

SAE 2010

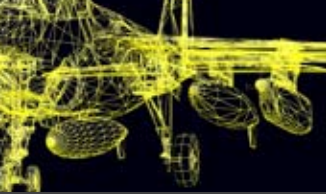
November 2- 4, 2010 • The Sheraton Fort Worth Hotel and Spa, Ft. Worth, Texas, USA

Power Systems Conference



Systems Integration and Optimized Vehicle Energy Use

**Register by October 16, 2010
and save!**



SAE 2010

November 2- 4, 2010 • The Sheraton Fort Worth Hotel and Spa, Ft. Worth, Texas, USA

Power Systems Conference

Event Overview

The SAE International Power Systems Conference has a long history of offering its audience excellent technical content. The 2010 conference will include a focus on Systems Integration and Optimized Vehicle Energy Use.

It is imperative that system interfaces are addressed early in technology development to ensure that emerging and future highly integrated platforms avoid integration conflicts that limit their performance. This conference provides a forum that not only addresses the most recent technical achievements but is also a mechanism for the technology and user communities to work together to ease the process of bringing these technologies to fruition. Topics will include advanced battery systems, fuel cell systems, high temperature electronics, military aircraft power management and distribution and much more.

Who Should Attend:

- Engineers & Managers
- Product Design
- Research & Development
- Sales & Marketing Professionals
- Corporate Executives
- Academia

Preliminary Conference Agenda

Monday November 1, 2010	Tuesday November 2, 2010	Wednesday November 3, 2010	Thursday November 4, 2010
	7:00 a.m. - 5:00 p.m. Registration	7:00 a.m. - 5:00 p.m. Registration	7:00 a.m. - 11:00 a.m. Registration
	9:00 - 11:30 a.m. Plenary Session	8:00 - 9:30 a.m. Technical Sessions	8:00 - 9:30 a.m. Technical Sessions
		9:30 - 10:00 a.m. Networking Break	9:30 - 10:00 a.m. Networking Break
		10:00 - 11:30 a.m. Technical Sessions	10:00 - 11:30 a.m. Technical Sessions
Technical Tour 12:00 - 2:30 p.m. 3:00 - 5:30 p.m. Lockheed Martin (attendance limited)	11:30 a.m. - 1:00 p.m. Award Luncheon	11:30 a.m. - 1:00 p.m. Award Luncheon Garrett Lecture	Exhibit Hours are: Tuesday and Wednesday, November 2 – 3 8:00 a.m. – 5:00 p.m. Thursday, November 4 8:00 a.m. – 12:00 p.m.
	1:00 - 3:00 p.m. Technical Sessions	1:00 - 3:00 p.m. Technical Sessions	
	3:00 - 3:30 p.m. Networking Break	3:00 - 3:30 p.m. Networking Break	
	3:30 - 5:00 p.m. Technical Sessions	3:30 - 5:00 p.m. Technical Sessions	
4:00 - 6:00 p.m. Early Registration		6:00 p.m. - 8:00 p.m. Reception (Pending Sponsorship)	

SAE 2010 Power Systems Conference Meeting Organizing Committee



General Committee Chair
John Nairus,
Chief Engineer
U.S. Air Force



General Committee Vice-Chair
Steven Iden,
Program Manager
U.S. Air Force



Technical Program Chair
Jacque LaValle,
Senior Electrical Engineer
NAVAIR

Committee

John Nairus (General Chair), U.S. Air Force

Steven Iden (Vice-Chair), U.S. Air Force

Jacque LaValle (Technical Program Chair), U.S. Navy

Michael Allen, Naval Air Systems Command

Terrill Atwater, U.S. Army RDECOM

William Bassett, NAWC-AD

Don Borger, Lockheed Martin

Joseph Breit, Boeing Company

Barbara Coles, Indyne Inc.

John K. Erbacher, U.S. Air Force

Tim Erdman, Lockheed Martin

Sean Field, Naval Air Systems Command

Jon Fifield, Boeing Phantom Works

Andrew Fleming, U.S. Air Force

Eugene Furman, Penn State University

Bruce Geil, U.S. Dept. of Defense

Frank Gulczynski, U.S. Air Force Lab

Robert Hanson, Naval Air Systems Command

Susan Heidger, U.S. Air Force

Mark Hurley, NAVAIR

Larry Jenkins, Aeronautical Systems Center

Fred Klaass, Photogenics

Nathan Kumbar, Naval Air Systems Command

Peter T. Lamm, U.S. Air Force

Quinn Leland, U.S. Air Force

Miguel Maldonado, U.S. Air Force

Randy A. Normann, Sandia National Laboratories

John C. Pazik, Office of Naval Research

Thomas Reitz, U.S. Air Force

Mario R. Rinaldi, Hamilton Sundstrand

Mark Roosz, U.S. Air Force

Ileana Rusan, Honeywell Int'l Inc.

