IFToMM Celebration for 40-th year celebration

An outline and perspective of IFToMM by the IFToMM President, prof Marco Ceccarelli

IFToMM was founded in 1969, Fig. 1, by few people who knew each other since much before, with the aim to create a well-defined scientific community beside the fragmentation of the world society with the aim to preserve, continue, and enhance collaboration and exchanges both from technical viewpoint and human interaction. This happened in Zakopane in Poland, Figs. 2 and 3. Today we celebrate 40 years of successful activity and growth of IFToMM. The world has changed, the society has evolved, and IFToMM has still a significant role with its mission since the IFToMM community has matured his vision according to the needs of technological developments and knowledge horizons. The original characteristic of "IFToMM family" consisting of strictly friendly collaboration has been preserved still today that IFToMM has reached a worldwide size even within great differences in culture and conditions.

The memory of the foundation and early days of IFToMM can be considered important not only for pure historical reasons but mainly to be aware and proud of the background and origin as guidelines towards the present and future. Thus, let's keep memory of the founding fathers and those pioneering moments, like in the reported photos in Figs. 1 to 3. We deserve great memory of all of them, since even a small presence or contribution made successful the efforts of main IFToMM actors.

Today we celebrate 40 years of activity for IFToMM.

Historical traces of IFToMM activity can be appreciated with significance and participation, mainly from technical viewpoints, as far as for the considerable literature that has been produced under the name of IFToMM through proceedings, books, textbooks, and journal papers. A relevant amount of these works are even not explicitly signed as IFToMM activity since they have been developed within projects and collaborations that were not explicitly linked to IFToMM. Still today important activity of the IFToMM community is not marked explicitly as IFToMM. This is why in celebrating the IFToMM origins we must recover the proud feeling of a well-defined community that aggregate and spread knowledge to individuals and institutions within common frames of interest for the benefit and enhancement of technology and society. Indeed, we can say that IFToMM has contributed considerably to technological achievements and industrial developments worldwide and still today Mechanism and Machine Science (MMS) will pay a fundamental role in advancing the quality of life, since mechanical nature of human-machine interaction will always require mechanisms developments.

We deserve great appreciation to all the IFToMM officers, who in the past 40 years have been leaders and have stimulated activity in many aspects of MMS and in the many forms of IFToMM activity. The list of names in Tables 1, 2 and 3 is not only a mere recognition of individuals but also a demonstration of world shaped composition of IFToMM over the time.

Outlines of historical developments of IFToMM have been synthesized by the Presidents, Fig.4, during their presidency or as memory of their activity in a specific bibliography (see reference list). Those works give a wide view of the history of IFToMM by making such a documented background as part of the identity of IFToMM.

But why we want celebrate the 40 anniversary of IFToMM? After so many years and against the many changes in the society and technology, IFToMM is still active and provides a frame for promoting MMS and collaboration of individuals and institutions at a worldwide level with the aim to further contribute to evolution of technology and society.

At the beginning of the third millennium IFToMM can be presented as a fundamental institution for the future success of MMS all around the world. This is because IFToMM offers a common framework for the many aspects of MMS as innovation, research, teaching, cooperation, etc., since it is the most important frame of reference and source of activity information in the field of MMS at large and in specific subjects. But, facing the needs and requirements of a successful future, the IFToMM community should be able to re-shape some of its fundamental behaviours, scopes, and

organization. IFToMM was established as an international institution mainly to link TMM(former term of MMS as Theory of Machines and Mechanisms) activities in Eastern and Western countries with the aim of exchanging experiences and promoting collaboration among territory Societies and Associations. Not only will the collaboration among territory entities (that are the members of IFToMM) be fundamental for the future success of IFToMM, but the activity of individuals of the IFToMM Community will be necessary to re-establish the importance of the field and the community yet. This means an updated vision of IFToMM that will act on individuals base. Therefore, IFToMM should be re-shaped to give more flexibility and acceptance of the activity of individuals, since the over-nationality process will vanish the differences from country to country, from national society to national society, as already we have started to experience in the ongoing globalization.

