ISI WSC 2019 Short Course Programme

COURSE TITLE :	**SC11 - Developing statistical literacy in civic statistics contexts: concepts, guidelines and teaching material from ProCivicStat**
DURATION :	1 Day
DATE :	17 August 2019
VENUE :	Sasana Kijang
REGISTRATION FEES :	Developed Country MYR 1,140 (Approximately EUR 240)
	Developing Country / Student* MYR 710 (Approximately EUR 150) *For student, proof of enrolment is required*

INSTRUCTOR 1

Prof. Dr. Joachim Engel,
University of Education,
Ludwigsburg, Germany

Joachim Engel is trained as an applied mathematician with a strong interest in statistics and statistics education. He is a professor for mathematics and mathematics education at Ludwigsburg University of Education, Germany;
Currently he is President of the International Association for Statistical Education (2019-2021); from 2015-2018 he was coordinator of the EU funded strategic partnership ProCivicStat.
His research interests are in the area of statistical literacy, nonparametrics, statistics and society, data science education, mathematical modeling.

INSTRUCTOR 2

Prof Dr Pedro Campos
University of Porto
Portugal

Pedro Campos is an assistant professor at the Faculty of Economics of the University of Porto, with a PhD in Management Sciences by U. Porto, Bsc in Applied Maythematics . He is a member of LIAAD (Laboratory of Artificial Intelligence and Decision Support), which is a research group belonging to INESC Porto, LA. He coordinates the Post-Graduate Programme in of Information Management and Marketing Intelligence at the Universiyt of Porto Business school. Pedro is currently Deputy Director of the international Statistical Literacy Project (ISLP).

His main research interests are Statistics (Data Analysis, Sampling Techniques, StatisticaEducation) and Artificial Intelligence (Multi-Agent Systems). The main areas of applications are Demography and Organizational Networks

INSTRUCTOR 3

Prof. Dr. Jim Ridgway
University of Durham
Unite Kindow

Jim Ridgway is an applied psychologist with interests in data visualization, reasoning and public understanding of evidence. His work at the SMART Centre has led to the creation of novel data visualizations (and associated curriculum materials) that have been used in schools and universities. The Constituency Explorer – based on collaborative work with the House of Commons library -has been used extensively by politicians, analysts, and journalists, as well as academics. He has also done work on large-scale curriculum change, notably in the context of problem solving in school mathematics.

COURSE DESCRIPTION

Vibrant democracies require informed citizens who can monitor and discuss progress towards economic and social goals and human rights. Statistical information regarding "civic statistics, i.e. statistics about society related to demographic change, global warming, crime, civil rights issues, social (in) equality, health hazards and many others are increasingly accessible to the general public and to individual citizens However, traditional statistics courses do not focus on issues that are at the heart of civic statistics, and seldom connect learners with important social issues. Hence, there is an urgent need to rethink current educational approaches in this regard, and have new types of resources accessible.

This short course is based on work of ProCivicStat, a strategic partnership of six Universities funded through the Erasmus+ program of the European Union. We will present and engage participants in exploring various innovative teaching resources to improve the critical understanding of statistics and quantitative evidence relevant to burning social issues which include a conceptual framework, lesson plans involving texts from media and official providers, analyze datasets on socially-relevant topics with visualization tools including our platform CivicStatMap; and discuss ideas for teaching practices, curriculum design, assessment, and promoting statistical literacy. All materials are freely available through our website http://iase-web.org/islp/pcs

SYLLABUS

Time plan: short course runs 9:30 to 15:30, i.e. 6 hrs of which 4.5 hrs will be net time, the rest for breaks, lunch, technical issues etc.

Saturday, 9:30 – 15:30

1. Opening (20')
2. Experience 1: Text-based tasks; Q&A (60')
   --- Coffee Break --- (20')
3. Experience 2: data-visualization tasks: Q&A   (50')
       --- Lunch break --
4. Conceptual framework; (30')
5. Group discussion (20')
6. Experience 3: analysis of a dataset (50')
   --- Coffee break --- (20')
7. Intro to accessible materials: CivicStatMap (30')
8. Discussion: Challenges of implementing civic statistics: (30')

TARGET AUDIENCE

The target group for this short course are lecturers, school teachers, trainers and also researchers who want to develop students' knowledge and understanding regarding civic statistics which relate to, e.g., crime, poverty, employment, income, and other social and economic contexts at secondary and tertiary level.