



LIGHTWEIGHT STRUCTURES in CIVIL ENGINEERING

CONTEMPORARY PROBLEMS

Monograph from Scientific Seminar

Organized by Polish Chapters of

International Association for Shell and Spatial Structures

Lodz University of Technology

Faculty of Civil Engineering, Architecture and Environmental

Engineering

XXIV LSCE

Łódź, 7th of December 2018 (Friday)



SHORT HISTORY OF IASS POLISH CHAPTERS AND LSCE CONFERENCES

J.B. Obrębski ¹⁾

¹⁾ Retired Full Professor, Faculty of Civil Engineering, Warsaw University of Technology, POLAND,
email: jobrebski@poczta.onet.pl

ABSTRACT: The first LSCE international conference was organized in year 1995 by Faculty of Civil Engineering and it was inspired by prof. Jan Bogdan Obrębski and he plays the part of the chairman of Organizing Committee. During this successful event IASS president - professor Stefan Jerzy Medwadowski has initiated small meeting for Polish participants and gives proposal to form IASS Polish Chapters. In result at the next year were formed two first chapters under different leadership of Prof. J.B. Obrębski. As main statute activity, the PCs take task to organize each year local of international seminars or colloquia on Lightweight Structures in Civil Engineering (LSCE). In consequence, really from this moment were placed in Poland in universities and towns next 22 scientific different size conferences. Almost all have international character. This paper presents in details history, development and statistical data of activity many peoples engaged into development advanced structures. The paper turns special attention on excellent participants, engineers and creators of this scientific phenomenon, not financially or officially, in a few times only symbolically supported by universities or state institutions.

Keywords: IASS, Polish Chapters, history, beginnings, founders, statistical data.

1. INTRODUCTION

As well the series of LSCE conferences as the existence of IASS Polish Chapters, too, are certain phenomenon in Poland. They both exist in Poland, without any formal juridical registration or support of government, school or any university. The IASS PCs are formally organizationally part of IASS, only. This scientific groups exists in Poland not formally, with different rules just 22 years.

2. SHORT HISTORY OF LSCE

The first international Conference on *Lightweight Structures in Civil Engineering* (LSCE'95) was initiated by Prof Jan Bogdan Obrębski in Warsaw, Poland in the name of Faculty of Civil Engineering of Warsaw University of Technology at 25-29 September 1995. It has *Advisory Panel* with Honorary Chairman Prof M. Kwieceński, Chairman J. Karczewski and 42 members from 21 countries. The Organizing Committee has 6 members and Jan Bogdan Obrębski as Chairman. As Cosponsors were listed: Ministry of National Education, Foundation of "Aleksander and Zbigniew Wasutyński" (...), Warsaw University of Technology, Mostostal Siedlce S.A., POLIXEL Warsaw-Poland. Moreover it was supported by IASS, Int. Journal of Space Structures (UK), Int. Assoc. For Computational Mechanics (UK), Committee for Mechanics, Polish Academy of Sc. and Space Structures Research Centre (University of Surrey, UK). For some wider data see Refs. 5, 6.

After formation of IASS PCs, in 1996 (chapter 3), this group of enthusiasts – relatively young scientist take over the idea of continuation this idea to organize in Poland each year LSCE conferences. This way really has place in Poland just all together 24 such meetings. With few exceptions, it has international character. Detailed data are given in next chapters and especially in the 8-th. Parallel to development of IASS PCs, the meetings were organized in different towns (*Bydgoszcz, Częstochowa, Kraków, Olsztyn, Rzeszów, Wrocław*); located on the local Universities, see Table 1 & Refs.4-14.

In the LSCE'96 book, Ref. 6, were given following objectives and domain of activity of Local Seminars and IASS PC.

Table 1

No	Range of meeting	Date	Town
1.	International Conference	25-29.09.1995	Warsaw
2.	Local Seminar of IASS PC	6.12.1996	Warsaw
3.	Local Seminar of IASS PC	5.12.1997	Warsaw
4.	Intern. Colloquium of IASS PC	30.11-4.12.98	Warsaw
5.	Local Seminar of IASS PC	3.12.1999	Warsaw
6.	Local Seminar of IASS PC	1.12.2000	Warsaw-Cracow
7.	Local Seminar of IASS PC	7.12.2001	Warsaw-Wrocław
8.	International IASS Symposium	24-28.06.2002	Warsaw
9.	Local Seminar of IASS PC	5.12.2003	Warsaw-Rzeszów
10.	Local Seminar of IASS PC	3.12.2004	Warsaw-Częstochowa
11.	Intern. Colloquium of IASS PC	12-14.09.2005	Warsaw
12.	Local Seminar of IASS PC	1.12.2006	Warsaw
13.	Local Seminar of IASS PC	7.12. 2007	Warsaw
14.	Local Seminar of IASS PC	5.12. 2008	Warsaw
15.	Jubilee Seminar of IASS PC	4 -5.12. 2009	Warsaw
16.	Internat. Seminar of IASS PC	3.12. 2010	Warsaw
17.	Internat. Seminar of IASS PC	2.12.2011	Łódź
18.	Internat. Seminar of IASS PC	7.12.2012	Warsaw (WAT)
19.	Scientific Confer. of IASS PCs	6.12.2013	Olsztyn (UWM)
20.	Scientific Confer. of IASS PCs	25-28.09.2014	Warsaw (Arch.)
21.	Local Seminar of IASS PCs	4.12.2015	Rzeszów
22.	Local Seminar of IASS PCs	2.12.2015	Olsztyn
23.	Local Seminar of IASS PCs	1.12.2017	Bydgoszcz
24.	International Seminar IASS PCs	7.12.2018	Łódź

“The Local Seminars of IASS Polish Chapter are aimed to be continuation of LSCE’95 International Conference and to present the results of current research work in the field of structural analysis and design, architecture, construction and all related subjects pertinent to rationally designed and executed civil engineering and building structures. It is intended that all following topics can be included: spatial lattice structures, plate and shell structures, domes and membranes, high-rise buildings, towers, reservoirs, bridges, thin-walled, tension, cable and pneumatic structures. Any kind of material and structures can be discussed which corresponds with **definition: the lightweight structure belong to civil engineering objects, erected by peoples, which distinguish in relation to similar erected up till now, by relatively small amount of build in material and assuring simultaneously extremely large useful surface or free volume of buildings, tanks or reservoirs.** Also all methods of analysis as: analytical, numerical and experimental are welcomed.”

2.1. Foreword by President IASS Stefan J. Medwadowski – LSCE’96 (whole text, Ref.6)

The Warsaw Conference on Lightweight Structures in Civil Engineering – LSCE’96, to be held in December 1996, represents a kind of a milestone in the life of International Association for Shell and Spatial Structures.

The Topic of the Conference – Lightweight Structures – lies at the very core of field of interest of Association. From its inception in 1959, this topic was covered in every annual Symposium IASS, with many contributions addressing it directly or indirectly. Further, any of the Working Groups of the Association are devoted to the study of Lightweight Structures, including the WG on Masts and Towers, on Numerical Modelling, or on Structural Morphology.

The organization of the LSCE’96 in Warsaw is especially appropriate, since the first Conference on Lightweight Structures sponsored by the IASS – LSCE’95 – was also held here. Its Proceedings offer an important permanent record of the contributions presented at the Conference and can be found on the book-shelves of most leading researchers in the field.

I am fully convinced that the contributions contained in this volume, while inevitably more limited in scope and number, will become a valuable reference for many.

The LSCE’96 Conference in Warsaw has been arranged by Polish Chapter of the IASS. This Chapter was organized as a result of the very successful LSCE’95 Conference in Warsaw in accordance with the initiative of Executive Council of IASS. This initiative was based on the strong desire of the Council to maintain continuing contacts with colleagues in Poland and other countries where economic conditions made direct membership in the Association temporarily difficult. The IASS welcomes the Polish Chapter and offers in the Association’s support.

It is thus a pleasure to thank Prof. Jan Obrębski and his colleagues for their effective effort in organizing the Polish Chapter of IASS, and the Warsaw Conference LSCE’96. Special thanks are due also Dean and Civil Engineering Department of the Warsaw Technical University for making its facilities available for the Conference.

Finally, on a personal note, it is a special pleasure for me to attend this Conference at the Politechnica, where I began my engineering studies in 1943. Although the events of war made it impossible for me to complete my studies here, I consider this my true alma mater.

President IASS Stefan J. Medwadowski,
San Francisco, November 1996

3. BEGINNINGS OF IASS POLISH CHAPTERS

The idea of forming the national chapters on forum of IASS belongs to President S.J. Medwadowski. As main reason of this concept was trial to activate scientists and engineers from central and east Europe, where economical conditions make certain barrier to pay membership fee to IASS and in this way to increase number of members in Organization. Therefore, during first international relatively big conference in Warsaw on Lightweight Structures in Civil Engineering, Prof S.J. Medwadowski initiate small meeting of Polish participants and has given proposal to form Polish Chapters (PC) with 5 members in each – with representative person registered in IASS secretariat as paying annual membership fee.

In result, a few months later, at Prof. J.B. Obrębski as director of Institute of Structural Mechanics of Warsaw University of Technology invitee on 23.02.1996 some 11 colleagues from: Kraków, Łódź, Poznań, Rzeszów and Warsaw. Their names: Dr T. Błaszczynski (*Poznań*), Dr M. Giżejowski (*Warsaw*), M.Sc. M.M. Kamiński (*Łódź*), Prof J.B. Obrębski (*Warsaw*), Mr. K.B. Obrębski (*Warsaw*), M.Sc. M. Piekarski (*Rzeszów*), Prof W. Przybyło (*Kraków*), Prof J. Rębielak (*Wrocław*), Dr A. Reichhart (*Rzeszów*), Dr. H. Stankowska (*Szczecin*), Dr. J. Wdowicki (*Poznań*). They decide to form IASS Polish Chapters.

