

# COLUMBIA UNIVERSITY

## EARTH ENGINEERING CENTER



### Training of Engineers and Managers

An important objective of the Earth Engineering Center is to provide graduate level training in the ways and means of sustainable waste management to engineers and scientists, in particular those from rapidly developing nations where the need for managing the ever increasing volume of wastes is most pressing. EEC, in close collaboration with the Department of Earth and Environmental Engineering of Columbia University, has trained dozens of engineers. Some of our alumni are working in various parts of the waste management industry in the U.S. and abroad.

### WTERT and SUR Research

The breadth of academic research supported by WTERT and SUR fellowships is indicated by the wide range of subjects of past theses ([www.wtert.org](http://www.wtert.org), Publications, Theses).

### Most Recent Theses:

- ❖ Lital Yinon: [Ultrafine particle emissions: Comparison of waste-to-energy with coal- and biomass-fired power plants](#)
- ❖ Garrett C. Fitzgerald: [Technical and Economic Analysis of Pre-Shredding Municipal Solid Wastes Prior to Disposal](#)
- ❖ Rob van Haaren: [Large scale aerobic composting of source separated organic wastes: A comparative study of environmental impacts, costs, and contextual effects](#)
- ❖ Shang-Hsiu Lee: [High-Temperature Corrosion Phenomena in Waste-to-Energy Boilers](#)
- ❖ Masato Nakamura: [Mathematical and Physical Modeling of Mixing and Flow Phenomena of Municipal Solid Waste Particles on a Reverse Acting Grate](#)
- ❖ Scott M. Kaufman: [A New Screening Metric to Benchmark the Sustainability of Municipal Solid Waste Management Systems](#)



### The EEC/WTERT Awards

Every two years, EEC presents the WTERT Awards for significant contributions by individuals and organizations to Sustainable Waste Management. Among past WTERT Award winners were Martin GmbH of Germany for the dominant grate combustion technology, the ASM Brescia WTE plant in Italy, Prof. George Tchobanoglous of the University of California-Davis for his pioneering textbooks on waste management, and Prof. Paul Brunner of Vienna for his application of material flow analysis to waste and resource management. The 2010 EEC/WTERT Award will recognize the "City closest to Sustainable Waste Management".

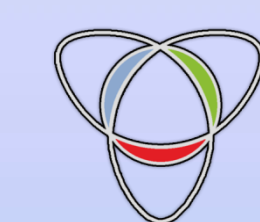
### Academic Research for Sustainable Waste Management

- [Aristotles University of Thessaloniki](#) (Prof. A. Karagiannidis)
- [Chongqing University of Science and Technology](#) ( Prof. Y.K. Tang)
- [National Technical University of Athens](#) (Prof. D. Tassios)
- [North Carolina State University](#) (Prof. M.A. Barlaz)
- [Sheffield University](#) (SUWIC-Prof. J. Swithenbank)
- [Zhejiang University](#) (Prof. K. Cen)

### Sponsors and Supporting Organizations

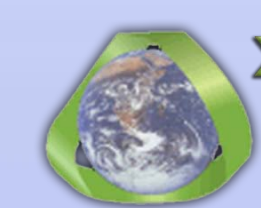
- |                                                                                                                                                                          |                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| • <a href="#">Columbia University</a> (U.S.)<br>Dept. of Earth and Environmental Engineering<br>Henry Krumb School of Mines<br>School of Engineering and Applied Science | • <a href="#">The Green Fund</a> (U.S.)                        |
| • <a href="#">Covanta Energy</a> (U.S.)                                                                                                                                  | • <a href="#">HDR Engineering</a> (U.S.)                       |
| • <a href="#">Energy Answers International</a> (U.S.)                                                                                                                    | • <a href="#">INTRAKAT, S.A.</a> (Greece)                      |
| • <a href="#">Energy Recovery Council</a> (U.S.)                                                                                                                         | • <a href="#">Martin GmbH</a> (Germany)                        |
|                                                                                                                                                                          | • <a href="#">Energy &amp; Materials Recovery, ASME</a> (U.S.) |
|                                                                                                                                                                          | • <a href="#">Waste Management Inc.</a> (U.S.)                 |
|                                                                                                                                                                          | • <a href="#">Wheelabrator Technologies Inc.</a> (U.S.)        |

### WTERT Sister Organizations



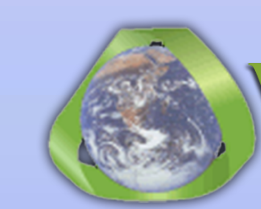
WTERT Germany  
Waste-to-Energy Research and Technology Council

[www.wtert.eu](http://www.wtert.eu)



ΣΥΝΕΡΓΕΙΑ  
WTERT  
Greece - ΕΛΛΑΣ

[www.wtert.gr](http://www.wtert.gr)



WTERT  
Canada

[www.wtert.ca](http://www.wtert.ca)



WTERT  
China

[www.wtert.cn](http://www.wtert.cn)

Earth Engineering Center (EEC): [www.eecny.org](http://www.eecny.org)

Council for Sustainable Use of Resources (SUR): [www.surcouncil.org](http://www.surcouncil.org)

Waste-to-Energy Research and Technology Council (WTERT): [www.wtert.org](http://www.wtert.org)

Combustion & Catalysis Laboratory (CCL): [www.cclabs.org](http://www.cclabs.org)