# CONFERENCE REPORT:
# XXth Károly Széchy Memorial Session and XIIIth Geotechnical Evening Forum
# Budapest, 14th of February, 2014

The Hungarian National Committee of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) jointly with the Engineering Section of the Hungarian Academy of Sciences and the Geotechnical Section of the Hungarian Chamber of Engineers celebrated the XXth Károly Széchy Memorial Session on the 14th February, 2014 at the Great Lecture Hall of the Hungarian Academy of Sciences, with over 230 persons attending the event (Fig. 1).The event has beenorganized20 times since1994.


Fig. 1 Internationalguestswith the hosts on the Széchy Memorial Session; 1) János Józsa - academic of the HAS -Hungary; 2) Péter Görög - vice president of the Hungarian Geotechnical Society and ISSMGE HNC; 3) Ferenc Friedler- Rector of the University of Pannonia; 4) Dietmar Adam - professor TU Vienna; 5) Ivan Vrkljan - Zagreb - president of the Croatian Geotechnical Society (CGS) -vice president of International Society of Rock Mechanics ISR; 6) Antonio Gens - ISSMGE vice president for Europe; 7) László Nagy - Head of Geotechnical Department of TU Budapest- lecturer; 8) Heinz Brandl - em. professor TU Vienna - Head of Austrian Society of Civil Engineers and Architectures; 9) József Mecsi - president of the Hungarian Geotechnical Society and ISSMGE HNC; 10) Zoltan Melitz - Rector of the ETJ Colleges Baja city; 11) Roger Frank - president of the ISSMGE; 12) Carlo Viggiani - em.professor Naples - lecturer; 13) Peter Turček - professor TU Bratislava; 14) László Szilvágyi - president of the Geotechnical Session of Hungarian Chamber of Engineers; 15) Jana Frankovska- president of the Chech and Slovak ISSMGE National Committee; 16) Ákos Török - president of the Hungarian National Group of International Society for Rock Mechanics

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Fig. 2 "Working lunch" at the Club of the Hungarian Academy of Sciences before the Széchy Memorial Lectures

On the jubilee occasion the Hungarian Geotechnical Society presented a book of 200 pages, containing documents, biographical disclosures, commemoration of Professor Széchy, and also a set of pictures of the all-day events of the commemorative lecture session. The book was published in Hungarian; the English version will follow soon, for preview it will be available on the ISSMGE HNC website:

http://issmge-hungary.net

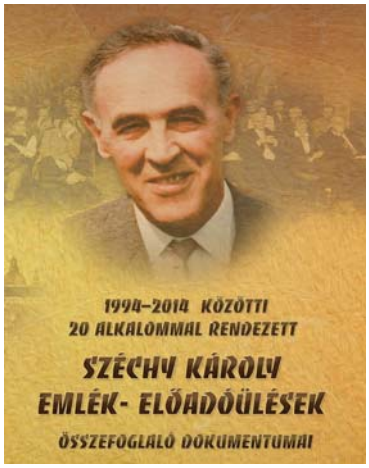


Fig.3 Cover page of the book

This series of festive gatherings has been highlighted from the beginning by lectures delivered by the most illustrious professors paying tribute to the memory of the Hungarian professor, Károly Széchy. This year, the guest speaker from abroad was Prof. Dr. Carlo Viggiani (University of Naples Federico II, Department of Hydraulic, Geotechnical and Environmental Engineering, Napoli, Italy) in Fig. 4. The presentation's title was **"The relations between Science and Geotechnical Engineering".**

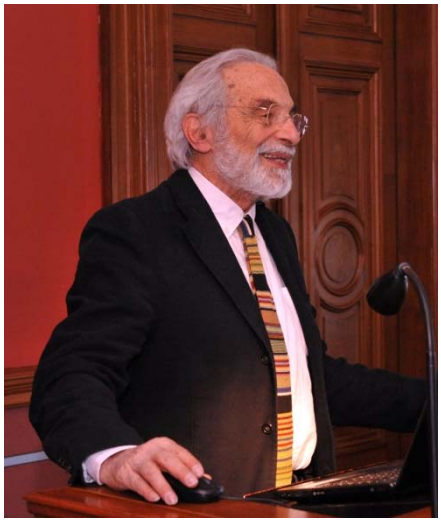

Fig. 4 Prof. Carlo Viggiani

Fig. 5 The audience at the memorial meeting

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The speaker from Hungary was Dr. László Nagy (Budapest University of Technology, Department of Geotechnics, Budapest, Hungary) whose topic was **"Danger, probability and risk in geotechnics"**.

In keeping with tradition, a young engineer who has excelled as the best junior speaker at the annual national geotechnical conference is offered the opportunity to introduce himself by a lecture at the Memorial Session. This year the candidate was Ákos Tóth. The title of the presentation was "TBM performance forecast in mixed ground conditions". **About the event you can see the presentations and photos on the following website:** http://www.issmge-hungary.net

Again, as is traditional in these events, the Károly Széchy memorial plaque and prize were delivered. This year the recipient was the Diamond Anniversary Diploma holder engineer, retired college professor, forensic expert Dr. György Gabos. See Fig. 6.

