

## 2017 MMM TC Meeting Minutes

Tuesday July 11<sup>th</sup>, 2017, 17:00 - 18:00  
Room Tangovivio, Novotel Compans-Caffarelli,  
Toulouse, France

### 1. Attendance and apologies

Kazuya Asano (Vice-Chair)  
Luis Bergh  
Kevin Brooks  
Zhimen Chen  
Ian Craig  
André Desbiens  
Riccardo Ferrari  
Biao Huang  
Esko Juuso  
Karol Kostur  
Andreas Kugi (AK Chair)  
Derik LeRoux  
Jari Ruuska  
Kurt Schlacher  
Didier Theilliol  
Xiaofeng Yuan  
Robert Brauneis (Minutes)

The TC chair AK also received a number of apologies from absent TC members, which are not explicitly listed in the minutes.

### 2. Approval of the agenda

The Agenda is approved as is, no objection or comments.

### 3. Approval of the minutes of the previous meeting

The minutes are approved as they are.

### 4. IFAC 2017 World Congress: TC 6.2. contributions

TC chair AK gives a short presentation of the TC 6.2. contributions to the IFAC World Congress 2017 in Toulouse. In total, 34 paper were submitted from which 26 papers were finally accepted. They were presented in 5 regular sessions (Heat Processing, Metal Processing, Minerals Processing, Production Planning and Control, Data-Driven Control in Mining, Mineral and Metal Processing) and 2 invited sessions, i.e. "Fault detection and diagnosis, failure prognosis, and fault mitigation methods in industrial applications" (Organizer: G. Nikolakopoulos, G.

Georgoulas) and “Advanced control of comminution processes” (Organizer: J.D. Le Roux, I. Craig).

The review process was organized by three Associate Editors, i.e. I. Craig, A. Steinboeck, and A. Kugi.

In general, the number of papers submitted from TC 6.2. is quite low compared to other TCs. The committee discusses reasons for this and possible measures to improve the situation in future:

- The number of downloads from IFAC-PapersOnLine is pretty constant over all TCs, although other TCs have a larger number of papers.
- It is suspected that the World Congress is not of particular interest for people from industry. Industry usually submits papers to conferences which are more focussed and where it is more likely to meet customers.
- Several TC members mention that the scope of the TC is probably too narrow. It is proposed to foster new topics like machine learning, big data, and data analytics. AK suggests to organize special sessions in these emerging fields and the TC members are encouraged to propose experts from university or industry as possible new members.

#### **5. IFAC MMM Workshop 2018 in China: status report**

Zhiwen Chen gives a short status report about the IFAC MMM Workshop 2018 in Changsha, China. The workshop is organized by four universities, i.e. the Central South University, the Dalian University, the East China University, and the North Eastern University. Moreover, the steel company Baosteel will serve as a sponsor of this event and will provide the possibility of technical visits during the workshop. The IPC and the NOC are presented and a first impression of the website <http://ifac-mmm.csu.edu.cn> is given. As a next step, the conference will be added to the submission system paper plaza. A special session for women in the field of MMM is planned in order to bring together female scientists to share successful experiences. The workshop is already approved by IFAC and the committee does not express any objections to the plans presented.

#### **6. IFAC MMM Symposium 2019 in South Africa: status report**

Kevin Brooks gives a short status report about the IFAC MMM Symposium 2019 in Stellenbosch, South Africa. The application was declined by IFAC due to some formal reasons (scope was too limited, no members of the IPC were listed in the application form). The designated IPC chair is Chris Aldrich. The organizers will arrange a transport from Cape Town International Airport to the venue.

The proposal will be improved and then resubmitted. AK will provide some additional information to Kevin Brooks.

There are some concerns about the number of participants. AK recommends to focus on the mining area, which is quite strong in South Africa, and to organize special sessions and future perspective sessions, which were very successful in the 2016 MMM symposium in Vienna. It is very important to be proactive and to actively encourage people to submit a paper already at a very early stage.

#### **7. Free discussion on MMM TC activities and organization**

AK gives a short overview of current activities of the TC:

- AK was asking for nominations for the Chair of the IFAC TC 6.2. Mining, Mineral and Metal Processing for the triennium 2017-2020. He did not

receive any nominations, but a number of emails where many of the TC members expressed their support for his continuation as TC chair for a further period. AK is very grateful for this and thus will remain TC Chair for the next triennium. Also the current Vice-Chairs Francesco Cuzzola and Kazuya Asano, both from industry, will continue for a further period, which is highly appreciated. The Social Media Representative is Otis Nyandoro. AK will contact Otis to get a report about his activities. AK expresses his gratitude to the members of the TC for the excellent cooperation and the trust.

- The TC has 55 members and 20 of which are from industry. AK is asking to nominate new active members for the TC, in particular younger colleagues and female members.
- The TC homepage <https://tc.ifac-control.org/6/2> is alive and permanently updated. Each member is asked to update the personal profile. There is also a picture gallery, members are encouraged to provide pictures of interesting MMM processes and facilities. Some slides from the key notes and future perspective sessions of the previous MMM symposium in Vienna are available for download on the TC homepage.
- The current scope of the TC reads as: “The IFAC Technical Committee TC 6.2. on Mining, Mineral and Metal Processing promotes the research on and the application of advanced process modelling, state estimation and parameter identification, control and optimization, soft sensing, performance monitoring, fault detection and diagnosis, supervisory control, data mining and statistical analyses, artificial intelligence techniques, automation, instrumentation, measurement technology, robotics and mechatronics, production planning, distribution and logistics in the fields of mining, minerals and metal processing. Processes of interest include any pilot-scale as well as production-scale plant in the mining, mineral and metal industry.

The considered fields of application cover any kind of mining operation, mineral processing, production of ferrous & non-ferrous metal, ore preparation, flotation, iron making, steel making, casting, hot/cold rolling, forming, forging, heat treatment, annealing, surface treatment, galvanizing, protective coating, welding, manufacturing, assembling, metal recycling processes, waste treatment, transport, haulage, power generation & supply as well as energy and environmental issues in the MMM industry. TC 6.2 supports research and development, education and technology transfer in all these areas by its activities.”

AK asks all TC members to send desired changes and extensions of the TC scope by email.

- Karol Kostur proposes to organize one of the next MMM symposium or workshop in Kosice, Slovakia. AK appreciates this idea. AK will send an email to all TC members asking for a written proposal for the IFAC MMM Workshop 2021 and for the IFAC MMM Symposium 2022 after the 2018

Workshop in China. According to the TC rules the proposal is limited to 2 pages explaining the following points in sufficient detail which also should serve as the basis for the decision:

- availability of an appropriate infrastructure and facilities for setting up a workshop/symposium of the size of recent MMMs
- proposing team and their activities in IFAC, in particular with respect to MMM
- geographical distribution of the symposiums in earlier years
- moderate registration fees and availability of some inexpensive accommodation

**8. Date and place of next TC meeting**

Next TC meeting is in Changsha, China.

Andreas Kugi  
(TC Chair)

Toulouse, 11.07.2017

Robert Brauneis  
(Keeper of the minutes)