

**International Federation for the Promotion of Mechanism and Machine Science**

**IFToMM Quarterly Report resulting from Transportation Machinery (TM) Committee  
Teleconference**

**First Quarter 2014**

**Prepared by Dr Paul Walker (Secretary of the Transportation Machinery Committee of IFToMM)  
on behalf of Professor Nong Zhang (Chair of the Transportation Machinery Committee of IFToMM)**

Per Professor Nakamura's instruction, Prof Nong Zhang sent the draft report to TC members and asked for more inputs and comments on the report and the election of TC Chair. Only Prof Torsten Bertram provided his replies, and excellent suggestions on the TC membership.

For the time being, we would like to submit the report to IFToMM Headquarter and plan for the reform/restructuring of the TC membership and the activities of the TC.

**Below is the report written on the 20<sup>th</sup> of March, 2014**

**Section 1: summary of Teleconference outcomes**

In line with the regular communications for the IFToMM Transportation Machinery committee Quarterly Teleconference, a conference call was held on the on the 7<sup>th</sup> of February, 2014 at 11pm Australian Eastern Daylight Savings Time. Invitations to this conference call were earlier circulated to the Committee members. It was noted that limitations of the company administering the call resulted in accessibility problems for some potential participants. This will be corrected for all future Teleconferences that will be organised for the committee.

**Minutes for the teleconference:**

Conference call was initiated at approximately 11:15 pm Local Time

**Attendees:** Chair Dr Madhu Raghaven, Prof. Nong Zhang, and Dr Paul Walker

**Apologies for absence:** Prof. Torsten Bertram, A/Prof Nenad Zrnic

**1. Topic:** Election of TM Committee Chair

- a. Professor Nong Zhang has been elected unopposed as the committee chair for the next full term. Dr Paul Walker will take on the role as TM Committee Secretary for the same period.

- b. Subsequently it is proposed that the quarterly teleconference be reduced to a biannual meeting.
- 2. Topic:** Discussion of relevant IFToMM activities/workshops for this year.
- a. Professor Zhang has raised the potential of initiating a workshop in Australia, to be held at the University of Technology, Sydney, in October this year to coincide with visiting academics.
  - b. Invitations will be made to all members to attend the workshop as well as academics in USA and Asia in particular to encourage greater interest in IFToMM and awareness of the organisation.
  - c. Sponsorship will be sought from UTS, Australian/international industry and relevant research organisations.
  - d. To encourage participation and contributions of original research works, Dr Walker suggested that the workshop coincide with a Special Issue of Mechanism and Machine Theory or suitable monograph.
- 3. Topic:**Renewal within the committee.
- a. Professor Zhang will strongly encourage members to bring in younger members to the committee that can play a more active role in organising and developing committee activities.
  - b. It is suggested that these members will be able to take a more active role in promotion of IFToMM in general

## **Section 2: Reported activities supplied by committee members**

### **Activities reported by Dr Madhu Raghaven**

Brief update for Q1 of 2014.

- Smooth hand over of TC Chair duties to Nong Zhang/Paul Walker.
- Had some technical discussions with Prof Ashitava Ghosal of IISc about possible future joint technical documentation (conference and journal publications on past collaborations on Urban Vehicle propulsion architectures).
- Joint patents with IMASH (Russia) team on 8- and 9-speed transmissions have issued.
- Considering plans to do an IFToMM Hybrids Workshop at a suitable location in Africa in 2014 or 2015.

### **Activities reported by Prof. Torsten Bertram**

Some information from my group:

- The chair RST works in the field of vehicle technology at two focal points, driver assistance systems and electric mobility.

- The driver assistance systems are the emergency braking and steering, and the vehicle environment recognition are using a camera sensor. These investigations are carried out in cooperation with the industry.
- When electric mobility work focuses on the modeling of the overall system, the range estimation and the automation of the wired charging.
- In the field of electric mobility two electric cars, a driving simulator, dynamometer test stands, and many components are available.
- The results of the research are submitted via publications in numerous international conferences.
- Currently we are preparing a conference on Mechatronics at TU Dortmund ago in 2015.