CALL FOR PAPERS

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The Institute’s principal venue for unmanned vehicles, systems, and their integration…

Two unique conferences…
One fantastic opportunity!

Sheraton Seattle Hotel • Seattle, WA
6-9 April 2009

Extended Abstract Deadline: 18 August 2008
Final Manuscript Deadline: 19 March 2009

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... information system technologies enabling revolutionary advances in 21st century aerospace

AIAA
Infotech@Aerospace
2009 Conference and Exhibit

AIAA
Unmanned...Unlimited
2009 Conference and Exhibit

www.aiaa.org/events/I@AUU
based systems that support these applications. The scope encompasses air and space
topics are of special interest:
• Reconfigurable, responsive, plug & play and
• Volatile and non-volatile memory and
• Software engineering issues for aerospace
• Application of COTS (Commercial Off-the-Shelf) and open-source software to
• Convergence and merging of software,
• Embedded signal and data processing
• High performance, multi-core, FPGA
• Extreme environment and radiation-hardened electronics in aerospace application and mitigation for the latest
• Software and hardware development,
• Environment monitoring
• Extreme environment and radiation-
• Test and verification and co-development tools as well as tools created to simulate, create or update mission applications

AIA TECHNICAL TOPIC AREAS
Computer and Software Systems
Papers are sought that cover theoretical and practical considerations and the resulting implementation of computer and subsystems involving the application of computers and information processing techniques to aerospace problems. Papers on the following topic areas are of special interest:
• Reconﬁgurable, responsive, plug & play and adaptive computing
• Volatile and non-volatile memory and data storage as well as processing and memory combination applications
• Software engineering issues for aerospace systems from software requirements, design, code, test, evaluation, operation and maintenance
• Application of COTS (Commercial Off-the-Shelf) and open-source software to aerospace systems, especially in mission and safety-critical applications
• Convergence and merging of software, hardware, processing/communication systems processes and design techniques
• Embedded signal and data processing including benchmarks, building blocks and subsystem applications
• High performance, multi-core, FPGA (Field Programmable Gate Array)-based and grid computing for both on-board and ground applications
• Extreme environment and radiation-hardened electronics in aerospace application and mitigation for the latest COTS high-performance technologies
• Software and hardware development, test and verification and co-development tools as well as tools created to simulate, create or update mission applications

Technical Area Chairs
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Space & Systems Electronics
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Intelligent Systems
Papers are sought that describe the application of Intelligent System (IS) technologies and methods to aerospace systems, and the verification and validation of these systems. Papers should include either a new technique or tool with sample applications, or successful applications of existing techniques to problems of current interest to aerospace professionals. The systems of interest include military, civil and commercial aerospace systems, and those ground systems that are part of test, development, or operations of aerospace systems. Technologies which enable safe and reliable operation of complex aerospace systems or subsystems with minimal human intervention (autonomy), or collaborative synthetic-human agent teams are of interest. Topics of interest include, but are not limited to:
• Autonomous systems
• Data fusion and reasoning
• Evolutionary (genetic) algorithms
• Expert systems
• Fuzzy logic
• Human-machine interaction
• Intelligent and adaptive control
• Intelligent data/image processing


Technical Area Chair
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The Infotech@Aerospace and Unmanned...Unlimited conferences represent the AIAA’s principal showcases for advancements related to aerospace information systems and unmanned aerospace systems, respectively. The collocation of these conferences as an integrated event will provide a unique opportunity for fostering interaction among the varied disciplines across these communities.