The above-mentioned features for a more flexible organization may also call for to a higher efficiency that will require greater resources in terms of both financial and technical means. In particular, IFToMM should be organized as a non-profit organization yet, but able to find the necessary funds to promote more and more activities that should be even the source of financial revenue. This aspect will require a stronger promotion activity that should be carried out by each individual in the IFToMM community. Many other disciplines and related international Societies have been established recently, and even more organizations will be founded in the future, so that IFToMM should be able to promote itself, since the time that everyone recognizes the importance of MMS and IFToMM is already over because of the great competition even among the various associations. A fundamental evolution of IFToMM behaviour can be recognized in a more active participation of individuals (likewise in the early days of IFToMM), mainly but not restricted to the established Commissions and Committees. Today most of the IFToMM activity is on charge to the Technical Committees and Permanent Commissions (TCs and PCs). In the future yet TCs and PCs will work with many members, who are representatives of all the IFToMM members, so that the TCs and PCs will be active at the international but also at the national/regional levels. Summarizing, the future success of MMS as a Science will require to open the doors to the scientific community at large, but individuals of the IFToMM community should be the cornerstones of a great building, Thus, MMS and particularly the IFToMM community will enhance successfully Technology like in the past and will serve the Society by achieving a better quality of the environment and human life.

A celebration of an anniversary is always a moment for checking the past results and looking at the future with reinvigorate vision.

30 September 2009

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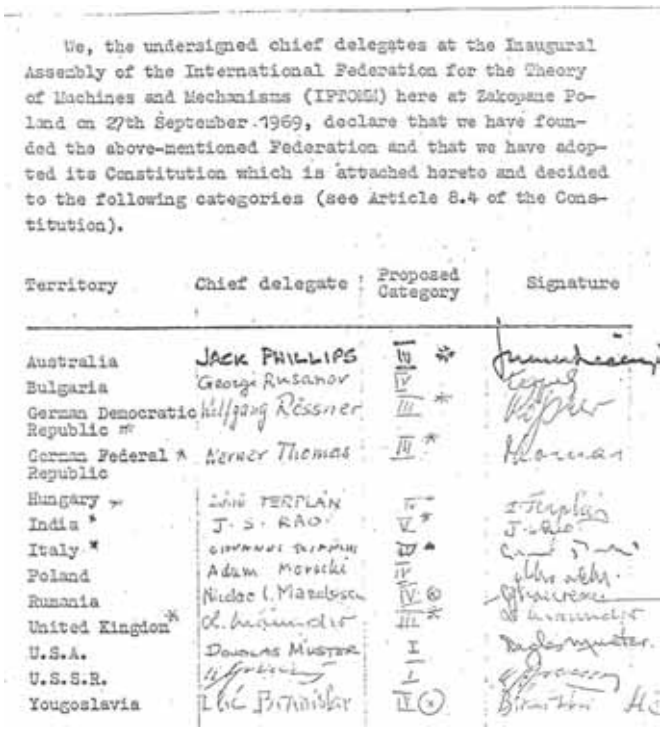


We, the undersigned chief delegates at the Inaugural Assembly of the International Federation for the Theory of Machines and Mechanisms (IFToMM) here at Zakopane Poland on 27th September 1969, declare that we have founded the above-mentioned Federation and that we have adopted its Constitution which 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 *	
Bulgaria	George Rusanov	IV	
German Democratic Republic *	Wolfgang Rössner	III *	
German Federal Republic *	Werner Thomas	IV *	
Hungary *	Zénó TERPLÁN	IV	
India *	J. S. RAO	V *	
Italy *		IV *	
Poland	Adam Morecki	IV	
Rumania	Nicolae I. Manolescu	IV ⊗	
United Kingdom *		III *	
U.S.A.	Douglas Muster	I	
U.S.S.R.		I	
Yougoslavia	Ilic Branisky	IV ⊗	

