

**Call for Papers**  
**Call for Tutorials**  
**Call for Data Challenge**  
**Call for Panel Sessions**  
**Call for Technology Demonstrations**  
**Call for Doctoral Symposium Applications**

Oct 3-5, 2017  
Hilton St. Petersburg  
Bayfront, St.  
Petersburg, Florida,  
USA

## IMPORTANT DATES

### Key Paper Dates:

Abstract Submission  
Due

- April 21, 2017

Paper Submission Due

- May 19, 2017

Paper Review

Feedback

- July 14, 2017

Final Papers Due

- August 04, 2017

### Key Submission

#### Dates:

Doctoral Symposium

- May 08, 2017

Technology Demos

- June 9, 2017

## CONFERENCE

## MANAGEMENT TEAM

### Conference Chairs

David Larsen

*UTC Aerospace Systems*

Peter Beling

*University of Virginia*

### Conference Advisor

Karl Reichard

*Penn State University*

## 8<sup>th</sup> Annual Conference of the Prognostics and Health Management Society October 3-5, 2017

**PHM Short Course: October 1–2, 2017**

**Doctoral Symposium: October 2, 2017**

<http://www.phmsociety.org/events/conference/phm/17>

This Ninth Annual Conference of the PHM Society will bring together the global community of PHM experts from industry, academia, and government in diverse application areas such as energy, aerospace, transportation, automotive, and industrial automation. In addition to technical paper sessions, the conference will also feature workshops, town hall meetings, hands-on demonstrations, panel sessions, a dedicated session on fielded systems, a doctoral symposium, and tutorials free to all registrants. A PHM data analysis competition will be carried out in parallel and the results will be presented during the conference. Leading companies and research institutions will exhibit their products and demonstrate their technologies during the event. Several social events will provide opportunities for participants to connect with colleagues. The PHM Society will also offer a separate, dedicated short course focused on fundamental PHM concepts and techniques before the start of the main conference.

A major differentiator for the PHM Society is its modern approach toward intellectual property rights. Authors retain copyright in their work while allowing the PHM Society to distribute their work through a Creative Commons License. As

**Sponsorship**

Pat Kalgren

*Singularity*

Carl Byington

*Impact Technologies*

Jeff Bird

*TECnos*

**Keynote/Luminaries**

Andy Hess

*Hess PHM Group*

Karl Reichard

*Penn State University*

Ramasamy

Poongavanam

*UTC Aerospace*

*Systems*

**Technical Program**

Chair: Matthew Daigle

*NASA*

**Proceedings**

Anibal Bregon

*University of Valladolid*

**Panel Sessions**

Chair: Brian Weiss

*NIST*

**PHM Data Challenge**

Justinian Rosca

*Siemens*

**Tutorials**

George Vachtsevanos

*Georgia Tech*

Kai Goebel

*NASA Ames*

a result, all articles published by the PHM Society are available to the global PHM community via the internet for free and without any restrictions.

**CALL FOR PAPERS**

Prospective authors are invited to contribute full length, original, high-quality papers. The topics suggested by the conference can be categorized as analysis methods, asset-specific algorithms, prototype implementations, fielded systems, and business case analysis. Both research and industry contributions are welcomed. Submitted papers will be reviewed by experts based on the criteria of content, significance, technical validity, innovation, writing style, accuracy, clarity, simplicity and readability. For more information, please contact [Matthew Daigle](#).

**Topics of Interest:**

- Advanced Sensing & Embedded Devices
- Adaptive Control & Fault Accommodation
- Autonomous Systems / Robotic Technologies
- CBM Return on Investment & Business Case Analysis
- Cloud-scale Analytics
- Corrosion
- Data Driven Approaches
- Decision Support Systems
- Detection, Diagnostics & Prognostics Methods
- Human-centric PHM
- Marine, Automotive, Aviation Applications
- Mining Applications
- Oil & Gas
- Physics of Failure & Model Based Prediction
- Smart Grid
- Smart Manufacturing
- Standards, Metrics, and V&V
- Wind Energy

***Please Note: No extensions will be provided for the submission deadline. Authors will be required to submit their papers by the deadline to allow enough time for the review process.***

**CALL FOR PANEL SESSION SPEAKERS**

**Short Course**

Neil Eklund  
*Schlumberger*  
George Vachtsevanos  
*Georgia Tech*  
Jeff Bird  
*TECnos*

**Technology Demonstrations**

Jim Larkin  
*Aerojet Rocketdyne*

**Poster Session**

Chair: George Gorospe  
*NASA*  
Bin Zhang  
*University of South Carolina*

**Conference Career Fair**

Abbas Chokor  
*Arizona State University*

**Education & Professional Development**

Jeff Bird  
*TECnos*  
Karl Reichard  
*Penn State University*

**SWE Outreach**

Angie Patterson  
*GE Analytics*  
Brinda Thomas  
*Tesla Motors*

Prospective panelists are invited to contribute to a panel discussion with other speakers who have expertise in a specific topic. Each panelist will provide remarks for 10-15 minutes and then participate in a Q&A session with the audience. Ideas for new panels are also welcome. For more information, please contact [Brian Weiss](#).