The second organizing meeting was held at 28.06.1996, in Warsaw in the same place. To the IASS PC have joint the next 5 persons: Prof J. Białkiewicz (*Kraków*), M.Sc. D.V. Nagoryi (*Ukraine*), Prof J.Z. Pluta (*Warsaw*), Prof Yu.M. Pochtman (*Ukraine*) and M.Sc. D.Zaręba (*Łódź*). They form two groups with 5 members represented by M.A. Giżejowski and M. Kamiński.

4. DEVELOPMENT OF IASS POLISH CHAPTERS

Development of PC shows the best the numbers of its members which were as it is given in Table 2 below.

Table 2

Date	Members PC	Date	Members PC
23.02.1996	11	31.12.2003	50
28.06.1996	16	27.01.2004	53
5.12.1997	21	1.12.2006	54
3.12.1999	34	22.04.2008	55
1.12.2000	34	29.06.2009	55
7.12.2001	33	10.02.2011	47
5.12.2003	40	10.02.2012	46

More information about members of IASS PC, previous and actual division of PC on sub-groups, approximately of five to six members in each, in the proceedings of each particular LSCE book, were given. So, in LSCE 20014 we can find that at 7.12.2012 the Polish Chapters have following numbers of PC and structure, Ref.11:

- 1.W. **Bober** (*Wrocław*) & M. Delineszew (*Wrocław*), K. Sadowski (*Wrocław*), P. Stobiecki (*Wrocław*), R. Tarczewski (*Wrocław*), S. Wrona (*Warsaw*).
2. A. **Barszcz** (*Warsaw*) & M.A. Giżejowski (*Warsaw*), S. Czarnecki (*Warsaw*), J. Bentkowski (*Warsaw*), J. Wdowicki (*Poznań*), S. Wierzbicki (*Warsaw*).
3. I. **Gołębiowska** & M. Dutkiewicz, J. Fryczyński, J. Rojek, B. Zając, R. Tews – All *Bydgoszcz*.
4. (~~Expired~~) K.**Grygierek** & K. Gerlic, K. Gromysz, T. Krykowski, A. Pownuk – All *Gliwice*.
5. M.M. **Kamiński** (*Łódź*), & T. Błaszczynski (*Łódź*), H. Stankowska (*Szczecin*), A. Walasek (*Ćmielów near by Kielc*), D. Zaręba (*Łódź*), J. Szafran (*Łódź*).
6. L.**Malyszko** & Z.Drabowicz, N.Jankowska, J.Pelc, R.Szmit-all *Olsztyn*.
7. **M.Z. Obrębski** (*Warsaw*) & J. Białkiewicz (*Cracow*) V.V. Kulyabko (*Ukraine*), D.V. Nagoryni (*Ukraine*), W. Przybyło (*Warsaw*), W. Zablocki (*Warsaw*).
8. (~~Expired – state acc. on LSCE 2011~~) **W.Przybyło** (*Cracow*), J.Hendel (*Częstochowa*), J.Kalinowski (*Częstochowa*), J.Zdziechowski (*Częstochowa*).
9. Z. **Bieniek** (*Rzeszów*) & A. Reichhart (*Rzeszów*), J. Abramczyk (*Rzeszów*), J. Mirski (*Kielce*), M. Piekarski (*Rzeszów*), J. Zdziechowski (*Częstochowa*).
10. J. **Tolksdorf** (*Warsaw*) & P. Bilko (*Olsztyn*), P.Kierzkowski (*Olsztyn*), K. Klempka (*Olsztyn*), E. Wirska (*Olsztyn*).

Comments given in LSCE 2014 book:

- Moreover, as individual IASS members were noted in this groups: I.B. **Obrębski** (*Warsaw* - now Honorary Member), R. **Tarczewski** (*Wrocław*), J. **Rębielak** (*Wrocław* – now not belong to IASS).
- Prof S.J. **Medwadowski** (*San Francisco, USA*) has been nominated as Honorary Member of IASS PCs and He accepted it.

Additional comments given in LSCE 2012 book, Ref.10:

- Prof. J. Rębielak – resigned from membership in IASS PCs and in IASS at all; - Chapter No 9 previously was led by A. Reichhart;
- Chapter No 2 previously was led by M.A. Giżejowski; - In this year Prof. W. Bober has resigning from belonging to IASS (?); - There, is no information about Chapter 10.

Actual state of IASS PCs should be find in documents IASS under address: <http://iass-structures.org>

4.1. Universities and towns where were formed chapters

The biggest number 55 the members of IASS PCs was noted at 29.06.2009 (see LSCE 2009) including individual two IASS members and Prof. S.J. Medwadowski as Honorary Member of IASS PCs. So, from lecture of above information we can conclude that members of IASS PCs were recruited from:

1. UTP University of Science and Technology in **Bydgoszcz**,
2. **Częstochowa** University of Technology
3. Lodz University of Technology,
4. University of Warmia and Mazury in **Olsztyn**,
5. **Poznań** University of Technology,
6. **Rzeszów** University of Technology,
7. **Warsaw** University of Technology,
8. **Wrocław** University of Technology.

4.2. Reorganization of Chapters in IASS – IASS Policy

At 26 October, 2008, were approved by IASS Executive Council new regulations, which formally from 29.06.2009 results in division of big IASS PC on some smaller (see next chapters in this book). So, the XV Jubilee Seminar was the last when we were working in old form. Moreover, the LSCE 2010 was held partially in old form, too.

It is important, that on Page 227 of LSCE 2014 book was printed (probably actual?) text “IASS policy on Chapters approved at September 2013”. It gives very restrictive regulations for our Polish Chapters, too.

4.3. Statute and actual rules of Polish Chapters activity

The last version of the Statute for IASS PCs is printed in the LSCE 2014 book, on pages 227-229 of the Ref.11.

5. SCIENTIFIC IMPORTANCE OF LSCE CONFERENCES

The new series of conferences on Lightweight Structures in Civil Engineering fulfil breach in subjects of Polish conferences. It is collecting in one meeting the scientists and engineers interested with wide range problems for different kinds of lightweight structures and provide series of specialized books. Moreover, many prominent peoples from the domain are coming with lectures to Poland.

6. PARTICIPANTS OF LSCE CONFERENCES

In this chapter are listed the most outstanding participants of our series of conferences, including passing away.

6.1. Great engineers and Poles - participants of LSCE conferences:

- S. **du Chateau** (France), 756 (1995),
- Z.S. **Makowski** (UK), 43 (1995), 17 (2002), 10 (2004),
- M. **Majowiecki** (Italy), 845 (1995),
- S.J. **Medwadowski** (USA), 5 (1996), 42 (2002), 10 (2004),
- J. **Murzewski** (Poland), 145 (2004), 150 (2006),
- I. **Siotor** (Germany), 314 (2005), 44 (2014),
- W. **Zablocki** (PL), 57 (1998), 99, 109 (2002), 45 (2005), 184 (2006), 93 (2007), 178 (2009), 171 (20012), 206 (2014),
- W. **Zalewski** (USA), 153 (1995), 109 (2002).

6.2. IASS Presidents in Warsaw

As official IASS Presidents have visiting of LSCE conferences:

- President S.J. **Medwadowski** has participate in the first LSCE in 1995, and next in 1996 and in 2002, 2004.
- President M. **Kawaguchi** participated also as author of paper in 2005.

6.3. Famous participants of LSCE conferences.

Below, are mentioned some more distinguished engineers and scientists - participants and theirs papers (page and year), only.

M. **Balz** (Germany), 13 (1995); V.I. **Bolshakov** (Ukraine), 281 (1998), 653 (2002); M. **Burt** (Israel), 69 (2002), 33 (2005); J. **Chilton** (UK), 26,94 (1995); A. **Cretu** (Romania), 330 (1995), 274, 282, 381 (1998); M.F. **Drdacky** (Czech R.), 338,721 (1995), 613 (2002); V. **Gioncu** (Romania), 637 (1995); G.C. **Giuliani** (Italy), 561 (2002); Y. **Hangai** (Japan), 405 (1995), 148 (1998); P. **Huybers** (Holland), 589,599 (1995), 84 (1998), 262 (2002); T.T. **Lan** (China), ;K. **Kawaguchi** (Japan), 217,691 (2002); M. **Kawaguchi** (Japan), 770 (1995), 50 (2002), 11 (2004), 20 (2005); S.D. **Kim** (Korea), 422, 855 (2002); V.V. **Kulyabko** (Ukraine), 107, 253 (1995), 221 (1998), 544, 554, 635 (2002), 61 (2003), 27, 107, 169 (2005), 26 (2010); K.H. **Laermann** (Germany), 137 (1998); M. **Mihailescu** (Romania), 789 (2002); I. **Mungan** (Turkey), 739 (1995); M. **Murray** (Australia), 389 (1995); H. **Nooshin** (UK), 136 (1995); Yu.M. **Pochtman** (Ukraine), 193, 213 (2002), 143(1996), 51 (1997), 44, 368 (1998), 78 (1999), 81,156 (2000); E. **Ramm** (Germany), 443 (2002); J. **Rhodes** (UK), 206 (2005); A. **Samartin** (Spain), 795 (1995), 334, 389 (2002); J.M. **Schlaich** (Germany), 815 (2002); V.F.J. **Sedlak** (Austria, Australia) 314 (2005); F. **Seible** (USA) 735 (2002); V.V. **Shugaev** (Russia), 294, 303 (1995), 735 (2002), 25 (2014); G. **Solari** (Italy), 47 (1998), 950 (2002), 27 (2014); N.K. **Srivastava** (Canada), R. **Sundaram** (India), 800 (2002); Y.B. **Yang** (Taiwan), 301, 605 (2002); A. **Zingoni** (Zimbabwe, Z.A.), 317, 322, 571 (1995), 164, 392 (1998).

6.4. Dedications

Special our memory should be dedicated for passed away our colleagues, authors of papers and members of LSCE Committees, especially honoured in previous proceedings:

Professor Yasuhiko **Hangai**, † 9.08.1998, (see LSCE 2005).

Professor Stefan **Du Chateau**, † 1999, (see LSCE 2005).

Professor Walerian **Wierzchowski**, † 8.11.2000, (see LSCE 2005).

