24 May 2010, 7:00 am - 29 May 2010, 1:00 pm

Special Lectures (SPL)

Multiple Authors

Dr. Jost A. Studer
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Educational Qualifications

1965	Civil Engineering Diploma, Federal Institute of Technology, Zurich (dipl. Ing. ETH)
1971	Dr. sc. techn. (Ph. D.), Federal Institute of Technology, Zurich

Professional Memberships

SIA	Swiss Association of Engineers and Architects
USIC	Swiss Society of Consulting Engineers
SGBF	Swiss and International Society for Soil and Rock Mechanics
SNGT	Swiss National Committee on Large Dams
SWISS Experts	Swiss Chamber of Technical and Scientific Forensic Experts
ASCE	American Society of Civil Engineers
EERI	Earthquake Engineering Research Institute
SSA	Seismological Society of America

Languages

German, French, English, Italian and Spanish (knowledge)

Professional Experience

Since 1993	Studer Engineering, President
Since 1979	Lecturer at Federal Institute of Technology (Soil Dynamics and Geotechnical Earthquake Engineering)
1981-1992	Partner, GSS Glauser Studer Stüssi Ingenieure
1966-1981	Research Fellow; since 1970 head of Soil Dynamics Group at the Institute of Soil Mechanics and Foundation Engineering at the ETHZ

Yingcai Han
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Dr. Yingcai Han graduated from Tsinghua University, Beijing in 1968 and received his Ph.D from MUN, Canada. He was a research professor at the Institute of Engineering Mechanics, China, and joined Fluor in 1997 as a principal technical specialist. Dr. Han is an internationally recognized expert in soil dynamics and earthquake engineering, and published more than 100 papers in journals and conferences. He has made innovative contributions to the state-of-the-art practice in dynamic and seismic design, and invited as a keynote speaker for many conferences and seminars.

Sanjeev Kumar
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Dr. Sanjeev Kumar is the Chair, and Professor and Distinguished Teacher in the Department of Civil and Environmental Engineering at Southern Illinois University Carbondale (SIUC). He received undergraduate degree in civil engineering from India and MS and Ph.D. in Civil Engineering from Missouri University of Science and Technology. He worked in professional practice for over 11 years before joining SIUC in 1998. Dr. Kumar has provided geotechnical earthquake engineering related consulting services on many large projects. He has received numerous honors and awards for his outstanding teaching, research, and service to the Civil Engineering profession. Dr. Kumar a Fellow of ASCE.

M. Hesham El Naggar
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M. Hesham El Naggar, Ph.D., P.Eng., M.ASCE, M. CSCE is a Professor of geotechnical Engineering and Associate Dean of Engineering at the University of Western Ontario, Canada. He is Associate Editor of the Canadian Geotechnical Journal and Past Chair of Soil Mechanics and Foundations Division of the Canadian Geotechnical Society. Prof. El Naggar won the 2007 A.G. Stermac Award, the 2002 G.G. Meyerhof Award and the 2002 Canadian Geotechnical Colloquium Speaker Award. He has published more than 200 technical papers in the field of analysis and design of structures and foundations subjected to dynamic loads.

Research Interest: Design of foundations subjected to dynamic loads; static and dynamic analysis of piles; soil-structure interaction; structural dynamics and earthquake & offshore engineering; Soil dynamics and geotechnical earthquake engineering.

Ion Vlad
SPL 5
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Ion Vlad is a Professor since 2002 at the Civil Engineering Department within the Technical University of Civil Engineering Bucharest (TUCEB), Romania that he has graduated in 1981. He obtained his Ph.D. in 1998 with the thesis entitled “Contributions to a unitary concept for the dynamic analysis of machine foundations”.

In his academic activity, he is teaching Structural Analysis and Earthquake Engineering.

In the research activity he has created in 2000 a Multi-User Research Center within TUCEB, internationally known as the “Romanian National Center for Earthquake Engineering and Vibrations” (R.N.C.E.E.V.).

His areas of research interest include: contributions to the Romanian seismic regulations; technical assessment of existing buildings and engineering structures; experimental research at full size scale; demolishing of buildings by controlled explosions; structural safety and seismic instrumentation of large dams; structural monitoring of buildings; machine foundations.