Dr. László Nagy Dr. Ákos Tóth Dr. György Gabos

Fig. 6 Photographs of important speakers

The professional events were concluded with an informal dinner. The joyful spirits of the evening was enhanced by the toasts and the amusing speeches given by the recipient of the awards (Fig. 7).

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Photos: J. Philip


Welcome speech by Professor Heinz Brandl, J. Mecsi, Roger Frank and Antonio Gens from the left

Fig. 7 Joyful dinner party

(Compiled by József Mecsi)

**Interview**
Questioner: József Mecsi

*Question 1:*
*Prof. Viggiani, you are the chairman of the Technical Committee 301 (Preservation of Monuments and Historic Sites) of the International Society for Soil Mechanics and Geotechnical Engineering; you have been a component of the International Committee for the Safeguard of the Leaning Tower of Pisa. In relation to the safeguard of Heritage, what do you think of the relationship between geotechnical engineering and other professions (e.g. structural engineering, but above all archaeology, historic preservation etc.)? What are the difficulties and the opportunities for cooperation?*

First of all, I believe that maintaining, preserving, conserving, restoring, and improving monuments and historic sites may be the most significant contribution that Civil Engineering can give to mankind in our time. The conservation of Heritage, however, is one of the most challenging problems facing modern civilization. It involves a number of factors belonging to different fields (cultural, humanistic, social, technical, economic and administrative), intertwining in inextricable patterns. Accordingly, for a satisfactory solution an interdisciplinary approach is mandatory. A common work among different specialists is easier to auspicate than to practice because of the different cultures and even languages; it is lengthy and often conflict, but at the end it reveals fruitful and rewarding.

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*Question 2:*
*What is your vision about the future technical, organisational and structural issues of underground construction sites in historical environment? Some of the geotechnical engineers fear that because of legal aspects construction in historic environment is going to be the "hunting field" of lawyers. Do you share this view?*

Underground construction in historical environment is becoming more and more frequent; the subsoil of practically all the large cities all over the world is interested in by the construction of a network of transportation and other underground infrastructures. This is indeed one of the most challenging sectors of civil engineering in our time, because of the difficult design and construction problems to be faced and because of the need of preserving the surface built environment, often rich of monuments and historic sites. It is to underline that the basic reason for constructing underground facilities is to make the cities comfortable, but obviously without altering the specific features of the historic cities themselves. I do not believe that one must be too much concerned about lawyers; they are hunting everywhere, and we engineers are in any case exposed to their attention. The possible remedial measures include obviously high level design, transparency in the prediction of possible effects and research of a preliminary consensus on the projects.

*Question 3:*
*What farewell message would you give for the present young generation of geotechnical engineers?*

There are two messages that, in my opinion, are worth considering for a young geotechnical engineer.
1. Civil engineering, and particularly geotechnical engineering, may be perhaps not very rewarding in terms of social success and financial achievements. The contents of the profession, however, are very stimulating. In fact, the typical process of investigating, modelling, conceiving a solution, analysing and designing appears very different from the typical tasks of other profession, in the sense that it has new characters in each new case and stimulates originality and creativity.
2. We engineers are holder of a rational culture, based on science: mechanics, thermodynamics, chemistry etc.. A proper use of scientific theories is at the origin of the spectacular advances in engineering (and in the whole welfare of human kind) in last centuries. At present, paradoxically, the rapid developments in sectors as the new construction technologies and the numerical methods of analysis coupled to the powerful computing resources now currently available, often clouds the rational bases of engineering, with very detrimental consequences on the quality of our profession. I believe that we should always have in mind the warning of the great Immanuel Kant: "nothing is more practical than a good theory".

**Széchy Memorial Lecturers 1994-2014**

| | |
|---|---|
| 1994 | FAZAKAS György (Budapest, Hungary), MISTÉTH Endre (Budapest, Hungary), VARGA László (Győr, Hungary), Heinz BRANDL (Wien, Austria), FARKAS József (Budapest, Hungary) |
| 1996 | KOVÁRI Kálmán (Zürich, Switzerland) |
| 1997 | VARGA László (Győr, Hungary), LAZÁNYI István (Budapest, Hungary) |
| 1998 | Heinz DUDDECK (Braunschweig, Germany), GRESCHIK Gyula (Budapest, Hungary) |
| 1999 | Ulrich SMOLTCZYK (Stuttgart, Germany), SCHARLE Péter (Budapest, Hungary) |
| 2000 | DULÁCSKA Endre (Budapest, Hungary), Marta DOLEŽALOVÁ (Praha, Czech Rep.) |
| 2001 | Robert MAIR (Cambridge, United Kingdom), MÜLLER Miklós (Budapest, Hungary) |
| 2002 | Michele JAMIOŁKOWSKI (Torino, Italy), NAGY János (Budapest, Hungary) |

