

### DST-NRF Centre of Excellence in Scientometrics and Science, Technology and Innovation Policy



## POSTGRADUATE WORKSHOP ANNOUNCEMENT

# SURVEY METHODOLOGIES: DATA COLLECTION AND ANALYSIS Professor Edward Lorenz

DATE: 13th and 14th August 2015 (Thursday and Friday)

**VENUE:** Institute for Economic Research on Innovation, Conference Room, 159 Nana Sita Street, Pretoria

**Application:** This workshop is aimed at students with a basic familiarity with statistics and/or research methods. Please send your CV and a short motivation to Mr. Lucas Madia, Senior Administrator, IERI. Email: <a href="MadialL@tut.ac.za">MadialL@tut.ac.za</a>.

## Background to the workshop:

This two-day workshop is designed to provide an introduction to survey design and data collection methods. The workshop aims to give students interested in carrying out their own surveys for PhD or Masters research a working knowledge of the elements that will affect how well their surveys accomplish their goals and how confident they can be in the results and statistics based on their surveys. The workshop presumes no special background but basic knowledge of statistics and innovation studies research is a plus. The main topics covered are sampling and choosing the target population, methods of data collection and non-response, designing survey questions, survey interviewing, and preparing survey data for analysis. On day 2 of the workshop students will participate in an interactive exercise involving the design and testing of short survey questionnaires. The workshop will be conducted by Professor Edward Lorenz.

**Edward Lorenz:** Professor of Economics at the University of Nice-Sophia Antipolis (France) and member of the CNRS-University of Nice research institute GREDEG. He is Assigned Professor at the University of Aalborg, Denmark. His research focuses on the comparative analysis of business organisation, employment relations and innovation systems. He was co-director of the EU Coordinating Action project MEADOW (Measuring the Dynamics of Work and Organisation) designed to set up standards for collecting and interpreting harmonised data on organisational change and its economic and social impacts at the EU level.

Home page: https://sites.google.com/site/nedlorenz/home



#### **PROGRAMME:**

#### DAY 1

<u>Session 1</u>: "Developing indicators of organisational change and innovation" –
 Edward Lorenz and Erika Kraemer-Mbula

This session presents an overview and comparison of indicators for measuring organisational change and innovation. The session draws on the EU Meadow Guidelines for measuring organisational change and its economic and social impacts and on the Oslo Manual establishing standards for measuring innovation. The session discusses of importance of carefully specifying the theoretical concepts and research questions to be addressed and illustrates how these can be translated into a measurement framework as a basis for developing indicators. The session explores the relative advantages of employer-level and employee-level data for measuring organisation change and examines how retrospective questions can be used to capture processes of change. Other topics include the 2005 revisions of the Oslo Manual which incorporated many of the elements proposed in the Bogota Manual for measuring innovation in developing nations.

• **Session 2**: "Survey methods" – Edward Lorenz

This session provides an introduction to survey fundamentals and the issues that have to be addressed before the researcher begins to design survey questions. Different possible survey methods are compared including postal, face-to-face, on-line and telephone (CATI). The advantages and disadvantages of each method are examined as well as how the choice of data collection method is connected to the target population and the statistical methods applied in data analysis. Contact procedures and good practice rules for minimising non-response are discussed. The session is designed to give the student an overview of the factors that will affect the level of confidence in the survey results.

#### DAY 2

 <u>Session 1</u>: "Questionnaire design and cognitive testing" – Edward Lorenz and additional facilitators: Lotta Takala-Greenish (Wits University) and Erika Kraemer-Mbula (IERI)

Cognitive testing is both one of the most important and most often discounted steps in carrying out a successful survey. Cognitive testing can help identify problems with meeting the goals of good questionnaire design including high reliability and high content validity. It can avoid costly mistakes when questions are included that do not measure what the researcher want to measure. In this session we invite the students to break into groups and to design a short 2 to 3 page questionnaire on a selected theme. Students will then apply a protocol for testing each other's questionnaires and will try to identify and propose solutions to problem questions. The results will be summarised, collated and made available on-line.