He is a technical expert of the Romanian Ministry of Public Works, consultant and designer in public and private engineering projects in Romania.

Chairman and organizer of several Romanian scientific workshops, and of two International Symposiums entitled: “Thirty Years from the Romania Earthquake of March 4, 1977”, Bucharest 1-3 March, 2007, and “Modern Systems for Mitigation of Seismic Action”, Bucharest 31 October - 01 November, 2008.

He published four books (in cooperation), and more than 50 papers in conference proceedings (in English) and journals (in Romanian).

Prof. Ion Vlad is a member of US professional associations EERI, ATC, SSA, ICC, CTBUH, and of Romanian professional associations AICPS and AICR.

He was awarded with the Romanian National Prize for the design of an office building by the Structural Engineers Association of Romania (AICPS) in 2005.

Vlad Perlea
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Vlad Perlea is a graduate of the Technical University of Civil Engineering in Bucharest, Romania and earned a doctorate degree at the same university in 1973. In 1985 he received his registration as a professional engineer in the State of Ohio. Dr. Perlea has over 40 years of experience in designing and evaluating embankment dams for static and seismic loads. In 1992 he joined the US Army Corps of Engineers, first with Kansas City District and since 2006 with Sacramento District. Currently his major assignment is the evaluation of the seismic response of the District's embankment dams and the design of the remedial repair of Success Dam, Tulare County, California.

Barnali Ghosh
SPL 7
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Dr. Ghosh has extensive experience of designing foundations in seismic areas all over the world. Her experience includes identifying seismic hazards and seismic design of foundations for buildings, offshore platforms, retaining walls, ports etc. She works in the Seismic Design Team in London for ARUP. Dr. Ghosh has published her work extensively in different international journals and text books. She has also worked as an adviser in POST (Parliamentary Office of Science & Technology) in the United Kingdom influencing major policy decisions within the government. She maintains close research links with Cambridge, Bristol, UCL and Dundee University.

Jorge F. Meneses
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Dr. Meneses has over 20 years of experience in geotechnical earthquake engineering specializing in areas of seismic hazard evaluation, site response, liquefaction and lateral spread, seismic stability of earthworks, and numerical modeling. Dr. Meneses has research and consultancy experience in California, Japan, Peru, India and Mexico. Dr. Meneses is quite familiar with the implementation and interpretation of in-situ testing devices, such as the cone penetration test. He has experience and expertise in setup and evaluation of advanced laboratory testing for static and cyclic triaxial, one- and two-directional cyclic simple shear, and small and large size hollow cylindrical torsional devices.

Since joining Kleinfelder, Dr. Meneses has been involved in numerous projects serving as a technical resource for several offices in California and other states. He is currently the chair of the Kleinfelder Seismic and GeoHazards Practice Group. Dr. Meneses has published over 45 technical publications in technical journals and international and national conferences. He frequently serves as a peer reviewer and speaker for technical journals, and domestic and international conferences. He is currently a part-time faculty in the University of California San Diego, and San Diego State University.

Dr. Meneses got his masters and PhD degrees in the University of Tokyo under the supervision of Prof. Kenji Ishihara, and is a professional engineer in the State of California.

Rodrigo Salgado
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Prof. Rodrigo Salgado entered the Federal University of Rio Grande do Sul first as a chemical engineering major, then transferred to civil engineering. He graduated in 1986. After several years working first as an intern, then as an engineer with a geotechnical specialty contractor and with PETROBRÁS, the Brazilian oil company, he came to the U.S. for graduate school. He obtained an M.S. in 1990 and a Ph.D. in 1993 at the University of California, Berkeley. Immediately upon graduation, he joined the faculty at Purdue University, where he is today a Professor. He has been a Visiting Scholar at the Technical University of Turin, a Visiting Professor at the University of Newcastle and a Gledden Senior Fellow at the University of Western Australia. Professor Salgado is the recipient of numerous awards, including the Shamsher Prakash Research Award for the rigorous solutions of problems in geotechnical engineering using advanced analysis methods in 2005, the ASCE Casagrande Award in 1999 for his contributions in the fields of foundation engineering and earthquake engineering, the ASCE Walter L. Huber Civil Engineering Research Prize in 2004 for his research on foundation engineering. He was an invited participant to the National Academy of Engineering Frontiers of Engineering Symposium in 2005. His research, sponsored by, among others, NSF, FHWA, INDOT and INTEL, has led to the publication of many journal and conference papers. He serves on ACI, ASCE and ABMS technical committees and is currently writing "The Engineering of Foundations", a book that will be published by McGraw-Hill by the end of 2006.

