Exam - Time series forecasting

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	A	B	C
1	Timestamp	Power (kW)	Temp (C°)
2	1/1/2010 1:15	165,1	10,6
3	1/1/2010 1:30	151,6	10,6
4	1/1/2010 1:45	146,9	10,6
5	1/1/2010 2:00	153,7	10,6
6	1/1/2010 2:15	153,8	10,6
7	1/1/2010 2:30	159,0	10,6
8	1/1/2010 2:45	157,7	10,6
9	1/1/2010 3:00	163,2	10,6
10	1/1/2010 3:15	151,7	10,0
11	1/1/2010 3:30	148,7	10,0
12	1/1/2010 3:45	155,1	10,0
13	1/1/2010 4:00	161,5	10,0
14	1/1/2010 4:15	161,5	10,0

Figure 1: `Elec-train.xlsx`

The file `Elec-train.xlsx` contains electricity consumption (kW) and outdoor air temperature for one building. These quantities are measured every 15 minutes, from 1/1/2010 1:15 to 2/16/2010 23:45. In addition, outdoor air temperature are available for 2/17/2010. The goal is to forecast **electricity consumption (kW) for 2/17/2010**.

Two forecasts should be returned, in one Excel file entitled `YourName.xlsx`, with **exactly** two columns (one columns per forecast) and 96 rows:

1. the first one without using outdoor temperature,
2. the second one using outdoor temperature.

Of course, the goal is to get the best possible forecasting.

In addition to your forecast, you should also return a short reports (few pages), entitled `YourName.pdf`, explaining how you have proceeded and containing the R codes you used.