Bulent Sarlioglu, Honeywell Int'l Inc.

Christopher Severns, Boeing Integrated Defense Systems

Charles, Venus, NAWCAD

Eric Walters, PC Krause & Associates

Jason Wells, PC Krause & Associates



Special Events

Technical Tour

**Lockheed Martin Aeronautics Fort Worth Production Facility
Monday, November 1, 2010**

**Attendance limited
Register Early \$30**

This walking tour will highlight F-35 assembly operations in Fort Worth and the more than thirty F-35 aircraft currently in production. There will also be an overview of the F-35 Program and Capabilities, which will highlight the current state of affairs of the program along with introducing some of the key technologies which the F-35 will provide. Tour will take approximately 2-2.5 hours (from arrival time to departure).

There will be two tours.

Tour # 1 12:00 – 2:30 p.m.

Tour # 2 3:00 – 5:30 p.m.

Cost \$30

Buses will load at the Commerce Street entrance of the hotel.



Plenary Session

Tuesday, November 2, 2010

9:00 – 11:30 a.m.



**Welcome by Dr. Andrew Brown Jr., PE,
FESD, NAE
2010 SAE International President**
Executive Director & Chief Technologist
Delphi Corporation



**Welcome by Frank J. Cappuccio
Honorary Conference Chair**
EVP & GM, Advanced Development
Programs & Strategic Planning
Lockheed Martin Aeronautics Company

Speakers:



Dr. John Pazik
Director Ship Systems & Engineering
Office of Naval Research



William E. (Bill) Harrison III
Technical Advisor for Fuels & Energy
Propulsion Directorate
Air Force Research Laboratory



John D. Jennings
Program Analyst
Office of the Director of Operational Energy
Plans and Programs
Department of Defense



Dr. David Parekh
Vice President, Research, and Director,
United Technologies Research Center

Awards

Tuesday, November 3

Award Luncheon

11:30 a.m. – 1:00 p.m.

2010 Forest R. McFarland Award



Recipient
Ishaque Safi Medhi
In Memorium
Chief Engineer
The Boeing Company

About the Award:

The Forest R. McFarland Award recognizes individuals for their outstanding contributions toward the work of the SAE Engineering Meetings Board (EMB) in the planning, development, and dissemination of technical information through technical meetings, conferences, and professional development programs or outstanding contributions to the EMB operations in facilitating or enhancing the interchanges of technical information.

2008 Power Systems Conference Best Paper Award



Recipient
Evgeni Ganev
Chief Engineer
Honeywell International
Advanced Electric Drives for Aerospace
**"Advanced Electric Drives for Aerospace
More electric Architectures"**
SAE Paper #2008-01-2861

About the Award:

The SAE Aerospace Power Systems Committee Best Paper Award, established by the SAE Aerospace Power Systems Committee in 1997, is awarded to one paper published in the SAE Power Systems Conference Proceedings for each year. The winner of the Best Paper Award should be commended for adding value to the SAE Power Systems community.

Interagency Advanced Power Group Overview (IAPG) Panel

The Interagency Advanced Power Group (IAPG) is a Federal membership organization comprised of the Air Force, Navy, Army, NASA, and DOE. The purpose of the group is to facilitate the exchange of technical and programmatic information related to advanced power research and development to increase effectiveness by avoiding duplications, identifying gaps, and sharing information.

Driftwood

Thursday, November 4
8:00 – 9:30 a.m. – Part 1
10:00 a.m. – 12:00 p.m. – Part 2

Interagency Advanced Power Group Overview

Robert J. (Joe) Shaw
NASA John Glenn Research Center

Overview of DOE's Power and Energy Science & Technology Program

Mitch Olszewski
Oak Ridge National Laboratory U.S. Dept of Energy

Wednesday, November 4

Garrett Award Luncheon

11:30 a.m. – 1:00 p.m.

Cliff Garrett Turbomachinery and Applications Engineering Award



Speaker/Recipient
James W. Fuller
Fellow, Advanced Controls
Pratt & Whitney
**"JSF Propulsion Control Law
Development"**
SAE Paper #2010-01-1737

About the Award:

This award promotes engineering developments and the presentation of SAE papers on turbomachinery engineering. The award honors Cliff Garrett and the inspiration he provided to engineers by his example, support, encouragement, and many contributions as an aerospace pioneer. To perpetuate recognition of Mr. Garrett's achievements and dedication as an aerospace pioneer, SAE administers an annual lecture by a distinguished authority in the engineering of turbomachinery for aircraft, and/or spacecraft uses.