Professor Yuriy M. **Pochtman**, † 1.01.2001, (see LSCE 2005).

Professor Noel W. **Murray**, † (see LSCE 2005).

Dr. Assistant Professor V. Atilla **Öven**, † 23.05.2005, (see LSCE 2005).

M.Sc. eng. Andrzej **Rawluszko**, † 1.07.2005, (see LSCE 2005).

Prof. Zygmunt Stanisław **Makowski**, † October 2005, (s.LSCE 2005).

Professor M. **Mihailescu**, † app.11 Oct. 2006, (see LSCE 2006).

Professor Kazimierz **Jaworski**, † 18.07.2007 (see LSCE 2007).

Professor Jan **Karczewski**, † October 2009 (see LSCE 2009).

Professor Heinz **Isler**, 1926 - † 2009.

M.Sc.eng.arch Konrad Bartłomiej **Obrebski**, † 10.02.2012 (LSCE 2012).

Professor Ihsan **Mungan**, † 5.03.2012 (see LSCE 2012).

Professor dr hab. eng. Jerzy Z. **Pluta**, † 2.08.2013 (see LSCE 2013).

Professor Vladimir V. **Shugaev**, † 25.07.2014.

Dr eng. Andrzej **Ciaś**, † 20.08.2014.

Professor Yasuhiko HANGAI 1942 – 9.08.1998

He passed away on August 9, 1998. Just this year I have met Him during the Intern. IASS-ICSS'98 Congress, 22-26.06.1998 in Moscow, Russia. He was as usually smiling and full of energy... One month later He actively has organized and chair the session on numerical methods during SEWC Congress in San Francisco, 18-23 July, 1998. At 17 August, 1998, come from Prof Ture Wester from Copenhagen short painful message “I have the sad information that one of our members Professor Yasuhiko Hangai passed away on August 9,” Some hours later I got similar information from Vice-President of IASS – Prof John Abel. At last I received Fax signed by Prof M. Kawaguchi, dated of August 11, 1998, Tokyo.

He has born at 1942 in Fukushima in Japan. Graduated at 1965 when become B.Sc. degree on University of Tokyo. His professor's position has obtained at 1985 in University of Tokyo, too. He was an outstanding researcher and true gentleman. He has contributed very much at both the University of Tokyo and the University of Waterloo, Canada. His most important papers concern introduction of General Inverse Matrix into structural analysis, by which treatment of unstable structures including cables and membranes or deployable ones become possible. His papers were very close to problems of LSCE, Ref. 4. Moreover, He was: - The member of IASS Executive Council since 1987; - Chairman of the IASS Election Committee; - Chairman of the

Working Group 8 for Metal Spatial Structures; - Vice-Chairman of the Working Group 13 for Computer Methods; - Dean of Faculty of Civil Engineering on University of Tokyo; - He was also organizer of SEIKEN-IASS Symposium on Nonlinear Analysis and Design for Shell and Spatial Structures, Tokyo, Japan, 20-22.10.1993 and of 8 Seminars or Colloquiums in Tokyo in term 1995-98.

Professor Y. Hangai was great friend of all peoples, also of us. He attended LSCE'95. He intended to write the paper for LSCE'98 Colloquium together with Dr Shunji Oya, too. This paper finished by Dr S. Oya by the help of Dr Ken'ichi Kawaguchi, was printed in the conference book, Ref. 10. **The LSCE'98 Colloquium was dedicated to His memory.** For more information, see LSCE'98 book, Ref.7.

† ---- o o ---- †

Professor Stefan Piotr Du CHATEAU 30.08.1908 – 1999

The short text below presents the person of Professor Stephane Du Chateau, His short biography and professional achievements. The wider information is given in the LSCE 2004 book. There, are shown some photos made during His stay on LSCE 1995 in Warsaw, Ref. 5, too. Moreover, are quoted some examples of spatial bar systems and structures designed by Him: Unibat, Pyramitec, Tridimatec, and Spherobot, made from wood, bamboo, and steel.

Short Biography of Stephane Du Chateau. Great grandfather of Stephane Du Chateau – Capt. Pierre Du Chateau after Napoleon campaign 1812 found refuge and aid in one of Poland's manor houses. There was married to Pole – Miss Anna Pawłowska and stay in Poland. Theirs grandson – also Pier – father of Stephane, was arrested and banished on Siberia. So, after years, Stephane Pierre Du Chateau was born in **Solwyczegodzk on Siberia** on 30.08.1908. After amnesty for His father, He was coming back to Władzina by Hrubieszów. Poland.



Fig. 1. S. Du Chateau

He becomes the education in grammar school in Hrubieszów and Lublin. In 1930 start studies at the Department of Architecture of the Lvov University of Technology. During the studies commenced his professional carrier. Unfortunately He did not manage to graduate prior to the outbreak of the war. He was enlisted to army on 23.08.1939 and took part in September Campaign. Next, across Hungary and through Yugoslavia and Italy reach France on 18.12.1939. There is enclosed as the commanding officer of platoon to the II Division of the Polish Army in Partenay. In the spring of 1940 was fighting on the north-eastern border of France. On 1.07.1940 is taken prisoner by the Germans. Up to March 1945 is in Hoyeswerda Oflag IV D. There was certain possibility to professional training. After the war, is continuing His specialization in Urban Planning Institute of the University of Paris. There He becomes title “compositeur des plans d'urbanisme”. In 1947 He got diploma of the School of Architecture of the Polish University College in London.

In period 1945-49 is engaged by Marc Briaud de Laujardié Bureau. In 1949 takes the post of technical director of the “Tubétal” Tubular

Construction Company. In 1953 he found own architectural and structural consulting office in Paris. In this year he receives French citizenship. He marries a Polish architect Krystyna Anna Szeronos.

In professional activity He was concentrated on space bar structures. His structures are built in France, Poland, Russia, Africa, Asia, USA, Tahiti, Madagascar, Tanger etc.

Since 1967, He has been a teacher at the Department of Architecture of Parisian L'Ecole des Beaux Art and later at the Unité Pedagogique d'Architecture in Paris and also abroad in Montreal. Canada (1976). Numerous his exhibitions were worldwide, including Poland (1972-1995). He becomes degree of Doctor Honoris Causa of Surrey University, UK - 1971 and many other honours in Mexico, Paris and Warsaw.

Stephane Du Chateau was the member of Advisory Panel of LSCE 1995 held on Warsaw University of Technology. Moreover, he presents own exhibition of designed by Him structures and had have a general lecture.

† ---- o o ---- †

Professor Walerian WIERZCHOWSKI

Professor Walerian Wierzchowski passed away on November 8, 2000 at 9:45 in the car accident near Osowiec by Grajewo, together with His two colleagues from Warmian-Mazurian University in Olsztyn. They were on the official trip to University in Białystok.



Fig. 2. W. Wierzchowski

He was our colleague from Warmian-Mazurian University in Olsztyn and member of IASS PC. We lost good friend. Great honour for His memory.

He intended to write paper for the LSCE'2000 in Cracow, together with *M.Rafalska & W.Dąbrowski*. The paper translated by me after His death, is printed in the LSCE 2000 book, Ref. 4.

Born at April 14 1940 in Łuków, Poland. **Educated:** 1947-1954 first level school in Lublin, 1954-1958 mean technical building school in Lublin, 1958-1964 Faculty of Architecture of Technical University in Gdańsk – graduated in 1964 and become M.Sc degree. In 1967 He has finished the *post-graduated study* in Milan on *Modernization in Town Planning Technique*, 1979 Ph.D. degree in Agriculture-Technical Academy (ART) Olsztyn, 1979 – three months professional experience on Technical University in Milan, 1997 D.Sc. (habilitation) in Agriculture-Technical Academy in Olsztyn, has also *designing rights*, and *expert rights of Polish Association of Town Planners* (In Polish TUP).

Course of His professional works was as follow: 1964-1965 period of service in Technical University of Gdańsk, 1965-1969 manager of town planners team in town administration (P.R.N.) in Biskupiec, 1969-1972 Town Planners Workshop, 1972-1979 lecturer in Institute of Planning and Arranging of Greens in Agriculture-Technical Academy in Olsztyn, 1979-1987 adjunct in the same University, 1987-1992 Manager and associated professor on contract (in Polish – docent kontraktowy) and from 1992 full manager in the same Institution of Town Planners and Architecture of Agriculture-Technical Academy in Olsztyn – after transformation in 1999 – of Warmian-Mazurian University in Olsztyn.

Moreover, among the others He was: 1987-1990 vice-dean to didactic affairs and 1996-1999 dean of the of Faculty of Civil Engineering of the Agriculture-Technical Academy in Olsztyn, from 1999 to His last days vice-dean for development affairs Faculty of Technical Sciences and director of the Institute of Civil and Sanitary Engineering both on Warmian-Mazurian University in Olsztyn (after its transformation of the among the others from ART Olsztyn).

He has become some distinctions, including *golden cross of merit* and *golden and silver badge of Polish Association of Town Planners*, and numerous rewards as: Ministry of Education and Rector of Agriculture-

Technical Academy in Olsztyn and Warmian-Mazurian University in Olsztyn. He was the author of four academic books (lecture notes), numerous publications, and architectural and town areas projects.

We all, members of Polish Chapter of International Association for Shell and Spatial Structures and Participants, were honoured **to dedicate the Local Seminar of IASS PC 2000 to His memory.**

† ----- o o ----- †

Professor Yuriy M. POCHTMAN, † 1.01.2001

With the great sadness I have received at June 16, 8:05 in the morning after leaving the train from Warsaw on the railway station in Vilnius, Lithuania, the information, that Professor Yuriy M. Pochtman passed away on January 1.01.2001 in hospital in Dnipropetrovsk after heavy heart infarction. This terrible news seems to be the most important for my colleges – Prof. P. Aliavdin and A. Notkus. For me, too. He was very active member of IASS Polish Chapter from almost the moment of its foundation in 1996. So, we lost the next friend, unforgettable college and valuable scientist. Great honour for His memory.