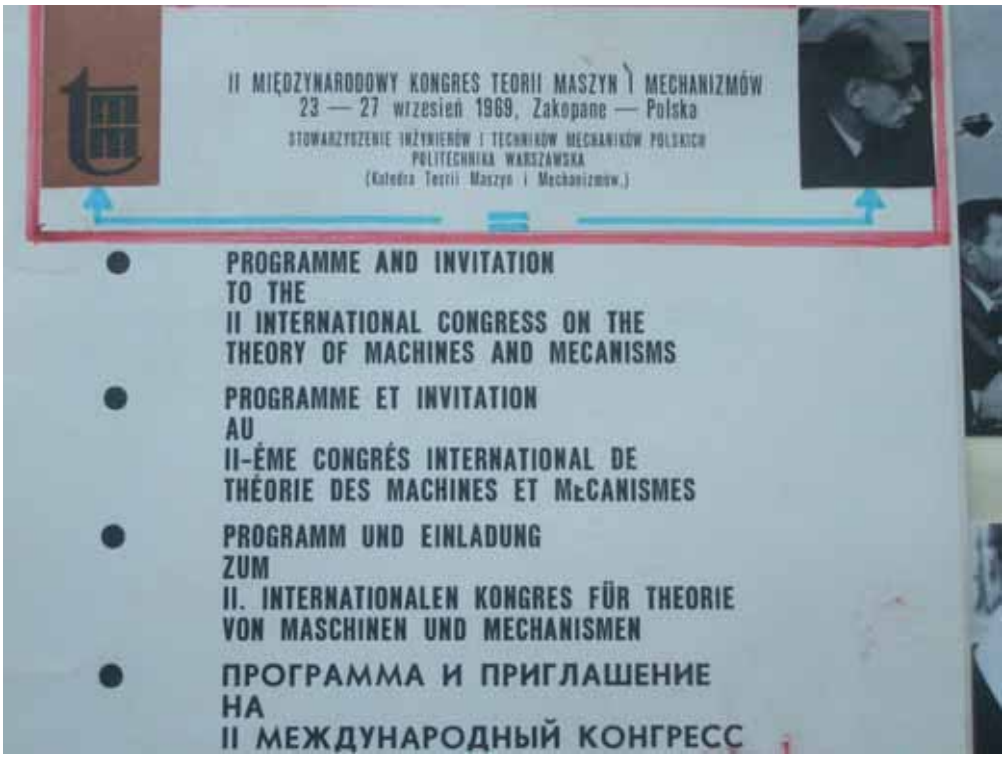
a)

Academician Ivan Artobolevski (USSR)
Prof. Erskine F.R. Crossley (USA)
Prof. Mikail S. Konstantinov (Bulgaria)
Dr. Werner Thomas (GFR)
Prof. B.M. Belgaumkar (India)
Prof. Kenneth H. Hunt (Australia)
prof. Aron E. Kobrinskii (USSR)
Prof. Jan Oderfeld (Poland)
Prof. Jack Phillips (Australia)
Prof. George Rusanov (Bulgaria)
Prof. Wolfgang Rössner (GDR)
Prof. Zènò Terplàn (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. Ilic Branisky (Yugoslavia)

b)

c)

Fig. 1: The foundation of IFToMM, the International Federation for the Theory of Machines and Mechanisms, in Zakopane (Poland) on 27 September 1969, (Courtesy of IFToMM Archive):
a) signatures in the foundation act; b) founding fathers of IFToMM; c) a historical moment 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).



a)

b)

Fig.2: First IFToMM Congress in Zakopane in September 1969, (Courtesy of IFToMM Archive): a) first use of IFToMM logo; b) participants in front of the conference venue (unfortunately the building does not exist yet).

a) b) c) d)

Fig.3: Moments at the meeting for the foundation act of IFToMM with the speech addressed to the delegates by, (Courtesy of IFToMM Archive): a) prof Erskine F.R. Crossley; b) prof Nicolae Manolescu; c) prof Jan Oderfeld; d) Acad. I.I. Artobolevski, as IFToMM elected President.