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| | |
|---|---|
| 2003 | **Jubilee session**<br>James K. MITCHELL (Blacksburg, VA USA)<br>POSGAY György (Budapest, Hungary),<br>TRÄGER Herbert (Budapest, Hungary)<br>MECSI József (Budapest, Hungary), |
| 2004 | Suzanne LACASSE (Oslo, Norway), SZEPESHÁZI Róbert (Győr, Hungary) |
| 2005 | Lothar MARTAK (Wien, Austria), SZABÓ Imre (Miskolc, Hungary) |
| 2006 | SECO E PINTO (Lisbon, Portugal), SZILVÁGYI Imre and SZILVÁGYI László (Budapest, Hungary) |
| 2007 | Serge VARAKSIN (Paris, France), KLADOS Gusztáv (Budapest and Kuala Lumpur) |
| 2008 | Roger FRANK (Paris, France), SOÓS Gábor (Budapest, Hungary) |
| 2009 | Rolf KATZENBACH (Darmstadt, Germany), JUHÁSZ József (Miskolc, Hungary) |
| 2010 | William VAN IMPE (Ghent, Belgium), BICZÓK Ernő (Budapest and Hamburg) |
| 2011 | Jean-Louis BRIAUD (USA), ZÁBRÁDI Ernő (Budapest, Hungary) |
| 2012 | Walter WITTKE (Germany), DELI Árpád (Budapest, Hungary) |
| 2013 | John BURLAND (UK), KOVÁCS Balázs (Miskolc, Hungary) |
| 2014 | Carlo VIGGIANI (Italy), NAGY László (Budapest, Hungary) |

**Károly Széchy**

| | |
|---|---|
| 1903 | born in Budapest on 17th December as the son of Ilona Zwerencz and Károly Széchy, MSc in Civ. Eng. chief inspector at the Hungarian Railway and |
| 1922 | maturated at the Secondary School "Árpád" in Budapest |
| 1926 | MSc Degree in Civil Engineering at the Technical University Palatine József in Budapest |
| 1926-27 | Assistant Professor at the Water Engineering Department of the same University |
| 1927-28 | scholar at the University College London |
| 1928-32 | private engineer, construction manager |
| 1930 | married, wife Margit Kókai, son Károly Széchy (1930) MSc in Civ. Eng. and Edit Sós (1932) pharmacist |
| 1932-45 | various posts at the Bridge Department in the Hungarian Ministry for Transport and Communication |
| 1933 | Doctor of Law |
| 1935-37 | management the Widening of the Margaret-Bridge |
| 1937-39 | leader of the General Planning of the Árpád-Bridge |
| 1938 | supervisor for the Modernizing of the Ferenc József-Bridge (today Freedom-Bridge) |
| 1939-43 | management the Construction of the Árpád-Bridge |
| 1944 | Dr. Techn. |
| 1945-51 | Head of the Bridge Department in the Hungarian Ministry for Transport and Communication, administrative leader for the reconstruction ofbridges blasted in W.W.II. |
| 1945-46 | leader of the Planning and Construction of the Kossuth-Bridge (demolished in 1960) |
| 1945-46 | leader of the Temporary and the Final Repairing of the Ferenc József-Bridge |
| 1945-47 | leader of the Reconstruction of the Margaret-Bridge |
| 1947-49 | leader of the Renovation of the Chain-Bridge |
| 1946 | awarded with Officer's Cross of the Republic-Order |
| 1948 | awarded with the Golden Grade Kossuth-Prize |
| 1948 | Honorary Professor at the Technical University of Budapest |
| 1948-50 | supervisor at the construction of the Árpád-Bridge |
| 1949 | started the lectures on Foundation Engineering at the TU Budapest |
| 1950 | The Hungarian Academy of Sciences declares to Technical Fellowship |
| 1950-53 | General Director for the Underground Railway Investment Co. in Budapest, Leader of the planning and construction of the Metro |

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| | |
|---|---|
| 1952 | The Hungarian Academy of Sciences declares to Corresponding Member Fellowship |
| 1952 | published the first edition of the book “Foundation Engineering” Volume I and II in Hungarian |
| 1952 | awarded with "Excellent Worker of Transportation" distinction |
| 1953-54 | Director of the Underground Railway Construction Co. in Budapest |
| 1953 | Ordinary Professor of Foundation Engineering and Tunnelling at the Technical University in Budapest |
| 1956-57 | Head of the Technical Board at the Ministry of Transport and Communication |
| 1958 | published the first edition of the Book “Foundation failures” in Hungarian |
| 1958 | Visiting Professor in Egypt for 2 months |
| 1959-60 | contribution to the Planning of the Renovation of the Elisabeth-bridge |
| 1961 | published the first edition of the Book „Tunnelling” in Hungarian |
| 1964 | Visiting Professor in Egypt for 2 months |
| 1966 | awarded with "Excellent Worker in Higher Education" distinction |
| 1966 | awarded with Honourable Degree at the Technical University of Helsinki |
| 1968 | Invited Lecturer for a semester in Canada |
| 1970 | The Hungarian Academy of Sciences declares his Ordinary Member Fellowship |
| 1970 | awarded by Budapest Municipality with Distinct "Pro Urbe" for his prominent lifetime activity in the reconstruction of the bridges and the establishment of the Underground Railway network in Budapest |
| 1970 | awarded with Honourable Degree at the Technical University of Wroclaw |
| 1972 | died on 22nd May in Budapest |