Fig.3. Yu.M.Pochtman

Born at 1934 on Ukraine. The more important data of His university education are as follow: 1956 – B.Sc. and M.Sc. degrees on Dnipropetrovsk Institute of Civil Engineering in Dnipropetrovsk, 1967 – Candidate Technical Sciences (roughly equivalent to Ph.D.) on Dnipropetrovsk Institute of Transport; 1991 – Doctor Technical Sc. (equivalent to D. Sc) on Charkov Institute of Problems Machine-Building of Ukraine Academy of Sciences in Charkov.

To teaching activity of Professor Yuriy M. Pochtman belong: shell theory, statics, applied mathematics and solids mechanics, theory of stability, introduction to structural Dynamic, computer technology and programming. He was supervisor of 24 students for Higher Degree.

Moreover, shall be mentioned more important His academic appointments. 1987-1990 leading research workers of the Research Laboratory of Applied Mathematics and Mechanics in Dnipropetrovsk State University in Dnipropetrovsk. 1991-1998 Professor in Mechanics of Solids on Dnipropetrovsk State University in Dnipropetrovsk. 1998-2001 Professor, Head of Department of Applied Mathematics at Dnipropetrovsk Institute of Economics.

To His honours belong: 1997 – chosen by American Biographical Institute on the list of 500 scientists in the nomination Man of the Year -97. 1997 – chosen as member of Research Board of Advisors of the American Biographical Institute.

He is the author of more than a thousand publications. His papers we can find in all LSCE books, too. Member of Advisory Panel at LSCE'98 and of Scientific Committee of LSCE 2002.

We all, members of Polish Chapter of International Association for Shell and Spatial Structures and Participants, were honoured **to dedicate the Local Seminar of IASS PC 2000 to His memory.**

Prof. Dr. Hab. Jan B. Obrębski (Warsaw, Poland); Dr. Dmytro Nagorny (Dnipropetrovsk, Ukraine); Dr. Mark M. Fridman (Krivoy Rog, Ukraine)

† ----- o o ----- †

Professor Noel W. MURRAY (Australia) app. † 2005

Professor Noel W. Murray was known as the author of excellent book on thin walled bars. So, He was invited to Warsaw on LSCE 1995. He was the member of Advisory Panel of LSCE 1995 and 1998. In the year

1995 has arrived to Warsaw and presented the general lecture at plenary sessions of LSCE. Many thanks, for his kind support.

† ----- o o ----- †

Dr. Assistant Professor V. Atilla ÖVEN † 23.05.2005

At June 30, 2005, was coming information by e-mail, that Dr. V. Atilla Öven has had a traffic accident and operated knee injury for two months ago. He passed away from emboli on 23 May 2005.



Fig. 4. V.A. ÖVEN

Dr V. Atilla Öven has planning to publish in LSCE 2005 book two papers with His colleagues - *M. Sahin* and *V. A. Öven*.

The abstracts of both papers were delivered by Dr V.A. Öven to Secretariat and were accepted to further procedure. It is the best manner to render His memory, publishing abstracts of both above papers. They both were included to the LSCE 2005 book. Moreover, He was a participant of LSCE 2002 and His paper was printed on page 548. He was the member of Scientific Committee of LSCE 2005, too.

Personal History. 1964 born in İstanbul. 1985 graduated from Istanbul Technical University (ITU) Faculty of Architecture. 1989 – He won a scholarship from the Turkish Ministry of Education to study in the United Kingdom both for the degree of M.Ph. and PhD. 1992 obtained Master of Philosophy (*M. Ph.*) from University of Sheffield School of Architecture, with the submission of a thesis titled '*The Behaviour of Shelf-Angle Beams at Elevated Temperatures*'. 1996 obtained Doctor of Philosophy (*PhD*) from University of Sheffield School of Architecture, with the submission of a thesis titled '*The Behaviour of Composite Beams with Partial Interaction at Elevated Temperatures*'. 1996-2005 Is the member of Teaching Staff at *Gebze Institute of Technology (GIT)* at Faculty of Architecture, Earthquake and Structure Sciences Unit. Area of Interest. Fire Engineering, Light-weighted Steel Structural Problem in Application, Numerical and Statistical Methods in Engineering and Architectural Sciences.

† ----- o o ----- †

M. Sc. Eng. Andrzej RAWLUSZKO 30.09.1953 – 1.07.2005



Fig. 5. A. Rawluszko

He has passed away at 1.07.2005 in Olsztyn. The information reaches me in Warsaw. It brings me from Olsztyn Natalia Jankowska at 11.07.2005. He was through 14 years my colleague from University of Warmia and Mazury and a few years from Subgroup No 6 of IASS Polish Chapter in University of Warmia and Mazury in Olsztyn. We all remember Him as good friend and full of energy. With him we have lost a reliable structural engineer who was very active in the field of education of civil engineers. Below are given some His personal data

delivered by Dr L. Małyżko – leader of the Subgroup No 6. **He was born** at 30.09.1953 in Grabnik, Poland.

He studied at the Academy of Agriculture and Technology in Olsztyn where in 1977 has obtained his M.Sc. degree at the Faculty of Civil Engineering. Next, He studied at the full-time Doctoral Studies of the Faculty of Civil Engineering in the Warsaw University of Technology in years 1978-1979, too. But it was not finished by proper diploma. 1978 – 1985 Assistant on Faculty of Civil Engineering of the Academy of Agriculture and Technology in Olsztyn (ART). There He was teaching of *steel structures* and of *concrete and reinforced structures*. He was co-author of one lecture notes book and some conference paper in above domains. 1985 – 1993 older assistant, designer and older designer in domain of building-constructive branch in *Designing-Research Office for General Civil Engineering „Miastoprojekt – Olsztyn”*. Autor and co-author of more than hundred projects and several experts' inquiries.

1993 – 2005 lecturer and senior lecturer in *Chair of General Building and Wood Structures* in Academy of Agriculture and Technology in Olsztyn, later known as University of Warmia and Mazury. Lately senior lecturer in *Chair of Building and Building Structures* in the same UWM. Moreover, He was the supervisor of numerous engineer diploma works. Friendly for students, demanding and earnest teacher.

He obtains authorization right: for building performers at 1985 and designer authorization right at 1986 and architectural ones in 1994. From 1994 expert of *Polish Society of Civil Engineers and Technicians*. From 1995 expert in domain of building-constructive branch – title given by Olsztyn voivode. Active member of exam commissions for *building authorization rights*. His name is located on central Polish experts list. Judgement expert, too.

He leave alone in deep sorrow the wife Eleonora and two daughters: Marta (22) –student of medicine (4th year) in Warsaw and Karolina (17) school-girl in universal type lyceum in Olsztyn.

† ----- o o o ----- †

Professor Zygmunt Stanisław MAKOWSKI, UK, 1922-2005

He was **born** on 15.04.1922 in Warsaw, Poland and passed away at **October 2005**. This sadly message was coming to me by letter in January 2006 from His son – Ryszard Jan. He was married on 20.10.1951 to Cecylia Grzesik, and has 2 sons (Jerzy Zbigniew, Ryszard Jan) and 2 daughters (Anna and Barbara).

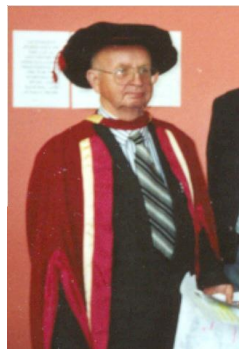


Fig. 6. At left - Professor Z.S. Makowski during his general lecture on LSCE 95 in Warsaw. At right – in dress of the Dean on Guildford University, UK

Educated: - at the Tadeusz Czacki Grammar School, Warsaw, Warsaw Technological University (PWST) 1942-1944; - Reale Università degli Studi di Roma 1946; Polish University College of Science and Technology, University of London, 1950-1953.

Military service: 1945-46 soldier of Anders Army in Italy.

Degrees and diplomas: Dipl. Ing. (PUC) with distinction, 30.01.1950; Ph.D., University of London, 20.07.1953; D.I.C., Imperial College, 14.10.1953. **Working as:** - assistant lecturer, Polish University College, London, 1949-51; - lecturer, Imperial College, 1951-1958; - senior lecturer, Imperial College, London, 1958-1962; Head of Department of Civil Engineering, Battersea College of Advanced Technology, 1962-1964; - Professor and Head of Department, Battersea College, 1964-66;

- Professor and Head of Department, University of Surrey, 1966-84; - Dean of Faculty of Engineering, 1966-68, 1976-79 and 1984-87. **Founder** of the Space Structures Research Centre in the Department of Civil Engineering at Battersea. In 1972 the Centre was installed in a building of Space Structures Research Centre on the Department of Civil Engineering in Guildford, donated by British Steel Corporation.

Founder and editor of International Journal of Space Structures.

Other data: - Honorary Member of IASS from 1986; - Member of Advisory Panel of LSCE 1995; - Member of Honorary Committee for LSCE 1998 and LSCE 2002; - Author of three papers on LSCE 1995 (page 43), LSCE 2002 (page 17) and LSCE 2004 (page 10).

- **Honoured** by Commemorative Medal, founded by Prof Jan B. Obrębski Chairman of Polish Chapter of IASS in occasion of: **The XI-th anniversary of LSCE from 1995 to 2005 & Ten Years of IASS Polish Chapter in Warsaw at 12-14 September, 2005.** It was given in Warsaw, at 12.09.2005, with **individual title to Prof. Zygmunt S. Makowski:** - Participant of LSCE 1995; - member of Advisory Panel of LSCE 1995; - Honorary Committees 1998, 2002.



Fig. 7. S. Du Chateau (in the middle), Z.S. Makowski (at left) and S.J. Medwadowski (at right) three great Poles - banquet in Forum Hotel

† ----- o o o ----- †

Professor Mircea MIHAILESCU, Romania † 11.10.2006

Approximately at 11.10.2006 was suddenly passed away Professor Mircea Mihailescu. The specialist and designer of many reinforced concrete shells in Romania. It was a few days before IASS-APCS Symposium in Beijing.