The AIA InfoTech Conference and Exhibit...information system technologies enabling revolutionary advances in 21st century aerospace

AIAA Infotech@Aerospace Conference and Exhibit
...information system technologies enabling revolutionary advances in 21st century aerospace

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The Infotech/Aerospace and Unmanned... Unlimited conferences represent the AIAA’s principal showcases for advances related to aerospace information systems and unmanned aerospace systems, respectively. The collocation of these conferences as an integrated event will provide a unique opportunity for fostering interaction among the varied disciplines across these communities.
Within the Sensor System technical area papers are also solicited jointly with the AIAA Guidance, Navigation & Control (GNC) Technical Committee on topics related to sensor systems and related technologies for manned and unmanned ground, air, and space-based vehicles. Topics of particular interest include:

- Sensor systems for navigation, tracking, and control
- Distributed sensing and sensor networks
- Multi-vehicle systems with particular emphasis on cooperative sensing, coordination, and control
- Data fusion for a single vehicle with multiple sensor systems, and for multiple vehicles performing distributed or cooperative sensing
- Fault tolerant autonomy and control systems, including integrated system health monitoring
- Vision based navigation and surveying applications

Space Automation and Robotics

Papers are sought that describe recent developments in automation and robotics in space program applications including design, development, fabrication, application, and operation of systems and components, and consideration of space automation and robotics technology development needs and human-machine interfaces. Of special interest are papers that address applications to:

- Automated rendezvous and docking
- In-space assembly and servicing
- Surface mobility
- Exploration robotics

Technical Area Chair
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I@A CONFERENCE WORKSHOPS

The first day of the I@A Conference will feature workshops addressing issues in development and application of information systems technologies to aerospace systems. An example format for the workshop is to have a panel of experts providing information on a topic of interest followed by questions and answers and discussions with the audience. Workshops will provide a unique opportunity for interaction among attendees and with experts in pertinent areas. Those interested in organizing a workshop should contact the Conference General Chair.

Information Systems Education in Aerospace

Information systems technologies are becoming very critical to successful development of aerospace systems. Roughly 30-40% of the cost of developing modern aerospace vehicles is in computers, avionics, information, communications, and software. Incorporating education on information systems technologies in the aerospace curriculum is important for the aerospace community to effectively educate engineering students who can meet the changing needs of the industry and government laboratories. Papers are sought that describe innovative approaches to achieving this objective. Topics of interest include:

- Examples where hands-on experience in application of information system technologies is being provided to undergraduate/graduate students in aerospace engineering
- Novel teaching approaches that incorporate information technology aspects in design of aerospace systems
- Industrial/government perspective on what key capabilities they will like to see in future aerospace engineering graduates
- Perspectives on how information system technology education can be incorporated into a four-year aerospace engineering curriculum while still meeting the ABET accreditation requirements

Technical Area Chair
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AIAA INTELLIGENT SYSTEMS STUDENT PAPER COMPETITION

Sponsored by BAE SYSTEMS

Draft Paper Deadline & 6 October 2008

Papers from work not previously published are sought from graduate and undergraduate students registered as full-time students through the spring of 2009. Both individual and group authored papers are welcome on any of the areas listed above under the Intelligent Systems topic.

Up to four finalists will be selected by a panel of judges for presentation at the conference. Finalists will present their papers at a special Student Paper Competition Session, from which the Best Paper/Presentation will be selected. The winner will be presented with a $1,000 prize and recognized at the Honors and Awards Luncheon. All finalists will receive complimentary student registration and a $500 travel expense award. Awards are courtesy of BAE Systems.

Guidelines, Procedures and Awards

The student author must be a student and the work should not have been previously published. Coauthorship with other students and faculty advisors is permitted, but all communications will be with the lead student author only. The student authors of each paper must be registered at an accredited college or university, either as an undergraduate or graduate student, and the student written the paper while he or she was registered. The lead author must include a letter from the department chair confirming that this requirement is met.

3. A complete draft of the paper, not to exceed 15 pages, must be submitted by 6 October 2008, to one of the Technical Area Chairs listed below. Draft paper will be reviewed in accordance with the AIAA peer-review policy.

3. Based on the review, four finalists will be selected for presentation in the Student Paper Competition Session at the Conference. The lead authors will be notified of this selection by 5 December 2008. All papers from the recipients will be forwarded to the lead author and the final manuscript will be due by 2 April 2009.