**Topics of Interest:**

- Automotive
- Applications
- Cybersecurity for PHM/PHM for Cybersecurity
- Data Analytics
- Electric Grid PHM
- Fielded Systems
- Human Assets
- Education
- PHM for Medical Devices
- PHM for Cyber-Physical Systems
- Maritime PHM
- Railway Sensing Technologies and Data Collection Approaches for PHM
- Smart Manufacturing
- Standards for PHM
- Wind Energy

**CALL FOR PHM DATA CHALLENGE PARTICIPANTS**

The PHM Society invites participants to compete in a data challenge to find the best solution to a PHM-related problem. Collaboration is encouraged. The top scoring teams will be invited to present their solution at the conference. For more information, please contact [Justinian Rosca](#).

**CALL FOR TUTORIALS**

The PHM 2017 Conference tutorials should provide a comprehensive introduction to the state-of-the-art in the tutorial's topic. Proposed tutorials must address the interests of a varied audience: beginners, developers, designers, researchers, practitioners, and decision makers who wish to learn a given aspect of prognostic health management. For more information, please contact [George Vachtsevanos](#) and

**University Outreach**  
George Vachtsevanos  
*Georgia Tech*

**Doctoral Symposium**  
Jamie Coble  
*University of Tennessee*

**Student Activities**  
Abbas Chokor  
*Arizona State University*

**Special Session**  
Greg Bower  
*QorTek*

**SAE Liaison**  
Rhonda Walthall  
*UTC Aerospace Systems*

**Conference Materials**  
Scott Clements  
*Lockheed Martin*

**Conference Finances**  
Karl Reichard  
*Penn State University*

**Website Development**  
Scott Clements  
*Lockheed Martin*

**Publicity**  
Rhonda Walthall  
*UTC Aerospace Systems*

[Kai Goebel](#).

**Topics of Interest:**

- Asset Health Management
- CBM Policies
- Cost-Benefit Analysis
- Diagnosis and Fault Isolation Methods
- Life Cycle and Risk Management Methodologies
- PHM System Design and Engineering
- Standards and Methodologies

**CALL FOR TECHNOLOGY DEMONSTRATIONS**

The PHM Society invites participants to show off their diagnostic and prognostic engineering approaches through PHM technology demonstrations. The concept of the demonstrations is to offer a true “hands-on” learning experience for attendees. Multiple demonstrations will be given as brief tutorials to small groups over a two-day period. Each demo will last for approximately 30 minutes, where attendees will be encouraged to actively participate. For more information, please contact [Jim Larkin](#).

**Topics of Interest:**

- Certification and Validation Techniques for Health Management Applications
- Fielded Prognostic or Advanced Diagnostic Systems
- Innovative System Maintenance Approaches
- Rapid Aging Testing and Analysis Techniques
- Sensors and Sensor Integration for PHM
- System Identification Processes to Support PHM Goals

***Please Note: Demonstration hardware, concepts, material, data, etc., must be cleared for public release.***

**CALL FOR DOCTORAL SYMPOSIUM APPLICATIONS**

The PHM Society Doctoral Symposium will be held as a workshop on Sunday, October 1. Full-time students are invited to submit their thesis ideas to the Doctoral Symposium. It provides an opportunity for graduate students to present their research interests and plans at a formative stage in their research. The students will receive structured guidance from a

panel of distinguished researchers as well as comments from conference participants and fellow students in a collegial setting. For more information, please contact [Jaime Coble](#).

### **SPECIAL SESSION ON PHM FOR HUMAN ASSETS**

Papers are solicited in areas that relate to PHM of and about humans.

#### **Topics of Interest:**

- Novel wearable smart sensor development and deployment
- Sensor-data-fusion algorithms
- Anomaly detection algorithms
- Machine learning and data mining techniques
- Predictive/diagnostic algorithms
- (Crew) Electronic Health Records (CEHR) and associated database development. For more information, please contact [Wolfgang Fink](#).

*Sincerely,*

***David Larsen and Peter Beling***

*General Chairs*

*Annual Conference of the PHM Society 2017*

Visit us at [www.phmsociety.org](http://www.phmsociety.org)