



Minutes

Management Committee Meeting

COST Action no. TD1207

**Mathematical Optimization in the Decision Support Systems
for Efficient and Robust Energy Networks**

**ENSTA ParisTech, 828, Boulevard des Maréchaux,
91762 Palaiseau Cedex France**

26th October 2015

13:00 – 16:30

1. Welcome to participants

Action Chair welcomes the participants to the MC meeting. The participants introduce themselves.

a. Information about quorum and remote voting procedure on the resolutions of this MC meeting

The MC meeting that should have been held in Prague on the 10th September has been postponed in order to ensure the participation of the minimum number of Action MC Members. However the minimum threshold is not reached. This is a critical issue that will be discussed during the MC meeting.

2. Adoption of agenda

The agenda is adopted.

3. Approval of minutes and matters arising of last meeting

The minutes of the last meeting have been already sent to the participants who have approved them.

4. Update from the Action Chair

a. Status of Action, including participating countries

The main problem of the COST Action TD1207 is the participation in the MC meetings. Action Chair asks for ideas on how to get people involved in COST meeting. A possibility is to organize the meetings closed to big international conferences.

For the MC Representatives who have never participated in the meeting, the idea is to contact them directly. The MC Members will look for other people to take part to the action as MC substitute.

The following countries should look for MC substitutes:

Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Hungary, Ireland, Netherlands, Poland, Portugal, Sweden, United Kingdom

Secondly, the MC meeting has the objective to discuss about what the participants want to achieve.

5. Update about the shortening of the current grant period

Action Chair updates the participants on the current funding period which has been shortened and will end in April 2016. Action Chair expects to prepare the budget for next year by the beginning of January 2016. Therefore the MC meeting should be the occasion to discuss on where to organize the next Action meetings.

a. Action budget status

The Grant Holder let the participants know that there is a general under spending of the budget of 30.000€ on average. For the current budget year, this is the first meeting and everything has to be done.

Action Chair asks the participants if they have any proposal on how to spend the budget. All proposals will be taken into consideration.

b. STSM status and new applications

STSM are working quite well. Anybody from the COST countries can apply to them provided it fits somehow with the objective of this Action. The STSM have not been publicized enough. Since there is remaining budget, STSM should be advertised more.

Every few months, an advice will be sent to the general mailing list to advertise about the possibility to carry out a STSM.

Moreover, Action Chair reminds that if a paper is published, the standard acknowledgement for COST Action publications has to be included as described in the Action website (cost-t1207.zib.de/publications).

6. Update from the Grant Holder

The Grant Holder reminds that the next year budget will be based on what has been spent during the present year. So that the activities must be carried out and the budget has to be spent.

7. Follow-up of MoU objectives

a. Progress report of working groups

Ambros Gleixner is working on the Action progress report and will ask for inputs from the participants (publications). One critical section is about the success of the Action. Something from previous periods should be added. There are around 15 papers that have been sent by the partners. But not all the required details have been sent. The deadline for the preparation of the monitoring report is Friday, 30th October, 2015. Action participants who publish papers, especially the ones who have participated in STSM, should include COST in the acknowledgement.

WG1 (State of the Art): Antonio Frangioni updates about the status of the wiki. The reaction time is very long. It is time to involve all Action participants to contribute to the wiki. The infrastructure is there and there is the actual work to be done. A workshop might be appropriated to bunch everything together. It may have sense to have the WG1-2 together with the MC meeting that will take place in Darmstadt.

Another problem is how to write a Wikipedia article, which style has to be used.

WG2 (Methodology): Christoph Helmberg says that there is the need to have a clear picture of who is doing what. WG1 has done it, so from then the problem is to involve everybody at minimum level. An email has been sent to WG2 participants to ask them which section of the Wiki they would like to contribute. The contribution consists of a small paragraph on a topic that participant has more experience. The idea is to include in the Wiki survey papers. The deadline for this activity is before Christmas.

In March 2016, there will be a discussion on what is in the Wiki. The final aim is to have a nice collection of methods that are available for modelling energy problems and to understand what is missing.

Currently, only 3 people have replied to the email of the WG2 leader who asks for contribution. Another problem is that it is not known what people are working on.

The structure of the WG2 will match with the structure of WG1. The original plan was to categorize the problems but it did not work. So the latest idea is to collect material and to arrange it in the best way. So there will be a bottom up organization. Someone who put together all the collected material is needed.

Currently, the objective is to describe the problem. What has been done and what else has to be done.

WG3 (Validation): The plan is to link the description of each problem in the Wiki to nearly real dataset, to have an experiment database also in the wiki. WG3 leader has asked who wants to be part of the WG but not many answers have been provided. Sandrine Charousset

has data on energy, while Action Chair has data on gas. However the problem is that people is not participating.

The categorization of the problem is there. What is needed is a space in the database for the datasets. At the moment there is a dataset from France, Scotland, and Italy with different characteristics that lead to different complexities. With this dataset it is possible to compare the results obtained with different approaches. The same thing could be done with data on gas consumption.

Action Chair has some doubts on the possibility to add a database to the Wiki because it would need continuous care. In addition, an introduction to the wiki should be provided during one of the next meeting.