Ellen Rathje
SPL 12
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Ellen Rathje is a professor and the J. Neils Thompson Centennial Teaching Fellow, Department of Civil, Architectural, and Environmental Engineering, at the University of Texas at Austin, Austin, Texas. She received her B.S. in Civil Engineering from Cornell University in 1993 and her M.S. and Ph. D. degrees in Civil Engineering from the University of California at Berkeley in 1994 and 1997 respectively.

Dr. Rathje's research encompasses the seismic stability of earth structures and slopes, strong ground motion and site response, field liquefaction evaluation and soil improvement, and the application of remote sensing to geotechnical engineering. The recipient of numerous awards and prizes, Dr. Rathje has made important contributions to seismic slope stability, including the development of a fully probabilistic methodology for evaluating earthquake-induced landslides that can be applied to site-specific or regional landslide hazard assessments. Dr. Rathje's recent interdisciplinary efforts involve merging remote sensing and geotechnical engineering. She is using various optical and radar remote sensing imagery to develop seismic landslide inventories and investigate creeping landslides.

Kyriazis Pitilakis
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Professor Kyriazis Pitilakis graduated from Aristotle University of Thessaloniki, Greece and he made his PhD in Ecole Centrale Paris. He has more than twenty five years of intensive academic, research and professional experience in earthquake and geotechnical engineering. Head of the Civil Engineering Department (1997-2001) and Chairman of the Institute of Earthquake Engineering and Engineering Seismology in Greece (2003-2006), he has coordinated and participated in many important research and engineering projects in Greece, Italy, Cyprus, Turkey, Japan, France, Spain, and few Balkan countries and he has been involved in many post earthquake evaluation programs. Coordinator and scientific responsible of numerous European research projects, namely “Euroseistest” (http://euroseis.civil.auth.gr), he has a long experience in European research activities Geotechnical earthquake engineering, site effects, microzonation studies, strong ground motion, vulnerability and risk assessment of civil engineering structures and aggregates (cities, historical centers hospitals and harbor facilities), lifeline earthquake engineering, soil dynamics and seismic design of foundations, earth structures and infrastructures are among his main fields of interest. Chairman of the forthcoming 4th International Conference in Earthquake Geotechnical Engineering (www.4icege.org), he is author of more than 220 scientific papers in journals, books and proceedings of congresses, invited lecturer in numerous congresses and workshops and reviewer of many important scientific journals as well as in research projects in Europe. He is member of the editorial advisory board in Springer, member of national and international societies of earthquake and geotechnical engineering and member of national and international committees for seismic standards. He is international expert in important European and International projects and evaluator of post earthquake actions of international organizations (CEB). Recently he has been nominated by the French Republic Chevalier des Palmes Academiques.

C. Guney Olgun
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Dr. Olgun is a Research Assistant Professor at Virginia Tech and has been performing research on geotechnical earthquake engineering for 8 years. He also worked for 5 years in geotechnical consulting and construction. His research expertise is on computational modeling of soil-structure interaction, performance and modeling of improved ground, seismic response of reinforced soil structures and cyclic vulnerability of fine grained soils. He is also currently conducting research on geothermal foundation systems and remote sensing technologies for geo-hazard mapping.

Anoosh Shamsabadi
SPL 15
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Senior Bridge Engineer Office of Engineering Caltrans

Anoosh Shamsabadi has more than 20 years of professional experience in civil and geotechnical earthquake engineering. He has provided seismic soil-foundation-structure interaction and geotechnical earthquake engineering training for various government agencies and organizations. He has performed technical oversight and reviewed all the geotechnical and earthquake engineering activities for the seismic retrofit of several major toll bridges and tunnel structures in California. He has been actively involved in the development of computer software using state of the art and practice for seismic analysis and design of earth retaining system for Caltrans engineers.

