

Celebrations for the 50-Year Anniversary of IFToMM

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Abstract: In this paper celebrations of the fifty-years anniversary of IFToMM, the International Federation for the Promotion of Mechanism and Machine Science, is reported with main aspects of the event that has been organized on 30 June 2019 during a special session at the IFToMM World Congress in Krakow, Poland. Memories of the celebration are illustrated with photos and historical data.

Keywords: history of IFToMM; IFToMM MMS; 50-years anniversary

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

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



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

IFToMM was founded in 1969 during the Second World Congress on Mechanism and Machine Science in Zakopane, Poland with an act, Figure 2, that was signed on 29 September 1969 by the IFToMM

founding fathers (see Appendix A) during a special meeting establishing also the first Executive Council, Figure 3, [2,3].

We, the undersigned chief delegates at the Inaugural Assembly of the International Federation for the Theory of Machines and Mechanisms (IFTOMM) 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>[Signature]</i>
Bulgaria	George Rusanov	IV *	<i>[Signature]</i>
German Democratic Republic *	Wolfgang Rössner	III *	<i>[Signature]</i>
German Federal Republic *	Werner Thomas	III *	<i>[Signature]</i>
Hungary *	Zsolt TERPLÁN	IV +	<i>[Signature]</i>
India *	J. S. RAO	V *	<i>[Signature]</i>
Italy *	GIORGIO TAINI	IV *	<i>[Signature]</i>
Poland	Adam Moroch	IV *	<i>[Signature]</i>
Rumania	Nicolae I. Măroşescu	IV *	<i>[Signature]</i>
United Kingdom *	A. Higginson	III *	<i>[Signature]</i>
U.S.A.	DOUGLAS MUSTER	I	<i>[Signature]</i>
U.S.S.R.	<i>[Signature]</i>	I	<i>[Signature]</i>
Yugoslavia	LEO J. BRANISAV	IV (x)	<i>[Signature]</i>

Figure 2. The founding act of IFTOMM.

A celebration session was planned with the following speeches by 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 in Spite of a Turbulent World” by Prof. Bernard Roth.
- “The Existential Question of IFTOMM in the 21st 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 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 B.



Figure 3. Announcement of the foundation of IFToMM on 29 September 1969, (courtesy of IFToMM Archive) in which one can recognize: 1—Prof. Ivan Ivanovic Artobolevskii (USSR); 2—Prof. Adam Morecki (Poland); 3—Prof Kurt Luck (Germany); 4—Prof. Michael S. Konstantinov (Bulgaria); 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).

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, Figure 4, among the enthusiastic applause of the congress attendees.



Figure 4. The revealing act of the bronze commemorative plaque.

In Figure 5, the living Past IFToMM Presidents share their appreciation for the celebration. Figure 6 shows the Executive Council members serving in the 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 5. The living Past IFToMM Presidents 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.



Figure 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 Carretero, and Prof. Marco Ceccarelli.

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.

The celebration finished 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, Figure 8.



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



Figure 8. Gifts at the 2019 IFToMM World Congress as memories of the IFToMM anniversary.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. Poster on the Founding Fathers of IFToMM at the 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. Belgaukar (India)
Prof. Kenneth H. Hunt (Australia)
Prof. Jan Oderfeld (Poland)
Prof. Jack Phillips (Australia)
Prof. George Rusanov (Bulgaria)
Prof. Wolfgang Rössner (GDR)
Prof. Zénó Terplán (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 Ilie (Yugoslavia)



24 September 1969: participants at second World Congress

 Ivan Ivanovich Artobolevski (Moscow 9 Oct 1905–21 Sept 1977) As professor at Bauman University of Moscow he was a worldwide reputed 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 encyclopedic publication in 6 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 (Bdpea, UK, 21 July 1912–USA 1 Feb. 2017) As professor at Purdue University he was a worldwide reputed 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 in Machines (1954). In 1969 he started the Journal of Mechanisms that is renowned since 1977 as Mechanism 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 reputed 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 (Czerkowska 9 Feb 1908–Warsaw 17 March 2010) As professor at Technical University of Warsaw he was a worldwide reputed 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.
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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	 Zdzisław Parszewski 25 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	 Branislav Ilie 1907–1982	 Douglas Muster ???–???	 Wolfgang Rössner 21 June 1914–1999	 Zénó Terplán 25 May 1921–16 Jan 2017
 Werner Thomas ???–???	 B. M. Belgaukar 1909–1989	 George Rusanov ???–???			

Appendix B. List of Posters Exhibited during the IFTToMM 2019 World Congress in Krakow, Poland

1. Iftomm officers (from IFTToMM webpage)
2. What is IFTToMM? (from IFTToMM webpage)
3. IFTToMM History (from IFTToMM webpage)
4. IFTToMM Founding Fathers
5. IFTToMM Sponsored Conferences
6. IFTToMM Awards and Honors
7. Activity of IFTToMM Executive Council
8. SIOMMS IFTToMM Student Olympiad
9. All WCs
10. WC 1987 in Seville
11. WC 1995 in Milan
12. WC 2004 in Tianjin
13. WC 2007 in Besancon
14. WC 2011 in Guanajuato
15. WC 2015 in Taipei
16. IFTToMM Flyer

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