Christoph Helmborg suggests dividing the responsibilities so that each person will be responsible for one aspect of the Wiki.

Antonio Frangioni suggests having a person who fills in the Wiki (i.e. making examples on how the problem has been efficiently solved).

Someone is also needed to collect the data and publications and put them together. Most of the time getting the data would be difficult. Data are very often confidential so it is possible to publish the results but not the dataset. The problem of confidentiality is that the data need to be changed and the problem becomes either too easy or too complex.

The next effort will be dedicated to link the material that is already available.

WG4 (Software): Martin Mevissen will have to provide a written progress report on WG4.

8. Scientific planning

a. Scientific strategy

The strategy is to bring together the people from applications and mathematical methods. The wiki should be the means to achieve this objective. Another interesting aspect is to see how much SW-maths has an impact on bringing together people from industry and from academia.

WG2-WG4: A possibility is to invite people from companies to participate in the WGs. For instance, people from software companies could be invited to make presentations on their problems. Sandrine Charousset notes that company people usually answer to the invitation and participate in the meetings or conferences because they want to sell their software. She says we should ask something more to them, for instance data.

WG3: Action Chair will ask the people from his department to participate in the workshop about long term accessibility of data. The target time would be to have a meeting on February 2016.

9. Discussion about the definition of a catalogue of standardized energy-related optimization problems

Action Chair discusses about the possibility to provide a standard definition of the mathematical problem. The Travelling Sales Problem, for instance, can be applied to several different fields and there is no need to provide a description of how the problem is formulated because it is a well known problem in optimization research. The standardisation of mathematical problems has been already been done for the gas sector. Action Chair wonders if this could be done for other fields of energy.

The Program for Optimization and operations research (*PGMO*), launched by EDF and the Jacques Hadamard Mathematical Foundation is already describing the main problems in the electricity field. The question is if there is the possibility to create a catalogue of energy problems because the energy market is changing very fast because. Action Chair notes that the Action should aim to generalise problems especially because they are changing very fast.

Christoph Helmberg and Sandrine Charousset agree on the fact that the Wiki should aim to get people from application to be interested in mathematics. They could look at the methodology to see if there exists a method to solve their problem.

The Wikipedia should create a map between methodology and the different applications.

10. Action Budget Planning

An announcement for STSM will be sent to all participants. Furthermore, when there will be meetings with the participation of companies representatives, STSM should be advertised to them. The company representatives could work on one problem in an academic environment. Priority will be given to applications sent by ESR and women.

a. Long-term planning (including anticipated locations and dates of future activities)

Action chair proposes to spread out from normal locations and he asks for ideas on where to organize the next MC and WG meetings.

Next MC and WG meeting:

- It is decided that the next MC meeting and WG1-3 meeting where people from industry are invited will be held on 14/15 March in Seeheim (DE). The meeting will be in conjunction with the Transregional collaborative research trr 154.
- January- February 2016 in Edinburgh there is a workshop on data science on energy (possible WG3 meeting).

Additional proposals on where to organize the WG1-3 are welcome. The WG1-3 meeting should be organized by end of February 2016 – beginning of March 2016 and people from industry should be invited to present their problems.

Proposals for the next budget year

- Alan Tkaczyk, MC member from Estonia, has proposed to organize the next meeting at the University College Cork (UCC), to be co-located with the International Energy Workshop (IEW) to be held in June 1-3, 2016 in Cork, Ireland. A possibility is to have a WG meeting there.
- In October 2016, there will be a gas workshop in Berlin.
- On the 9/10 November 2016 in Heidelberg there will be a conference on energy.
- International congress on software is another possibility.
- The next MC meeting could be held during the EURO conference on July 3-6, 2016 at Poznan University of Technology.
- ICM 2016: 18th International Conference on Metaheuristics on June, 27-28 July, 2016 in Copenhagen.

The final conference of the COST Action will be organized on March 2017.

The 22 November 2016 is the deadline for sending suggestion on the meetings.

b. Dissemination planning (Publications and outreach activities)

The wiki represent itself a form of dissemination. Once the wiki is completed, there will be the possibility to publish a survey paper, for instance, in a special issue or in a journal.

11. Non-COST applications to the Actions

There are no applications from new Cost countries.



12. Location and date of next meeting

The proposal for the next MC meeting is to have it closed to Frankfurt airport, near to Darmstadt. The reason for this choice is that, during those days, there will be a gas research workshop (Transregional collaborative research trr 154).

Send the proposal for next meetings to Selini cc Thorsten for the next period (April 2016 - April 2017)

13. Summary of MC resolutions

Application for the leadership of WG1 or for co-leadership should be sent to Antonio Frangioni (frangio@di.unipi.it).

MC substitutes have to be nominated to ensure the participation in the next MC meeting.

A doodle will be sent to ask to the Action participants to ask them where they prefer to go (i.e. Euro conference or Cork).

Calls for STSM will be sent to WGs participants and to the general mailing list.

Check the statistics of the access to the wiki.

It is decided that the next MC meeting and WG1-3 meeting where people from industry are invited will be held on 14/15 March in Seeheim (DE).

14. Closing

The meeting closed at 15.30