enbis webinar

18 April, 2020

FREE ENBIS COVID19 Webinar series

ENBIS is proud to present a series of webinars related with the COVID19 public health emergency. This webinar series has been prepared by **Murat Caner Testik**, who will also moderate the sessions.

1. *ANALYTICS IN INDUSTRY 40 WITH SOME COVID19 IMPLICATIONS*

Dr. Ron S. Kenett, Chairman, KPA Group, and senior research fellow, the Samuel Neaman Institute, Technion, Israel

Thursday 23 April 2020, at 12:00 CEST

The Fourth Industrial Revolution, or Industry 4.0, is based on advanced manufacturing and engineering technologies such as massive digitization, big data analytics, advanced robotics, adaptive automation, additive manufacturing, modeling and simulation, artificial intelligence, and the nano-engineering of materials. Under Industry 4.0, systems have access to large types and numbers of external devices and to enormous quantities of data analyzed with data analytics. Simulations embedded in surrogate models of the physical factory, allow to troubleshoot and optimize processes off line. The webinar will provide an overview of Industry 4.0 and present three case studies of analytic applications. Case study 1 is on monitoring the structure deformation of an airborne device using seven optical fiber brag strain sensors. Case 2 is based on a piston simulator with a challenge to optimize and Case 3 is about an online SPC system that provides monitoring, diagnostic, prognostic and prescriptive analytic capabilities. Three interactive quizzes will be conducted to encourage active participation and group discussion.

2. *MODELLING SOME COVID-19 DATA*

Dr. Marc Lavielle, Research Director, Inria, and Professor, Ecole Polytechnique, France

Friday 24 April 2020, at 12:00 CEST

We propose to build a SIR-type model for the Covid-19 data provided by the Johns-Hopkins University. The model is adapted in order to fit the data for a given country. In particular, the model integrates a time-dependent transmission rate, whose variations can be thought to be related to the health measures taken by the country in question. The proposed model adjusts the data for several countries very well. In particular, it seems to confirm that several countries have already reached the peak of the pandemic and are seeing their numbers of infected people and deaths decline. It is important to stress that such a model does not claim to be able to predict the evolution of the epidemic in each country. It merely proposes a possible scenario in the relatively short term, assuming a certain stability of conditions.

3. *CEPS: MONITORING COVID19 CONTAGION*

Dr. Paolo Giudici, Professor, University of Pavia, Italy

Wednesday 29 April 2020, at 12:00 CEST

We propose a Poisson autoregressive model to monitor the contagion curve. When compared to standard SIR models, the proposal has the advantage to adapt to time changes and to include daily variations due, for example, to changes in testing procedures or quarantine policies. We apply the model to WHO data for the most impacted world countries.

4. *MARKET RISK, CONNECTEDNESS AND TURBULENCE: A COMPARISON OF 21ST CENTURY FINANCIAL CRISES*

Dr. Daniel Ahelegbey, Professor, University of Pavia, Italy and Boston University, USA

Wednesday 29 April 2020, at 12:30 CEST

The talk will present network VAR models aimed at understanding whether dense financial market interconnections can reduce or amplify the impact of a financial crisis. The proposal is applied to the major global crisis of the 21st century: the tech crisis of 2001-2002; the financial crisis of 2008-2009; the on-going COVID crisis.

Registration procedure

To register to all or some of these free webinars, go to the ENBIS website at http://www.enbis.org, log in, and select the ENBIS COVID-19 Webinars you want among the Upcoming Events, and click on Registration.

Please note the webinars are restricted to 200 participants. In case the quota of participants has been exceeded by the time you try to register, you will be waitlisted and notified per e-mail should your participation become possible because somebody else withdrew from the webinar.