



American Society of Mechanical Engineers - Fox Valley Section

**Potential of Alternative Energies
In Our Energy Future**

**Dr. Romesh Kumar
Senior Chemical Engineer
Argonne National Laboratory**

**NIU – Naperville Campus, Naperville, IL
Wednesday, February 18, 2009**

At present, the U. S. depends on fossil fuels to meet approximately 85% of its energy requirements (nuclear and renewables provide the balance). While we are self sufficient in coal, we are importing increasing amounts of oil and natural gas. Alternative (sustainable) energies are being discussed as viable options that can reduce our energy imports significantly, while also reducing greenhouse gas emissions to meet future climate change obligations. Theoretically, renewable energy has the potential to meet all of our energy needs. In practice, however, solar and wind energy currently account for less than one-half of one percent of our total energy consumption. This talk will provide an overview of the potential of renewable energies, and challenges to harnessing them to meet our daily energy requirements.

Dr. Romesh Kumar is a Senior Chemical Engineer in the Chemical Sciences and Engineering Division of Argonne National Laboratory near Chicago. He received his B.Sc. in Chemical Engineering from Panjab University in India, and M.S. and Ph.D. in Chemical Engineering from the University of California, Berkeley. In his research career at Argonne, he has been involved in advanced nuclear reactor safety analyses, atmospheric chemistry of acid rain and dry acid deposition, and, most recently, hydrogen and fuel cells for clean, efficient power production for automotive applications, as well as for stationary and portable power applications.

LOCATION AND DIRECTIONS:

NIU-Naperville

1120 E. Diehl Rd.
Naperville, IL 60563
Room 161

<http://www.niu.edu/regional/naperville.shtml>

From I-88, exit Naperville Road going south. Turn right onto Diehl Road. Turn left on Centre Point Circle and then left into the NIU parking lot, which is behind the building. Parking is free; no permits are needed.



SCHEDULE: 5:30 to 6:30PM Registration and Social Hour
6:30 PM Buffet Dinner and Presentation to Follow

MEAL/COST: Catered Buffet or Vegetarian dinner.

\$10.00 ASME Members

\$20.00 Guests

\$5.00 Students

Pay for meals at the door, by check or cash

RESERVATIONS:

Send e-mail to mmurray@packereng.com with the subject 'ASME Meeting' and include your name, phone number, ASME membership number, company name, address and entrée choice (Buffet or Vegetarian). Also include the names, contact information, and entrée choice (Buffet or Vegetarian) for any guests. If you do not have e-mail access, call (630) 505-5722 ext 1948, and leave a message stating this is a reservation for the ASME Meeting on February 18 and include the above information.

DEADLINE:

5 PM on Friday, Feb. 13, 2009. Please cancel if your plans change.

National Engineers' Week

The Fox Valley Section will again host a booth at the DuPage Engineers Week Expo on Saturday, February 21 from 11:00 am to 3:30 pm held at the IIT Rice Campus, 201 East Loop Drive, Wheaton, Illinois. This has for several years been a hands-on demonstration of Bernoulli's Principle. However, the Executive Committee feels that it is time present a few new ideas at our booth – likely focusing on "mechanical advantage." If you can participate and assist at our booth it will be appreciated. This program is aimed at Elementary and Junior high school aged children so you should plan to bring your kids or grandkids even if you can't work at our booth.

Section Participation

We always welcome and need your input on FVS programs and section activities. Please feel free to contact us with your suggestions, comments, and concerns about the same. We look forward to your ideas and participation. Also, we are looking for volunteers who can help us with various programs and activities. Please call any of the section officers for additional information.