

One Day International Conference on “Role of Waste to Energy in Circular Economy: The Potential of India”

&

Two days Certificate Course on “Advancing State of the Art Sustainable Waste to Energy in Asia”



Date: November 23-25, 2016

Venue: University of Calicut,
Kerala, India

Organized by



Waste to Energy Research
and Technology India
(WTERT-India)

&

University of Calicut, Kerala, India

Supporting Organizations



National Environmental
Engineering Research Institute



Enviro Policy Research
India Pvt. Ltd. (EPRI)



Columbia University



Society for Clean
Environment SOCLEEN

Background of WTERT – India

WTERT-India was established in 2011 by Memorandum of Understanding between CSIR-National Environmental Engineering Research Institute (NEERI) and Earth Engineering Center (EEC) of Columbia University, New York and represents India in a Global WTERT-Council (GWC). The mission of GWC, of which WTERT-India is a part, is to identify the best available technologies for the treatment of various waste materials, conduct additional academic research as required and disseminate the information by means of publications through WTERT's Web page. The guiding principle of WTERT-India is to have an effective waste management system, providing cost effective solutions and assisting industries and government agencies in implementing technologies to reduce the public health impacts due to improper solid waste management, and also to increase the recovery of materials and energy from the used solids by means of recycling, composting, waste to energy and scientific land filling with landfill gas utilization. The activities include periodic meetings, brainstorming sessions, bring together industries, Government and academia and to take important decisions related to solid waste management in relation to public health and the environment.

Background of WTERT-Ind WTERT-India had organized 4 International workshops/ conferences on Waste to Energy and Municipal Solid Waste Management in India in 2012, 2013 and 2015 at Mumbai, New Delhi, & Hyderabad, respectively and recently in Surat on February 18 & 19, 2016. In these Workshops/Conferences, the challenges faced in achieving Sustainable Municipal Solid Waste Management, and implementation of Waste to Energy in India were debated.

About the Conference

WTERT-India is happy to announce next 5th International Conference on "Role of Waste to Energy in Circular Economy: The Potential of India" with a back to back Certificate Course on "Advancing State of the Art Sustainable Waste to Energy in Asia" from EEC, Columbia University. The aim of this programme is to create a special and high level event which brings together experts, scientists, researchers, policy & decision-makers, environmental consultants, and technology & service providers from Waste to Energy sector across the World to discuss about the future role and responsibilities in Waste to Energy.

In India, the solid waste is disposed off by open dumping posing environmental threat and health hazard issues. Moreover, most of the dumping sites are saturated and therefore, it will be inevitable to search for technological options which are sustainable in the long-term. The Waste-to-Energy plant can be a solution for the overgrowing problem in solid waste disposal for metropolitan cities generating larger quantity of municipal solid waste.

In India, the waste is processed without segregation, due to which most of the recyclable materials goes to dumping site, which will adversely affect the recyclable material market. Therefore, these materials are required to be segregated at source to enable the industry to economically process these recyclables and subsequently market the products. The new Solid Waste Management Rule 2016 provides segregation of waste at source and implementation of waste to energy project. This conference will derive circular economy by way of restorative and regenerative designs in waste management system, which would aim to keep the products, components and materials with higher utility and value at all times.

This conference will bring a new platform for discussion related to various issues of waste management among the experts, entrepreneurs, technology developers and waste managers of the Urban Local Bodies, researchers and academicians and will certainly have coverage on best suited and viable option for municipal solid waste management.



Themes and Objectives

- ❁ Technologies for Waste to Energy?
- ❁ Waste to Energy and Resource Efficiency
- ❁ Recycling in Waste to Energy
- ❁ Legislative Issues related to WTE
- ❁ Investment in Waste to Energy Projects
- ❁ Sustainable Solid Waste Management using WTE concepts
- ❁ Policy Framework for Circular Economy
- ❁ Feasibility of WTE Projects under Indian Context: Lesson Learned from Previous Experiences



One page abstract of the concept paper may be sent to:

Prof. Sailas Benjamin at: benjamin@uoc.ac.in; latest by August 31, 2016.