4. The submitted papers that are not selected as finalists will be forwarded to the Technical Area Chair of the relevant topic for consideration for publication in the AIAA Journal.

5. One of the student authors must present the paper in the Student Paper Competition Session at the Conference. The paper will be judged, along with others in the session, based on written technical content (70%) and on presentation (30%). The competition judges will select one of the Student Paper Presenters for the Best Student Paper Award.

Competition Co-Chairs
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Unmanned...Unlimited Conference

The Institute's principal venue for unmanned vehicles, systems, and their integration...


AIAA Unmanned...Unlimited Conference and Exhibit

The Institute’s principal venue for unmanned vehicles, systems, and their integration...

System and Operational Architectures

Papers are being sought that discuss the architectural approach to and features of UAS, from both a systems and an operational perspective, including commercial, civil and/or military applications. Papers may describe architectural concepts, designs, analyses, or evaluation/simulation results for specific or aggregate operational missions, or provide other insight in this area. Specific areas of interest include:

- System of systems concepts
- Architectures for military operations
- UAS role(s) in future combat, including related issues
- Mission study results (success, failures, and recommendations)
- Architectures for commercial and civil applications

System Performance and Requirements

Papers are sought that describe requirements and specification drivers, requirements derivation processes, system performance requirements, and developmental test and evaluation experiences surrounding those requirements. Specific areas of interest include:

- Aircraft and propulsion requirements
- Design consideration
- Military applications
- Reconnaissance and surveillance
- Search and rescue
- Electronic warfare
- Target designation and attack
- Battle damage assessment
- General and civil applications
- Search and rescue
- Natural disaster
- Communications relay/node
- Logistics support (e.g. re-supply)
- Scientific missions
- Commercial applications

Remote sensing
- Agricultural support
- Natural disaster effects mitigation
- Transport (e.g. package/parcel delivery)

conference workshops

• Commercial applications
- Search and rescue
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Within the Sensor System technical area papers are also solicited jointly with the AIAA Guidance, Navigation & Control (GNC) Technical Committee on topics related to sensor systems and related technologies for manned and unmanned ground, air, and space-based vehicles and related applications. Topics of particular interest include:

- Sensor systems for navigation, tracking, and control
- Distributed sensing and sensor networks
- Multi-vehicle systems with particular emphasis on cooperative sensing, data fusion, and cooperation
- Novel teaching approaches that incorporate information technology facets of aerospace systems

Papers are sought that offer innovative approaches to achieving this objective. Topics of interest include:

- Examples where hands-on experience in application of information system technologies is being provided to undergraduate/graduate students in aerospace engineering
- Novel teaching approaches that incorporate information technology aspects in design of aerospace systems
- Perspectives on how information system technology education can be incorporated into a four-year aerospace engineering curriculum while still meeting the ABET accreditation requirements

Conference General Chair.

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I@A Conference Workshops
The first day of the I@A Conference will feature workshops addressing issues in development and application of information systems technologies to aerospace systems. An example format for the workshops is to have a panel of experts providing a keynote presentation and a $10,000 prize and recognized at the Honors and Awards Luncheon. All finalists will receive complimentary student registration and a $500 travel award. Awards are courtesy of BAE Systems. Guidelines, Procedures and Awards

The target author must be a student and the work should not have been previously published. Coauthorship with other students and/or faculty advisors is permitted, but all communications will be with the lead student author only. The student authors of each paper must be registered at an accredited college or university, either as an undergraduate or graduate student, and must have written the paper while still registered. The lead author must include a letter from the department chair confirming that this requirement is met.

2. A complete draft of the paper, not to exceed 15 pages, must be submitted by 6 October 2008, to one of the Technical Area Chairs listed below. The draft paper will be reviewed in accordance with the AIAA peer-review process.