Fig. 8. Professor M. Mihailescu during LSCE 2002 in Warsaw

He was the author of the paper on LSCE 2002 (page 789). Deceased Honorary Member of IASS from 2005. Chairman of IASS Symposium, 6-11.09. 2005, Bucharest, Romania. Member of the IASS and IASS Advisory Board. Chairman of IASS Romanian Chapter.

† ----- o o o ----- †

Professor Kazimierz JAWORSKI, Poland † 18.07.2007

He has working as Professor on Faculty of Civil Engineering of Warsaw University of Technology. He was passed away at 18.07.2007. In 1995 was serving us as reviewer of papers and 1998 he was serving for LSCE international conference as the member of Advisory Panel of LSCE 1995, 1998.

† ----- o o o ----- †

Professor Jan KARCZEWSKI, Poland † October 2009

Professor Jan Karczewski was the full professor of Warsaw University of Technology on Faculty of Civil Engineering. Specialist from steel structures. He passed away in October, 2009. In 1995 He was the Chairman of Scientific Committee of LSCE'95. In next year's He was a member of Scientific Committee, too.



Fig.9. LSCE 95 first minutes. The Chairman of Scientific Committee, Prof. Jan Karczewski is speaking



Fig.10. LSCE 95, speech of IASS President, Prof. S.J. Medwadowski. In the middle behind table is Prof. Jan Karczewski

Many thanks for Him for His kind help and support. He was very active member of IASS, taking part in many annual Symposia.

† -----o o o----- †

Professor Heinz ISLER, Switzerland, 1926 - † 2009, Ref. 3.

H. Isler born in Zürich, Switzerland; He graduated in Civil Engineering from ETH in 1950, in particular influenced by Prof Pierre Lardy whose assistant he became for two years. After a short training as painter, he returned to engineering and started his own consulting office in 1954. It was the beginning of an exceptionally success carer in design and construction of reinforced concrete shell roofs. His experimental form finding methods became his trademark for non-geometrical free-form shells. Also his talk at the first IASS Congress 1959 and the subsequent discussion are legendary. Finally, he built over 1400 shell roofs. His creativity was based on a blend of an exceptional creativity and very careful engineering. IASS owes Him a great deal of new ideas and motivation for future work. He was a longstanding member of the Executive Council, and a founding member of WG 15 on Structural Morphology. In 1994. He was elected on Honorary Member and in 1996, He obtain Torroja Medal. Above information is quoted after Ref. 3.

Moreover, Heinz Isler has been the participant of LSCE conferences. Twice He attends in LSCE conferences and has general lectures: in 1995 and in 1996 – see above. Also He has serving as a member of LSCE Advisory Panel in 1995 and 2002 – both the biggest international meetings on Lightweight Structures in Civil Engineering.

† -----o o o----- †

M.Sc. Eng. Arch. Konrad Bartłomiej OBREBSKI

Born 21.06.1974 and passed away †10.02.2012. Married with Izabela Szulcik, two daughters: Irena and Michalina. **Education: Schools finished.** Konrad has attending to the Adam Mickiewicz primary school

by Kazimierzowska 16 Street. Here He starts His scout's adventure. Next, it was the Tadeusz Reytan secondary modern school by Wiktorska Street. In years 1993-1999 He attend Warsaw University of Technology, Faculty of Architecture, obtaining title of Master of Sciences, engineer Architect. **Languages knowledge's:** - English, Russian, French and Spanish - all well.

Professional experiences as student: 1993 - cooperation with the firm evaluating fixed properties IBERDOM Polska – building and architectural aspects for opinions and drawings elaboration; 1996-1997 -practice in housing association “Nasza Chata” (Our Cottage) designing and constructing houses and offices buildings. 1997 - project of monument John Paul II – see below. 1997-1998 - practice in Author's Architectural Office Kuryłowicz & Associates, there taking part in preparation of some architectonic competitions. In spring 1998 (spring - diploma semester) was delegated from Warsaw University of Technology on few month on practice in Mons in Belgium. After coming back it was no longer place for Him in Kuryłowicz Office and master's diploma work defence was moved to beginnings of 1999.

03.01.2000 – 10.02.2012 – **PROCHEM S.A. with positions:** 2000-2007 older assistant/ building engineer; 01.02.2008–10.02.2012 designer. **More important projects in years 2000-2007:** - *Warsaw*, Powązkowska str. office build.; - *Walbrzych* – TOYOTA, building and technical projects; - New Holland BIZON; - Documentation of conversion of the office-social building STALBUD; - Adaptative works for lessees IRYDION; - POLFA TARCHOMIN; - *Wilda* –holiday housing estate; - proj. of fittings for tank for propylene, trestle, electro energetic net, node of propylene and external infrastructure for PKN ORLEN Plock; -pharmaceutical factory POLFARM S.A.; - ANPHARM S.A.; - modernization station for treating the water SGGW; - modernization of the office build. IRYDIUM by Emilii Plater str. in *Warsaw*; -PUPP Poczta Polska; -conceptual elaboration University of Stefan Wyszyński; - Publishing House BAUER. **Projects in years 2008-2012:** - buildings: of centrifugal separators, boiler house, for weighing cars and technical all in Production Plant for Etanol “Goświnowice”; - the seat Office of District Mokotów in *Warsaw*; - executory proj. BOT Electric Power *Belchatów* S.A. Block 833 MW; -building for Production Plant Aromas Pollena; - executory proj. of Terminal LNG in *Świnoujście*.

For obtaining practice on building sites He was delegated by PROCHEM for working: - in *Walbrzych* for TOYOTA factory; - by modernization of the office building IRYDIUM by Emilii Plater str. No 18 in *Warsaw*; and by erection of Polish Television S.A. new building by corner of Woronicza and Samochodowa street (LSCE 2005, ref. 9). In result after proper procedure and exam, at 10.12.2007, He becomes building qualifications in architectonic specialty to designing without limitations. In result, Konrad soon has obtained position of valued designer in PROCHEM.

Cooperation with His father (Ref.11) over three different scale project. The work were organized by J.B. Obrębski - conception and construction side. To Konrad belong architecture, decorative side and last outlook of the object. **The first common work** (as architecture student) was monument for John Paul II located on Main Square in Międzyrzec Podlaski - now named John Paul II. There, was designed the foundation and base for existing figure of Pope made by project of prof. Wł. Dudek from Krakow Academy of Fine Arts. The, all inscriptions and lettering were positioned and selected by Konrad. Monument was mounted at 20.07.1996 and unveiled at 25.08.1996. **The second work of father and son** was cemetery chapel in Wola Kiełpińska (2005-2008). There, final proportions, façade, details and decorations, belongs to Konrad. The chapel is built but not finally finished. Still are waiting some details. **The third, last work with father** is the church foreseen to be located in Fortress Modlin. The works were started at Dec. 2008 (first talks). For procedural and legislative reasons (not decided localization), project was finished after Konrad death, by His father. **Finally, it is not realized.**

Working in PROCHEM S.A. He has taking part in two significant competitions. The first, in which He was personally very engaged, was building for Hospital by Banach street in *Warsaw*. Unfortunately, now wined. **In second competition**, for “Polish LNG Regasification Terminal in *Świnoujście*, Poland” He takes part with PROCHEM. There, winner was Italian firm SAIPEM from Milano, which decided to

take as consultants the PROCHEM. So, Konrad with J. Drożdźiel and R. Parzelski were delegated on 6 months to Milano.

In remembering paper after the death His superior – Mirosława Narkiewicz has written: “He was an architect – very well and a bit was proud from belonging to this professional group. Ever responsibly, with passion engaged into new projects, full of conceptions, still willing to obtaining the best effects of His work. Sometimes it was necessary to stop Him that it is just enough, that it is no necessity of further improving.” (...) “Through all period of our cooperation He was not limiting to professional development. The store of His knowledge from other life domains and variety of His interests sometime me even surprise.” (...) “And He was a good Colleague. And as such I will remember Him” Mirosława Narkiewicz, February 2012.

Hobbies: scout, architecture, sailor, solder reconstructor, family.

As scout Konrad promoted step by step was obtaining at last the ranks – Eagle Scout and Highest scout instructor. On funeral, His colleagues have brought on ceremony in the church the document awarding Him by **Honorary Cross of ZHR**.

Solder reconstructor. From approximately 2006, Konrad has joining the theatrical group reconstructing of the IV-th Infantry Regiment of Warsaw Duchy. Several times He has taking a part in arranging (inscenizations) – historical reconstructions of the famous battles in that époque. Twice He was under Austerlitz (Czech Republic), under Flavio (Spain), under Olszynka Grochowska, Ostrołęka, etc.

Konrad's activity for LSCE and IASS PCs. He has taking part in LSCE conferences as author four times. Also three times He has helping during of LSCE conf. in service of participants in 1995, 2002 and 2005. Moreover, in period of years from 2003- 2012 – to end of His days, He was playing part of chairman of sub-Chapter No 7 of big IASS PC. Lately after transformation it was small Chapter No 5. This was difficult group with members from Poland and Ukraine (see LSCE 2012 book).

† ----- o o o ----- †

Professor Ihsan MUNGAN, 1.03.1936 - † 5.03.2012. Refs 1, 2, 3.

He was very active member of IASS and also active member of Scientific Committee of Warsaw Conferences and Seminars on Lightweight Structures in Civil Engineering. He was participating in LSCE 1995 conference in Warsaw, as author of interesting paper.

He has organized in Istanbul together with J. Chilton International Symposium on timber structures, Ref. 2. In the Journal of the IASS, Ref.1 was given wide information about His professional life and activity in IASS.

Below, is given short summary of His professional and organizational achievements. For full text, see Ref.1.

“With the untimely death of Ihsan Mungan from complications of pancreatic cancer, the IASS has lost a tireless actor in the field of shell and spatial structures. After nearly forty years of involvement at every level of the Association - Working Group member (especially WG 3 on Cooling Towers), symposium and colloquium organizer, reviewer for the *Journal of the IASS*, member of the Executive Council, Vice President, and finally member of the Advisory Board - he was awarded an Eduardo Torroja medal in 2009. His acceptance lecture at the Jubilee Symposium was a retrospective of his research on the buckling of shell structures, one of his great passions.