4th WTERT, Surat



2nd WTERT, New Delhi



1st WTERT, Mumbai



About the Certificate Course on :

“ADVANCING STATE OF THE ART SUSTAINABLE WASTE TO ENERGY IN ASIA”

WTERT India in collaboration with Earth Engineering Center (EEC) of Columbia University and Global WTERT Council (www.wtert.org) is organizing an interdisciplinary workshop /intensive course, focusing on cutting-edge technologies for sustainable waste management and their potential application in India and South East Asia region. The two days certificate course (plus networking social event /cocktail) evaluates the environmental benefits and impacts coupled with the economic viability of the state of the art worldwide waste treatment technologies.

Dr. Efstratios Kalogirou, Vice Chair Global WTERT Council will lead two-days intensive course.

Waste to Energy: Sustainable Waste Management: Real Case Studies

This is a unique opportunity for professionals working in the field of environment throughout the region and wishing to expand their activities in the waste management sector. The course is also addressed to governmental agencies, companies planning and executing waste management projects and researchers, university students, as well as anyone wishing to deepen their understanding in this field.

Registrants will receive a Certificate of completing course requirements satisfactorily by the Earth Engineering Center (EEC) of Columbia University. The EEC is recognized by the New York State Education Department (NYSED) for issuing Continuing Education Credits. Registrants may receive up to 14 credits depending on their attendance and participation in this intensive course.

When : November 24-25, 2016

Where: University of Calicut, Kerala, India

Credits: This is an EEC technical program, attendance is recognized by NYSED or up to 14 Continuing Education Credits.

Duration: 16 Total Course Hours

Program Prerequisites : Classes and handouts are in English. Participants must distance themselves from their professional responsibilities for the duration of the program

Topics and Benefits

This Workshop led by *Dr. Efstratios Kalogirou*, offers unique Participation Benefits for Professional Development.

- ⊕ Quality workshop in state of the art worldwide waste management practices, environmental policy, and engineering
- ⊕ Learn from the best under the auspices of the Earth Engineering Center; Columbia University and WTERT
- ⊕ Network with international experts and colleagues in a growing market for the region, in the surroundings of a highly cultural scenery
- ⊕ B2B meetings/networking

Who Should Participate ?

Organizations	Types
Business Sector	CEOs, Executives, Managers, Policy Makers, Financial Institutions (Banks), Mayors & Consultants, Environmental Services Companies, Equipment Manufacturers, Process Technologists, Waste Managers, Recovery and Recycling Agents, Engineering Sector, Energy Companies, Environmental Education Companies, Engineers
Public Administrations	Public Administrations: European, National, Regional, Local Governmental Officials, e.g., Waste Management Associations and Authorities, Public Power Corporation.
Foundations & Centers of Innovation & Technology	Foundations engaged in Research, Development and Investment in Waste Management, R & D Departments
Universities and Research Centers	Environmental Research Groups in General and Waste Management in Particular, Universities and Academic Research Centres, General Pre and Post-Graduate University Students, MSc, Ph. D candidates.
NGOs with Environmental Responsibilities	Non-profit Organizations dedicated to Promotion and Development of Initiatives in the Field of Waste Management.

Participation Benefits

- ⚡ Conference will provide an opportunity of networking with companies, experts and public sectors within Waste to Energy industry.
- ⚡ The conference also incorporates intensive course focusing on technologies for sustainable waste Management, knowledge sharing and interesting discussions among the participants.
- ⚡ Collaboration and knowledge sharing between the national & international organizations.
- ⚡ Opportunities in Waste to Energy sectors for developers and investors

Sponsorship Details

Type	USD (INR)	Benefit
Platinum Sponsor	USD 15,000 or INR.10,00,000	10 free registration and also for certificate course & slot for Presentation /case study /B2B (40 minutes) for their dynamic clients, promotion in all materials, and logo on the Columbia University Certificate.
Gold Sponsor	USD 10,000 or INR. 6,00,000	6 free registration for conference and certificate course, 1 slot for Presentation/case study (15 minutes), Promotion in all the materials.
Silver Sponsor	USD 5,000 or INR. 3,50,000	3 free registration for conference and certificate course & 1 slot video presentation / case study/ B2B (5 minutes) for their dynamic clients
Supportive sponsors	USD 1,000-2,000 or INR.50,000-1,00,000	Logo in banner & hoarding

Research Award

A research award of Rs.5,00,000/- will be awarded to best researcher in the field of Solid Waste Management and the certificate for best researcher award will be issued by Columbia University USA. Interested researchers/academicians may send their CV to WTERT India office latest by 31st August 2016 and email on info@wtert.in. A high level jury will scrutinize the application and the final selection will be made by WTERT India and Global WTERT Council, USA.