3. Based on the review, finalists will be selected for presentation in the Student Paper Competition Session at the Conference. The lead authors will be notified of this decision by 5 December 2008. Finalists will be forwarded to the lead author and the final manuscript will be due by 2 April 2009.

4. The submitted papers that are not selected as finalists will be forwarded to the Technical Area Chair of the relevant topic for consideration as a regular technical paper for consideration as a regular technical paper for presentation at the Conference. The lead author will be notified of this decision by 5 December 2008.

5. One of the student authors must present the paper in the Student Paper Competition Session at the Conference. The paper will be judged, along with others in the session, based on written technical content (70%) and on presentation of the paper (30%). The competition judges will select one Student Paper Award for the Best IS Student Paper Award.

Competition Co-Chairs
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I@A Technical Topic Areas
Unmanned Aircraft System (UAS) Platforms
Papers are sought that describe innovative UAS platform concepts, designs, and development approaches, as well as revolutionary production capabilities, processes and methodologies, and innovative applications. Papers may also address vehicle performance, flight characteristics (including stability and control), or other attributes derived from analysis, design, simulation, test and evaluation, including flight test results.

The following areas are of interest:
- Design considerations
- Military applications
- Reconnaissance and surveillance
- Search and rescue
- Electronic warfare
- Target designation and attack
- Battle damage assessment
- General and civil applications
- Search and rescue
- Natural disaster
- Communications relay/node
- Logistics support (e.g. re-supply)
- Scientific missions
- Commercial applications
- Remote sensing
- Agricultural support
- Natural disaster effects mitigation
- Transport (e.g. package/parcel delivery)

The I@A Conference Workshops will feature presentations from and other interactive opportunities with experts in all areas of unmanned systems, vehicles, subsystems, payloads, and their application to today’s and tomorrow’s military and civil Unmanned Aircraft Systems (UAS) missions. Critical issues affecting the unmanned aerospace arena will be a key focus of the technical program.

Many of the topics covered by the Unmanned... Unlimited (UU) program are relevant to information technology applications to unmanned systems and platforms. Consequently, the colocated UU and I@A conferences will organize joint sessions that capture the synergy and common aspects of these contemporary aerospace technical areas. The I@A and UU conferences will organize joint sessions on information technology applications to advancements in capabilities of unmanned aerospace systems including UAS and related Unmanned Ground Vehicles and Sea Vehicles.

Unmanned... Unlimited topics encompass unmanned vehicle technologies, especially technologies unique to unmanned systems (UAS), unique unmanned vehicle designs, including bio-inspired vehicles and systems and unmanned vehicle payload technologies and UAS subsystems; sensor systems for UAS sense-and-avoid applications; system and vehicle survivability; UAS structures and aerodynamics, operational applications and experience in military, civil and commercial markets, spacecraft homeland security and disaster response, science applications, especially those involving climate monitoring and severe weather diagnosis, production and sustainment of systems and platforms; system safety and reliability; controls technologies focusing on UAS unique aspects including morphing, fault tolerance, ATOL, formation flight, and aerial refueling; and legal/regulatory issues.

System and Operational Architecture
Papers are being sought that discuss the architectural approach to and features of UAS, from both a systems and an operational perspective, including commercial, civil and/or military applications. Papers may describe architectural concepts, designs, analyses, or evaluation/simulation results for specific or aggregate operational missions, or provide other insight in this area. Specific areas of interest include:

- System of system concepts
- Architectures for military operations
- UAS roles in future combat, including related issues
- Mission study results (success, failures, and recommendations)
- Architectures for commercial and civil remote sensing

System Performance and Requirements
Papers are sought that describe requirements and specification drivers, requirements derivation processes, system performance requirements, and developmental test and evaluation experiences surrounding those requirements. Topics of interest include:

- Specification and requirements drivers
- Development test and evaluation results
- Simulation test results and methodologies
- System and vehicle flight test results
- Performance in test and operational exercises

