

**The EWD Steering Committee  
consists of representatives  
from the following Southwest  
Michigan Engineering Societies:**

American Institute of  
Chemical Engineers

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American Society of  
Civil Engineers

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American Society of  
Mechanical Engineers

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American Society of  
Plumbing Engineers

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Association for  
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Institute of Electrical and  
Electronics Engineers

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Institute of  
Industrial Engineers

•

Michigan Society of  
Professional Engineers

•

Society of  
Automotive Engineers

•

Society of  
Manufacturing Engineers

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Society of  
Plastics Engineers

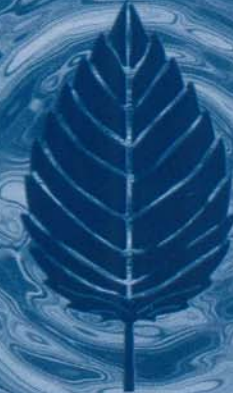


Engineers Week Dinner  
College of Engineering and Applied Sciences  
Western Michigan University  
Kalamazoo, MI 49008-5314



**ENGINEERS**  
Turning Ideas  
Into Reality.

the  
Living  
Machine



**NATIONAL ENGINEERS WEEK**  
February 22-28, 2004

# The Twenty-fifth Annual Engineers Week Dinner

Thursday, February 26, 2004

## THE LIVING MACHINE

### Ecologically Engineered Systems

The public has a big stake in the entire wastewater treatment industry to protect the environment and public health and to provide new water to relieve demand on potable water supplies. When the treatment is "over yonder" in a centralized facility, that stake is of little concern to the average citizen.

Natural, or ecologically engineered, treatment systems are a publicly acceptable alternative to centralized treatment plants. These systems have been used to treat wastewater sources ranging from one home, to institutional campuses, to systems treating a few million gallons of water per day. Living Machine® Systems are advanced ecologically engineered designs capable of biologically removing nitrogen to meet groundwater protection discharge standards. They are best viewed within the context of an emerging industry of ecologically engineered technologies. These advanced technologies integrate a variety of sophisticated biological treatment methods such as moving bed bioreactors, aerated basins covered with plants, aerated wetlands, vertical flow wetlands, and large tertiary treatment wetlands.

These natural treatment systems hide wastewater treatment in plain view, allowing decentralized treatment and local distribution of new water for irrigation and other non-potable needs. Whether in a greenhouse or an outdoor facility integrated into the landscape, people see an intrinsically beautiful installation of plants. Plants also make hiding the unavoidable industrial elements of design a straightforward process. Odors are controlled by biofilters or activated carbon filters. With both the eye pleased and nose unoffended, people accept and can even enjoy a wastewater treatment facility in the neighborhood.

## Guest Speaker



David Austin is the Director of Research and Development at Living Machines, Inc. in Taos, New Mexico. He has been working professionally with advanced ecologically engineered wastewater treatment systems since 1996. He is the author of several technical articles on ecologically

engineered wastewater treatment systems and patents pending for wastewater treatment.

Mr. Austin is a Registered Professional Engineer and Licensed Advanced Small Systems Operator in New Mexico. He is also a Certified Ecologist from the Ecological Society of America. Mr. Austin holds an M.S. in Civil and Environmental Engineering from UC-Davis, an M.S. in Water Resources Management from UW-Madison and a B.A. in Mathematics from UMinn-Twin Cities.

**When:** Thursday, February 26, 2004

**Schedule:** A cash bar will be available during the 5:30 p.m. social hour. Dinner will be served at 6:30 p.m., followed by the program at 7:30 p.m. featuring speaker David Austin.

**Location:** The dinner is held in the main ballroom at the Radisson Hotel at 100 W. Michigan Avenue in downtown Kalamazoo.

**Parking:** Parking is available in the hotel parking ramp. The cost is included with dinner. Parking validation will be provided at the registration desk.

[www.SPEwestmichigan.org/engineersweek](http://www.SPEwestmichigan.org/engineersweek)

**Reservations:** Only those with reservations paid in advance will be served. Reservations and payment must be received by February 9. Return this form with payment to:

Engineers Week Dinner  
College of Engineering & Applied Sciences  
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Kalamazoo, MI 49008-5314

**Cost:** Cost of the evening is \$29 for professionals/teachers and \$15 for students. Spouses and guests are welcome (professional rate).

**Please reserve the following:**

Company \_\_\_\_\_

Address \_\_\_\_\_

Professional or Guest \_\_\_\_\_@ \$29 \_\_\_\_\_

Engineering Student \_\_\_\_\_@ \$15 \_\_\_\_\_

Total Enclosed \$ \_\_\_\_\_

Check enclosed made payable to:  
Engineers Week Dinner

Charge fee to (circle one):   

Account # \_\_\_\_\_

Exp. date \_\_\_\_\_

Signature \_\_\_\_\_

**Clearly print your name as you want it to appear on the name tag. Indicate if a vegetarian meal is required.**

Name \_\_\_\_\_

Phone (w) \_\_\_\_\_

Professional/Guest     Student     Veg. Meal

Name \_\_\_\_\_

Phone (w) \_\_\_\_\_

Professional/Guest     Student     Veg. Meal

Name \_\_\_\_\_

Phone (w) \_\_\_\_\_

Professional/Guest     Student     Veg. Meal