Fig. 4: IFToMM Presidents at a meeting in 2000, (Courtesy of IFToMM Archive):
From left to right (the years in brackets indicate the terms of the Presidents' mandates): Giovanni Bianchi (1984-1987 and 1988-1991), Arcady Bessonov in substitution of Ivan I. Artobolevsky (1969-1971 and 1972-1975), Bernard Roth (1980-1983), Jorge Angeles (1996-1999), Kenneth J. Waldron (2000-2003 and 2004-2007), Leonard Maunder (1976-1979), Adam Morecki (1992-1995), and Marco Ceccarelli (2008-2011).

Table 1: Members of the IFToMM Executive Councils, (Courtesy of IFToMM Archive).

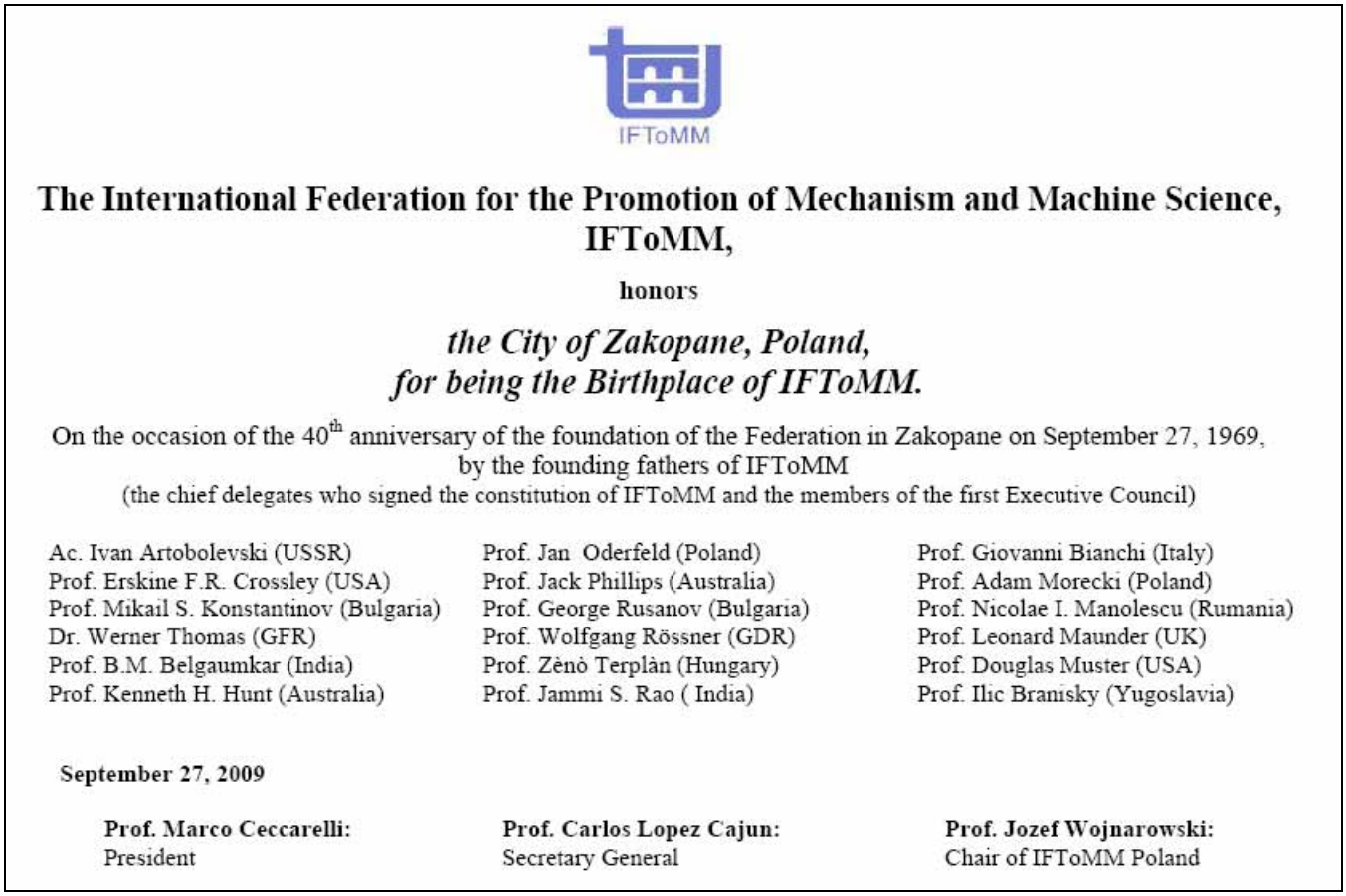
Term	President	Vice-President	Secretary General	Treasurer	Members
1969-1971	Ivan I. Artobolevskii (USSR)	F.R. Erskine Crossley (USA)	M.S. Konstantinov (Bulgaria)	Werner Thomas (West Germany)	B.M. Belgaumkar (India) K.H. Hunt (Australia) Jan Oderfeld (Poland)
1971-1975	Ivan I. Artobolevskii (USSR)	F.R. Erskine Crossley (USA)	M.S. Konstantinov Emil Stanchev (acting) (Bulgaria)	Werner Thomas (West Germany)	Giovanni Bianchi (Italy) Leonard Maunder (England) Jan Oderfeld (Poland) Theodor Pantelic (Yugoslavia) Jack Phillips (Australia)
1976-1979	Leonard Maunder (United Kingdom)	C.S. Pelecudi (Romania)	Adam Morecki (Poland)	H. Rankers (The Netherlands)	Arcady P. Bessonov (USSR) Giovanni Bianchi (Italy) Kurt Luck (GDR) T Pantelic (Yugoslavia) Jack Phillips (Australia) Bernard Roth (USA)
1980-1983	Bernard Roth (USA)	Arcady P. Bessonov (USSR)	Adam Morecki (Poland)	H. Rankers (The Netherlands)	Elizabeth Filemon (Hungary) Mark S. Konstantinov (Bulgaria) Kurt Luck (GDR) M.O.M. Osman (Canada) J.M Prentis (UK) Z. Zlvkovic (Yugoslavia)