- Remote sensing
- Agricultural support
- Natural disaster effects mitigation
- Transport (e.g. package/parcel delivery)
Unmanned Aerospace Vehicles
Papers are being sought that discuss or describe concepts, designs, analysis or evaluation of unmanned systems or vehicles intended to operate both within and beyond the earth’s atmosphere, to include reusable launch platforms, space-based, and other aerospace concepts. Papers may describe vehicle or system attributes, results of test, demonstration or operational mission assessments, or actual flight evaluations across the spectrum of scientific, commercial, civil, and military applications. Topics of interest include:

- Feasibility study results
- Advanced concept demonstrations
- Launch and recovery operations and considerations
- Proposed UAV space missions
- Scientific research
- Exploration
- Logical
- Satellite maintenance
- Tactical
- Communications

UAS Operational Experience
Papers are being sought that describe the characteristics, features, and overall experience summaries related to all phases of UAS operations. Papers should provide correlated engineering or technology assessments where possible or practical. Papers that discuss results from the following UAS mission areas are especially desired:

- UAS in combat operations
- UAS in commercial operations
- Environmental
- Communications
- Agricultural
- Unmanned operations and system demonstrations

Unmanned Robotic Vehicles/Platforms
Papers are sought that describe innovative unmanned robotic concepts for all vehicle/platform classes and types, including terrestrial, sea, air, space, and mixed environment applications. Papers that feature robotic concepts that mechanize, facilitate, or otherwise enhance a new or unique platform or system functionality are especially sought. Ideas that enable dynamic robotic operations involving physical interactions between multiple platforms are also of interest. The following topics are of interest:

- Design considerations and requirements
- Interoperability considerations
- Functionality in a multiphase environment
- Applications of unmanned system collaboration
  - military
  - scientific
  - commercial
  - general and civil
- Autonomous Unmanned Vehicle Controls
Papers describing advanced control concepts of unmanned vehicles enabling new mission capabilities are sought. Areas of interests include:

- Autonomous refueling
- Autonomous take-off and landing
- Morphing
- Payload directed flight (for example, interesting mission/scientific sensors into real-time route definition)

Dynamic mission planning to maximize mission success and/or onboard weapons effectiveness

Abstract Submission Guidelines
Authors must submit an abstract of at least 1000 words with supporting tables and figures in Portable Document Interchange file (PDF) format. The extended abstract should provide a clear and concise statement of the problem to be addressed, the proposed method of solution, the results expected or obtained, and an explanation as to its significance to others. By submitting an extended abstract, the author affirms that the majority content has not been previously published elsewhere, and that the author has received the appropriate company and/or sponsoring agency approval. Papers will be accepted based on the quality of the extended abstract, the originality of work and/or ideas, and the anticipated interest in the proposed subject.

Abstract submissions for the conferences will be accepted electronically through AIAA’s Web site (www.aiaa.org/events/I@U@U). This Web site will be open for abstract submission through 18 August 2008. The electronic submission process is as follows:

1. On the right-hand side, click on “Submit a Paper.”
2. Click on “View Call for Papers or Begin a New Submission.”
3. From the conference call for papers, screen, identify the topic to which the prospective paper is best correlated, and click the “Select” link next to that topic.
4. Verify the topic selection and click “Select” again, then verify the rules and regulations on the subsequent page.
5. Answer the prompts to enter paper title, author information (including e-mail address), and A/V requirements.
6. When this information is complete, authors will be prompted to upload the abstract in any one of five formats: MS Word, WordPerfect, Text, RTF, or PDF.

Authors having trouble submitting abstracts electronically should email AIAA technical support at paper tech support@aiaa.org. Questions about manual submission of abstracts or manuscript review and answers and discussions with the audience.

UAE Conference Sessions
The first day of the UAE Conference will consist of workshops addressing issues in development and application of Unmanned Systems and Information Systems. An example format for the workshops is to have a panel of experts providing their perspectives on the topic of interest followed by questions and discussion with the audience. The workshops provide a unique opportunity for interaction among attendees and perspectives issues pertinent to particular technology areas. Those interested in organizing a workshop should contact the respective Technical Program Chair.

