



## Celebrations for the 50-Year Anniversary of IFToMM

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During the 15th IFToMM World Congress on Mechanism and Machine Science (MMS) in Krakow, Poland on 30 June–4 July 2019, a special opening session has been organized to celebrate the 50-year anniversary of IFToMM with unveiling of a bronze commemorative plaque, Fig. 1.

In the 15th World Congress, 637 participants from 66 countries and regions have been registered and 437 papers have been presented in a dense program with 17 topic sections of the wide domain of MMS and the most relevant to the IFToMM Technical Committees. The Springer Nature in Series Mechanism and Machine Science published proceedings of 15th World Congress proceedings in five volumes, [1].

IFToMM was founded in 1969 during the Second World Congress on Mechanism and Machine Science in Zakopane, Poland with an act, Fig. 2, that was signed on 29th September 1969 by the IFToMM founding fathers, (see Appendix

1), during a special meeting establishing also the first Executive Council, Fig. 3, [2, 3].

A celebration session was planned with the following speeches of the living past IFToMM Presidents to outline the scientific and social aspects of the history of IFToMM:

- IFToMM: Yesterday, Today, and Tomorrow by Prof. Marco Ceccarelli
- The Forming of International and Personal Connections Through IFToMM inspite of a Turbulent World by Prof. Bernard Roth
- The Existential Question of IFToMM in the Twenty-first Century by Prof. Jorge Angeles
- Intersections Between My Career and IFToMM by Prof. Kenneth Waldron
- Let Me Think About The Gap Between IFToMM Globalism And The Economic Globalism by Prof. Yoshihiko Nakamura

In addition, a special set of posters on IFToMM history was exhibited in the Congress hall during the 2019 World Congress near the bronze commemorative plaque, Appendix 2.

At the end of the celebration session, the current IFToMM President, Marco Ceccarelli, and the Chair of the 2019 World Congress, Tadeusz Uhl, revealed the commemorative plaque, Fig. 4, among the enthusiastic applause of the congress attendees.

In Fig. 5 the living past IFToMM Presidents share their appreciation for the celebration.

Figure 6 shows the Executive Council members serving in years 2016–2019 surrounding the just unveiled plaque with satisfaction for the celebrations that were coordinated with the Congress organizers since the early days of 2016 with many discussions among World Congress 2019 organizers and the IFToMM Executive Council members.

Figure 7 is the group photo of the attendees at the end of the celebration session from more than 600 participants at the Congress coming from 66 countries and regions.

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Fig. 1 The bronze commemorative plaque for the 50-year anniversary of IFToMM



Fig. 4 The reveal act of the bronze commemorative plaque

We, the undersigned chief delegates at the Inaugural Assembly of the International Federation for the Theory of Machines and Mechanisms (IFTOMI) here at Zakopane Poland on 27th September 1969, declare that we have founded the above-mentioned Federation and that we have adopted its Constitution which is attached hereto and decided to the following categories (see Article 8.4 of the Constitution).

| Territory                    | Chief delegate       | Proposed Category | Signature                   |
|------------------------------|----------------------|-------------------|-----------------------------|
| Australia                    | JACK PHILLIPS        | IV *              | <i>Jack Phillips</i>        |
| Bulgaria                     | George Rusanov       | IV                | <i>George Rusanov</i>       |
| German Democratic Republic * | Wolfgang Rössner     | III *             | <i>Wolfgang Rössner</i>     |
| German Federal Republic *    | Werner Thomas        | III *             | <i>Werner Thomas</i>        |
| Hungary *                    | László TERPLAN       | IV *              | <i>László Terplan</i>       |
| India *                      | J. S. RAO            | V *               | <i>J. S. Rao</i>            |
| Italy *                      | GIOVANNI BIANCHI     | IV *              | <i>Giovanni Bianchi</i>     |
| Poland                       | Adam Morecki         | IV                | <i>Adam Morecki</i>         |
| Rumania                      | Nicolae I. Manolescu | IV *              | <i>Nicolae I. Manolescu</i> |
| United Kingdom *             | Erskine F. Crossley  | III *             | <i>Erskine F. Crossley</i>  |
| U.S.A.                       | Donald M. Mustar     | I                 | <i>Donald M. Mustar</i>     |
| U.S.S.R.                     | Ivan Artobolevskii   | I                 | <i>Ivan Artobolevskii</i>   |
| Yugoslavia                   | Ljiljana Branitski   | IV *              | <i>Ljiljana Branitski</i>   |

Fig. 2 The founding act of IFToMM

Fig. 3 Announcement of the foundation of IFToMM on 29th September 1969. (Courtesy of IFToMM Archive) in which one can recognize: 1—Prof. Ivan Ivanovic Artobolevskii (USSR); 2—Prof. Adam Morecki (Poland); 5—Prof. Nicolae I. Manolescu (Romania); 6—Prof. Erskine F. Crossley (USA); 7—Prof. Giovanni Bianchi (Italy); 8—Prof. Aron E. Kobrinskii (USSR); 9—Prof. Werner Thomas (Germany); 10—Prof. Jan Oderfeld (Poland)



Fig. 5 The living past IFToMM President with the commemorative plaque in exhibition. (from left to right): Prof. Jorge Angeles, Prof. Kenneth Waldron, Prof. Bernard Roth, Prof. Marco Ceccarelli, and Prof. Yoshihiko Nakamura





**Fig. 6** The members of the current IFToMM Executive Council with the commemorative plaque in exhibition (from left to right): Prof. Yoshihiko Nakamura, Prof. Can Dede, Prof. Tian Huang, Prof. Ashitava Ghosal, Dr. Jean-Pierre Merlet, Prof. Teresa Zielinska, Prof. Burkard Corves, Prof. Fernando Viadero, Prof. Juan Antonio Carrettero, Prof. Marco Ceccarelli



**Fig. 8** Gifts at the 2019 IFToMM World Congress as memory of the IFToMM anniversary

The celebration finalized with a wine toast in a familiar frame and will live in the memory of all attendees through the specially designed celebratory congress gift to the attendees, Fig. 8.

