Personal data

First name / Last name	**Péter / Hudacsek**
Current address	2016, Leányfalu Móricz Zsigmond út. 83/A
Phone:	+36 26 380 829 Mobile: +36 30 340 69 38
E-mail(ek)	hudacsek@sze.hu

Citizenship	Hungarian
Date of birth	16th August 1979
Gender	Male
Marital/family status	Married, father of two

Experience

September 2011 –	**Assistant Lecturer** Széchenyi István University, Department of Structures and Geotechnics
Main activities	-Teaching: Soil mechanics, soil mechanics laboratory class , Geotechnics -Thesis mentoring (bender element tests, timber grid shell physical modeling, small scale shallow footing load tests for back analysis of strength parameters), -Trainee research student mentoring (bender element test series , root reinforced soil testing) -Using PIV to assess the crack form propagation in metal fiber reinforced concrete beams -Research (soft soil improvement, energy balance of pile installation based on rig process sensor data) -Module lecturer on professional development short course series for road engineers about soil sampling, investigations and laboratory testing -Course plans for new MSc programs (soil investigation, advanced soil mechanics including CSSM, and SM for unsaturated soils)
November 2009 –	**Laboratory engineer / head of the Geotechnical laboratory** Széchenyi István University, Department of Structures and Geotechnics
Main activities	-Development of integrated data logging infrastructure for oedometers, triaxial equipments and a shearboxes : hardware/ software; -Commissioning, improving performance and operating WF dynamic triaxial apparatus, -Design of new bender element control unit, -Development of LabView RT physical model based control for NI-cRio based pneumatic WF dynamic triaxial equipment (ongoing) -Assistance in commissioning high torque resonant column / torsional shear apparatus -Equipment maintenance, new equipment specification, design and acquisition -Special soil laboratory testing -Commercial tests (pile load tests, pile integrity tests, floor resonance tests and development of advanced analysis suit for those in either LabView excel and Python) -Design and budget research programs for industrial partners (eg. Lab floor testing of lateral micro piles, dynamic performance and crushing properties of glass foam aggregates, measurement of characteristic strength parameters for particular constitutive models for reconstituted alluvial deposits etc.)
September 2009 –	**Development engineer/Managing director** Alternatura Ltd .

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Main activities	-Development of complex data logging and control systems for commercial geotechnical laboratories, advanced analysis of soil test results, development of test report spreadsheets -Development of analysis code for piling rig onboard production data to establish relationship between pile performance and installation mechanical energy profiles. -Translation of technical texts between English and Hungarian. -Lectures for professionals soil sampling, soil laboratory testing, in situ testing and geotechnical monitoring -Assistance in site installation of WF soil testing devices, theoretical and practical personnel trainings on related test methods conform to the EN/ISO TS-17892 series -Consultancy and assessment of company soil laboratory practice for accreditation -Company administration
April 2008. – December 2008 .	**Research assistant (9 month contract)** College of Art, Engineering and Sciences, University of Dundee
Main activities	-Development of testing methods and equipment for offshore grillage foundation test series, -Measurements to establish over-penetrated and normally-penetrated VH failure envelopes of grillage foundations resting on sandy subsoils of different state. -Sensor and image based data analysis
2005 - 2008	**PhD research student (EPSRC grant)** College of Art, Engineering and Sciences, University of Dundee
Main activities	-Research: Effects of climate change on slope stability – small scale centrifuge model tests (www.ncl.ac.uk/bionics/) -Teaching: soil mechanics lab class -Commercial testing: pipe uplift, aircraft parts acceleration testing -Centrifuge test control and measurement software development (pipe uplift, water table raising, controlled volume flow, climate control, event based still camera control)
2006 – November 2009.	**Freelance translator**
Main activities	Translation of technical texts between English and Hungarian
2003 szept. – 2004 dec.	**Contracts engineer** HBM Hídépítő-Soletanche Bachy Mélyalapozó kft., Budapest
Main activities	-Conceptional and dimensional design of excavations, foundations, strengthening of foundations etc. for quotations, bids and contracts. -R&D: Conceptional design; design and manufacture coordination of two (bridge style and) high capacity auxiliary stand free pile load systems with novel retrievable anchor assembly.
2013	**PLAXIS summer school** 1 week in SZE, Győr
2006	**EPSRC summer school** 1 week in Durham - Nonlinear Numerical Modeling
1998 – 2003	**Civil Engineering Studen**t Budapest University of Technology and Economics (BSc-MSc 5 year course) in Civil engineering, Major in geotechnical and environmental engineering, minor in structural engineering

Personal skills and competencies

Mother tongue **Hungarian**

Other languages **English**

Self assessment

European Language Levels (*)

Understanding				**Speaking**				**Writing**	
Listening		Reading		Spoken interaction		Spoken production			
C	2	C	2	C	2	C	2	C	1