Focused Session Proposals
Individuals interested in organizing focused sessions within a particular technical area, based on papers solicited from colleagues and peers, should coordinate with the relevant Technical Area Chair. Papers in the proposed session should form a cohesive set, focusing on the relevant topic with a reasonable diversity of viewpoints encouraged. The proposal for submitting a focused session proposal is different from the normal paper submission procedure in that, instead of submitting each session paper individually, the focused session organizer will submit a Session Proposal Packet for the entire session.

The Session Proposal Packet must contain a descriptive title of the session, a brief summary statement motivating and describing the proposed session, session organizer contact information (e-mail and phone) and an extended abstract for each of the papers (see Abstract Submission Guidelines). The extended abstracts should include each author’s name, affiliation, address, phone number, and e-mail address. The extended abstracts for these papers will be subject to the same review process as other paper submissions. Focused session organizers should electronically submit the Session Proposal Packet as one PDF file to the relevant Technical Area Chair. At the discretion of the relevant Technical Area Chair in consultation with the focused session organizer, contributed papers might be added to the focused session and/or individual papers may be removed from the focused session. Additionally, if a focused session proposal is not accepted, selected papers from the proposed focused session may be accepted into the regular program.

“No Paper, No Podium” and “No Podium, No Paper” policy
If a written paper is not submitted by the final manuscript deadline, authors will not be permitted to present the paper at the conference. Also, if the paper is not presented at the conference, the written paper will be withdrawn from the conference proceedings. These policies are intended to eliminate no-shows and to improve the quality of the conference for attendees.

Warning—Technology Transfer Considerations
Proposers are reminded that technology transfer guidelines have extended the time required for review of abstracts and completed papers by U.S. government agencies considerably. Internal (company) plus external (government) reviews can consume 16 weeks or more. Government review, if required, is the responsibility of the author. Authors should determine the extent of approval necessary early in the paper preparation process to preclude paper withdrawals and late paper submittals. The committee and AIAA will assume that all abstracts, papers, and presentations are appropriately cleared.

International Traffic in Arms Regulations
AIAA speakers and attendees are reminded that some topics discussed in the conference could be controlled by the International Traffic in Arms Regulations (ITAR). U.S. Nationals, which are U.S. Citizens and Green Card Holders, are responsible for ensuring that technical data they present in open sessions to non-U.S. Nationals in attendance or in conference proceedings in ITAR would not be controlled by the ITAR. U.S. Nationals are likewise responsible for ensuring that they do not discuss ITAR export restricted information with non-U.S. Nationals in attendance.

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Joint I@A and UU Conference Sessions
Papers that address the application of Information Systems and Technologies to Unmanned Systems, especially Unmanned Aircraft Systems (UAS) and Unmanned Ground Systems (UGS), and thus are seen to be cross-cutting across the Infotech@Aerospace (I@A) and Unmanned…Unlimited (UU) Conferences will be organized in jointly sponsored sessions. Authors who believe their work falls under the crosscutting area are encouraged to submit the papers under this joint topic area. Topics of specific interest are:

- Autonomy-enabling technologies for UAS and UGS (e.g., planning/replanning algorithms, robust execution capability, etc.)
- Cooperative control of UAS and UGS
- Command and control architectures for beyond visual range/over the horizon capabilities
- Human-System interface technologies for unmanned systems
- Autonomous operation of UAS in controlled airspace
- Integration of information-driven payloads with UAS and UGS
- Integrated health management for unmanned systems
- Aerospace education for autonomous unmanned systems

General Information for I@A and UU Conference Sessions
Unmanned Aerospace Vehicles

