

**January 2011**

## **C U R R I C U L U M V I T A E**

### **Bengt H. Fellenius**

Dr. Bengt H. Fellenius is a professional engineer specializing in foundation design and studies by participation in project teams, special investigations, instrumented field tests, etc. Services are also provided in regard to construction problems, claims, and litigation in collaboration with Consultants and Contractors, as well as Owners.

Dr. Fellenius, Professor of Civil Engineering at the University of Ottawa from 1979 through 1998, is an internationally recognized authority in the field of soil mechanics and foundation engineering, and, in particular, in deep foundations. He has gained a wealth of practical experience during more than 40 years of work at home and overseas through a variety of assignments that encompass foundation, embankment, and soil improvement design for water and sewage treatment plants, industrial plants, as well as bridges, highway, and airport projects, and marine structures and urban area development projects; some of which he has written up in 300+ technical journal and conference papers, articles, books, and book chapters. Copies of many of the papers are available for downloading from Dr. Fellenius' web site: [[www.Fellenius.net](http://www.Fellenius.net)]

Dr. Fellenius moved from his native Sweden to Canada in 1972 where he worked on foundation investigations and design and construction projects in North America and overseas. In 1973, he was one of the first to apply geotextile soil separation sheets to stabilize roadbeds and construction surfaces, investigating conventional carpet underlay (Celanese) for this purpose. He was active in promoting to the US market the splicing of prestressed concrete piles by means of mechanical full-strength splices, and he introduced to Canada and the USA ground improvement applications of lime column method for reducing soil compressibility and wick drains (the Geodrain and Alidrain) for accelerating consolidation and stabilizing landslides. He was one of the earliest (1977) to research and use dynamic testing and the Pile Driving Analyzer in actual project design and construction.

He also introduced the Janbu method of determining soil compressibility and analysis of settlement, and he had a fundamental part of the development of commercial software for analysis of settlement from loads on natural soils and soils subjected to soil improvement methods, design of piled foundations, and other software. In 1984, he published the design and analysis method for foundation design known as the "Unified Method of Design for Capacity, Drag Load, Settlement, and Downdrag".

Dr. Fellenius is and has been an active participant in many national and international professional societies and research associations and in Canadian and US Codes and Standards Development. For example, Member of the subcommittee for the American Society for Testing and Materials D-4945 Standard for High-Strain Dynamic Testing of Piles; Chairman of the Canadian Geotechnical Society Technical Committee on Foundations writing the 1985 Canadian Foundation Engineering Manual; Member of the Ministry of Transportation Committee for the Development of the 1983 and 1992 Ontario Bridge Design Code; Author of three Public Works Canada publications: Marine Division Master Specifications for Piling, Pile Design Guidelines, and Hammer Selection Guide; Past Overseas Correspondent Member to the Geotechnical Engineering Advisory Panel of the Institution of Civil Engineers, ICE (London); and Past Member of Editorial Board for the ASCE Geotechnical Engineering Journal.

Dr. Fellenius has given lectures and courses to several universities and international conferences throughout Europe, America, and south-east Asia.

## **EDUCATION**

1955 – 57 Swedish Army Service  
1962 M.Sc., Civil Engineering, Royal Institute of Technology, Stockholm  
1972 Doctor of Technology, Soil Mechanics and Foundation Engineering,  
Royal Institute of Technology, Stockholm

## **PROFESSIONAL ACTIVITIES**

### **Canadian Geotechnical Society,**

Past Chairman of the Technical Committee on Foundations; Past Chairman of Northern and Eastern Ontario Section; Past Chairman of the Montreal and Western Quebec Section; Canadian representative of International Geotechnical Society Committee on Drivability Penetrability of Piles; Chairman of the Third International Conference on the Application of Stress-Wave Theory to Piles.

### **Ministry of Transportation and Communications, Ontario,**

Member of the Committee appointed to develop the 1983 and 1992 Highway Bridge Design Code.

### **Royal Swedish Academy of Engineering Sciences,**

Member of the Commission on Pile Research.