Table Top Exhibits during event.

Exhibitors as of August 31, 2010:

Crane Aerospace & Electronics
Daniels Manufacturing Corp.
JSR Micro / JM Energy
LMS North America

Event Sponsor as of August 31, 2010

Lockheed Martin

Overview of NASA's Power and Energy Science & Technology Program

Robert J. (Joe) Shaw
NASA John Glenn Research Center

Overview of Naval Power and Energy Science & Technology

Mark S. Spector
Office of Naval Research

USAF Energy, Power & Thermal Systems Overview

Richard T. Fingers
U.S. Air Force Research Laboratory

U.S. Army Science and Technology Focus for Power and Energy

Edward C. Shaffer
U.S. Army Research Laboratory



Week at a Glance:

	Tues		Wed		Thurs		Location
	AM	PM	AM	PM	AM	PM	
Advanced Power Systems Technologies (Part 1 of 3) (PSC16)	-	✓	-	-	-	-	Dry Comal
Advanced Power Systems Technologies (Part 2 of 3) (PSC16)	-	✓	-	-	-	-	Dry Comal
Advanced Power Systems Technologies (Part 3 of 3) (PSC16)	-	-	✓	-	-	-	Dry Comal
Aircraft Wiring Systems (PSC17)	-	-	✓	-	-	-	Sister Creek
Battery Systems for Ground, Air, Sea and Space Applications (Part 1 of 2) (PSC1)	-	-	✓	-	-	-	Brushy Creek
Battery Systems for Ground, Air, Sea and Space Applications (Part 2 of 2) (PSC1)	-	-	✓	-	-	-	Brushy Creek
Diagnostics, Prognostics and Health Management for Electrical Power Systems (Part 1 of 3) (PSC5)	-	✓	-	-	-	-	Spicewood
Diagnostics, Prognostics and Health Management for Electrical Power Systems (Part 2 of 3) (PSC5)	-	✓	-	-	-	-	Spicewood
Diagnostics, Prognostics and Health Management for Electrical Power Systems (Part 3 of 3) (PSC5)	-	-	✓	-	-	-	Spicewood
Electric Actuation for Aircraft (Part 1 of 4) (PSC14)	-	✓	-	-	-	-	Driftwood
Electric Actuation for Aircraft (Part 2 of 4) (PSC14)	-	✓	-	-	-	-	Driftwood
Electric Actuation for Aircraft (Part 3 of 4) (PSC14)	-	-	✓	-	-	-	Driftwood
Electric Actuation for Aircraft (Part 4 of 4) (PSC14)	-	-	✓	-	-	-	Driftwood
Fuel Cells (Part 1 of 2) (PSC4)	-	-	-	✓	-	-	Sister Creek
Fuel Cells (Part 2 of 2) (PSC4)	-	-	-	✓	-	-	Sister Creek
Garrett Award Lecturer (PSC18)	✓	-	-	-	-	-	Room TBD
High-Temperature Electronics: Passives and Packaging (Part 1 of 2) (PSC6B)	-	✓	-	-	-	-	Brushy Creek
High-Temperature Electronics: Passives and Packaging (Part 2 of 2) (PSC6B)	-	✓	-	-	-	-	Brushy Creek
High-Temperature Electronics: Power Converter/Inverters and Commercial Applications (PSC6A)	-	-	-	-	✓	✓	Brushy Creek
Interagency Advanced Power Group Overview (IAPG) (Part 1 of 2) (PSC7)	-	-	-	-	✓	-	Driftwood