1984-1987	Giovanni Bianchi (Italy)	Mark S. Konstantinov (Bulgaria)	Elizabeth Filemon (Hungary)	J.M Prentis (UK)	Gerhard Bogelsack (GDR) K.V. Frolov (USSR) T. Hayashi (Japan) Jammi S. Rao (India) A. A. Seireg (USA) Jean Vertut (France)
1988-1991	Giovanni Bianchi (Italy)	Gerhard Bogelsack (GDR)	L. Pust (CSSR)	J.N Fawcett (UK)	G. Dittrich (DDR) K.V. Frolov (USSR) T. Hayashi (Japan) Jammi S. Rao (India) Ali A.. Seireg (USA) Justo Nieto (Spain)
1992-1995	Adam Morecki (Poland)	Terry E. Shoup (USA)	L. Pust (CSSR)	J.N Fawcett (UK)	Jorge Angeles (Canada) Y. Chen (China-Beijing) G. Dittrich (DDR) Yuko Hori (Japan) Justo Nieto (Spain) Yuri L. Sarkisyan (Armenia)
1996-1999	Jorge Angeles (Canada)	Yuko Hori (Japan)	Tatu Leinonen (Finland)	Robert Bicker (UK)	Arcady P. Bessonov (USSR) Joe K. Davidson (USA) JeanClaude Guinot (France) Alberto Rovetta (Italy) Gabor Stefan (Hungary) Karl Wohlhart (Austria)
2000-2003	Kenneth J. Waldron (USA)	JeanClaude Guinot (France)	Tatu Leinonen (Finland)	Robert Bicker (UK)	Tian Huang (China-Beijing) Manfred Hiller (Germany) Gabor Stefan (Hungary) Alberto Rovetta (Italy) Hirofumi Miura (Japan) Kristoff Kedzior (Poland)
2004-2007	Kenneth J. Waldron (USA)	Tian Huang (China-Beijing)	Marco Ceccarelli (Italy)	John Rooney (UK)	Manfred Hiller (Germany) Theodor Ionescu (Romania) Carlos Lòpez-Cajun (Mexico) Hirofumi Miura (Japan) Kristoff Kedzior (Poland) James Trevelyan (Australia)
2008-2011	Marco Ceccarelli (Italy)	Yoshihiko Nakamura (Japan)	Carlos Lòpez-Cajun (Mexico)	Joseph Rooney (UK)	Veniamin I. Goldfarb (Russia) Theodor G. Ionescu (Romania) Datong Qin (China-Beijing) Bahram Ravani (USA) James Trevelyan (Australia) Miroslav Václavík (Czech Rep.)