Papers are being sought that discuss or describe concepts, designs, analysis or evaluation of unmanned systems or vehicles intended to operate both within and beyond the earth’s atmosphere, to include reusable launch platforms, space-based systems or other aerospace concepts. Papers may describe vehicle or system attributes, results of test, demonstration or operational mission assessments, or actual flight evaluations across the spectrum of scientific, commercial, civil, and military applications. Topics of interest include:

- Feasibility study results
- Advanced concept demonstrations
- Launch and recovery operations and considerations
- Proposed UAV space missions
- Communications
- Logistics
- Exploration
- Satellites
- Satellites
- Telecommunications

UAS Operational Experience

Papers are being sought that describe the development of unmanned robotic concepts for all vehicle/platform classes and types, including terrestrial, sea, air, space, and mixed environment applications. Papers that feature robotic concepts that mechanize, facilitate, or otherwise enable a new or unique platform or system functionality are especially sought. Ideas that enable dynamic robotic operations involving physical interactions between multiple platforms are also of interest. The following topics are of interest:

- Design considerations and requirements
- Interoperability considerations
- Functionality in a multiphase environment
- Applications of unmanned system collaboration
  - military
  - scientific
  - commercial
  - general and civil

Unmanned Robotic Vehicles/Platforms

Papers are sought that describe advanced unmanned robotic concepts for all vehicle/platform classes and types, including terrestrial, sea, air, space, and mixed environment applications. Papers that feature robotic concepts that mechanize, facilitate, or otherwise enable a new or unique platform or system functionality are especially sought. Ideas that enable dynamic robotic operations involving physical interactions between multiple platforms are also of interest. The following topics are of interest:

- Design considerations and requirements
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- Functionality in a multiphase environment
- Applications of unmanned system collaboration
  - military
  - scientific
  - commercial
  - general and civil

Advanced Unmanned Vehicle Controls

Papers describing advanced control concepts of unmanned vehicles enabling new mission capabilities are sought. Areas of interests include:

- Autonomous refueling
- Autonomous take-off and landing
- Morphing
- Payload directed flight (for example integrating mission/vehicle sensors into real-time route definition)
- Dynamic mission planning to maximize mission sensors and/or onboard weapons effectiveness

UU CONFERENCE WORKSHOPS

The first day of the UU Conference will consist of workshop addressing issues in development and application of Unmanned Systems and Information Systems. An example format for the workshops is to have a panel of experts providing their perspectives on the topic of interest followed by questions and answers and discussions with the audience. The workshops provide a unique opportunity for interaction among attendees and authors on issues pertinent to particular technology areas. Those interested in organizing a workshop should contact the respective Technical Program Chair.

Abstract Submission Guidelines

Authors must submit an abstract of at least 1000 words with supporting tables and figures in Portable Document Format (PDF) format. The extended abstract should provide a clear and concise statement of the problem to be addressed, the proposed method of solution, the results expected or obtained, and an explanation as to its significance to others. By submitting an extended abstract, the author affirms that the majority content has not been previously published elsewhere, and that the author has received the appropriate company and/or sponsoring agency approval. Papers will be accepted based on the quality of the extended abstract, the originality of work and/or ideas, and the anticipated interest in the proposed subject.

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1. On the right-hand side, click on “Submit a Paper.”
2. Click on “View Call for Papers or Begin a New Submission.”
3. From the conference Call for Papers screen, identify the topic to which the prospective paper is best correlated, and click the “Select” link next to that topic.
4. Verify the topic selection and click “Select” again, then verify the rules and regulations on the subsequent page.
5. Answer the prompts to enter paper title, author information (including e-mail address), and A/V requirements.
6. When this information is complete, authors will be prompted to upload the abstract in any one of five formats: MS Word, WordPerfect, Text, RTF, or PDF.

Authors having trouble submitting abstracts electronically should e-mail AIAA technical support at paper_tech_support@aiaa.org. Questions about manual submission of abstracts or manuscript considerations and requirements should be referred to the appropriate Technical Chair.