Registration Fee

Type	Only Conference	Only Certificate Course	Both Conference and Certificate course
Delegates	USD 500 or INR. 5000	USD 250 or INR. 5000	USD 650 or INR. 8000
Students and Alumni	USD 100 or INR. 2000	USD 100 or INR. 2000	USD 150 or INR. 2500

Note: INR is applicable for Indian delegates who are residing in India

*All the payment to be made in the favour of WTERT, India payable at Mumbai, India. Overseas participants can make payment at the spot.

*Information for Countries requiring VISA to visit India can be gathered from the following link: <http://goindia.about.com/od/planningyourtrip/a/indianvisa.htm>

Address for Correspondence

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Maharashtra, India. Phone: +91-22-65616261; +91-22-25450211;
Website: www.wtert.in; Email: info@wtert.in

Conference Chairman: Dr. K. Mohammed Basheer,

Hon'ble Vice Chancellor, University of Calicut, Kerala (India)

Conference Co-Chairman: Mr. D. M. Shrotiya, President, WTERT India

International Advisory Board

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Prof. Qunxing Huang	WTERT-China a) Institute of Thermal Power Engineering (ITPE), Zhejiang University, Hangzhou, China
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**Organizing
Committee**

Prof. Sailas Benjamin, Convener (University of Calicut) &

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Mr. Vijay Chaudhari

Mr. D. M. Shrotiya

Ms. Geetanjali Pawar

Mr. Shiwaji Sawant

Er. K Sreenivasa Rao

WTERT – Global Partners



WTERT Italy

Key Experts for Certificate Course



**Emeritus
Professor
Nikolaos J.
Themelis**

**Director,
Earth
Engineering
Center,
Columbia
University,
New York**

Dr. Themelis obtained his B. Eng. (British Association Medal for Great Distinction) and Ph.D. degrees from McGill University (Montreal, Canada) in chemical engineering. In the first ten years of his career, he was Director of the Engineering Division of the Noranda Research Center in Pointe Claire and between 1972-1980, was Vice President of Technology of Kennecott Corp. He was appointed as Professor by Columbia University (New York City, U.S.A.) in 1980 and was elected to Stanley-Thompson Chair of Chemical Metallurgy in 1988. He was chairman of the Henry Krumb School of Mines and founded Columbia's Earth Engineering Center in 1996 (www.eecny.org). He is a member of the U.S. National Academy of Engineering, member of the New York Academy of Sciences. In 1995, he introduced at Columbia University the teaching of industrial ecology to engineers and in 1997 led the transformation of the historic School of Mines to the new engineering discipline of Earth and Environmental Engineering and was first chairman of the new Department. (www.eee.columbia.edu). He is a founder and Chairman of the Waste to Energy Research and Technology Council (WTERT, www.wtert.org). He is an author of over 250 technical papers and four books, and inventor of twenty one patents related to high temperature processing of minerals and materials.



**Dr. Efstratios
Kalogirou**

**Vice Chair
Global
WTERT, USA**

Dr. Efstratios Kalogirou is the Vice Chair of Global WTERT Council (<http://global.wtert.org/>) and also a member of the Board in WTERT/USA in Earth Engineering Center of Columbia University (www.wtert.org). He has a Ph.D. at the National Technical University of Athens, School of Chemical Engineering. He is a worldwide Expert in Waste Management, specialized in state of the art WTE novel technologies. His scientific fields include energy from waste, potable water resources and ozone sterilization technologies in Earth Engineering Center of Columbia University, New York (in cooperation with Professor Themelis). He is involved in many environmental projects worldwide (feasibility studies, preliminary studies, etc.). He is an author in many scientific and technical papers, especially in WTE and coordinates worldwide intensive courses/ seminars on advancing state of the art sustainable waste management and Waste to Energy as a Renewable Energy Source contributing to Green Development and Carbon Credits, in close cooperation with the policy makers.