### **Deep Foundations Institute,**

Charter Member; Past Board Member; Past Technical Editor of the DFI Journal; Member of the Technical Advisory Committee.

### **Peer Referee of Papers**

Canadian Geotechnical Journal  
Canadian Journal of Civil Engineering  
ASCE Journal of the Geotechnical Engineering Division  
ASCE GeoInstitute  
Geotechnique  
Geotechnical and Geological Engineering  
ASTM Geotechnical Testing Journal  
U.S. Transportation Research Board, Records  
Proceedings of the Institution of Civil Engineers, Geotechnical Engineering Journal

### **PROFESSIONAL ASSOCIATION REGISTRATION AND MEMBERSHIPS**

Canadian Geotechnical Society and Engineering Institute of Canada  
Association of Professional Engineers of Alberta, APEGGA  
American Society of Civil Engineers, ASCE  
Deep Foundations Institute, DFI  
Swedish Commission on Pile Research  
Swedish Geotechnical Society, SGF

### **AWARDS**

The American Society of Civil Engineers, the GeoInstitute, to be presented in 2012  
Geotechnical Special Publication Honoring Bengt H. Fellenius "Role of Full-Scale Testing in Foundation Design"

The Engineering Institute of Canada, 2002  
Conferred the Distinction of Fellow in "Recognition of Excellence In Engineering and for Services to the Profession and to Society".

American Society of Civil Engineers, ASCE, 2002  
Designation as Life Member.

Canadian Geotechnical Society, 1997  
The G. Geoffrey Meyerhof Award "*for* Outstanding and Significant Contributions to the Art and Science of Foundation Engineering". Awarded at the 50th Annual Meeting October 1997.

Deep Foundation Institute, 1993  
The Distinguished Services Award "for Exceptionally Valuable Contributions to the State-of-the-Art in Deep Foundations".

American Society for Testing and Materials, 1990  
Award "for Service in Standards Development".

Canadian Geotechnical Society, 1985  
Plaque "for Services to the Canadian Geotechnical Community". Awarded at the 38th Annual Meeting September 1985.

Canadian Geotechnical Society  
Trans Canada Lecturer for 1985/1986.

**EXPERIENCE****1977 - 2009****Bengt Fellenius Consultants Inc.**

President. Bengt Fellenius Consultants Inc. provides geotechnical engineering consulting services.

**1990 - 2009****UniSoft Ltd.**

President. UniSoft Ltd. specializes in software development for foundation design and analysis.

**1979 - 1998****University of Ottawa**

Professor of Civil Engineering, Specialty: Foundation Engineering

**1995 - 2002 Urkkada Technology Ltd., Ottawa**

Principal. Urkkada Technology Ltd. is a dynamic testing company.

**1985 - 1994 Anna Geodynamics Inc, Ottawa**

Principal. Anna Geodynamics Inc. is a company specializing in foundation testing and analysis.

**1973 - 1981 Burcan Industries Ltd, Toronto**

Principal. Burcan Industries is a company specializing in ground improvement techniques.

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**1973 - 1977**

**Terratech Ltd., Montreal**

Supervising Engineer, and special consultant for foundation studies. Terratech Ltd., a division of Lavallin-SNC, specializes in geotechnical consulting.

**1972 - 1973****The Engineering Group of Agra Industries, Montreal**

Western Caisson Ltd., Montreal, and Torchinsky Consulting Ltd., Saskatoon. Special Consultant.

**1965 - 1972****Swedish Geotechnical Institute, Stockholm**

Research work in the field of deep foundations and consulting work dealing with foundation problems in connection with industrial and town area planning, roads, bridges, and slope stability.

**1966 - 1971****Royal Institute of Technology, Stockholm**

Assistant Teacher at the Civil Engineering Department

**1966 - 1971****Royal Swedish Academy of Engineering Sciences**

Technical Secretary to the Commission on Pile Research

**1963 - 1965****Scandiaconsult, Stockholm**

Geotechnical Engineer. General consulting work with particular reference to planning for industrial and urban development.

**1962 - 1963****Swedish National Railways, Structural Division**

Bridge Engineer. Structural design of concrete and steel bridges.