At the time of his passing, Mungan was Professor Emeritus of Mimar Sinan University, Istanbul but was still actively working and teaching as the Director of the Graduate School of Haliç University, Istanbul. Characteristic of his energy and dedication to his profession, he continued to teach and supervise research throughout his illness up until weeks before his death. Even while hospitalized for his last month, he continued writing His autobiography entitled, "An Engineer's Adventure in Art", completed just a day or two before he passed.

Born in Mardin, Turkey, I. Mungan graduated from Istanbul Technical University, Faculty of Civil Engineering, Reinforced Concrete Branch in 1959 (the same year as the founding of the IASS). He obtained his PhD in 1965 at the Technical University of Munich under the supervision of Hubert Rüşch with a thesis on the buckling of cylindrical shells under various stress states. For this thesis he developed an innovative experimental technique of carrying out shell buckling experiments in a water-enclosed environment. Next, during 1965-1971, he worked as an assistant professor in Middle East Technical

University, Ankara, Turkey.

He then moved to Germany to work as a researcher at the Ruhr University Bochum during 1971-1985 in the chair of Wolfgang Zerna (who was a founding member of the IASS and, significantly, was a formative member of Working Group 3).

The results of his research formed the basis for the chapters on buckling in both the "Recommendations for the Design of Hyperbolic or Other Similarly Shaped Cooling Towers" prepared by the IASS Working Group 3 (1977) and the German VGB "Technical Guideline for the Structural Design, Computation and Execution of Cooling Towers" (..) (1997). This design formula for estimating cooling tower buckling loads has been used in many countries **all** over the world.

In 1985, He returned to Turkey. So, He could assume the position of professor in the Architecture Faculty of Mimar Sinan Fine Arts University, Istanbul. After a mandatory retirement from Mimar Sinan University in 2003, he continued full-time teaching and research at Haliç University, Istanbul as Chair of the Architecture Department and later as Director of the Graduate School.

From the 1970s on, He was a regular participant at IASS Annual Symposia and WG 3 Colloquia on Cooling Towers as well as at other IASS sponsored conferences. He ultimately was the chair of the organizing committee for three Annual Symposia in Istanbul: "Domes from Antiquity to the Present" (1988); „Public Assembly Structures for Antiquity (..)" (1993), "Bridging Large Spans from Antiquity (..)" (2000). These symposia played a significant role in advancing the interest of the IASS in historical structures. Moreover, each symposium presented delegates the opportunity to come to the historic city of Istanbul with its architectural and structural masterpieces and each included memorable visits to the famous masonry domes of Hagia Sophia and mosques by Mimar Sinan, bolstered by host Mungan's infectious enthusiasm for his native city and for the architect Sinan. (As he wished, his funeral was conducted at one of the Sinan mosques.)

He also co-organized two colloquia of Working Group 3 on Cooling Towers, the 2nd in 1984 in Bochum and the 5th in 2004 in Istanbul, as well as two other IASS endorsed conferences. His work for at least three different Working Groups as well as his continual reliability as a member of the IASS Editorial Committee led to his election to the Executive Council, on which he served from 1983 until 2003, the last three years in the capacity of Vice President. Notably, it was he who devised and promoted the idea for the IASS Jubilee Book, *Fifty Years of Progress For Shell and Spatial Structures*, and he was the co-editor and a chapter co-author for this volume published in 2011, Ref.4.

IASS members will remember their colleague Ihsan for his professionalism, integrity and humility. He was always very friendly and helpful, his hospitality was wonderful, and his affection for his family was clearly noticeable from the many social exchanges.

† ----- o o o ----- †

Professor dr hab. eng Jerzy Z. PLUTA, † 2.08.2013 –see LSCE 2013

He was the specialist from precast concrete structures – especially long span ceilings. Professor on Civil Engineering Faculty of Warsaw University of Technology. Great enthusiast of lightweight structures.

He was the author of 4 papers on LSCE (1995, 1996 and 2002). Member of Scientific Committee of LSCE 2004.

† ----- o o o ----- †

Vladimir SHUGAEV 31.12.1931- 25.06.2014 (by Boris S. Sokolov)

We are greatly pained by the loss of our colleague and friend Vladimir V. Shugaev, Honored scientist of Russia, Doctor of Science (Tech.), Professor, Honorary member of the Russian Academy for Architecture and Structural Science (RAASN), the USSR State Prize winner, Laureate of Prize of Government of Russian Federation, Honorary constructor of Russia, who died after serious illness on 25.06.2014. He was the head of the Laboratory for thin-walled and spatial structures in Research and Design Institute for Concrete and Reinforced Concrete (NIIZhB) named after A.A. Gvozdev, Russian State Research Centre "Construction", President of Russian Public Organization "Assistance in Development and Use of Spatial Structures in Construction Practice", Chairman of RAASN Scientific Council "Spatial Structures in Construction".



Fig. 11. V. Shugaev

He was born in Moscow on 31.12.1931. In 1954 he has graduated with distinction from the Moscow Institute of Engineers of City Construction and since 1958 worked in NIIZhB. Close personal contact on work with outstanding scientists, Professors A.A. Gvozdev and G.K. Khaidukov has defined the orientation of his scientific interests.

A theme of his master's thesis (1963) "The choice of cross-section shape and methods of analysis of chute shells of culverts", and Doctor's (1979) "Carrying capacity of shallow reinforced concrete shells with local scheme of destruction in view of influence of geometry changes". The main scientific achievements of V. Shugaev are related to experimental and theoretical investigations of strength and stability of reinforced concrete shells at the general collapse and local failure in view of influence of change of surface shape, which have made a new scientific direction in the field of deformation analysis of carrying capacity of thin shell structures by the method of limit equilibrium.

In the monograph "Engineering methods in the nonlinear theory of limit equilibrium of shells" (2001) V. Shugaev has generalized the works executed in different years on development of engineering methods of solution of problems about carrying capacity of reinforced concrete shells using non-linear kinematic method of limit equilibrium.

He was the author over 200 published scientific works (articles, books, inventions), the author of the chapter devoted to reinforced concrete spatial structures, in the Russian architectural-building encyclopedia. Results of scientific activity of V. Shugaev are introduced directly into practice of construction.

The next numerous His achievements in domain of science and civil engineering, are listed in the LSCE 2014, Ref.11.

His remarkable personal qualities, his diligence, wit, goodwill and responsiveness in dialogue with associates have got the deserved love of followers and employees and respect of fellow workers.

Memory about V. Shugaev forever remains in hearts of people knowing him. We wish him the eternal rest and we would like to express our deep sorrow and the sympathy to his family.

Shugaev and LSCE conferences. He has participating as author in three conferences- in 1995, 2002 and 2014 with four papers. Similarly, He has taking part four times as the member of: Advisory Board - 1995, 1998, and member of Scientific Committee in 2002 and 2014.

V.V. Shugaev and IASS. Much more frequently He has taking part as the author on IASS Symposiums presenting, high scientific quality papers oriented on reinforced concrete shells. He has been a co-organizer of IASS Congress, 22-26.06.1998 in Moscow, Russia. He has been through some years the member of IASS Executive Council, during presidency of IASS by Prof. S.J. Medwadowski.

Professor V.V. SHUGAEV as the man. He was very friendly; distinguish oneself with high personal culture. Frequently he has travelling on IASS Symposia with His wife Irina. During one of the gala dinners on IASS Symposium, probably in Romania, on proposal of organizers, to present national songs, Professor Vladimir has perform with excellent and strong voice the Russian well known an opera aria.

† ----- o o o ----- †

Dr eng. Andrzej CIAŚ.

He was truth friend of LSCE conferences. Especially for LSCE 1998 He has organized special service for participants of this intern. meeting held in Novotel Hotel on Żwirko and Wigura street, very far from Civil Engin. Faculty. Many thanks for Him.

† ----- o o o ----- †

6.4. Most frequent LSCE authors

The authors of min 3 papers published in 20 LSCE books 1995-2014 (for details see LSCE2014) are listed below. This are 84 persons (in it 25 foreign), for which it was worthy to come back to LSCE conferences. Some of them are very famous engineers and scientists.

J.Abramczyk 10, Alexa 10, Ambroziak 4, Baranenko 3, Barszcz 9, Białkiewicz 5, Bieniek 16, Bilko 3, Bober 28, A. Cătărig 9, A.Cretu 4, Z.Cywiński 3, S.Czarnecki 6, S.Dong 4, M.F.Drdacky 3, M.Dutkiewicz 4, A.H.Fahema 3, D.Fisel 4, M.M.Fridman 4, M.Gajewski 3, K.Gerlic 3, M.A.Giżejowski 16, I.Gołębiowska 9, J.Górski 4, J.Hendel 5, Ye.V.Horokhov 3, R.van Impe 4, B.Jancelewicz 3, S.Jemiolo 4, J.Kala 3, Z.Kala 5, J.Kalinowski 4, M.Kamiński 14, M.Kardysz 4, S.Kato 5, M.Kawaguchi 4, P.Łosowski 6, Z.Kołakowski 9, M.L.Kołodziejczyk 3, L.Kopenetz 8, M.Kotelko 9, Z.Kowal 4, T.Krykowski 4, V.V.Kulyabko 11, I.Ladar 5, T.Lewiński 5, Z.S.Makowski 3, L.Małyško 16, R.Mania 3, A.Martelli 4, A.Mathe 5, P.Mika 7, C.Mircea 5, J.Z.Mirski 7, V.F.Muschanov 6, J.B.Obrębski 82 (including informative), K.B.Obrębski 4, M.Z.Obrębski 6, A.Omishore 3, M.Ostwald 3, W.M.Paczkowski 5, D.Pawlus 3, M.Pelczarski 6, J.Z.Pluta 4, Yu.M. Pochtman 9, W.Przybyło 24, J.Rębielak 41, A.Rutkiewicz 3, A.Samartin Quiroga 3, V.V.Shugaev 4, M.Skaloud 5, P.A.Stobiecki 5, S.Syguła 4, J.Szafran 4, R.Szmit 7, R.Tarczewski 35, W.Vanlaere 3, A.Walasek 7, E.Wdowicka 4, J.Wdowicki 4, W.Zabłocki 9, J.Zdziechowski 14, D.G.Zelentsow 4, A.Zingoni 5.

