

Name:

Dr. Julian Peter Seidel

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Areas of expertise:

foundation engineering, geotechnical engineering, geomechanics, construction, foundation evaluation, deep foundations, pile design, offshore piles, pile damage, excavations, basements, retaining walls, anchors, bridge foundations, pile driveability, pile driving, pile hammer selection, bored piles, drilled shafts, pile sockets, driven piles, screw piles, pile testing, static load testing, dynamic pile testing, pile driving analyser, PDA testing, CAPWAP, GRLWEAP, wave equation analysis, Statnamic® testing, rapid load testing, Osterberg testing, bi-directional load testing, pile integrity testing, PIT testing, sonic logging, impulse echo test, impulse response method, cross hole testing.

Qualifications:

- BE (Hons 1), 1979, Monash University, (Dux)
- PhD 1994, Monash University. *The analysis and design of pile shafts in weak rock.*

Professional Memberships:

- Member, American Society of Civil Engineers
- Chartered Member, Institution of Engineers, Australia
- Member, Australian Geomechanics Society

Current and Past Technical Committee Memberships:

- Member, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) Technical Committee 18 – Deep Foundations
- Member, Australian Standards, Piling Code Committee AS2159 - Piling.

Past Professional Editorships:

- Joint Technical Editor of the US Deep Foundations Institute publication, “Deep Foundations”.

Honorary Academic Positions:

- Associate of the Department of Civil Engineering, Monash University

Career Summary:

Dr. Seidel has had 32 years professional experience as a geotechnical engineer, specializing in all aspects of deep foundations. During this time, he has been employed as a senior engineer with general and specialist geotechnical and foundation engineering consultants, a government road authority, a specialist deep foundation contractor, and at University as senior lecturer and researcher. Dr. Seidel now heads his own specialist foundation engineering consultancy.

As a result of this wide experience, Dr. Seidel is uniquely placed to appreciate all aspects of the commissioning, design, installation and testing of structural foundations. He provides trouble-shooting advice on projects in Australia and throughout the Asia-Pacific and Middle East region. Dr. Seidel has provided both design, review advice and construction control and supervision for approximately 1100 foundation projects in the past 11 years since commencement of Foundation QA Pty Ltd. These include both land-based, near-shore, and offshore foundation projects.

Dr. Seidel continues his educational role with special lectures in foundation engineering at Monash University, as well as international workshops, seminars and invited lectures to the engineering fraternity, particularly in the field of pile testing and pile dynamics. He has developed and continues to oversee the Certificate in High Strain Dynamic Pile Testing which is internationally recognized.

Dr. Seidel also continues to be associated with leading research projects through national and international collaborations, and provides specialist laboratory testing services in direct shear testing of pile interfaces through his association with Monash University. He also provides advanced rock socket design services using the computer program Rocket, developed by Dr. Seidel.

Dr. Seidel is regularly requested to provide expert witness services for insurance matters and legal disputes for major projects around the world.



Publications:

Dr. Seidel has been an active author, and has published approximately 90 technical papers in international journals and in both national and international conference proceedings. The publications relate predominantly to deep foundation design, analysis and testing.

Selected publications for Dr. Julian Seidel: 1999 - 2002

Seidel, J.P., Cho, C.W. and Haberfield, C.M. (2002). *Prediction of the axial capacity of pile sockets*. Invited paper to Korean Geotechnical Journal.

Seidel, J.P. (2002). *Reliability concepts in LRF Design, or what is a reasonable factor of safety?* Accepted U.S. Deep Foundations Institute, Fulcrum.

Seidel, J.P. and Haberfield, C.M. (2002). *Laboratory testing of concrete-rock joints in constant normal stiffness direct shear*. Accepted Geotechnical Testing Journal, ASTM

Seidel, J.P. and Haberfield, C.M. (2002). *Theoretical models for rock joints subjected to constant normal stiffness direct shear*. Accepted Int. J. of Rock Mechanics and Mining Sciences.