Table 3: Chairpersons of the IFToMM Technical Committees, (Courtesy of IFToMM Archive).

Term/ Commissions	1969 - 1971	1971-1975	1975-1979	1979-1981	1982-985	1986-1989	1990-1993	1994-1997	1998-2001	2002-2005	2006-2009
Computational Kinematics						Started in 1991	Barham Ravani (USA)	Barham Ravani (USA)	JeanPierre Merlet (France)	JeanPierre Merlet (France)	Manfred Husty (Austria) Doina Pisla (Romania)
Gearing		Started in 1976	Darle W. Dudley (USA)	Darle W. Dudley (USA)	Darle W. Dudley (USA)	Karl Stolzle (Germany)	Karl Stolzle (Germany)	Aizon Kubo (Japan)	Veniamin I. Goldfarb (Russia)	Veniamin I. Goldfarb (Russia	Adam Dobroczeny (Hungary)
Human-Machine Systems					Started in 1986	K.V. Frolov (U.S.S.R.)	Kreystof Kedzior (Poland)	Kreystof Kedzior (Poland)	Kreystof Kedzior (Poland)	V.P. Tregoubov (Russia)	Karol Miller (Australia)
Linkages and Cams		Started in 1975	K. Kunad (Germany)	K. Kunad (Germany)	Fl. Duditza (Romania)	Fl. Duditza (Romania)	K. Luck (Germany)	K. Luck (Germany)	M. Vaclavik (Checz Republik)	M. Vaclavik (Checz Republik)	Burkhard Corves (Germany)
Mechatronics							Started in 1994	Manfred Hiller (Germany)	Manfred Hiller (Germany)	Henrik Van Brussel (Belgium)	Shinichi Yokota (Japan)
Micromachines							Started in1994	T. Hayashi (Japan)	T. Hayashi (Japan)	Alberto Rovetta (Italy)	G.K. Ananthasuresh (India)
Multibody Dynamics										Started in 2005	Javier Cuadrado (Spain)
Nonlinear Oscillations								Started in 1998	L. Pust (Checz Republik)	Gabor Stepan (Hungary)	Jan Awrejcewicz (Poland)
Reliability								Started in 1998	O.V. Berestnev (Belarus)	Irina V. Demiyanushko (Russsia)	Irina V. Demiyanushko (Russsia)
Robotics		Started in 1971	Bernard Roth (USA)	Giovanni Biannchi (Italy)	Adam Morecki (Poland)	Adam Morecki (Poland)	Kenneth J. Waldron (USA)	Kenneth J. Waldron (USA)	Jean Claude Guinot (France)	Bodo Heimann (Germany)	Bodo Heimann (Germany)
Rotordynamics			Started in 1977	Z. Parszewski (Poland)	J.S. Rao (India)	Yukio Hori (Japan)	G. Diana (Italy)	G. Diana (Italy)	Neville Rieger (USA)	Rainer Nordmann (Germany)	Rainer Nordmann (Germany)
Transportation Machinery								Started in 1998	Barham .Ravani (USA)	Barham .Ravani (USA)	Madhu Raghavan (USA)
Tribology										Started in 2005	Jianbin Luo (China-Beijing)

Table 2: Chairpersons of the IFToMM Permanent Commissions, (Courtesy of IFToMM Archive).