7. HONOURS

In this place it is worthy to mention following occurrences:

1. Foundation by J.B.Obrębski 21 commemorative medals and handled in for persons especially engaged into forming and activity of LSCE conferences – 12.09.2005. It was on occasion of XI LSCE books (1995-2005) and X anniversary of LSCE & IASS PC (see LSCE 2005 book). The three first medals were dedicated for Profs: S.J. Medwadowski, M. Kawaguchi and Z.S. Makowski.
2. **Honorary Membership of IASS** for Prof J.B. Obrębski – annual IASS Symposium, Wrocław, (23) Sept. 2013. **It is rather result of many peoples engaged into activity of IASS PCs and LSCE conferences.**

8. LSCE STATISTICAL DATA

The information given below, are certain summary of LSCE 2014 book.

8.1. Books

With except of the first meeting – LSCE 95 organized by Faculty of Civil Engineering of Warsaw University of Technology, there were held three bigger meetings with international, even world character: 1998, 2002 and 2005. The biggest, organized as IASS annual Symposium was in 2002. The - LSCE 2005 was only a little bigger for the reason of tenth anniversary of IASS PCs and these conferences. Just is in 2014 twenty anniversary.

Up to the moment in the LSCE 1995-2017 books, only (see LSCE 2014, too), were published 843 papers (including 302 foreign and 541 domestic) written by 766 authors from 48 countries (including 478 foreign and 288 Polish, only). When we remember that the same persons are repeated in a few works, similar numbers are: 1310 authors in it 609 foreign and 701 from Poland. In both cases of counting, number of foreign authors is similar to domestic... So, LSCE conferences were very willingly visited by participants from foreign countries.

The 20 books are written on 5606 pages. Next, if we observe in chapter 30 tables 2 and 3 – the fourth row, immediately we see that all of the LSCE conferences have, less or more, international range... There, are participating in particular conferences from 2 up to (more than?) 223 foreign authors from 48 countries (with Poland). Some authors were participating in LSCE several times. It indicates our position in scientific world. The same concern of this LSCE 2014 (12 foreign authors from 6 countries- see **chapter 30, Tab.2**), too. It is even for organisers surprise and good result. Moreover, in four cases (1995, 1998, 2002 and 2005) the number of foreign authors is bigger than domestic.

At last, for the reason that on universities works published in reviewed journals and conferences, are regarded as more valuable, we organize for all papers printed in LSCE books, regular opinions. From 2005 each paper obtained in proper time has been sent to two (or more) reviewers. After returned comments most of papers were corrected. The late papers are qualified for printing by J.B. Obrębski, only.

So, papers for LSCE 2014 book were reviewed in normal procedure. Additionally, the book was qualified as monograph, by three next reviewers. For providing of "scientific points" – impact factor, all the papers are enough long – have simply 6 pages.

So, after such period of time, it is worthy to summarise some effects, and to recognize their value. The last opinion belongs to participants and to readers of the books. But with whole certainty, we can observe, that the papers presented in LSCE books are quoted in many other publications. It is good sign.

8.2. Authors and their countries

Below, are given names of countries and the number of papers. So, if we look into LSCE 2014 book (pages 224-225) we can find, that from particular countries were published papers:

Argentina 2, Australia 6, Austria 3, Belarus Republic 2, Belgium 7, Botswana 5, Brazil 5, Canada 5, Czech Republic 20, Denmark 1, Egypt 5, Estonia 2, Finland 1, France 7, Germany 10, Hungary 4, India 1, I.R. Iran 1, Israel 2, Italy 13, Japan 31, Kazakhstan 1, Korea 3, Libya 5, Lithuania 1, R. Macedonia 3, Mexico 1, Poland 541, Portugal 1, P.R. China 9, Romania 25, Russia 26, Singapore 1, Slovak Republic 1, South Africa 4, Spain 5, Sweden 2, Switzerland 4, R.O.C. Taiwan 2, Tatarstan 1, Turkey 7, Holland – The Netherlands 8, Ukraine 43, Uzbekistan 1, UK 17, USA 13, Uzbekistan 1, Zimbabwe 5.

8.3. Members of Scientific and Organizing Committees

In four cases were formed Honorary Committees, as it is shown in the Table 3, Ref. 11. Moreover, some LSCE have Advisory Panel (1995, 1998 and 2002) or Scientific Committee (2002, 2004 – 2014) with altogether 153 members from 33 countries (Australia, Austria, Belgium, Brazil, Canada, China, Czech Rep., Denmark, Estonia, Finland, France, Germany, Hong Kong, Hungary, India, Japan, Lithuania, Macedonia, Mexico, The Netherlands, Italy, Portugal, Romania, Russia, Slovak Rep., South Africa, Spain, Switzerland, Taiwan, Turkey, Ukraine, UK, USA).

Table 3. Members of Honorary Committees

	Name	Country	1998	2002	2005	2014
1	J.F. Abel	USA				+
2	M. Kawaguchi	Japan		+	+	+
3	S. Kuś	Poland		+		
4	Z.S. Makowski	UK	+	+		
5	S.J. Medwadowski	USA	+	+	+	+
6	R. Motro	France				+
7	W. Zalewski	USA	+	+		
8	O.C. Zienkiewicz	UK	+			

Next, in Organizing Committees were 37 persons from 6 countries: Japan, The Netherlands, Poland, UK, USA and Ukraine. As supporting members of Organizing Committee were listed the next 19 persons from 7 countries: India, Italy, Japan, Mexico, Poland, Romania, Turkey (7 members - LSCE 2002 & 12 members – LSCE 2014).

8.4. The subjects and topics more popular in published papers

The intended subjects and objectives of LSCE meetings and titles of sessions quoted in the next subchapter indicate on scientific of their profile. It is worthy to read it carefully. The intention of organizers is here rather fulfilled. The scientific and engineering undertaken here problems are rather serious and wide.

8.5 General lectures on LSCE conferences

It is worthy to mention, that for a few conferences it was succeeded to

assure of 62 general lectures and 3 invited lectures presented by outstanding, prominent scientist and engineers recruited from 18 countries: Australia, Austria, Czech Rep., Denmark, France, Germany, Italy, Japan, The Netherlands, Poland, Romania, Russia, Spain, Switzerland, Turkey, Ukraine, UK, USA. Full list of these presentations is given below.

LSCE 1995

ARCHITECTURAL CONCEPTS p. 12

1. *W.H. Isler*, Switzerland: 50 Years of Shells, p. 30
2. *Z.S. Makowski*, UK: Lightweight Structures - Their Development and Impact upon Modern Engineering. p. 43.

SHAPE AND FORM STUDY p. 124

3. *Y. Hangai*, Japan: Application of Generalized Inverse Matrix to Shape Analysis of Structures, p. 125.
4. *W. Zalewski, S. Kuś*, PL: Shaping of Structures for Least-Weight, p.153

OPTIMIZATION p. 158

5. *W. Gutkowski*, PL: Optimization a Basis for Lightweight Structural Design p. 163.

STRUCTURAL DYNAMICS p. 246

6. *O. Fisher*, Czech R.: Dynamic Effects -the enemy No 1 for Lightweight Structures, p. 249.

SHELLS p. 259

7. *F.G. Rammerstorfer, M.A. Stifinger, I.C. Skrna-Jakl*, Austria: Computational Analysis of Composite Shells, p. 287
8. *V.V. Shugaev*, Russia: Nonlinear Limit Analysis of R.C. Ribbed Shallow Shells with Different Forms of Surface under Concentrated Loading, p. 294.

THIN-WALLED STRUCTURES p. 359

9. *N.W. Murray*, Australia: Some Effects Arising from Impact Loading of Thin-Walled Structures p. 385.

LOADINGS p. 446

10. *A.S. Nowak*, USA: Load Models for Highway Bridges, p. 475.

WOOD STRUCTURES p. 578

11. *P. Huybers*, Netherlands: Polyhedra for Building Structures: why and how? p. 589.
12. *P.J. Pelicane*, USA: Wood as a Construction Material in Building Systems, p. 621.

STRUCTURAL DAMAGE p. 677

13. *M. Łubinski, J. Sieczkowski*, PL: Structural Design Solutions of Tall Buildings Taking Into Account Low-Cycle Fatigue, p. 697.

ARCHITECTURAL AND STRUCTURAL CONCEPTS p.755

14. *S. du Chateau*, France: Space Structure - Structure Space, p. 756.
15. *V. Sedlak*, Australia: Lightweight Structures in Architecture: Their Scope and Application, p. 769.
16. *M. Kawaguchi*, Japan: A Structural System Suitable for Rational Construction, p. 770.

ANALYSIS p. 793

17. *A. Samartin*, Spain: Application of Optimization Techniques to the Structural Design, p. 795.
18. *H.A. Mang, P. Helmwein*, Austria: A Priori Estimates of Stability Limits on Nonlinear Load - Displacement Paths, p. 811.

DESIGN AND CONSTRUCTION p. 838

19. *M. Majowiecki*, Italy: Conceptual Design, Experim. and Theoret. Anal., Detailing and Performance of Long Span Lightw. Struct. Syst., 845

LSCE 1996

20. *H. Isler*, Switzerland: The Way to Shape, p. 42.

LSCE 1998

21. *V.I. Bolshakov*, Ukraine: Microstructure HSLA steels after controlled rolling with direct quenching, p. 11.
22. *Z. Cywiński*, PL: The torsional buckling paradox of light-weight members: origin and development, p. 16.
23. *T. Hyde, S. Leen*, UK: Prediction of elastic-plastic generalized force-displace. responses of tubular joints for three differ. loading modes, p.24
24. *S. Jendo, W.M. Paczkowski*, PL: Multicriteria discrete optimization of hall structure using decomposed ortho-diagonal method, p. 32.