Seidel, J.P. (2001). *PDA Testing and effective quality assurance*. Keynote lecture, 5th International Conference on Deep Foundation Practice. Singapore. 5-6 April 2001.

Seidel, J.P. (2001) *PDA testing – opening the black box : issues of effective quality assurance*. Concrete Piling for the New Millennium. Invited lecture, Concrete institute of Australia. Sydney, February 21, 2001.

Seidel, J.P. and Collingwood, B (2001). *An improved socket roughness factor for prediction of rock socket shaft resistance*. Canadian Geotechnical Journal, February, 2001 : 138-153

Haberfield, C. and Seidel, J.P. (2000). *The role of theoretical models in the analysis and design of rock socketed piles*. Invited paper. John Booker Memorial Symposium. Balkema DW Smith & JP Carter (eds) : 465-488.

Seidel, J.P. and Kodikara, J.K (2000). *Current issues in Academia and Geoengineering Education*. GeoEng2000. Melbourne, November, 2000. Dr. Seidel was invited chair for the workshop on Geoengineering Education.

Seidel, J.P. (2000). *The need for quality assurance in the dynamic pile testing industry*. 6th Intl. Conf. on Application of Stress-wave Theory to Piles. Sao Paulo, Brazil, Sept., 2000. Dr. Seidel was invited chair for the workshop on quality assurance.

Schmidt, H.H., Seidel, J.P. and Haberfield, C.M. (1999) *Tragfaehigkeit von Bohrpfaehlen in festen Boeden und Fels. (Load capacity of bored piles in hard soils and rock)*. Bautechnik Journal, 9 September, 1999 : 795 – 800.

Previous Appointments :

October, 2010 to current:

Chairman and Technical Director of Foundation Specialists Group Pty. Ltd; also as Associate of the Department of Civil Engineering, Monash University

Technical role continued from Foundation QA. Foundation Specialists Group is the new name for Foundation QA, commencing October 2010.

February, 2001 to October 2010:

Managing Director of Foundation QA Pty. Ltd.; also as Associate of the Department of Civil Engineering, Monash University

Providing expert advice and expert review to consultants, contractors, government and legal disputes; In association with the US Deep Foundations Institute, international certification of dynamic pile testing providers; research and research supervision; occasional and invited lectures.

February 1991 to January, 2001

PhD studies, then Senior Lecturer, Monash University

Lecturing in soil engineering, foundation engineering, and geotechnical design at both undergraduate and postgraduate level; Active research programs in foundations supported by both government and industry funding; Retained for consulting and expert review.

May, 1986 to January, 1991

Technical Manager of John Wagstaff Constructions and Manager of Piletest Division, John Wagstaff Constructions Pty. Ltd., Qld.

Responsible for all aspects of geotechnical and structural design and quality assurance for 139 foundation projects in excess of \$100,000 to a value of \$58.7 million.

April, 1985 to April, 1986

Geotechnical Engineer, Road Construction Authority of Victoria

Geotechnical investigations and foundation design for bridge and freeway projects to the value of A\$11m around Victoria.

May, 1984 to April, 1985

Development Engineer and Pile Dynamics Analyst, Pile Dynamics Inc., Cleveland, Ohio

Field engineer testing piled foundations across the north-eastern United States.

December, 1982 to May, 1984

Foundation Design Engineer, Road Construction Authority of Victoria

Geotechnical and foundation design for bridge projects around Victoria, and dynamic pile testing for bridge projects around Australia.

August, 1981 to November, 1982

Geotechnical Engineer, Golder Associates, Melbourne

Wide experience in geotechnical investigations and reporting for domestic, industrial and commercial projects

January, 1979 to July, 1981

Graduate Engineer, Gutteridge Haskins and Davey, Melbourne

Extensive involvement in structural, geotechnical engineering and hydrological studies for projects in Australia and South-east Asia.