	Tues		Wed		Thurs		Location
	AM	PM	AM	PM	AM	PM	
Interagency Advanced Power Group Overview (IAPG) (Part 2 of 2) (PSC7)	-	-	-	-	✓	-	Driftwood
Military Aircraft Power Management & Distribution (Part 1 of 2) (PSC8)	-	-	-	✓	-	-	Brushy Creek
Military Aircraft Power Management & Distribution (Part 2 of 2) (PSC8)	-	-	-	✓	-	-	Brushy Creek
Modeling, Simulation, Analysis & Control (Part 1 of 5) (PSC9)	-	-	✓	-	-	-	Spicewood
Modeling, Simulation, Analysis & Control (Part 2 of 5) (PSC9)	-	-	-	✓	-	-	Spicewood
Modeling, Simulation, Analysis & Control (Part 3 of 5) (PSC9)	-	-	-	✓	-	-	Spicewood
Modeling, Simulation, Analysis & Control (Part 4 of 5) (PSC9)	-	-	-	-	✓	-	Spicewood
Modeling, Simulation, Analysis & Control (Part 5 of 5) (PSC9)	-	-	-	-	✓	-	Spicewood
Plenary Session - Energy as a Mission Critical Element (PSC11)	✓	-	-	-	-	-	Pineywoods
Power Generation for Aerospace Applications (PSC10)	-	-	✓	-	-	-	Sister Creek
Power Technologies for UAVs (PSC15)	-	-	-	-	✓	-	Sister Creek
Space Power Systems (PSC12)	-	-	-	-	✓	-	Sister Creek
Systems Integration: Optimized Vehicle Energy Use (Part 1 of 2) (PSC2)	-	-	-	✓	-	-	Driftwood
Systems Integration: Optimized Vehicle Energy Use (Part 2 of 2) (PSC2)	-	-	-	✓	-	-	Driftwood
Thermal Management for Aerospace Power Systems & Applications (Part 1 of 2) (PSC13)	-	✓	-	-	-	-	Sister Creek
Thermal Management for Aerospace Power Systems & Applications (Part 2 of 2) (PSC13)	-	✓	-	-	-	-	Sister Creek

SESSIONS

 TECHNICAL, BUSINESS & EXECUTIVE

Plenary Session - Energy as a Mission Critical Element

Energy is a critical factor in current and future military operations. The recognition that fuel and energy supplies in the future may not be as easily obtained and sustained as we have in the past, it is now the time to think about how energy is a mission critical element.

Organizers:

John Nairus, U.S. Air Force

Advanced Power Systems Technologies (Part 1 of 3)

The session scope includes system architectures, generators, motors, power conversion, power distribution, power management and related power utilization areas such as advanced electric actuation systems.

Organizers:

Ileana Rusan, Honeywell Aerospace; Bulent Sarlioglu, Honeywell Int'l Inc.

Diagnostics, Prognostics and Health Management for Electrical Power Systems (Part 1 of 3)

This session covers advances in diagnostic, prognostic, and health management technology as applied to aerospace electrical power systems to assist in meeting safety/economic (reliability) constraints while minimizing size/weight. Potential topics include, but are not limited to, system design concepts that aid in detecting/predicting impending failures, determining remaining useful capability, adapting system operation, and supporting decisions for maintenance/repair.

Organizers:

Nathan Kumbar, Naval Air Systems Command; Charlie P. Venus, NAWCAD

Electric Actuation for Aircraft (Part 1 of 4)

This session will cover papers/presentations on aircraft electric actuation system (AEAS). Potential topics include all forms of electric actuation, including motors, controllers, regen power, reliability, and thermal management; how the electric actuation system impacts the power system of an aircraft; and system level benefits and impacts.

Organizers:

Amit Kulshreshtha, Moog Inc.; Quinn Leland

High-Temperature Electronics: Passives and Packaging (Part 1 of 2)

This session focuses on new advances & materials for high temperature passive devices, packaging and active device technologies. Focus should be geared to a systems integration approach and applications.

Organizers:

Eugene Furman, Penn State Univ-University Park; Susan Heidger, U.S. Air Force

Thermal Management for Aerospace Power Systems & Applications (Part 1 of 2)

Advanced thermal management technology concepts and heat transfer aspects of aircraft and spacecraft systems including but not limited to two-phase heat transfer, electronics cooling, phase change materials, spray cooling, heat pipes/loop heat pipes and advanced material research will be featured in this session.

Organizers:

Andrew Fleming, Air Force Research Lab.

Advanced Power Systems Technologies (Part 2 of 3)

The session scope includes system architectures, generators, motors, power conversion, power distribution, power management and related power utilization areas such as advanced electric actuation systems.

Organizers:

Ileana Rusan, Honeywell Aerospace; Bulent Sarlioglu, Honeywell Int'l Inc.

Diagnostics, Prognostics and Health Management for Electrical Power Systems (Part 2 of 3)

This session covers advances in diagnostic, prognostic, and health management technology as applied to aerospace electrical power systems to assist in meeting safety/economic (reliability) constraints while minimizing size/weight. Potential topics include, but are not limited to, system design concepts that aid in detecting/predicting impending failures, determining remaining useful capability, adapting system operation, and supporting decisions for maintenance/repair.

Organizers:

Nathan Kumbar, Naval Air Systems Command; Charlie P. Venus, NAWCAD

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Organizers:

Andrew Fleming, Air Force Research Lab.

SESSIONS TECHNICAL, BUSINESS & EXECUTIVE

Advanced Power Systems Technologies

(Part 3 of 3)

The session scope includes system architectures, generators, motors, power conversion, power distribution, power management and related power utilization areas such as advanced electric actuation systems.

