



cost
EUROPEAN COOPERATION
IN SCIENCE AND TECHNOLOGY

COST Office
Avenue Louise 149
1050 Brussels, Belgium
t: +32 (0)2 533 3800
f: +32 (0)2 533 3890
office@cost.eu

www.cost.eu

Paris, 30th September 2013

Subject | Minutes of the Roundtable of COST Action TD1207 “Mathematical Optimization in the decision Support Systems for Efficient and Robust Energy Network”

***Institute Henri Poincare (IHP), Paris (FR)
30th September 2013 – from 15.50 till 16.30***

The Roundtable, moderated by Antonio Frangioni and Christoph Helmberg (WG leaders of WG1 and WG2, respectively), discussed the following three topics:

- WG1 and WG2 activities;
- Cost website;
- Wiki.

The idea of the Cost Action is to share knowledge on optimization and energy through the wiki.

The Cost Action TD1207 is looking for a person who can take care of the contents of the website and to collect the material to be included into the wiki. The wiki should be updated in collaboration with all members of the Cost Action.

The wiki should provide access to all optimization problems concerning energy and the methodologies to solve them. There should exist links between applications and methodologies that can be used to solve each problem.

The WGs discussed about the activities to be carried out to reach the objectives of the Cost Action.

The idea is to distribute the tasks among participants and to have a person who organizes the technical work and distribute tasks to each participant. As soon as this procedure will be set up, Cost Action participants will start to work on their topic. If someone is interested on other aspects then the one that has been assigned, switching / changing tasks between participants will be possible.

The person who will be nominated to take care of the website will have to supervise the input and the information. The infrastructure of the website is already there (95% is completed) and it is managed by ZIB in Berlin. The intention is to have the wiki updated during the whole duration of the project and also beyond, possibly taken care (in terms of the infrastructure) by ZIB after the end of the project.

The person who started to work on the website had to leave the job because of he had not enough time for this activity.

Andrea Lodi asks if there are volunteers who are available to structure the information and who have enough knowledge on the mathematical content.



WG2 Methodology for optimization networks

The main question of the WG2 is what developments are needed, which concepts are needed to have some practical impact. The idea is that the WG1 will identify, collect and exhibit all the aspects that need to be solved using the methods and applications described in the WG2.

Coherence is the central aspect. The typical problem is to group problems into the strategic, tactical and operational categories.

Aggregation, disaggregation and discretization bring other problems of categorization.

Christoph Helmberg presents a document prepared in collaboration with Jean-Bernard Lasserre in which there is a tentative classification of the aspects that can be looked at.

The first need is to have from WG1 a distinction between what are the typical production and distribution problems; the distinction between different types of producers (solar, power, etc.)

Classification of models and modeling techniques

What model can be used, which solver? These are other questions that have to be answered by the software WG.

The physical aspect of the energy problems can be a weakness because there is no expertise in the group and there are some fields of energy that involve physical aspects.

From the operational point of view, the idea is to start to collect applications, experiences and methodologies, and to think about a classification, to link the methodologies to the applications link.

The starting point could be to come out with a first structure of the wiki based on the document presented, then, people will modify, correct and integrate it.

The two wikis / WGs (State of the Art and Methodologies) should progress in parallel.

It is important to share the information on the events of each partner university, especially if there is any event related to the COST action topic.

The document illustrated by Christoph Helmberg will be distributed by e-mail to MC members and participants.