



International Institute of Islamic Economics
International Islamic University, Islamabad

Training Workshop on

Quantitative Methods for Social Sciences

June 20-26, 2013

Venue

Male Campus: International Institute of Islamic Economics, Faculty Block II, New Campus,
International Islamic University, Sector H-10, Islamabad



Organizing Committee

Principal Organizer

- Prof. Asad Zaman, Director General IIIE

Members of Organizing Committee

- Dr. Atiq-ur-Rehman, Econometrician
- Dr. Hamid Hassan, Assistant Professor
- Dr. Arshad Ali Bhatti, Assistant Professor
- Dr. Abdul Rashid, Assistant Professor

About Workshop

This workshop is the second of the series of workshops entitled 'Quantitative Methods for Social Sciences-Teaching and Research (QMSS-TR)' is planned to be held for **male and female faculty and students separately** at the International Institute of Islamic Economics (IIIE), International Islamic University, Islamabad. The importance of Quantitative Methods in the social sciences is increasing day by day, as the quality and quantity of data available for the quantitative analysis improved rapidly in the recent past. On the other hand, due to lack of experts in quantitative sciences, researchers cannot find chance of updating

their knowledge about quantitative methods. Therefore there is critical need of updating the knowledge of researchers to meet the challenges of fast innovation process in the quantitative sciences. The QMSS-TR is an initiative of IIIE, based on the following objectives.

1. To stimulate research in Econometrics and statistics.
2. To enable researchers to effectively utilize quantitative methods in economic and social research.
3. To serve as a refresher course for the teachers of Econometrics.

IIIE has successfully conducted a workshop with the same title and outlines for male teachers and researcher.



Who Should Attend?

The target participants of the workshop are the teachers and researchers, who teach/utilize Econometrics/statistics for the teaching and/or research.

About IIIE

International Institute of Islamic Economics (IIIE), International Islamic University Islamabad is the leading

institution in Pakistan in the field of quantitative sciences. Under the vibrant leadership of Dr. Asad Zaman, the institute has made solid contribution to the Statistics and Econometrics. IIIE is only institution in Pakistan offering opportunity for PhD in Econometrics. The Institute is extending its services for those who are not regular students, to have an opportunity of updated knowledge in econometrics/statistics.

Resource Persons

- Dr. Asad Zaman, IIUI
- Dr. Eatzaz Ahmed, QAU
- Dr. Abdul Rashid, IIU
- Dr. Atiq-ur-Rehman, IIU
- Dr. Hamid Hassan, IIU
- Dr. Saqib Manzoor, IIU
- Dr. Mumtaz Ahmed, COMSATS, Islamabad
- Mr. Saud Ahmed Khan, NUST, Islamabad

Training Methodology

The experience shows that the conventional training in quantitative methods makes the students memorize the theorems and formulae, but does not enable them to handle a real data set. Therefore full attention is given to enable the participants to apply the techniques being learned to real data. Every lecture session is followed by a practical session in which participants will be required to apply the techniques learned in the session to real data. The resource persons along with a group of teaching assistants will help the participants handling the real data. The practical sessions will be conducted in a fully equipped computer lab with necessary software and DSL facility.



Daily Time Schedule

June 20,27		
Morning	Lecture Session	8:30-10:30
	Practical Session	10:35-12:15
LUNCH BREAK		12:15-14:00
Evening	Lecture Session	14:00-15:55
	Practical Session	16:00-17:45

Detailed Lectures Plan (Provisional)

Day 1 June 20	08:30-10:30	Opening Lecture Introduction of IIIE, Purpose of Workshop, Nature of Econometrics, Weaknesses and Strengths of Current Econometric Practice.
	10:00-13:30	Exploratory Data Analysis Quartiles, Boxplots, CDF, Outliers, Skewness kurtosis etc.
	14:15-17:45	Regression Analysis I Back Ground of OLS Regression, Calculating Regression in various statistical Softwares including Excel, E-view, PcGive, Interpreting Regression Results
Day 2 June 21	08:30-12:00	Dummy Variables Trend and Intercept dummy Multiple Dummies, Dummies and structural breaks, interaction dummies
	14:00-17:30	Stationarity Its importance, Implications AR models and Stationarity, Spurious Regression
Day 3 June 22	08:30-12:00	General to Specific Modeling Features of G2S modeling, it Merits over the rival strategies and application procedures
	14:00-17:30	Financial Time Series Modeling ARCH, GARCH, GJR Models, ARCH in mean
Day 4 June 23	08:30-12:00	Models for Categorical Variables Logit, Probit, Multinomial Logit, Probit Poisson and Negative Binomial Models
	14:00-17:30	Time Series Models Autocorrelation, Time Series Model as a consequence of autocorrelation, Estimating

		ARDL Model
Day 5 June 24	08:30-12:00	Unit Root Testing Unit Root Tests, lag and trend specification, Detrending based tests and their properties
	14:00-17:30	Regression Analysis II OLS Assumptions, Testing Assumptions of OLS model, Testing for Heteroskedasticity, Testing for autocorrelation.
Day 6 June 25	08:30-12:00	Financial Time Series II Multivariate GARCH modeling
	14:00-17:30	Advanced Topics in Time Series Endogeneity, Encompassing Selection between various models
Day 7 June 26	08:30-12:00	Cointegration Testing Engle Granger 2-step procedure, Johansen cointegration, Bound Testing Approach, ECM and VECM



Eligibility

Teachers of Econometrics/Statistics in Institutes of Higher Education, People Engaged in Quantitative research in research organizations, Academic staff of IIIIE and the students working on MS/PhD thesis

Participation Cost/Registration Fee

Professionals: Rs 3000 per individual

Students from outside IIIIE: Rs 1500 per individual

Students/Employees of IIIIE: Rs 1000 per individual

(The cost includes provision of software, study material and tea sessions)

Application Procedure

Applications are to be submitted on prescribed application form available from the office of program coordinator, School of Economics, IIIIE (Male Campus). Attach the proof of the qualification declared in the application form.

Last date for submitting application: June 18, 2013

Last date for submitting dues: June 20, 12, 2013

CONTACT PERSONS

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