**Fig. 7** Group photo of the attendees at the celebration of the IFToMM 50-year anniversary



## Appendix 1: Poster on the Founding Fathers of IFToMM at 2019 World Congress



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

**The founding fathers of IFTToMM**  
by Marco Ceccarelli, IFTToMM President 2008–11 and 2016–19

**Founding fathers of IFTToMM**  
(who signed the IFTToMM act and members of the 1st Executive Council)

Academician Ivan I. Artobolevski (USSR)  
Prof. Erskine F. R. Crossley (USA)  
Prof. Michael S. Konstantinov (Bulgaria)  
Dr. Werner Thomas (GFR)  
Prof. B. M. Belgaumkar (India)  
Prof. Kenneth H. Hunt (Australia)  
Prof. Jan Oderfeld (Poland)  
Prof. Jack Phillips (Australia)  
Prof. George Rusanov (Bulgaria)  
Prof. Wolfgang Rössner (GDR)  
Prof. Zénò Teplán (Hungary)  
Prof. Jammi S. Rao (India)  
Prof. Giovanni Bianchi (Italy)  
Prof. Adam Morecki (Poland)  
Prof. Nicolae I. Manolescu (Romania)  
Prof. Leonard Maunder (UK)  
Prof. Douglas Muster (USA)  
Prof. Branislav Ilic (Yugoslavia)



20 September 1969: participants at second World Congress



**Ivan Ivanovich Artobolevski**  
(Moscow 9 Oct 1905–21 Sept 1977)  
As professor at Moscow University of Moscow he was a worldwide expert figure in TMM for his activities (research, teaching, and organization) and publication production. Besides the many original designs of mechanisms and systems, his most important work is considered to be the encyclopaedic publication in 5 volumes on classification of mechanisms that has been translated into several languages all around the world. He was one of the major promoters of IFTToMM, and served as the first IFTToMM President.



**Francis Rendel Erskine Crossley**  
(Bdpa, UK, 21 July 1912–USA 1 Feb. 2017)  
As professor at Purdue University he was a worldwide expert figure in TMM for his activities (research, teaching, and organization) and community organization. Besides the many publications and machine designs, his most important work may be considered to be his book *Dynamics of Machines* (1951). In 1969 he started the *Journal of Mechanisms and Machine Theory*. He was one of the major promoters of IFTToMM, and served as the first IFTToMM Vice-President.



**Michael Spirou Konstantinov**  
(Sofia 22 March 1921–8 April 1991)  
As professor at Sofia University he was a worldwide expert figure in TMM for his activities (research, teaching, and organization) with first robot design and community organization. In 1973 he started the first laboratory on Robotics. He was one of the major promoters of IFTToMM, and served as the first IFTToMM Secretary General.



**Jan Oderfeld**  
(Czestochowa 9 Feb 1908–Warsaw 17 March 2010)  
As professor at Lodz University of Warsaw he was a worldwide expert figure in TMM for his activities (research, teaching, and organization) and publication production with an early focus properly focused on TMM. His most important design can be considered the development of an early jet engine. He was one of the major promoters of IFTToMM and organizer of the 1969 IFTToMM World Congress in Poland where IFTToMM was founded.

**Main IFTToMM promoters**



**Adam Morecki**  
18 July 1923–11 Jan 2009



**Giovanni Bianchi**  
March '11, 1924–13 Nov 2003



**Kenneth Henderson Hunt**  
7 June 1920–21 Aug 2002



**Jack Raymond Phillips**  
18 July 1923–11 Jan 2009



**Zdzislaw Ptaszowski**  
26 May 1924–16 May 1999



**Nicolae Manolescu**  
11 April 1907–10 Oct 1993



**Jammi S. Rao**  
1 July 1939–living



**Leonard Maunder**  
May 10, 1927–living



**Ivan Artobolevski**  
1907–1982



**Douglas Muster**  
??? - ???



**Wolfgang Rössner**  
27 June 1914–1999



**Zénò Teplán**  
25 May 1921–16 Jan 2012



**Werner Thomas**  
??? - ???



**B. M. Belgaumkar**  
1909–1989



**George Rusanov**  
??? - ???

## Appendix 2: List of Posters Exhibited During the IFTToMM 2019 World Congress in Krakow, Poland

- IFTToMM officers (from IFTToMM webpage)
- What is IFTToMM? (from IFTToMM webpage)
- IFTToMM History (from IFTToMM webpage)
- IFTToMM Founding Fathers
- IFTToMM Sponsored Conferences
- IFTToMM Awards and Honors
- Activity of IFTToMM Executive Council
- SIOMMS IFTToMM Student Olympiad
- All WCs
- WC 1987 in Seville
- WC 1995 in Milan
- WC 2004 in Tianjin
- WC 2007 in Besancon
- WC 2011 in Guanajuato
- WC 2015 in Taipei
- IFTToMM Flyer

## References

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