Organizers:

Ileana Rusan, Honeywell Aerospace; Bulent Sarlioglu, Honeywell Int'l Inc.

Battery Systems for Ground, Air, Sea and Space Applications (Part 1 of 2)

Advanced chemistries for primary and rechargeable applications and for battery management systems particularly as they apply to ground, air, sea and space military applications will be explored. Systems integration focus is suggested with emphasis on the impact of electrochemical subsystem changes on the overall electrical power system. New electrochemical couples with energy densities greater than 75Wh/kg and energies above 175Wh/l, hybrid or other electrochemical concepts will be discussed.

Organizers:

Terrill Atwater, U.S. Army CERDEC; John K. Erbacher, U.S. Air Force; Mark Andrew Hurley, NAVAIR

Diagnostics, Prognostics and Health Management for Electrical Power Systems (Part 3 of 3)

This session covers advances in diagnostic, prognostic, and health management technology as applied to aerospace electrical power systems to assist in meeting safety/economic (reliability) constraints while minimizing size/weight. Potential topics include, but are not limited to, system design concepts that aid in detecting/predicting impending failures, determining remaining useful capability, adapting system operation, and supporting decisions for maintenance/repair.

Organizers:

Nathan Kumber, Naval Air Systems Command; Charlie P. Venus, NAWCAD

Electric Actuation for Aircraft (Part 3 of 4)

This session will cover papers/presentations on aircraft electric actuation system (AEAS). Potential topics include all forms of electric actuation, including motors, controllers, regen power, reliability, and thermal management; how the electric actuation system impacts the power system of an aircraft; and system level benefits and impacts.

Organizers:

Amit Kulshreshtha, Moog Inc.; Quinn Leland

Power Generation for Aerospace Applications

This session will include papers in the area of electrical power generation for aerospace vehicles. Updates are planned on several recent advancements in engine-embedded electrical machinery and high density, turbine driven generators.

Organizers:

Mario R. Rinaldi, Hamilton Sundstrand

Aircraft Wiring Systems

Systems integration is highly dependent upon reliable wiring systems for component interconnections. This session will address aircraft wiring system advancements in wiring diagnostics, architecture, installation and maintenance practices and safety enhancements that may mitigate degradation due to age, usage and environmental factors.

Organizers:

William E. Bassett, NAWC-AD

Battery Systems for Ground, Air, Sea and Space Applications (Part 2 of 2)

Advanced chemistries for primary and rechargeable applications and for battery management systems particularly as they apply to ground, air, sea and space military applications will be explored. Systems integration focus is suggested with emphasis on the impact of electrochemical subsystem changes on the overall electrical power system. New electrochemical couples with energy densities greater than 75Wh/kg and energies above 175Wh/l, hybrid or other electrochemical concepts will be discussed.

Organizers:

Terrill Atwater, U.S. Army CERDEC; John K. Erbacher, U.S. Air Force; Mark Andrew Hurley, NAVAIR

Electric Actuation for Aircraft (Part 4 of 4)

This session will cover papers/presentations on aircraft electric actuation system (AEAS). Potential topics include all forms of electric actuation, including motors, controllers, regen power, reliability, and thermal management; how the electric actuation system impacts the power system of an aircraft; and system level benefits and impacts.

Organizers:

Amit Kulshreshtha, Moog Inc.; Quinn Leland

Modeling, Simulation, Analysis & Control (Part 1 of 5)

The session will address advanced modeling, simulation, analysis, and control for components, subsystems, and systems pertinent to advanced aerospace power applications.

Organizers:

Peter T. Lamm, U.S. Air Force; Eric A. Walters, Jason Wells, PC Krause & Associates

Fuel Cells (Part 1 of 2)

This session seeks to explore various applications of fuel cell technology in commercial and military aircraft and space vehicles. Potential topics include, but are not limited to, systems and aerospace vehicle integration, high altitude and extreme temperature operation, power quality compatibility with aerospace vehicle electrical architecture, on board hydrogen storage, jet fuel reforming, emissions handling (water and sulfur/nitrogen oxides), and aircraft/spacecraft demonstrations.

Organizers:

Michael Allen, Sean Field, Naval Air Systems Command

Military Aircraft Power Management & Distribution (Part 1 of 2)

Military manned aircraft and air vehicle electrical power management and distribution (relays, circuit breakers, SSPCs), control & protection, arc fault protection, power conversion (AC/DC, DC/DC/ AC/AC) and power conditioning. AC (fixed & variable frequency) and DC (28 VDC and 270 VDC) systems will be discussed.