Mr. Shamsabadi's research interests are in nonlinear seismic soil-abutment-structure interaction of highway bridges. He has performed multiple support time history kinematic Soil-Foundation-Structure Interaction analyses to characterize the stiffness and induced seismic loading for all the pile and shaft footing to reduce undue conservatism and eliminate costly foundation for various bridge structures. He is currently performing 3D nonlinear global bridge models to examine the impact of the various ground motions with strong velocity pulse using fully nonlinear AbutmentSoil-Foundation-Structure Interaction for skew bridges. He has developed formulation and a computer program to predict the nonlinear force displacement relationships for bridge abutment. He is currently conducting research on highway bridge abutments and skewed bridges to amend Caltrans Seismic Design Criteria (SDC).

Mr. Shamsabadi is a member of the committee for the NCHRP 12-70 project "Seismic design of retaining walls, buried structures and embankments" and is a member of the FHWA National Geotechnical Seismic Technical Working Group. He has reviewed many ASCE journals and FHWA manuals and publications.

Filippo Ciuffi
SPL 16
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Filippo Ciuffi {58 years old}, born in Potenza, is an Italian "Researcher" and "Scientific Manager", who is married with two daughters. His *cursus studiorum* is characterized by strong syntheses between *Humanistic Culture* and *Scientific Culture*. After obtaining a *Doctor of Civil Engineering* degree from the *Polytechnic of Naples*, Dr. Ciuffi has always attended, in many countries, several specializing-courses {in one of the said courses, in April 1980, professor H.B. SEED was the teacher} and seminars, mainly in *soil mechanics* and *soil dynamics*. Filippo Ciuffi is also very active in social projects and *no profit* activities.

Dr. Ciuffi is at present {2010} President of «***intra*Vidére**» Research-Institute, which is a leading member of the so-called «***intra*Vidére**» *Research-Chain*. The company «***intra*Vidére**» [Science and Art between Historical Memory and Digital Futures] is the natural evolution of creative, entrepreneurial experiences, pursued in a variety of geographical and cultural backgrounds. It provides continuity for interdisciplinary scientific and professional experiences that have evolved in different forms from as far back as **1949**. To do research for producing innovative goods and services, "revealing" what exists in reality, but that the eye is unable to see [this is the meaning of the Latin word «***intra*Vidére»]**, is the mission of «***intra*Vidére**». Its important added value is the strong synergy between **Creativity** and **Science** and the capability to ***create innovation***, designing and implementing "***Technological Integrated Processes***", in which advanced technologies and avant-garde methodologies interact for achieving specific goals.

Dr. Ciuffi pioneered, between 1977 and 1981, devoted *logic architectures* and new *algorithms* focused to design innovative procedures {converted into specific *copyrighted computer programs*} for the construction of *Geotechnical Maps*, *Earthquake Vulnerability Zoning Maps* and *Environmental Charts.*

He also devised, between 1982 and 1986, frontier studies for implementation of new methodologies, in which *Cluster Analysis Methods* are combined with *Matrix Analysis Techniques*, for "soil modeling", "3-D Geotechnical Characterization" and "*3-D Groundwater Circulation Modeling*".

In 1986, Dr. Ciuffi was appointed member of the first "ITALIAN SCIENTIFIC COMMITEE" {the interdisciplinary Team was composed of 10 scientific experts} for *disaster prevention* and *risk management* procedures.

Remote Sensing Integrated Analyses have always represented a crucial and basic investigation field for Filippo Ciuffi, who has developed, during years, innovative processing activities and new techniques for integration between *Multispectral and Multitemporal Images*, generated by different platforms {Satellite, Aerial and Land platforms} and data acquired by *non destructive testing* on soils and structures.

The above mentioned sophisticated procedures and innovation, described in different journals and proceedings of international conferences, have been extensively applied, in a very large number of research-activities and foundation projects.

In 1998, Ciuffi's interdisciplinary cultural activities were further recognized, when he was invited for a *lecture* on «***intra*Vidére in History walking towards a New Millennium**», at the ***Louvre***, Paris**.**