Authors will be notified of paper acceptance or rejection on or about 26 November 2008.

General Information for AIAA and UU Conference Sessions

Papers that address the application of Information Systems and Technologies to Unmanned Systems, especially Unmanned Aircraft Systems (UAS) and Unmanned Ground Systems (UGS), and thus are seen to be crosscutting across the InfoTech@AIAA (I@A) and Unmanned...Unlimited (UU) Conferences will be organized in jointly sponsored sessions. Authors who believe their work falls under the crosscutting area are encouraged to submit the papers under this joint topic area. Topics of specific interest are:

- Autonomy-enabling technologies for UAS and UGS (e.g., planning/planning algorithms, robust execution capabilities, etc.)
- Cooperative control of UAS and UGS
- Command and control architectures for beyond visual range/over the horizon capabilities
- Human-system interface technologies for unmanned systems
- Autonomous operation of UAS in controlled airspace
- Integration of information-driven payloads with UAS and UGS
- Integrated health management for unmanned systems
- Aerospace education for autonomous unmanned systems

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Instructions for preparation of final manuscripts will be provided by AIAA for accepted papers only. Authors must submit their manuscripts electronically to AIAA Headquarters for publication no later than 19 March 2009. If your paper can fit under more than one technical area, then please contact one of the Technical Program Chairs to receive guidance on which area to submit your paper under. Please do not make duplicate submissions.

Focused Session Proposals

Individuals interested in organizing focused sessions within a particular technical area, based on papers solicited from colleagues and peers, should coordinate with the relevant Technical Area Chair. Papers in the proposed session should form a cohesive set, focusing on the relevant topic with a reasonable diversity of viewpoints encouraged. The proposal for submitting a focused session proposal is different from the normal submission procedure in that, instead of submitting each session paper individually, the focused session organizer will submit a Session Proposal Packet for the entire session. The Session Proposal Packet must contain a descriptive title of the session, a brief summary statement motivating and describing the proposed session, session organizer contact information (e-mail and phone) and an extended abstract for each of the papers (see Abstract Submission Guidelines). The extended abstracts should include each author’s name, affiliation, address, phone number, and e-mail address. The extended abstracts for these papers will be subject to the same review process as other paper submissions. Focused session organizers should electronically submit the Session Proposal Packet as one PDF file to the relevant Technical Area Chair. At the discretion of the relevant Technical Area Chair in consultation with the focused session organizer, contributed papers might be added to the focused session and/or individual papers may be removed from the focused session. Additionally, if a focused session proposal is not accepted, selected papers from the proposed focused session may be accepted into the regular program.

“No Paper, No Podium” and “No Podium, No Paper” policy

If a written paper is not submitted by the final manuscript deadline, authors will not be permitted to present the paper at the conference. Also, if the paper is not presented at the conference, the written paper will be withdrawn from the conference proceedings. These policies are intended to eliminate no-shows and to improve the quality of the conference for attendees.

Warning—Technology Transfer Considerations

Prospective authors are reminded that technology transfer guidelines have extended the time required for review of abstracts and completed papers by U.S. government agencies considerably. Internal [company] plus external [government] reviews can consume 1.5 weeks or more. Government review, if required, is the responsibility of the author. Authors should determine the extent of approval necessary early in the paper preparation process to preclude paper withdrawals and late paper submittals. The committee and AIAA will assume that all authors, papers, and presentations are appropriately cleared.

International Traffic in Arms Regulations

AIAA speakers and attendees are reminded that some topics discussed in the conference could be controlled by the International Traffic in Arms Regulations (ITAR). U.S. Nationals, which are U.S. Citizens and Green Card Holders, are responsible for ensuring that technical data they present in open sessions to non-U.S. Nationals in attendance or in conference proceedings is appropriately cleared. The ITAR. U.S. Nationals are likewise responsible for ensuring that they do not discuss ITAR export restricted information with non-U.S. Nationals in attendance.
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