Organizers:

Charlie P. Venus, NAWCAD

Modeling, Simulation, Analysis & Control (Part 2 of 5)

The session will address advanced modeling, simulation, analysis, and control for components, subsystems, and systems pertinent to advanced aerospace power applications.

Organizers:

Peter T. Lamm, U.S. Air Force; Eric A. Walters, Jason Wells, PC Krause & Associates

SESSIONS TECHNICAL, BUSINESS & EXECUTIVE

Systems Integration: Optimized Vehicle Energy Use (Part 1 of 2)

This session aims to bring together perspectives, highlighting past and future research efforts in the integration of more electric aircraft systems. It is intended to discuss the importance of energy optimization at the vehicle level when designing integrated aircraft systems. This vehicle level optimization is critical when defining future military and commercial electric aircraft applications. This session intends to include both airframer and aircraft systems supplier perspectives.

Organizers:

Joseph S. Breit, Boeing; Miguel Maldonado, U.S. Air Force

Fuel Cells (Part 2 of 2)

This session seeks to explore various applications of fuel cell technology in commercial and military aircraft and space vehicles. Potential topics include, but are not limited to, systems and aerospace vehicle integration, high altitude and extreme temperature operation, power quality compatibility with aerospace vehicle electrical architecture, on board hydrogen storage, jet fuel reforming, emissions handling (water and sulfur/nitrogen oxides), and aircraft/spacecraft demonstrations.

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Systems Integration: Optimized Vehicle Energy Use (Part 2 of 2)

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Organizers:

Joseph S. Breit, Boeing; Miguel Maldonado, U.S. Air Force

SESSIONS TECHNICAL, BUSINESS & EXECUTIVE

High-Temperature Electronics: Power Converter/Inverters and Commercial Applications (Part 1 of 2)

The High Temperature Electronics Focus Session is part of the 2010 Power Systems Conference because electronics capable of operating well above the standard 125 °C will be playing a pivotal role in next generation, high performance power systems for Defense, Aerospace, Automotive, Well-logging and Space applications. This session includes topics related to future high temperature application with a focus on system integration.

Organizers:

Susan Heidger, U.S. Air Force; Randy Allen Normann, Perma Works

High-Temperature Electronics: Power Converter/Inverters and Commercial Applications (Part 2 of 2)

The High Temperature Electronics Focus Session is part of the 2010 Power Systems Conference because electronics capable of operating well above the standard 125 °C will be playing a pivotal role in next generation, high performance power systems for Defense, Aerospace, Automotive, Well-logging and Space applications. This session includes topics related to future high temperature application with a focus on system integration.

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Interagency Advanced Power Group Overview (IAPG) (Part 1 of 2)

The Interagency Advanced Power Group (IAPG) is a Federal membership organization comprised of the Air Force, Navy, Army, NASA, and DOE. The purpose of the group is to facilitate the exchange of technical and programmatic information related to advanced power research and development to increase effectiveness by avoiding duplications, identifying gaps, and sharing information.

Organizers:

Barbara M. Coles, Indyne Inc.; Robert Shaw, NASA John Glenn Research Center

Modeling, Simulation, Analysis & Control (Part 4 of 5)

The session will address advanced modeling, simulation, analysis, and control for components, subsystems, and systems pertinent to advanced aerospace power applications.

Organizers:

Peter T. Lamm, U.S. Air Force; Eric A. Walters, Jason Wells, PC Krause & Associates

Space Power Systems

This session will cover papers/presentations on space energy storage. Potential topics include, but are not limited to, applications that discuss the use of batteries, fuel cells and/or hybrid systems, improvement and/or trends in energy storage systems, and advanced and emerging concepts.

Organizers:

Christopher Severns, Boeing Integrated Defense Systems

Interagency Advanced Power Group Overview (IAPG) (Part 2 of 2)

The Interagency Advanced Power Group (IAPG) is a Federal membership organization comprised of the Air Force, Navy, Army, NASA, and DOE. The purpose of the group is to facilitate the exchange of technical and programmatic information related to advanced power research and development to increase effectiveness by avoiding duplications, identifying gaps, and sharing information.

Organizers:

Barbara M. Coles, Indyne Inc.; Robert Shaw, NASA John Glenn Research Center

Modeling, Simulation, Analysis & Control (Part 5 of 5)

The session will address advanced modeling, simulation, analysis, and control for components, subsystems, and systems pertinent to advanced aerospace power applications.

Organizers:

Peter T. Lamm, U.S. Air Force; Eric A. Walters, Jason Wells, PC Krause & Associates

Power Technologies for UAVs

This session will cover the various power technologies used in today's unmanned aerial vehicles (UAVs). The electrical power systems used are as varied as the aircraft powered by them. UAVs come in a range of sizes and are designed to perform a large variety of missions. The addition of weapons and "plug and play" mission payloads are fueling a need for increased electrical power.

