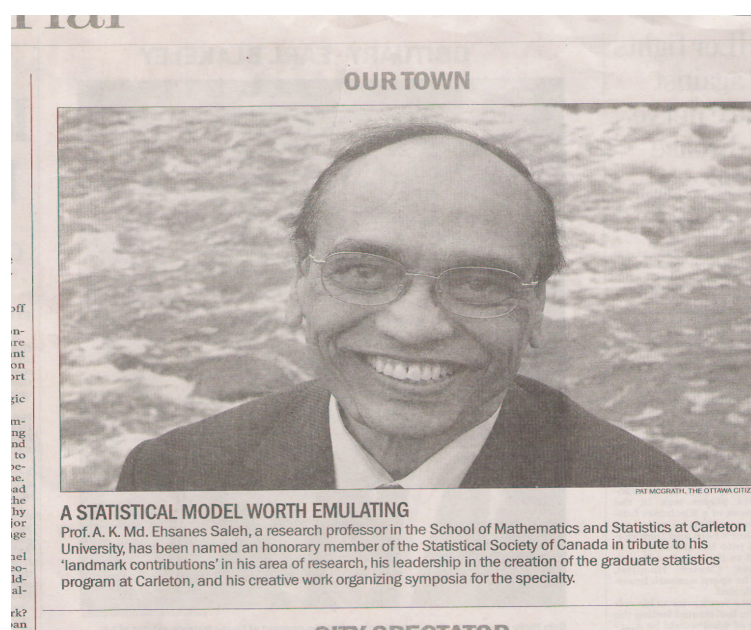
Professor Saleh is the author of the book, “Theory of Preliminary Test and Stein-Type Estimation with Application,” (2006) and co-authored the book “An introduction to probability and statistics” (2<sup>nd</sup> edition) with Vijay K. Rohatgi, (2000). Both books are Wiley publications and got serious attention by different researchers in a short period of time. He has been awarded a Gold Medal for the contributions to statistics through his books by the Islamic Soci-

ety of Statistical Sciences (ISOSS) in 2005. He also edited several volumes: (i) Data analysis from statistical foundations (A festschrift in honour of 75<sup>th</sup> birthday of D. A. S. Fraser). NOVA Publisher, (ii) A special volume of JSR in honor of 80th birthday of C. R. RAO, (iii) A special volume of the Journal of Nonparametric Statistics on "Regression Quantile", (iv) "Nonparametric Statistics and Related Topics", Proceedings of the International Symposium on Nonparametric Statistics and Related Topics. North-Holland Publishers, (v) Proceedings of the International Symposium on Statistics and Related Topics' with M. Csorgo, D. A. Dawson and J. N. K. Rao, North-Holland, (vi) Proceedings of the 3-day symposium on Statistics and Related Topics, Carleton mathematics Series, 1974. "An International Symposium on Nonparametric Statistics and Related Topics" was held during September 15-17, 2006 on the occasion of 75<sup>th</sup> birth-day of Professor Saleh at Carleton University

Professor Saleh received numerous awards and fellowships for his scholastic achievements. He is an elected member of the International Statistical Institute (ISI) and an elected Fellow of the Royal Statistical Society. To the best of my knowledge, he is the first Bangladeshi to be ranked as the fellow of the American Statistical Association and the only Bangladeshi who is holding the rank of fellow of the Institute of Mathematical Statistics. He is also the fellow of Bangladesh Academy of Sciences. He was the third Eugene Lukacs Distinguished Professor at the Bowling Green State University during 1992-93. In 1992 he was awarded the *Q. M. Hosain Gold Medal* by the Bangladesh Statistical Association for his superb quality of research, his fundamental and pioneering contributions to variety of areas of statistical sciences. In 1991, he was a co-winner of the Ogawa Award with T. Kubokawa for the best paper in the *Journal of Japanese Statistical Society*. In 1999, he was awarded the *Gold medal* and a certificate by the Islamic Society of Statistical Sciences (ISOSS) and Islamic Educational, Scientific & Cultural Organization (ISESCO), for his Outstanding Research in Statistics in the organization of Islamic Conference Member State. In the same year, he has been presented an Award of Excellence with a plaque by the Canada Bangladesh Muslim Community, Ottawa. Professor Saleh's achievements have brought pride and glory to the people of Bangladesh and has been honored with an Award of "Pride of Bangladesh" plaque by the Federation of Bangladesh Association of North America (FOBANA) at the 14th Annual meeting at Toronto in 2000 as the most outstanding statistician and academic of Bangladesh. *Journal of Statistical Research*, *Pakistan Journal of Statistics* and *Journal of Statistical Studies* all have published special volumes in honor of his profound contributions in statistical sciences.

Many experts and organizations made commendable remarks in appreciation of the contributions of Professor Saleh. Some of them are cited as follows. "Professor Saleh has an international reputation for his work in nonparametric statistics. He is one of the leaders in nonparametric preliminary test inference and nonparametric estimation in general" - Professor Myles Hollander, The Florida State University. "He is perhaps the foremost scholar merging the areas of shrinkage estimation and robust statistics; and it is this work with which I have some familiarity. This work is in my opinion extremely strong research" - Professor Stephen, University of Illinois at Urbana-Champaign. "His recent research applying preliminary tests and Stein type shrinkage estimation procedures to robust methods is quite novel as it combines ideas from two previously diverse areas of methodology" - Professor Joseph L.

Gastworth, George Washington University. *“Professor A. K. Md. Ehsanes Saleh, a research professor in the School of Mathematics and Statistics at Carleton University, has been named an honorary member of the Statistical Society of Canada in tribute to his landmark contributions in his area of research, his leadership in the creation of the graduate statistics program at Carleton and his creative work in organizing symposia for the specialty”*. The Natural Sciences and Engineering Research Council of Canada (NSERC) recognized Professor Saleh *“for his important research achievements that have contributed to the sum total of human knowledge and advancements of economic and social well-being of Canadians over 25 years of NSERC’s existence”*.



Tribute by the daily “Ottawa Citizen“

The contributions of Professor Saleh to the Carleton University as well as to the statistical community is exceptional. He is certainly an icon of Bangladesh-Statistics. Even at his age of 78, he does not give up his research and service to JSR as Editor-In- Chief. He will remain as a man with high distinction and long vision in the arena of Statistics. He certainly brought reputation to Carleton University, as well as to his home country Bangladesh. We are proud of him and surely pray for his healthy life. I am thankful to the Department of Statistics, Rajshahi University, Rajshahi, Bangladesh for giving me the opportunity to write this tribute.