ASME
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Hudson Mohawk Section

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Newsletter

November 2004

ASME Distinguished Lecturer

Dr. Ramesh K. Shah
Rochester Institute of Technology

Fuel Cell Technology – A Myth or Reality?

Thursday, November 18th

6 PM Social Time and Buffet Dinner
7.45 PM Speaker

Hudson Valley Community College
McDonough Sports Complex
2nd Floor Conference Room (#202)

To reserve your spot, contact Fred Willett
(willettf1@asme.org or (518) 347-0271) by 5 PM November 17th.

Each year, the ASME Distinguished Lecturers Program Committee selects lecturers to make presentations to Sections during the 2004-2005 program year. Demand for distinguished lecturers is high, but our section has worked to host a distinguished lecturer every year. This year, we are pleased to host Dr. Shah, who will speak on a topic of great interest to our section membership.

Abstract:

The fuel cell technology is an emerging technology for electric power generation for stationary, mobile and portable applications. Replacement of fossil fuel based power with fuel cell power for stationary and mobile applications can make a significant impact on efficiency improvement for power generation and reducing emissions. There are no moving parts in a fuel cell reducing noise pollution as well as increasing reliability. Fuel cell energy conversion efficiency is practically independent of the power plant size and increases at part load operating conditions. A variety of bio-fuels from renewable energy sources and chemical intermediates can be used in fuel cells in addition to conventional fossil fuels by fuel reforming processes as appropriate for the specific types of fuel cells, thus reducing the fossil fuel dependency in future as the fuel cell technology matures.

While tremendous technological progress has been made in the last 10 years, it is going to take another 10 years for considerable penetration of power generation by fuel cell systems. Starting with the basic operation of a fuel cell, current state of technology will be summarized for stationary, mobile and portable power generation. This will include the basic operation of a few important fuel cells (proton exchange membrane, solid oxide and direct methanol fuel cells) as well as the current state of technology. Major challenges will be summarized with these fuel cells to make commercially viable for portable, automotive and stationary power generation applications.

Speaker's Bio:

Dr. Ramesh K. Shah is a Research Professor at Rochester Institute of Technology. Dr. Shaw received his B.E. from Gujarat University, India, and M.S., Engineer, and Ph.D. degrees from Stanford University. Active in the ASME at local and national levels, he is the Past Chairman of the Heat Transfer Division, a former Technical Editor of Journal of Heat Transfer and the Past Vice President of the ASME Board on Communications. He is Co-Founder and former Editor-in-Chief of an international journal: Experimental Thermal and Fluid Science. He is a member of the honorary Editorial Advisory Board of seven International Journals. He has been Co-Founder and the President of the Assembly of World Conferences on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics. He has also been the President of Niagara Frontier Association of R&D Directors. He has taught short courses and presented keynote lectures/seminars at various universities and research institutes in 32 countries worldwide. He has published over 100 papers and 19 books/edited volumes, including a textbook on Fundamentals of Heat Exchanger Design published recently by John Wiley.

Dr. Shah is a Fellow of the ASME and SAE. He received a Technical Achievement Award from Region III of ASME in 1979, Outstanding Achievement Award from GM in 1986, Valued Service Awards from ASME in 1986, 1987 and 1991, 50th Anniversary Award of ASME Heat Transfer Division in 1988, Charles Russ Richards Memorial Award bestowed in 1989 jointly by Pi Tau Sigma and ASME, and ASME Heat Transfer Memorial Award, the highest award in heat transfer

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by the ASME, in 2000. He has been appointed as an Honorary Professor in four universities.

Place:

McDonough Sports Complex
2nd Floor Conference Room (#202)
Hudson Valley Community College
Troy, NY

Agenda:
Social time and buffet dinner 6 PM - 7:30 PM
Speaker 7:45 PM

Buffet Menu:

- Antipasto Salad
- Garlic Bread
- Sliced Melon with Berries and Grapes
- Pasta Alfredo
- Chicken Parmigiana
- Cannoli, Cookies, or Tiramisu
- Coffee or Soda

$15 for members and their guests
$20 for non-members
$8 for students

Directions:

From the North: The Hudson Valley campus is minutes from exit 7 of the Northway (I-87). Follow Rte. 7 East approximately 1.5 miles to I-787 South. Take I-787 South to Rte. 378 East. Over bridge bear right to Rte. 4 south and continue for 1 mile to the campus on your left.

From the South: Take Exit 23 off I-87 (NYS Thruway). Follow I-787 North 6 miles to the exit for Rte. 378 East and follow as above.

From the East: Take Exit B-1 of the Massachusetts Turnpike and follow I-90 approximately 9 miles to Exit 8. Turn left off ramp to Route 4. Campus is 5 miles ahead on the right.

From the West: Take Exit 24 off I-90 (NYS Thruway), continue on I-90 East 6 miles to I-787 North (Troy). Follow I-787 as above.

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Distribution of Section Newsletter

The Hudson Mohawk newsletter is posted at: www.asme.org/sections/hudson-mohawk.

Once each newsletter is posted on the Section's web page, an e-mail notification and link to the above website is sent to members who have e-mail addresses in the ASME member database. If you are an active member of ASME and did not receive an e-mail notification, please go to the ASME web site and update your membership information. http://members.asme.org/myasme/login/myasme.cfm