

# SERHAN KIRLANGIC

College of Engineering and Natural Sciences, School of Civil and Mechanical Engineering  
Bahçeşehir University, Beşiktaş, 34353 Istanbul Turkey  
E-mail: serhan.kirlangic@eng.bau.edu.tr, Telephone: +90-542-8325677

## EDUCATION

**Doctor of Philosophy**, Civil Engineering Aug 2013  
University of Waterloo, Waterloo, Ontario, Canada  
Supervisor: Professor Giovanni Cascante and Professor Marianna Polak  
Thesis "*Condition Assessment of Cemented Materials Using Ultrasonic Surface Waves*"

**Master of Science**, Earthquake Engineering Jan 2008  
Bosphorus University, Kandilli Observatory and Earthquake Research Institute, Istanbul, Turkey  
Supervisor: Professor Eser Çaktı  
Thesis "*Evaluation of Earthquake Performance of Hagia Sophia and Strengthening Alternatives*"

**Bachelor of Science**, Civil Engineering June 2004  
Istanbul Technical University, Istanbul, Turkey

## RESEARCH INTERESTS

- Condition assessment of structures and materials
- Non-destructive testing for civil infrastructure
- Structural dynamics
- Vibration based damage diagnosis
- Ultrasonic testing
- Wave propagation in solids
- Advanced digital signal processing

## ACADEMIC EXPERIENCE

**Lecturer** Feb 2017 - Present  
School of Civil and Mechanical Engineering, Bahçeşehir University, Istanbul, Turkey

**Research Fellow** Dec 2013 - Nov 2016  
School of Aerospace, Transport and Manufacturing, Cranfield University, United Kingdom

**Graduate Research Assistant** Sep 2008 - Dec 2012  
Non-destructive Testing Laboratory, University of Waterloo, Canada

## ACADEMIC SERVICES

- Reviewer, ASTM International Geotechnical Testing Journal
- Reviewer, Journal of Environmental & Engineering Geophysics

## PROFESSIONAL AFFILIATIONS

- Member, American Concrete Institute (ACI)
- Member, American Society of Civil Engineers (ASCE)

## PROFESSIONAL EXPERIENCE

### Junior Structural Engineer

Feb 2008 - Aug 2008

Altinok Consulting and Engineering, Istanbul, Turkey

### Junior Technical Engineer

Nov 2006 - Oct 2007

Turkish Ready Mixed Concrete Association, Istanbul, Turkey

### Junior Structural Engineer

Jul 2006 - Oct 2006

Prota Engineering, Istanbul, Turkey

## PUBLICATION LIST

### Journal Paper

Kirlangic, A. S., Cascante, C., & Polak, M. (2017). Characterization of Piezoelectric Accelerometers Beyond the Nominal Frequency Range. *ASTM International Geotechnical Testing Journal*, 40(1), 37-46.

Kirlangic, A. S., Cascante, C., & Polak, M. (2016). Damage Assessment of Concrete Beams with Defects Using Surface Waves. *ACI Materials Journal*, 113(1), 73-81.

Kirlangic, A. S., Cascante, C., & Polak, M. (2015). Condition Assessment of Cementitious Materials Using Surface Waves in Ultrasonic Frequency Range. *ASTM International Geotechnical Testing Journal*, 38(2), 1-11.

### Peer-viewed Conference Paper

Kirlangic, A. S., Cascante, C., & Polak, M. (2015). Assessment of Defects in Cemented Materials Using Ultrasonic Waves. *Proceedings of the 3<sup>rd</sup> Conference on Smart Monitoring, Assessment and Rehabilitation of Structures (SMAR)*. Antalya, Turkey.

### Conference Paper

Kirlangic, A. S., Polak, M., & Cascante, C. (2015). Condition Assessment of Concrete Beams with Irregular Defects Using Surface Waves. *Proceedings of the International Symposium Non-Destructive Testing in Civil Engineering (NDT-CE)*. Berlin, Germany.

Kirlangic, A. S., Polak, M., & Cascante, C. (2015). Application of Surface Waves for Condition Assessment of Cementitious Materials. *Proceedings of the International Symposium Non-Destructive Testing in Civil Engineering (NDT-CE)*. Berlin, Germany.

Kirlangic, A. S., Kesti, M. G., Çaktı, E., & Erdik, M. (2010). Temporary Earthquake Retrofit of the Land Walls in Istanbul. *Proceedings of the 14th European Conference on Earthquake Engineering (5222-5229)*. Ohrid, Macedonia.