

Workshop: Principles of forecasting with R¹

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Program

Day 1

09:00 - 09:30	Registration and welcome
09:30 - 10:00	R, RStudio, RMarkdown
10:00 - 10:30	Forecasting and decision making
10.30 - 11:00	Data preparation
11:00 - 11:15	<i>Break</i>
11:15 - 12:15	Data exploration
12:15 - 13:00	Data visualization
13:00 - 14:00	<i>Lunch</i>
14:00 - 15:30	Practical forecasting : an overall view
15:30 - 15:45	<i>Break</i>
15:45 - 17:00	Reports with RMarkdown

Day 2

09:00 - 09:30	Time series components
09:30 - 11:00	Decomposition and forecasting
11:00 - 11:15	<i>Break</i>
11:15 - 13:00	Exponential smoothing models
13:00 - 14:00	<i>Lunch</i>
14:00 - 15:30	ARIMA models
15:30 - 15:45	<i>Break</i>
15:45 - 17:00	Neural networks and TBATS (Trigonometric Exponential Smoothing)

Day 3

09:00 - 11:00	Regression
11:00 - 11:15	<i>Break</i>
11:15 - 13:00	Model selection
13:00 - 14:00	<i>Lunch</i>
14:00 - 15:30	Intermittent demand forecasting
15:30 - 15:45	<i>Break</i>
15:45 - 16:45	Forecasting by aggregation
16:45 - 17:00	Feedbacks, comments

Please install a recent version of R and RStudio

1. Download and install R: <http://www.r-project.org>
2. Download and install RStudio: <http://www.rstudio.com/products/rstudio>

About the Instructor:

Dr Bahman Rostami-Tabar is an Assistant Professor of Logistics and Operations Management at Cardiff Business School, Cardiff University, UK.

He holds a PhD in Industrial engineering and his research addresses forecasting issues of temporal and cross-sectional aggregation, inventory management and information sharing in supply chains. He is also interested in forecasting for non-profits such as humanitarian organizations and healthcare. He is currently running a project which aims to democratise forecasting with R. The project targets 30 countries and 1000 individuals across less developed countries in the World.

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1. ¹ This is a not-for-profit workshop, it is free of charge but places are limited!
 2. It is available to all students and academics and only professionals in not-for-profit organisations