(*) CEFR levels

Technical skills and competencies	-good electronics and instrumentation skills: development of control and measurement systems (air driven hydraulic servo control unit), sensors (capacitive relative density sensor). -Wide knowledge of data acquisition hardwares (ADlink, NI, USB-DUX, HBM etc.) and sensor types (proximity, digital/analogue displacement, pressure, load, temperature, flow, etc.), motion control (stepper, DC, servo, AC inverter, pneumatic, hydraulic position control) -strong mechanical skills: design, production control and simple machining of structures, parts and systems (large scale force feedback hydraulic consolidation tank, compaction device, controlled environment centrifuge strongbox, loading frames, strongboxes for 1g model tests) -good manual, power tool and some machine skills -woodworking skills: roofs, timber frames, windows, doors, and furnitures -self design and construction of strawbale/adobe family house (ongoing)
Data handling and interpretation skills	-general programing skills to solve engineering problems: eg. image registration (CWS-PIV in Python and Matlab), various data acquisition and process control tasks (Labview), -solid mathematical, physical, soil mechanical background -experienced in various types of data analysis
Computer skills	OSs: Microsoft Windows, Ubuntu Linux Office suits: Microsoft Office, Open Office, LeTex General engineering packages : AutoCad, MathCad, Qcad FEM packages for structure analysis: FemDesign, AxisVM Multiphisics FEM codes: Elmer, Code Geotechnical Packages: Plaxis, Geoslope Development environments: LabView, Matlab, Scilab , Python
Further skills and competencies/attitudes	-good language skills, -open to meet new people, appreciate the importance of communication to inseminate new ideas and disseminate knowledge -enjoy multiculturalism and liberalism -devoted to soft skill development -most efficient in cerebral team roles, if tested always classified as “plant” in Belbin terms -take orientation in modern life as a hobby (reading quality pieces of writing in popular science, political, economical subjects became a recent habit to complete the old habit of reading fiction and orientation in many interconnecting areas of engineering and modern physics) -when possible prefer cycle or walk to drive a motorcar
Professional memberships	-ISSMGE TC104, -Hungarian Standards Institution: Regular expert member of Special Foundations technical comity (Active participation of translation, proofreading, finalizing of about 800 pages of European geotechnical standards)
Driver's licens(es)	Category B
Date/Signature	Leányfalu, 13th October 2013 

Publications:

Capacity of grillage foundations under horizontal loading. Knappett, J.A., , Brown, M.J., Bransby, M.F., Hudacsek, P., Morgan, N., Cathie, D.N., Maconochie, A., Yun, G.J., Ripley, A., Brown, N. & Egborge, R.(2012) Geotechnique 62, 811-823.

The vertical capacity of grillage foundations Bransby, M.F., Knappett, J.A., Brown, M.J. & Hudacsek, P.(2011) Geotechnique 62, 201-211.

Vertical capacity of grillage foundations in sand Bransby, M.F., Knappett, J.A., Brown, M.J., Hudacsek, P. , Morgan, N., Cathie, D., Maconochie, A., Yun, G., Ripley, A.G. , Brown, N. & Egborge, R. Canadian Geotechnical Journal (2011)

Új típusú tengeri síkalap függőleges és vízszintes teherbírásának vizsgálata, Hudacsek Péter Geotechnika 2010 Proceedings (2010)

Fizikai modellezés a geotechnikában, Hudacsek Péter Geotechnika 2009 Proceedings (2009)

Centrifuge modelling of compacted embankments subject to seasonal moisture change P. Hudacsek, M. F. Bransby ICE, Sustainability Journal - special edition (2009)

Centrifuge modelling of compacted embankments subject to seasonal moisture change P. Hudacsek, M. F. Bransby Proceedings: 1st ISSMGE International Conference on Transportation Geotechnics, 2008

Centrifuge modelling of slope reinforcement by vegetation. R. Sonnenberg, M.C.R. Davies, M. F. Bransby, S.B. Mickovski, A.G. Bengough, P.D. Hallett, P. Hudacsek (2007). Proc. ECSMGE, Madrid, Szept 2007.

Centrifuge modelling the effects of climate change on compacted clay infrastructure embankments P. Hudacsek (2006) Poster, Scottish Geotechnical Group, Strathclyde University, Glasgow, Dec 2006.

Development of Research tools for centrifuge modelling of long term behaviour of clay infrastructure embankments P. Hudacsek, M. F. Bransby, M.C.R.Davies (2006) Proc. The 9th Young Geotechnical Engineers Symposium, Belfast, Sept 2006.

Centrifuge pipeline uplift testing: Minke pipeline development. Bransby, M.F., Brennan, A.J., P. Hudacsek, Final report to SETech Geotechnical Engineers Ltd.,Dec 2006.

Centrifuge pipeline uplift testing: Wenlock pipeline development.. Bransby, M.F., Brennan, A.J., P. Hudacsek, Final report to Bluewater Industries Inc.,Dec 2006.