25. **Yu.M. Pochtman**, Ukraine: Optimization models and of calculation of strength for reinforced concrete members, p. 44.
26. **G. Solari**, Italy: The wind-excited behaviour of steel poles and light towers, p. 47.
27. **W. Zablocki**, PL: Shaping lightweight structures, p. 57.

LSCE 2002

OPENING SESSION p. 5

28. **Z.S. Makowski**, UK: Development of jointing systems for modular prefabricated steel space structures, p. 17.
29. **S.J. Medwadowski**, USA: Alvar Aalto's Benedictine Library Mount Angel, Oregon, p. 42.
30. **M. Kawaguchi, M. Abe**, Japan: On some characteristics of pantadome system p. 50.

CHAPTER 1 – LARGE SPAN ROOFS p. 59

31. **J. Rebielak**, PL: Numerical modelling of lightweight struct. p. 61.

CHAPTER 2 – TALL BUILDINGS p. 107

32. **W. Zalewski, W. Zablocki**, USA/Poland: Engineering inspirations in shaping of tall buildings, p. 109.

CHAPTER 3 – TOWERS AND MASTS p. 135

33. **U. Stottrup-Andersen**, Denmark: Analysis and design of masts and towers, p. 137.

CHAPTER 6 – STRUCTURAL CONCEPTS p. 201

34. **W. Sobek, P. Teuffel**, Germany: Adaptive lightweight struct. p. 203.

CHAPTER 9 – ANALYTICAL METHODS p. 299

35. **Y.B. Yang, J.D. Yau**, Taiwan: Recent development on geometric nonlinear analysis of space frames, p. 301.

CHAPTER 10 – NUMERICAL METHODS p. 361

36. **G.W. Owens, C. Roszykiewicz**, UK: The use of electronic technical informat. to improve the use of lightweight struct. in civil engine.: teaching, research, dissemination and practical design, p. 363.

CHAPTER 11 – OPTIMIZATION p. 441

37. **E. Ramm, R. Kemmler**, Germany: Challenges of structural optimizat. including stability and large deformations, p. 443.
38. **S. Czarnecki, T. Lewiński**, PL: On forming of the stiffest struc., 455.

CHAPTER 12 – THIN-WALLED STRUCTURES p. 485

39. **J.B. Obrębski**, PL: Thin-walled bars and structures – contemporary problems, p. 487.

CHAPT. 15 – VIBRATION CONTROL OF STRUCTURES p.559

40. **G.C. Giuliani**, Italy: Overview on the dynamic control of struct.561.

CHAPTER 16 – EXPERIMENTAL METHODS p. 611

41. **M. Drdacky**, Czech Republic: Structural failures and experimental investigations of lightweight structures, p. 613.

CHAPTER 17 – METAL STRUCTURES p. 651

42. **V.I. Bolshakov**, Ukraine: Application of steel with the bainite and acicular ferrite structure for building metal construction, p. 653.

CHAPTER 19 – COMPOSITE STRUCTURES p. 695

43. **F. Collombet, B. Douchin, P. Davies, F. Malaise**, France: Loading rate effects on multiscale materials and structures: some experimental, theoretical and numerical problems, p. 697.

CHAPTER 20 – POLYMERE MATRIX COMPOSITE STRUCTURAL SYSTEMS AND BRIDGES p. 733

44. **F. Seible, S. Cicerone, Y. Hose, D. Brestel, F. Lanza di Scalea**, USA: The I-5/Gilman advanced technology cable-stayed bridge, p.735.

CHAPTER 22 – GLASS STRUCTURES p. 813

45. **J. Schleich, H. Schober**, Germ.: Design principl.of glass roofs,p. 815.

CHAPTER 23 – TENSION STRUCTURES p. 837

46. **M. Saitoh**, Japan: Tension and membrane structures, p. 839.

CHAPTER 26 – WIND, NUMER. AND EXPER. ANALYSIS p. 949

47. **G. Bartoli, C. Borri, F. Mirto, G. Solari**, Italy: Some recent advan. and develop.in wind dynam.of large lightweig.engin. facilities.p.950.

CHAPTER 27- LARGE SPAN ROOFS p. 988

48. **Klaus Linkwitz**, Germany: On some peculiarities of timber shells concerning formfinding, manufacturing, building physics, p. 989.

LSCE 2004

49. **A. Catarig, L. Kopenetz, P. Alexa, Aliz Mathe**, Romania: New breakwater structures Made of thin reinforced concrete walls,p. 49.
50. **R. Tarczewski**, PL : Morphofogical similarities of primeval tents and contemporary tensile surface structures, p. 225.

LSCE 2005

OPENING SESSION p. 19

51. **M. Kawaguchi**, Japan: On some of my recent works of lightweight structures, p. 20.
52. **V.V. Kulyabko**, Ukraine: Investigation of the dynamic behaviour of lightweight spatial constructions, p. 27.

CHAPTER 3 p. 90

53. **G.B. Arato, P. Clemente, M. Indirli, A. Martelli, B. Spadoni**; Italy: History of an earthquake, p. 90.
54. **A. Ambroziak, P. Klosowski**; PL On constitutive modelling for technical woven fabric, p. 99.

CHAPTER 8 p. 206

55. **M.Kotelko, Z.Kotakowski, J Rhodes**, PL, UK Comparat. investing. into buckling loads and load-bearing capacity of thin-walled columns under compression, p. 206.

56. **M.Maźniewski, W.Przybyło**, PL: Parallelizing the FEMA system,211

CHAPTER 12 p. 314

57. **P.Jurewicz, V.F.J.Sedlak**, Austria, Australia: Building shape online – an ontological approach to organization and visualisation, p. 314.
58. **Igor Siotor**, Germany: World Cup 2002 and 2006 stadiums with retractable roof technol. with a case study of arena auf Schalke from builder's perspective, p. 319.

LSCE 2014

59. **Görün Arun**, Turkey: Documentation of RC shell and spatial structures, p. 6.
60. **C. Mircea**, Romania: Dealing with early age cracking of concrete structures, p. 8.
61. **V.V. Shugaev, B.S. Sokolov**, Russia: Calculation of carrying capacity of reinforced concrete conic shallow shells with basicing on radially movable supports, p. 2.
62. **G Solari**, Italy: Thunderstorm loading and response of structures,p.9

Invited Lectures

63. **M.P. Repetto**, Italy: Fatigue analysis of slender structures under turbulent wind actions, p. 8.
64. **I.G. Siotor, Ch. Schloegl**, Canada, Germany: New Structural Technologies for Stadium Roofs, p. 8.
65. **E. Siviero, A. Stocco, F. Zago, A. Totaro**, Italy: A new footbridge to connect şirinevler district in Istanbul, p. 6.

9. FINAL REMARKS

About significance of scientific conferences are decided the participants and the quality of papers presented by them. Therefore, in this paper the attention is turned on living and passed away authors, members and participants. In case of these meetings and associated with them proceedings, we can evaluate it rather very positively.

As it is visible in above information and quoted data, the series of LSCE conferences is rather of high quality. Therefore, it can be given question, why some other, much weaker, have remarkably better notes – impact factor? So, this paper can be the base and the argument to change such situation.

At the moment, it is truth occasion for me, to express my gratitude for Organizers of this LSCE 2018 in Łódź for given me possibility by this paper to direct my cordial, personal thanks to all peoples mentioned above, for their effort and support of our conferences. So, I pay off my debt of appreciation for their kindness.

10. REFERENCES

1. J. F. Abel, Gorun Arun, W. Krätzig, R. Motro: In memorium Ihsan Mungan. IASS Journal, vol. 53, 2012, No. 2, June n.172, pp.71-72.
2. J. Chilton, I. Mungan (Edited by): Timber Structures from Antiquity to the Present. Proceedings of the International Symposium on Timber Structures, 25-27.062009, Haliç University, Istanbul, Turkey.

3. I. Mungan, J.F. Abel (Editors): Fifty Years of Progress for Shell and Spatial Structures. In celebration of the 50th Anniversary Jubilee of the IASS, IASS 2011. Printed by SODEGRAF.
4. J.B. Obrębski (Editor or with cooperation): Lightweight Structures in Civil Engineering (LSCE books), Micro-Publisher JBO Wydawnictwo Naukowe + SB , 1996-2014.
5. J.B. Obrębski (Editor): LSCE -Intern. Conf, Warsaw, 25-29.09.1995, Magat, Warsaw.
6. J.B. Obrębski (Editor): LSCE Intern. Conference, Warsaw, 6.12.1996, AGAT.
7. J.B. Obrębski (Editor): LSCE. Int. Colloquium IASS PC, Warsaw, 30.11-4.12.1998, Micro-Publisher JBO Wydawnictwo Naukowe,
8. J.B. Obrębski (Editor): LSCE. Intern. IASS Symposium & IASS PC, Warsaw, 12-14.09.2002, Micro-Publ. JBO Wydawn. Naukowe.
9. J.B. Obrębski: In Memorium Konrad Bartłomiej Obrębski – Chairman of the Polish Chapter No 5. LSCE 2012, pp.14-23.
10. J.B. Obrębski (Editor): LSCE – Contemporary Problems. Monograph from Sc. Conference of IASS PCs, Warsaw, 25-28.09.2014, Micro-Publ. JBO Wydawn. Nauk. + Studio Budowlane.
11. R. Tarczewski, Z. Bieniek (Editors): LSCE. XXI LSCE 2015. Rzeszów University of Technology, 4 Dec. 2015.
12. L. Małyszko, R. Tarczewski (Editors). XXII LSCE - Contemporary Problems. Monograph from Scientific Conference of IASS PCs. Olsztyn, 2 Dec. 2016. Wydawnictwo UWM.
13. I. Gołębiowska, M. Dutkiweicz (Editors): XXIII LSCE – Contemporary Problems. Monograph Book, Sc. Conf. of IASS PCs. UTP University of Science and Technology. Bydgoszcz, 1 Dec. 2017.