Term / Commissions	1969-1971	1971-1975	1975-1979	1979-1981	1982-1985	1986-1989	1990-1993	1994-1997	1998-2001	2002-2005	2006-2009
Communications	T. Pantelic (Yugoslavia)	T. Pantelic (Yugoslavia)	unknown	unknown	unknown	J.S. Rao (India)	J.S. Rao (India)	J.S. Rao (India)	G. Stepan (Hungary)	Constantinos Mavroidis (USA)	Leila Notash (Canada)
Education	M.S. Konstantinov (Bulgaria)	R. Bogdan (Romania)	M.S. Konstantinov (Bulgaria)	unknown	unknown	unknown	Aldo Rossi (Italy)	Aldo Rossi (Italy)	Kenneth J. Waldron (USA)	Kenneth J. Waldron (USA) Peter Dietmaier (Austria)	(Pietro Fanghella (Italy) Juan C. García-Prada (Spain)
History of MMS	Established in 1973	Jack Phillips (Australia)	Jack Phillips (Australia)	Jack Phillips (Australia)	Elisabeth Filemon (Hungary)	Elisabeth Filemon (Hungary)	Teun Koetsier (The Netherlands)	Teun Koetsier (The Netherlands)	Marco Ceccarelli (Italy)	Marco Ceccarelli (Italy)	Hong-Sen Yan (China-Taipei) Hanfried Kerle (Germany)
Publications	E.R.J. Crossley (USA)	E.R.J. Crossley (USA) & A. Bessonov (USSR)	E.R.J. Crossley (USA) & A. Bessonov (USSR)	E.R.J. Crossley (USA) & A. Bessonov (USSR)	Leonard Maunder (UK)	Leonard Maunder (UK)	Terry E. Shoup (USA)	Terry E. Shoup (USA)	Terry E. Shoup (USA)	Vincenzo Parenti-Castelli (Italy)	Vincenzo Parenti-Castelli (Italy)
Standardization of Terminology	D. Muster (USA)	D. Muster (USA)	D. Muster (USA) G. Bogelsack (Germany)	G. Bogelsack (Germany)	G. Bogelsack (Germany)	J.M. Prentis (UK)	Tatu E. Leinonen (Finland)	Tatu E. Leinonen (Finland)	Teohdor Ionescu (Romania)	Tehodor Ionescu (Romania)	Antonius J Klein-Breteler (The Netherlands)


IFToMM

The International Federation for the Promotion of Mechanism and Machine Science, IFToMM,

honors

the City of Zakopane, Poland,
for being the Birthplace of IFToMM.

On the occasion of the 40th anniversary of the foundation of the Federation in Zakopane on September 27, 1969, by the founding fathers of IFToMM
(the chief delegates who signed the constitution of IFToMM and the members of the first Executive Council)

Ac. Ivan Artobolevski (USSR)
Prof. Erskine F.R. Crossley (USA)
Prof. Mikail 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 Terplàn (Hungary)
Prof. Jammi S. Rao (India)
Prof. Giovanni Bianchi (Italy)
Prof. Adam Morecki (Poland)
Prof. Nicolae I. Manolescu (Rumania)
Prof. Leonard Maunder (UK)
Prof. Douglas Muster (USA)
Prof. Ilic Branisky (Yugoslavia)

September 27, 2009

Prof. Marco Ceccarelli: President
Prof. Carlos Lopez Cajun: Secretary General
Prof. Jozef Wojnarowski: Chair of IFToMM Poland

Fig.5 a Bronze plaque that is donated by IFToMM to Zakopane city.