Organizers:

Thomas Reitz, U.S. Air Force



Professional Development Seminars

Understanding AS9100 Rev C Webinar

I.D.# WB0958

November 12, 2010

Internet/Telephone

For complete seminar information or to register,
visit www.sae.org/pdevent/WB0958

Reverse Engineering

I.D.# C0559

December 7-8, 2010

Los Angeles, California

For complete seminar information or to register,
visit www.sae.org/pdevent/C0559

Understanding the FAA Aircraft Certification Process

I.D.# C0821

December 9 -10, 2010

Los Angeles, California

For complete seminar information or to register,
visit www.sae.org/pdevent/C0821

Understanding AS9100C Quality Management System Standard

I.D.# C0935

December 9 -10, 2010

Los Angeles, California

For complete seminar information or to register,
visit www.sae.org/pdevent/C0935

IAQG Sanctioned Aerospace Auditor Transition Training (AATT)

I.D.# C1034

September 13 - 16, 2010

Warrendale, Pennsylvania

I.D.# C1034

October 1 - 4, 2010

Warrendale, Pennsylvania

I.D.# C1034

December 7 - 10, 2010

Los Angeles, California

For complete seminar information or to register,
visit www.sae.org/pdevent/C1034

Engineering Project Management

I.D.# 99003

November 4 - 5, 2010

Greenville, South Carolina

For complete seminar information or to register,
visit www.sae.org/pdevent/99003

Managing Engineering and Technical Professionals

I.D.# C0608

December 1 - 3, 2010

Troy, Michigan

For complete seminar information or to register,
visit www.sae.org/pdevent/C0608

To register

Online: www.sae.org/seminars

E-mail: CustomerService@sae.org

Phone: 1-877-606-7323 (U.S. & Canada)

or 1-724-776-4970



Related Resources

SAE Aerospace Quality Standards on the Web

This collection of critical documents includes the AS9000 and AS9100 quality standards, the AS9101 checklist and more! Locating the information you need to standardize your aerospace quality processes has never been easier!

<http://store.sae.org/aeroqa/>

Attend the 2010 DoD Maintenance Symposium and Exhibition

Gather with key leaders and maintainers at all levels throughout the Department of Defense and commercial industry at the 2010 DoD Maintenance Symposium and Exhibition, November 15-18, 2010, in Tampa, Florida. Visit www.sae.org/dod to download the brochure for more details.

The ***SAE International Journal of Aerospace*** publishes peer reviewed cutting-edge technical papers spanning all aspects of aerospace including: avionics, flight sciences, operations, maintenance, manufacturing, materials and structures, propulsion, safety, systems engineering, unmanned aerial vehicles and space environmental systems.

The journal is available in print and online formats. SAE International is partnering with HighWire Press to produce the online journals. The online format features rich linking systems that facilitate academic research, discovery, and citation.

For more information and to view table of contents, visit www.sae.org/journals.





Hotel and Travel Information

The Power Systems Conference will be held at:

Sheraton Fort Worth Hotel and Spa

1701 Commerce Street
Fort Worth, TX 76102

All attendees are responsible for their own lodging and travel arrangements.

Sheraton Fort Worth Hotel and Spa's location is wonderfully suited for out-of-town visitors - within walking distance of plentiful restaurants and world-class entertainment and convenient to Dallas/Fort Worth International Airport. Fort Worth, with its fascinating and colorful history, remarkable museums, dazzling downtown, myriad of sporting events, and spectacular entertainment awaits just beyond lobby.

In true Fort Worth style, the hotel blends sophisticated, high-tech amenities in a comfortable, relaxed setting.

Reservations must be made by Friday, October 8, 2010. For sleeping room reservations, contact The Housing Connection Monday-Friday, 7:00am-6:00pm Mountain Time, toll-free (800) 847-5810 or (801) 505-4138 (international calls), or click on the Hotel and Travel Information link at the Power Systems event page: <http://www.sae.org/events/psc>

https://resweb.passkey.com/Resweb.do?mode=welcome_ei_new&eventID=1771910

Registration and Fees

Category	By 10/16/10	After 10/16/10 and ONSITE
SAE Elite Member (includes registration package 1)	\$375	\$475
SAE Premium Member (includes registration package 1)	\$400	\$500
SAE Classic Member (includes registration package 1)	\$425	\$525
Non-Member (includes registration package 1)	\$825	\$925
Participant (includes Primary author, panelists, session organizers, session chairs, AE-7 & AE-1 committee members)(includes registration package 1)	\$425	\$525
Government (includes registration package 1)	\$425	\$525
SAE Student Member (includes Registration package 2)	FREE	FREE
Non-Member Student (includes registration package 2)	\$25	\$25
Exhibitor (1 complimentary registration per Tabletop) (includes registration package 1)	FREE	FREE
Additional Ticket Items		
Lockheed Martin Tour (attendance limited)	\$30	\$30

