

Prognostics and Health Management & Structural Health Monitoring

January 31 - February 2, 2012
St. Petersburg, Florida

A Practical Course on Designing, Developing, and Implementing
Automated Health Management Systems

OVERVIEW

This unique PHM/SHM training event is an Instructional Course consisting of presentations and discussions that focus on the design, development, implementation, and evaluation of Prognostics and Health Management (PHM) and Structural Health Monitoring (SHM) technologies.

The Course sessions will describe and demonstrate some of the leading PHM/SHM technologies currently being implemented in various health monitoring systems applications. In addition, the important concepts associated with verifying and validating these technologies using relevant performance metrics specifically tied to failure mode detection, fault isolation, and prediction requirements will also be covered. The application sessions at the end of each day will provide practical insight into how organizations are currently deploying PHM/SHM systems. These experiences may range from newly designed or legacy experiences in aircraft, other mobility applications, and land-based equipment.

WHO SHOULD ATTEND

Both end users and developers of PHM/SHM systems including: Controls/Diagnostic Engineers, Engineering Supervisors, Operator/Maintainers, and Program Managers.

COURSE PARTICIPANTS

All attendees of the Course will receive a certificate documenting their participation in this leading-edge PHM/SHM event. Example implementations and application focused presentations are planned throughout the course in the areas of legacy systems applications, new acquisition platform implementation, and continuing challenge areas for PHM. Participants will gain valuable insight into practical case studies and benefit from specific guidance and suggestions from the course instructors and attendees. Course attendees will also have an opportunity to discuss their specific PHM/SHM application needs and receive valuable feedback. Finally, the PHM/SHM course is an excellent opportunity to meet and network with other PHM/SHM professionals to discuss similar design, development or implementation issues often encountered in projects of all sizes.

COURSE OUTLINE

Format: 4-5 sessions per day
Duration: 8:00 a.m. - 4:30 p.m.

Day 1: Tuesday, January 31, 2012

- Session 1:** Introduction to the PHM/CBM Design Process
- Session 2:** Requirements, Metrics, and Cost Benefit Analysis
- Session 3:** Extending FMECA and PHM/CBM Design Modeling Process
- Session 4:** Dynamic Modeling and Simulation-based PHM Design
- Session 5:** Fault Detection and Isolation Approaches

**Casual Networking Cocktail Reception 6 - 8 p.m.
open to all participants.*

Day 2: Wednesday, February 1, 2012

- Session 6:** Recent Advances in PHM/SHM Approaches
- Session 7:** Example Applications and Case Studies
- Session 8:** PHM/CBM Reasoning Methods and Examples
- Session 9:** Prognostic Algorithm Approaches and Examples
- Session 10:** Example Applications/Case Studies

Day 3: Thursday, February 2, 2012 (Half Day)

- Session 11:** PHM Metrics for Fault Detection, Diagnosis and Prognosis
- Session 12:** PHM/SHM Verification and Validation (V&V) Methods
- Session 13:** Open Discussion

Continental Breakfast and Lunch will be provided each day to all attendees along with a mid-morning and afternoon beverage break.

This Course is an
Impact Technologies
sponsored event



COST

The cost to attend the course is \$1,750 per participant. All participants receive a complete set of the slide presentations with specific PHM examples and case studies, selected reference lists and resources in electronic format, and a participant certificate.

For questions regarding registration please contact Jeannie Holmes at (585) 424-1990 ext. 122. Workshop attire is casual.

INSTRUCTORS

Dr. Michael J. Roemer, *Director of Engineering*
Impact Technologies, LLC

Carl S. Byington, P. E., *Director, Systems Engineering*
Impact Technologies, LLC

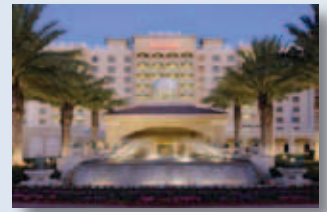
Dr. George Vachtsevanos, *Professor Electrical & Comp. Engineering*, Georgia Institute of Technology/Chief Scientist,
Impact Technologies, LLC

Avinash Sarlashkar, *Director of Technology*
Impact Technologies, LLC

Gregory J. Kacprzyński, *Director, Engineering Services*
Impact Technologies, LLC

COURSE LOCATION & ACCOMMODATIONS

The Course will be held at the St. Petersburg Hilton Carillon Park in St. Petersburg, Florida. Nestled lake front on beautiful Carillon Nature Preserve, the award-winning hotel is centrally located in the Tampa Bay Area for your convenience. Just five minutes from St. Petersburg/Clearwater International Airport and 15 minutes from Tampa International Airport, the hotel is an ideal destination for business and leisure travel alike.



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Hilton Carillon Park
950 Lake Carillon Drive
St. Petersburg, FL 33716
Reservations:
1-727-540-0050
<http://www.hilton.com>

A limited number of rooms have been reserved for participants at a discounted rate of **\$129 per night**. To guarantee you receive this discounted rate, reservations must be made by **December 30, 2011**. *Discounted rate will be offered, based on availability, to attendees 3 days before and 3 days after course dates.*

Please refer to the Impact Technologies Group when booking your reservation.
Note: Travel Agents booking rooms that do not refer to the Impact Technologies Group will be charged a higher room rate.

REGISTRATION FORM

Name _____

Title _____

Company _____

Street _____

P.O. Box _____

City _____ State _____ Zip _____

Telephone _____ Fax _____

E-mail _____

Registration Fee: \$1,750*

Payment is in the Mail Please Invoice against P.O. Number: _____

Please charge registration fee to my credit card:

Visa Mastercard American Express Discover

Number: _____ Expiration Date: _____

3 or 4 Digit Security Code (Located on the Back of Credit Card) _____

Name on Card _____

Billing Address on Card (If Different than Above) _____

Authorized Signature: _____

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Return via fax or email to:

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