



April 2011
OUR 91st YEAR AS A CHAPTER

The Link Newsletter

www.nd-asm.org

Tech Seminar Canceled!

Unfortunately due to not enough interest in the seminar, the Technical Seminar had to be cancelled for this year.

It is Scholarship Time!

It is time to submit scholarship applications for the year. If you know a student or a parent of a student in college, please have them apply for this scholarship.

Are you being published? Have you been promoted? Are you retiring? Does your company have a job opening? Do you have announcements you would like to share with ASM-ND Chapter? If so, please e-mail me so we can put it in the LINK! Contact Tim Conrad at tlconrad@gmail.com.

The members of the Executive Board want to hear from you! What meeting topics would interest you? Is there a plant tour you or someone else would like to give? Is there a topic you are an expert on and would like to share your knowledge with the other chapter members? Let us know! We are always open to ideas from our members. Contact Tim Conrad at tlconrad@gmail.com.

Tour of the Laboratory for Enhanced Wind Energy Design

Presented by: Thomas Corke, PhD.

Tuesday April 19, 2010 White Field – University of Notre Dame

Wind energy is playing an ever increasing world-wide role as a renewable energy source. Countries such as Spain, Germany, and Denmark are close to matching their goal of generating 30% of their electric power need from wind energy. The United States recently became the world leader in the amount of electric energy generated from wind power, although that is only 1.7% of the total U.S. electric power demand. With this growing world-wide demand for wind energy, it is important to note that the present technology is far from optimized. Because of its intermittent nature, wind energy presents significant challenges before becoming a completely reliable utility. To address such challenges a “Laboratory for Enhanced Wind Energy Design (eWiNd)” has been established as part of FlowPAC. The mission of this laboratory is to apply flow control technology to wind turbines to enhance their performance and reliability as a renewable energy source. The tour and presentation will examine the issues where flow control can be a benefit, and consider a case study of a modern wind turbine where strategic lift control has the potential to increase the energy capture by as much as 20%.

Thomas Corke, PhD. joined the University of Notre Dame in 1999 and is the Clark Chair Professor of Engineering. He is the Founding Director of the Notre Dame Center for Flow Physics and Control (FlowPAC), and the Director of the Notre Dame Hessert Laboratory for Aerospace Research. His research experience is unusually diverse. It ranges from hydrodynamic stability and transition to turbulence, to fully turbulent flows.

Date/Time: Tuesday, April 19
6:00 PM

At White Field, University of Notre Dame

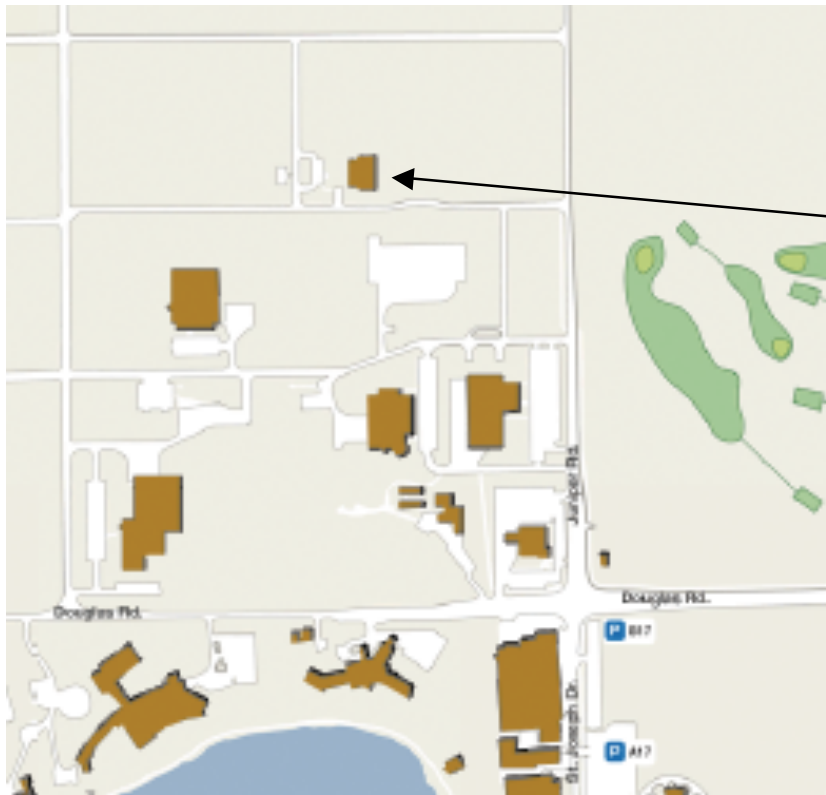
Dinner after the presentation at: Hacienda
3903 Portage Avenue – Suite H
South Bend, IN 46628

You will be paying for your own dinner (around \$12)

Please RSVP via the Google Invite you received by email or email Tim Conrad at tlconrad@gmail.com.

Past and Future Meetings

21 September	“Materials Issues in Commercial Aircraft Wheels and Brakes” presented by Randy Griffith
19 October	Tour of Nimet Industries by Steve Greeve
17 November	“Shot Peening, and Shot Peening with Fine Media for Surface Modification of Medical Devices” presented by Jack Champagne, Warsaw, IN
December	No Meeting
18 January	“Tech Session for Investing” presented by James Ruthrauff, South Bend, IN
February	Engineers Week
March	“Hydroxyapatite Reinforced Polymers for Bone Substitutes” presented by Tim Conrad Warsaw, IN
April	Tour of the Laboratory For Enhanced Wind Energy Design by Dr. Thomas Corke
May	Social Event



The location of the Facilities at White Field, University of Notre Dame

Directions to White Field – University of Notre Dame

Take IN 933 (Business 31) to Douglas Road. Turn east onto Douglas Road. Travel east on Douglas Road until you arrive at the first stop light. At the stop light turn left **onto** Juniper Road. Take the 5th left (if you pass Pendle Road you have gone two roads too far). Then take the second right to enter the parking lot to the wind tunnel facilities at White Field. For a interactive map please visit: <http://map.nd.edu> .

LABORATORY FOR ENHANCED WIND ENERGY DESIGN
(eWiND)
THOMAS CORKE

University of Notre Dame
Institute for Flow Physics and Control
Hessert Laboratories for Aerospace Research
Notre Dame, IN 46556

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Horns Rev off-shore wind farm in Denmark captured by a helicopter pilot (see e.g. Sørensen 2011).