Registration Packages

Package 1: A.M. Breaks, P.M. Breaks, Tuesday & Wednesday luncheons, Plenary Session, Technical Sessions, Exhibits, Proceedings

Package 2: A.M. Breaks, P.M. Breaks, Plenary Session, Technical Sessions, Exhibits

Registration Hours

Early Registration
Monday, November 1
4:00 – 6:00 p.m.

Tuesday, November 2
7:00 a.m. – 5:00 p.m.

Wednesday, November 3
7:00 a.m. – 5:00 p.m.

Thursday, November 4
7:00 – 11:00 a.m.

Exhibit Hours

Tuesday, November 2
8:00 a.m. – 5:00 p.m.

Wednesday, November 3
8:00 a.m. – 5:00 p.m.

Thursday, November 4
8:00 a.m. – 12:00 p.m.

TO REGISTER

SAE Customer Service

Online: www.sae.org/events/psc

Toll-free: 1-877-606-7323 (U.S. & Canada)

Phone: 1-724-776-4970

Email: CustomerService@sae.org

Conditions of Sale:

Registrations received after **October 16, 2010** will automatically be charged the on-site price. **NO CHILDREN UNDER THE AGE OF 16 PERMITTED.** All cancellations must be received by SAE prior to **October 16, 2010**. A \$50 processing fee will be assessed for each canceled registration that results in a refund. Refunds for special event/meal tickets will not be processed after **October 16, 2010**. Refunds will not be issued if cancellation occurs on or after **October 16, 2010**.



Marketing Opportunities

EXHIBIT OPPORTUNITIES

Tabletop Exhibit Display \$2,200

Includes: (First come, first served - limited space availability)

- One (1) tabletop display space – 6' x 30" with 2 chairs
- One complimentary symposium registration – includes sessions, lunches, networking breaks and receptions
- Company recognition and profile in the symposium handout

NETWORKING SPONSORSHIP OPPORTUNITIES

Sponsorship Packages

Platinum Level - \$10,000

(One opportunity available)

- Exclusive sponsor of the networking reception
- 2 Complimentary Conference Registrations
- Complimentary 1/2 page BW advertisement in the event guide
- Recognition as the Platinum Level Sponsor in Power Systems event guide
- Logo and Hyperlink on sponsorship event page on the SAE Website
- Recognition as Platinum Level sponsor on event signage
- Recognition as sponsor in printed promotional materials for event
- Opportunity to display literature at Registration Area

Gold Level - \$8,500

(Two opportunities available)

- Exclusive sponsor of one of the two lunches
- 2 Complimentary Conference Registrations
- Complimentary 1/2 page BW advertisement in the event guide
- Recognition as Gold Level Sponsor in Power Systems event guide
- Logo and Hyperlink on sponsorship event page on the SAE Website
- Recognition as Gold Level sponsor on event signage
- Recognition as sponsor in printed promotional materials for event

Exhibitors as of August 31, 2010:

Crane Aerospace & Electronics
 Daniels Manufacturing Corp.
 JSR Micro / JM Energy
 LMS North America

Event Sponsor as of
 August 31, 2010
 Lockheed Martin

Silver Level - \$5,000

SOLD: 1). Lockheed Martin Aeronautics



(Two opportunities available)

- Exclusive sponsor of one of the networking breaks
- Complimentary 1/4 page BW advertisement in the event guide
- Logo and Hyperlink on sponsorship page for event on the SAE Website
- Recognition as Silver Level sponsor on event signage
- Recognition as sponsor in printed promotional materials for event
- 1 complimentary conference registration

EXCLUSIVE SPONSORSHIP OPPORTUNITIES

CONFERENCE LANYARDS..... \$3,000

ATTENDEE GIFT \$2,000

Work with SAE Sales staff to customize an attendee gift to be distributed at registration. Some options are: individual hand sanitizer spray, notepads, and pens. All identified with your company name and logo.

FRIEND OF THE INDUSTRY \$1,000

For more information and to take advantage of these opportunities contact:

Joanna Curtis
Event Sales
724.772.4009
jcurtis@sae.org

P100990

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SAE 2010

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Power Systems Conference



Systems Integration and Optimized Vehicle Energy Use

www.sae.org/psc